ABSTRACT

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Dress Pins from Anglo-Saxon England: their production and typo-chronological development

This thesis examines the development, production and function of dress pins in Anglo-Saxon England. It proposes a dated typology for the mid-5th to the mid-11th century and notes the implications of this for discussions of contact and cultural interaction between England and other parts of Europe.

Chapter 1 defines the parameters of the study, and describes the data that was assembled on Anglo-Saxon pins. An evaluation of the previous work on pins from Northern Europe (Chapter 2) is followed by an investigation in Chapter 3 of the methods and process of typological analysis. After arguing that one of the most important (and neglected) aspects of typological research is 'the process of study' the chapter provides terminological definitions for the components of pins. Chapter 4 examines the problems, principal methods and developments in pin production and discusses how changes in method reflected changes both in fashion and metalworking techniques.

Building on this, Chapter 5 defines the groups of pins that have been found on sites of the Anglo-Saxon period, including: (1) definition of the types and sub-types; (2) determination of their date ranges; (3) description of their distribution; and (4) suggestions about the origin of each type. In Chapter 6 the types are put into chronological order, to demonstrate which types existed simultaneously and how pins developed over time. The function of pins is considered in Chapter 7 and several tentative hypotheses are put forward. The final chapter draws a number of conclusions from the study including: (1) Anglo-Saxon pins display a great deal of insularity during all periods, but particularly in the 8th and 9th centuries; (2) while regionalism may have been a feature of 6th century pins, it ceases to be important by the 8th century when many finds from middle Saxon trading sites seem consistently to be the same types, suggesting that in addition to trade between England and the Continent and Scandinavia it is time to evaluate the micro-economic and information exchange networks in Anglo-Saxon England; (3) lastly it notes the problem of dissemination of artefactual analyses and the difficulties to be encountered in using typologies and it puts forward a preliminary proposal for the use of expert systems (computer programs that simulate human performance in specialist task areas) as a tool to distribute this information. An example of a knowledge base that might be used to disseminate the typology presented here, **The Anglo-Saxon Pin Identification Assistant**, is to be found in Appendix 2, as are several sample identification sessions.

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5.17.f Kempston (Beds), BM M&LA acc no: 91,6-24,147, illustration by Mrs M Cox.
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5.18.a Apple Down (Sussex), grave 86, from Down & Welch 1990: fig 2.31.1.
5.18.b Kingsworthy (Hants), grave 33, illustration courtesy of Mrs S C Hawkes.
5.18.c Kingsworthy (Hants), grave 12, illustration courtesy of Mrs S C Hawkes.
5.18.d Lechlade, grave 1000 [LBF85 365], illustration courtesy of the Oxford Archaeological Unit.
5.18.e Petersfinger (Wilts), grave XXIX, from Leeds & Shortt 1953: Pl VIII, fig XXIX.103, [NOT 1/1].
5.18.f Shalbourne (Wilts), metal detector find, illustration from Devizes Museum acc no DB 1494.5.
5.18.g Portway Down (Hants), grave 48, from Cook & Dacre 1985: fig 61.6.
5.18.h Lechlade (Glos), grave 1104, illustration courtesy of the Oxford Archaeological Unit.
5.18.i Harnham Hill (Wilts), from Akerman 1853: Pl XXXV.5, [NOT 1/1].
5.18.j Barrington (Cambs), Ashmolean Museum acc no: 1909.298i, illustration by Mrs M Cox.

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5.18a.a Sleaford (Lincs), grave 95, BM M&LA, illustration by Mrs M Cox.

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5.19.a Howletts (Kent), BM M&LA acc no: 1936,5-11,125, illustration by Mrs M Cox.
5.19.b Morning Thorpe (Norfolk), grave 369, from Green, et.al. 1987: fig 427.j.
5.19.c Wakerley (Northants), grave 53, Adams 1983.
5.19.d Wallingford (Berks), grave 15, illustration based on Leeds

1938: Pl VII.
5.19.e Holywell Row (Suffolk), grave 37, redrawing of Lethbridge 1931: fig 9.3.
5.19.f Birka (Sweden), grave 551, from Arbman 1940: Taf 170.2.
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5.20.a Dover (Kent), grave 20, from Evison 1987: fig 12.20.3.
5.20.b Mildenhall (Wilts), Devizes Museum acc no: S.31, illustration from Anon Notes: 1911-12, plate facing 611.
5.20.c Wheatley (Oxon), grave 14, Ashmolean Museum acc no: 1883.251, illustration by Mrs M Cox.
5.20.d Standlake (Oxon), Ashmolean Museum acc no: 1921.1113, illustration by Mrs M Cox.
5.20.e Kingsworthy (Hants), grave 2, illustration courtesy of Mrs S C Hawkes.

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5.21.a Bifrons (Kent), grave 85, Maidstone Museum acc no: KAS 612, illustration by Mrs M Cox.
5.21.b Dover (Kent), grave 30, from Evison 1987: fig 18.30.3.
5.21.c Whitby (N Yorks), BM M&LA Whitby Loan W.333.
5.21.d Dover (Kent), grave 160, from Evison 1987: fig 62.160.
5.21.e Shakenoak (Oxon), from Brodribb, et.al. 1972: fig 31.155, [NOT 1/1].
5.21.f Faversham (Kent), BM M&LA 1131'70A, illustration by Mrs M Cox.

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5.22.a West Stow (Suffolk), from West 1985: fig 246.3.
5.22.b West Stow (Suffolk), from West 1985: fig 246.4.
5.22.c Dover (Kent), grave 132, from Evison 1987: fig 54.132.1.
5.22.d Dover (Kent), grave F, from Evison 1987: fig 4.F.2.
5.22.e Colchester, from Crummy 1988: fig 2.2.
5.22.f Colchester, from Crummy 1988: fig 2.1.
5.22.g Canterbury, Marlowe I SF783, illustration courtesy of the Canterbury Archaeological Trust.
5.22.h Dover (Kent), grave 33, from Evison 1987: fig 20.33.4, [1/2 scale].
5.22.i Canterbury, Marlowe IV SF 542, illustration courtesy of the Canterbury Archaeological Trust.
5.22.j Dover (Kent), grave 158, from Evison 1987: fig 62.158.3.
5.22.k West Stow (Suffolk), from West 1985: fig 36.1.
5.22.l Ozingell (Kent), grave 28, illustration courtesy of Grainger.
5.22.m Sibertswold (Kent), grave 138, Merseyside County Museums acc no: M6504, illustration by Mrs M Cox.
5.22.n Kingston (Kent), grave 6, Merseyside County Museums acc

no: M6089, illustration by Mrs M Cox.
5.22.o West Stow (Suffolk), West 1985: fig 266.7.
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5.23.a Lechlade (Glos), grave 144, illustration courtesy of the Oxford Archaeological Unit.
5.23.b Stanton Harcourt (Oxon), grave 2, from Harden & Treweeks 1945: fig 10.2.
5.23.c Colchester, Crummy 1988: fig 2.
5.23.d Holywell Row (Holywell Row), grave 70, redrawing of Lethbridge 1931: fig 18A.2.
5.23.e Finglesham (Kent), grave 164, illustration courtesy of Mrs S C Hawkes.
5.23.f West Stow (Suffolk), West 1985: fig 266.6.
5.23.g Dover (Kent), grave 101, from Evison 1987: fig 48.101.1.
5.23.h Lechlade (Glos), grave 1011 [LBF85 395], illustration courtesy of the Oxford Archaeological Unit.
5.23.i Dover (Kent), grave 147, from Evison 1987: fig 59.147.1.
5.23.j Finglesham, grave 182, illustration courtesy of Mrs S C Hawkes.
5.23.k Sibertswold (Kent), grave 39, Merseyside County Museums acc no: M6461, illustration by Mrs M Cox.

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5.24.a Kingston (Kent), grave 161, Merseyside County Museums acc no: M6348, illustration by Mrs M Cox.
5.24.b West Stow (Suffolk), West 1985: fig 266.5.
5.24.c Finglesham (Kent), grave 16, illustration courtesy of Mrs S C Hawkes.
5.24.d Finglesham (Kent), grave 202, illustration courtesy of Mrs S C Hawkes.
5.24.e Shudy Camps (Cambs), grave 71, redrawing of Lethbridge 1936: fig 4.a.1.
5.24.f Finglesham (Kent), grave 84, illustration courtesy of Mrs S C Hawkes.
5.24.g Dover (Kent), grave 44, from Evison 1987: fig 26.44.1.
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5.25.a Caistor-by-Norwich (Norfolk), grave 31, from Myres & Green 1973: fig 62.31.C.
5.25.b Kingston (Kent), grave 183, Merseyside County Museums M6236, illustration by Mrs M Cox.
5.25.c Stanton Harcourt (Oxon), grave 12, Harden & Treweeks 1945: fig 10.12.
5.25.d Burwell (Cambs), grave 6, Lethbridge 1931: fig 22.7.
5.25.e Southampton, SOU 169 634, illustration by author.
5.25.f Dover (Kent), grave 155, from Evison 1987: fig 60.155.1.
5.25.g Cirencester, from Brown 1976: fig 3.1.7.
5.25.h Castle Dyke (Humbs), grave 17a, illustration courtesy of the Humberside Archaeological Unit.
5.25.i Dover (Kent), grave 138, from Evison 1987: fig 57.138.2.
5.25.j Sibertswold (Kent), grave 13, illustration by Mrs M Cox.

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5.26.a Sibertswold (Kent), grave 18, Merseyside County Museums acc no: M6451, illustration by Mrs M Cox.
5.26.b Wingham (Kent), BM M&LA acc no: 79,5-24,35, illustration by Mrs M Cox.
5.26.c Breach Down (Kent), drawing by author after Smith 1908: fig 5.
5.26.d Wigber Low (Kent), drawing by author after Collis 1983: fig 40.
5.26.e Wigber Low (Kent), drawing by author after Collis 1983: fig 40.

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5.27.a Finglesham (Kent), grave 57, illustration courtesy of Mrs S C Hawkes.
5.27.b Sibertswold (Kent), grave 172, Merseyside County Museums acc no: M6553c, illustration by Mrs M Cox.
5.27.c Finglesham (Kent), grave 20, illustration courtesy of Mrs S C Hawkes.
5.27.d Faversham (Kent), Ashmolean Museum acc no: 1909.164a, illustration by Mrs M Cox.
5.27.e Seamer (N Yorks), from Wright 1865: Pl 18.2.
5.27.f Seamer (N Yorks), from Wright 1865: Pl 18.2.
5.27.g Chartham (Kent), grave 44, Merseyside County Museums acc no: M6734, illustration by Mrs M Cox.
5.27.h Sibertswold (Kent), grave 180, Merseyside County Museums acc no: M6539, illustration by Mrs M Cox.
5.27.i Dover (Kent), grave 161, from Evison 1987: fig 63.161.1.
5.27.j Dover (Kent), grave 134, from Evison 1987: fig 55.134.5.

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5.28.a Wicken Bonhunt (Essex), SF240, courtesy of Keith Wade.

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5.30.a Lechlade (Glos), grave 50 [LBF85 226 & LBF85 227], illustration courtesy of the Oxford Archaeological Unit.
5.30.b Lechlade (Glos), grave 1092 [LBF85 698 & LBF85 699], illustration courtesy of the Oxford Archaeological Unit.
5.30.c Chamberlain's Barn (Beds), grave 55, Hyslop 1963: fig 16.55.

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5.31.a West Stow (Suffolk), SFB40, from West 1985: fig 138.1.
5.31.b Faversham (Kent), Salisbury Museum 3D 2A 13, illustration by Mrs M Cox.
5.31.c Winnall (Hants), grave 10, from Meaney & Hawkes 1970: fig 9.10.1.
5.31.d Kemble (Glos), grave 1, from Wilkinson 1988: fig 13.1.
5.31.e Ozingell (Kent), grave 79.
5.31.f Winnall (Hants), grave 7, Meaney & Hawkes 1970: fig 9.7.1.
5.31.g Castle Dyke (Humbs), grave 15, illustration courtesy of the Humberside Archaeological Unit.
5.31.h Castle Dyke (Humbs), grave 46, illustration courtesy of the Humberside Archaeological Unit.
5.31.i Winnall (Hants), grave 8, Meaney & Hawkes 1970: fig 9.8.1.
5.31.j Dover (Kent), grave 142, from Evison 1987: fig 58.142.1.

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5.32.a Dover (Kent), grave 161, from Evison 1987: fig 63.161.3.
5.32.b Staraja Ladoga, illustration by Mrs M Cox after Uino 1988: fig 10.

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5.33.a Wicken Bonhunt (Essex), SF465, illustration courtesy of Keith Wade.
5.33.b Ipswich (Suffolk), from context: IAS 5701 0049, illustration by the author.
5.33.c Kingsworthy (Hants), grave 62, illustration courtesy of Mrs S C Hawkes.

5.33.d Kingsworthy (Hants), grave 62, illustration courtesy of Mrs S C Hawkes.
5.33.e The Butts, Driffield, from Cunliffe 1976: fig 136.47.
5.33.f Portchester (Hants), from Cunliffe 1976: fig 136.46.
5.33.g Stow-on-the-Wold, from Donovan & Dunning 1936: fig 9.
5.33.h Shakenoak (Oxon), from Brodribb, et.al. 1972: fig 31.158.
5.33.i Shakenoak (Oxon), from Brodribb, et.al. 1972: fig 31.156.
5.33.j Downer Baker, Southampton, SOU 177 685, illustration by Mrs M Cox.
5.33.k Coppergate, York, Castle Museum SF1600, illustration by Mrs M Cox.
5.33.l Six Dials, Southampton, SOU 169 914, illustration by Mrs M Cox.
5.33.m Cakebread Robey, Canterbury, SF406, illustration by the author.
5.33.n Cakebread Robey, Canterbury, SF423, illustration by the author.
5.33.o Eccles (Kent), grave 23, from Detsicas & Hawkes 1973: fig 4.12.1.
5.33.p Eccles (Kent), grave 23, from Detsicas & Hawkes 1973: fig 4.12.2.
5.33.q Brandon (Suffolk), Suffolk Archaeological Unit, illustration by Mrs M Cox.
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5.34.c Alladorf (Ldkr. Kulmbach), grave 199, from Leinthaler 1988/9: Taf 13.2.
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5.35.a Waltham Abbey (Essex), from Huggins 1976: fig 41.1.
5.35.b Wicken Bonhunt (Essex), SF471, illustration courtesy of Keith Wade.
5.35.c Brandon (Suffolk), from Carr 1985: fig 13.5.

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5.36.a Sibertswold (Kent), grave 31, Merseyside County Museums acc no: M6553b [Faussett 1856: 108], illustration by Mrs M Cox.
5.36.b Dover (Kent), grave 83, from Evison 1987: fig 39.83.2.
5.36.c 15-17 Lower Brook Street, Ipswich (Suffolk), from context: IAS 5502 0230, drawn by author.
5.36.d Ipswich (Suffolk), from context: IAS 7402 0175, illustration

by the Ipswich Archaeological Unit.
5.36.e Wicken Bonhunt (Essex), SF44, illustration courtesy of Keith Wade.
5.36.f Barking (Essex), Passmore Edwards Museum SF872, illustration by author.
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5.36.h Wicken Bonhunt (Essex), SF 438, illustration courtesy of Keith Wade.

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5.37.a Southampton, SOU 23 002, illustration by Mrs M Cox.
5.37.b West Stow, from West 1985: fig 246.2.
5.37.c York, from Waterman 1959: 11.8.
5.37.d Brandon (Suffolk) SF2306, illustration by Mrs M Cox.
5.37.e Southampton, SOU 169 2376, illustration by Mrs M Cox.
5.37.f Ipswich (Suffolk), from context: IAS 5701 0113, illustration by author.
5.37.g Ipswich (Suffolk), from context: IAS 4801 2108, illustration by author.
5.37.h York, from Waterman 1959: Fig 11.6.
5.37.i Barking (Essex), Passmore Edwards Museum SF887, illustration by author.
5.37.j Flixborough (S Humbs), sketch by author [close to 1/1].

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5.38.a Cakebread Robey (Canterbury), SF142, illustration by Canterbury Archaeological Trust.
5.38.b Marlowe Theatre (Canterbury), SF824, illustration by Canterbury Archaeological Trust.
5.38.c Barking (Essex), Passmore Edwards Museum acc no: SF1125, illustration by author [NOT 1/1].
5.38.d Barking (Essex), Passmore Edwards Museum acc no: SF606, illustration by author.
5.38.e Brandon (Suffolk), SF3390, illustration by Mrs M Cox.
5.38.f Cakebread Robey (Canterbury), SF221, illustration by Canterbury Archaeological Trust [NOT 1/1].
5.38.g Turret Lane, Ipswich, from context: IAS 4302 0034, illustration courtesy of the Ipswich Archaeological Unit.
5.38.h Ipswich, from context: IAS 4801 0973, illustration courtesy of the Ipswich Archaeological Unit.
5.38.i Marlowe IV (Canterbury), SF795, illustration by Canterbury Archaeological Trust.
5.38.j Southampton, SOU 169 616, illustration by Mrs M Cox.

Figure 5.39 Inverted-pear-headed pins, group LXIX. 292

5.39.a Ipswich (Suffolk), from context: IAS 4601 0034, illustration courtesy of the Ipswich Archaeological Unit.
5.39.b Cakebread Robey (Canterbury), SF771, illustration by Canterbury Archaeological Trust.

5.39.c York, from Waterman 1959: fig 11.10.
5.39.d Brandon (Suffolk), SF0945, illustration by Mrs M Cox.
5.39.e Brandon (Suffolk), illustration by Mrs M Cox.
5.39.f York, from Waterman 1959: fig 11.5.
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5.40.a Dover (Kent), grave 107, from Evison 1987: fig 48.107.5a.
5.40.b Shudy Camps (Cambs), grave 95, Lethbridge 1936: 4.b.
5.40.c Marlowe Theatre (Canterbury), SF217, illustration by Canterbury Archaeological Trust.
5.40.d Barking (Essex), Passmore Edwards Museum, illustration by author.
5.40.e Barking (Essex), Passmore Edwards Museum acc no: SF1571, illustration by author.
5.40.f Barking (Essex), Passmore Edwards Museum acc no: SF978, illustration by author.
5.40.g Barking (Essex), Passmore Edwards Museum, illustration by author.
5.40.h Marlowe IV (Canterbury), SF625, illustration by Canterbury Archaeological Trust.
5.40.i Marlowe IV (Canterbury), SF932, illustration by Canterbury Archaeological Trust.
5.40.j Wicken Bonhunt (Essex), SF45, illustration courtesy of Keith Wade.
5.40.k West Stow (Suffolk), from West 1985: fig 246.1.
5.40.l Wicken Bonhunt (Essex), SF343, illustration courtesy of Keith Wade.
5.40.m Wicken Bonhunt (Essex), SF8, illustration courtesy of Keith Wade.
5.40.n Wicken Bonhunt (Essex), SF467, illustration courtesy of Keith Wade.

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5.41.a Marlowe IV (Canterbury), SF981, illustration by Canterbury Archaeological Trust.
5.41.b Wicken Bonhunt (Essex), SF396, illustration courtesy of Keith Wade.
5.41.c Barking (Essex), Passmore Edwards Museum acc no: SF921, illustration by author, [NOT 1/1].
5.41.d Winchester (Hants), from Biddle 1990: item 1430.
5.41.e Ipswich (Suffolk), from context: IAS 6202 0001, illustration courtesy of the Ipswich Archaeological Unit.
5.41.f Cakebread Robey, Canterbury SF20, illustration by Mrs M Cox.
5.41.g Brandon (Suffolk), SF2001, illustration by Mrs M Cox.
5.41.h Barking (Essex), SF149, Passmore Edwards Museum, illustration by author.
5.41.i Cakebread Robey (Canterbury), SF61, illustration by

Canterbury Archaeological Trust.
5.41.j York, from Waterman 1959: fig 11.9.
5.41.k Waltham Abbey (Essex), from Huggins 1976: fig 41.2.
5.41.l Southampton, SOU 39 45, illustration by Mrs M Cox.
5.41.m Wicken Bonhunt (Essex), SF11, illustration courtesy of Keith Wade.
5.41.n Marlowe IV (Canterbury), SF780, illustration by Canterbury Archaeological Trust.
5.41.o Southampton, illustration by Mrs M Cox.

Figure 5.42 Ball/spherical-headed pins, group LXX. 304

5.42.a Ipswich (Suffolk), from context: IAS 4801 0821, illustration from Ipswich Archaeological Unit.
5.42.b Southampton, SOU 31 1464, illustration by Mrs M Cox [NOT 1/1].
5.42.c Skimert (Bucks), from Farley 1980: fig 1.a.
5.42.d Southampton, SOU 169 2244, illustration by Mrs M Cox.
5.42.e Southampton, SOU 23 002, illustration by Mrs M Cox.

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5.43.a Shudy Camps (Cambs), grave 65, Lethbridge 1936: fig 4.c.1.
5.43.b Dover (Kent), grave 100, from Evison 1987: fig 48.100.1.
5.43.c Lackford (Suffolk), drawing after Lethbridge 1951: fig 28.49.17.
5.43.d Kingsworthy (Hants), cremation 3, illustration courtesy of Mrs S C Hawkes.
5.43.e Cakebread Robey (Canterbury), SF536, illustration by Canterbury Archaeological Trust.
5.43.f Alton (Hants), Cremation 24, from Evison 1988: fig 41.C24.4.
5.43.g Finglesham (Kent), grave 163, courtesy of Mrs S C Hawkes
5.43.h Ipswich (Suffolk), from context: IAS 4801 0304, illustration courtesy of Ipswich Archaeological Unit.
5.43.i Brandon (Suffolk), Suffolk Archaeological Unit SF5501, illustration by Mrs M Cox.
5.43.j Southampton, SOU 34 88, illustration by Mrs M Cox.
5.43.k Ufton Nervet (Berks), from Webster 1973: fig 31.13 [NOT 1/1]
5.43.l Southampton, SOU 169 180, illustration by Mrs M Cox.
5.43.m Southampton, SOU 169 442, illustration by Mrs M Cox.
5.43.n Canterbury (Kent).
5.43.o Southampton, SOU 169 1747, illustration by Mrs M Cox.
5.43.p Flixborough (S Humbs).

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5.44.a Marlowe (Canterbury), SF484, illustration by Canterbury Archaeological Trust.
5.44.b Southampton, SOU 36 97, illustration by Mrs M Cox.

5.44.c Marlowe Theatre (Canterbury), SF855, illustration by Canterbury Archaeological Trust.
5.44.d Brandon (Suffolk), from Carr 1985: fig 13.4.
5.44.e Brandon (Suffolk), from Carr 1985: fig 13.3.
5.44.f Canterbury (Kent), from Frere et.al., 1983: fig 61.11.
5.44.g Fishergate (York), SF4189, illustration by author.
5.44.h Buckingham (?), from Farley 1980: fig 1.b.
5.44.j Southampton, SOU 23 001, illustration by Mrs M Cox.

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5.45.a Canterbury (Kent), Marlowe SF 471, illustration from the Canterbury Archaeological Trust
5.45.b Sedgeford (Norfolk), illustration courtesy of Keith Wade.
5.45.c York, from Waterman 1959: fig 11.7.
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5.46.a York, from the Yorkshire Museum acc no: SMA54T5, illustration by Mrs M Cox.
5.46.b Brandon (Suffolk), illustration by Mrs M Cox.
5.46.c Brandon (Suffolk), illustration by Mrs M Cox.
5.46.d Barking (Essex), Passmore Edwards Museum SF 747.
5.46.e Southampton, SOU 169 556, illustration by Mrs M Cox.

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5.47.a 'Nr Scunthorpe (?)', metal detector find, Scunthorpe Museum, illustration courtesy of Kevin Leahy.
5.47.b Flixborough (S Humbs), metal detector find, Scunthorpe Museum, illustration courtesy of Kevin Leahy.
5.47.c Kegworth (Derby), Jewry Wall Museum, illustration by Mrs M Cox.
5.47.d Birdoswald (Cumbria), Tullie House Museum, illustration by Mrs M Cox.

Figure 5.48 Witham disc-headed pins, group LXXIV. 329

5.48.a Losear Wood (nr Sheffield), Sheffield Museum acc no: 1985.669, illustration by Mrs M Cox.
5.48.b Hitchin (Herts), Letchworth Museum acc no: 1575.1975, illustration by Mrs M Cox.
5.48.c Barham (Suffolk), illustration courtesy of the Ipswich Archaeological Unit.
5.48.d Wymeswold (Leics), Leicester Museums Service acc no: 104,1987, illustration courtesy of the Jewry Wall Museum.

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5.49.b York, Yorkshire Museum H2000, illustration by Mrs M Cox.
5.49.c York, Yorkshire Museum 1102, illustration by Mrs M Cox.
5.49.d Dacre (Cumbria), illustration courtesy of the Lancaster University Archaeological Unit (R. Newman pers comm).
5.49.e Flixborough (S Humbs), from Leahy & Whitwell 1990b.
5.49.f Flixborough (S Humbs), from Leahy & Whitwell 1990b.

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5.50.a Marlborough (Wilts), from Robinson 1981: fig 1.
5.50.b Bredfield (Suffolk), from Martin, et.al. 1981: fig 79.a.
5.50.c Gilton Sandpit, Ash (Kent), from Hinton 1974.
5.50.d Goathurst Common (Kent), from Robinson 1981: fig 3.
5.50.e London, from Robinson 1981: fig 2.
5.50.f Fens (Milton), from Taylor 1985: fig 15.204.
5.50.g Sawdon, from Waterman 1948: Pl XXVIII.a.
5.50.h Sutton (Suffolk), illustration courtesy of the Ipswich Archaeological Unit.
5.50.i Sibton (Suffolk), illustration courtesy of the Ipswich Archaeological Unit.

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5.51.a Lurk Lane, Beverley (Humbs), from Armstrong, et.al. 1991: fig 115.632.
5.51.b Coppergate (York), Yorkshire Museum SF911, illustration by Mrs M Cox.
5.51.c York, from Waterman 1959: fig 11.15.
5.51.d Birsay (Orkney), from Curle 1982: fig 428 (p.115).
5.51.e Birsay (Orkney), from Curle 1982: fig 39.425 (p. 63).
5.51.f Tiree (Scotland), from Grieg 1940: fig 36.

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5.52.a Meols (Mersey), from Bu'Lock 1961: fig 5.a.
5.52.b Crook Street, Chester, from Thacker 1987.
5.52.c York, from Waterman 1959: fig 11.13.
5.52.d York, from Waterman 1959: fig 11.14.
5.52.e St Augustine's Abbey, Canterbury, from Radford 1940: fig on page 507.
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Figure 5.53 Swing ring-headed pins, group LXXXIII. 355b

5.53.a Gransha (Co Down), from Lynn 1985: fig 4.1.
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Notes to the Reader

1. Unless a scale (or a note **not 1:1**) has been included in the list of illustrations the reader can assume that figures are 1:1 with a small margin of error.

2. The figures are included in the text. The maps, however, can be found at the end of volume II. This will allow their easy use with both the text and the handlist.

3. All measurements are in millimetres (except in quotation of earlier authors where they are listed in the units used by that author).

4. The text uses two notation systems simultaneously. The Harvard system is used for citations to publications and footnotes have been used for longer comments and to make references to the location and accession number (or small find number) of pins in Museums and Archaeological Units.

5. Museums and Archaeological Units use a variety of conventions to refer to finds (accession number, registration number etc). To avoid some terminological ambiguity all finds from museums are referred to as **acc no:** for accession number and all finds in archaeological units are referred to as either **small find no:** or **small find**.

6. Two abbreviations for figure are used. Fig with a capital 'F' is used to refer to figures in this thesis and fig to refer to figures in other texts, expect where Abb is used for Abbildung(en), Taf for Tafel and Pl for plate or Planche. The abbreviation Cl Pl is used to refer to the colour plates.

7. Some finds originally seen at one location may be now transferred to another. Among these are the finds from Barham (Suffolk) originally seen in Ipswich and those from Lechlade which were initially in Oxford. In most of these instances the original reference number has been used.

8. Where the location of a site is not considered to be generally known the county reference is given at the first appearance.

9. Throughout I have tried to keep abbreviations to a minimum. Those which appear include:

   HE *Bede's Ecclesiastical History of the English People*, Colgrave, B. & Mynors, R.A.B. (Oxford, 1969).

   PL *Patrologiae Cursus Completus: Series Latina*, ed. Migne, J.P. 221 vols. (Paris, 1844–64).

10. References to personal communications include the name of the individual and where the person is not widely known an abbreviation of the individuals affiliation

at the time of the communication (IAS = Ipswich Archaeological Unit, LAT = Lincoln Archaeological Trust, SAU = Southampton Archaeological Unit, etc).

11. In several places I refer to material from Whitby. Finds from Whitby are on loan to the British Museum. This material has not been assigned accession numbers by the BM. The pins are contained in plastic bags. The bags show a sequence of numbers on the outside and a bag contains pins which might be assigned these numbers. The numbers of the pins as used in this text are therefore pointers to the bag in which they are and should be used in conjunction with the description of a particular pin and its length to identify a specific pin in any one bag.

Acknowledgements

A project of this kind is only possible when one can turn to others for assistance and guidance. Staff at numerous museums and archaeological units were helpful in both regards. Much of this assistance is acknowledged specifically in the text and in the handlist. There are some individuals to whom I am particularly indebted: Mark Brisbane at the time at the Southampton Archaeological Unit, Shona Hatton, John Newman and Keith Wade of the Ipswich Archaeological Unit, Arthur MacGregor of the Ashmolean Museum, Peter Liddle of the Jewry Wall Museum, (Leicester), Lydia Paroli of the Museo dell'Alto Medioevo (Roma), Nessa O'Connor, Michael Ryan and Patrick Wallace of the National Museum of Ireland (Dublin), and Leslie Webster of the British Museum. A conversation at an early stage in my research with David Hinton of the University of Southampton proved extremely helpful. My study of comparative material in Italy benefited from an introduction by Bryan Ward-Perkins (University of Oxford) to Christina La Rocca who helped me get started with Italian pins.

When my supervisor, Mrs S.C. Hawkes, and I agreed that I should undertake a study of Anglo-Saxon pins neither of us had any idea how rich the topic would prove. My continuing discussions with her over the years have encouraged me. My research has also benefited from the guidance of Professor Edward Peters and Dr Bernard Wailes of the University of Pennsylvania, Professor S.S. Frere, whose tutorials made my first year at Oxford an intellectual delight, and Martin Biddle, who introduced me many years ago to archaeology and the Anglo-Saxon period.

A Bursary from the University of Oxford (1984-7) and an Overseas Research Studentship (1984-7) made it possible for me to study at Oxford and for these I am extremely grateful. Travelling to museums and archaeological units is an expensive business and it is only thanks to awards from the Graduate Committee of the University, Christ Church and the Meyerstein Fund that I was able to undertake this field work. The British School at Rome provided a research grant enabling me to spend several months (in 1987) studying material in Italian Museums and the Meyerstein Fund supported research at the National Museum in Dublin. As I prepared the final draft of this thesis the Meyerstein Fund kindly provided a grant towards the cost of completing the illustrations.

In the course of completing this work several individuals have taken the time to read and discuss my work with me. I am particularly grateful to Professor Barry Cunliffe, Jonathan Moffett, Nessa O'Connor and Ellen Ross each of whom took the time to read all or parts of my work as it neared completion.

Finally, but not last, I would like to thank my family and among my friends, especially Kim Trepp, Stephanie Mather and Maria Brosius for their constant encouragement and companionship.

Table A - List of Museums and Archaeological Sites

Museums - Britain

Ashmolean Museum of Art and Archaeology
Bedford Museum
Bolton Museum and Art Gallery
Borough Museum and Art Gallery (Scunthorpe)
Bristol Museum and Art Gallery
British Museum
Buckinghamshire County Museum
Central Museum and Art Gallery (Northampton)
Chichester District Museum
City and County Museum (Lincoln)
Corinium Museum (Cirencester)
Dartford Borough Museum
Derby Museum and Art Gallery
Gloucester City Museum and Art Gallery
God's House Tower Museum (Southampton)
Grosvenor Museum, Chester
Guildford Museum
Hereford City Museum and Art Gallery
Ipswich Museum
Leicester Museum and Art Gallery
Letchworth Museum and Art Gallery
Luton Museum and Art Gallery
Manchester Museum
Moyse's Hall Museum (Bury St Edmunds)
Museum of Sussex Archaeology (Lewes)
Museum and Art Gallery (Maidstone)
National Museum (Scotland)
Norwich Castle Museum
Old Fulling Mill, Museum of Archaeology (Durham)
Passmore Edwards Museum
Peterborough Museum and Art Gallery
Reading Museum and Art Gallery
Royal Museum and Art Gallery (Canterbury)
Rutland County Museum (Oakham)
Saffron Walden Museum
Salisbury and South Wiltshire Museum
Sheffield City Museum
Southsea Castle and Museum
Swindon Museum and Art Gallery
The Museum of London
The Lynn Museum (King's Lynn)
Thurrock Local History Museum (Grays)
Transport and Archaeology Museum (Hull)
University Museum of Archaeology and Anthropology (Cambridge)
Verulamium Museum (St Albans)
Walker Art Gallery (Liverpool)
Winchester City Museum
Yorkshire Museum

Archaeological Units - Britain

Canterbury Archaeological Unit
Ipswich Archaeological Unit
Oxford Archaeological Unit
York Archaeological Trust
Humberside Archaeological Unit
Suffolk Archaeological Unit (Bury St Edmunds)
Southampton Archaeological Unit

Museums - Ireland

National Museum of Ireland (Dublin)

Museums - Italy

Civico Museo Archeologico (Bergamo)
Museo Cristiano (Brescia)
Museo Archeologico Nazionale (Cividale del Friuli)
Civiche Raccolte di Archeologia (Milano)
Museo dell'Alto Medioevo (Roma)
Museo Nazionale (Ravenna)

INTRODUCTION

In 1893 De Baye reported, in his study of *Anglo-Saxon Industrial Arts*, that:

> Messrs Wright and Roach Smith hold opposite views on the subject of Anglo-Saxon hairpins. The former asserts that they are common, while Mr. Roach Smith maintains them to be rare; which latter view we consider the more plausible. In fact, hairpins are scarcely mentioned in the numerous works which we have consulted, and are, in addition, very rarely seen in museums. (1893: 85).

As recently as 1988 pins were certainly only rarely seen on display in museums outside London and Oxford. However, I quickly found them to be far from the rarity which Roach Smith and De Baye, on the 19th-century evidence, had concluded they were.[1] Of course, they were only referring to the early Saxon period, and at that only the archaeological material known from cemeteries. In some regions and in some periods they were common, in others rare. De Baye's statement indicates he held another view expressed widely by 19th-century archaeologists (e.g. Wright 1855: 15), no doubt a reflection of the perception these men had of contemporary uses of pins: the notion that any find of a pin represented the find of a hairpin. Not all the pins recovered from Anglo-Saxon contexts whether they be early, middle or late can be described functionally as hairpins: many were dress fasteners.

My initial guidance came not from Anglo-Saxon pin scholars, but from the work of an earlier student at Christ Church, Paul Jacobsthal. Jacobsthal, the distinguished investigator of the early Celtic period, began his elegant study of *Greek Pins* by recounting the beginnings of his romantic fascination with dress pins (1956). His affair began in the 'darkest days' of the last World War, continued throughout the conflict, and during the decade of rebuilding which followed. The difficulties he overcame while accumulating his data indicate the measure of attraction of the subject.

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[1]Barbara Green in her discussion of the pins from the Caistor-by-Norwich (Norfolk) cemetery commented that 'bronze pins are quite common in Anglo-Saxon burials, either singly or in pairs' (Myres & Green 1976: 214). In contrast to this Martin Welch expressed the opinion that: 'Dress pins are not particularly common in Saxon cemeteries prior to the seventh century, so the presence of just eight here [Apple Down, West Sussex] is not surprising' (Down & Welch 1990: 98).

I came, through undertaking similar research, to appreciate how he became so entranced by pins, and to share his vision of pins as historical documents.

This study defines the typology and chronology of Anglo–Saxon pins (AD 400 to AD 1100) and describes some of the links and contacts indicated by this material. It also attempts to use the yield of information to contribute to our understanding of Anglo–Saxon and Anglo–Scandinavian England. Four examples illustrate the kinds of information we could glean from pins:

> First, by treating pins as an historical document it is possible to uncover information about social and economic change. Some variations in the form of pins can, for example, be most satisfactorily explained by postulating shifts in the processes of production caused by more general reorganizations of the economy and concomitant adaptation of the social structure;[2]
>
> Second, culture change accounts for some of the breaks in the typological sequence. Several of the dramatic breaks coincide with transformations of the cultural fabric;
>
> Third, pins provide a vast amount of data about the process of information exchange. A pin as a commodity and item of production would have had distinct meanings to different contemporary observers; for instance, to some it may have been an indicator of status, while to others it may have carried information about production techniques.
>
> Finally, it may be possible to relate some typological diversity to ideology and fashion.

The remainder of this chapter describes some of the problems and questions addressed in this study and defines the boundaries within which Anglo–Saxon pins will be considered. These parameters have a direct influence on the sort of questions the data can legitimately be used to answer and, therefore, being aware of them at the outset is crucial.

1.i. What are we Studying?

This thesis investigates a 'class' or 'set' of dress fasteners worn during the Anglo–Saxon period. This class, known as dress pins, was manufactured, used and deposited in the archaeological record (intentionally or unexpectedly[3]) with what appears to have been great regularity. We shall

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[2]The change in the mode of production of pins during the middle Saxon period is a stellar example of just how variation in the economic and social structure can influence production. See below chapters 4 and 8.

[3]It might seem too obvious to state that unintentional loss of objects must have been of varying significance. The importance of the loss of a specific object to an individual probably related closely to the special (i.e., personalized) value of the object, its economic value and the ease of replacing it. Many of these elements would have varied depending upon who lost the object and when. How easily it could be replaced, for instance, would mean different things depending upon the relative economic status of the particular individual, the availability

(continued...)

focus our attention mainly on pins from contexts dating later than AD 400, earlier than AD 1100 and occurring in Lowland Britain (more precisely defined below, see 1.iii.a). We shall examine, in addition, how innovations, patterns of use and developments outside this area are reflected in pins produced and recovered in Anglo-Saxons contexts.

A pin consists of two primary components: a head and a shaft. The shaft is generally in the same plane as the head.[4] The head usually surmounts the shaft and is normally made of the same material. In most of our post-Roman examples the diameter of the head is greater than that of the shaft. The variation in the form and dimensions of these elements allows us to divide pins into various groups. The presence, absence or variation in form of some elements is diagnostic of particular groups. At this stage it is sufficient to concentrate on only the two primary elements. Pins range in length from twenty millimetres to 324 mm[5] with shaft diameters ranging from under one millimetre to six millimetres. These dimensions varied at different times and in different places throughout our 700 years. There are, however, some general patterns to length and shaft diameter. Pins were produced by a variety of methods including carving, casting, rolling, strip-drawing, and hammering (forging). Carving (for organic materials) and casting (for metals) were the most widely employed production techniques (Chapter 4). The array of materials (i.e. wood, bone and metal) selected by pin-makers indicates that pins, as a class of objects, were not perceived as being indicative of any particular status arrangements. Instead they were created in reference to existing status structures and accepted attitudes to status. The material(s) used and the precision of production gave the value[6] to the finished objects.

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[3](...continued)
of resources and whether the object was an essential item or a luxury. Sometimes value transcended economic worth as objects acquired sentimental value.

[4]There are exceptions to this. For instance, there is a small group of projecting disc-headed pins which have a discoid head which is in a plane parallel to the shaft. The pin in the Letchworth Museum from Broxbourne (Herts) is a good example of this group (acc no: 181.1976). A type of pin from a much later period which is also an exception is the lappet hat pin. This type of pin was worn in a 'maid's lace cap'. The shaft of the lappet pin is usually short and the head is at a right angle to it.

[5]An unprovenanced projecting-disc-headed pin in the British Museum (BM M&LA 1888,7-19,100) measures 324 mm in length (Smith 1903-5: 354 & fig 11). Another from Broxbourne is 299 mm long (Letchworth Museum, acc no: 181.1976).

[6]Value need not be measured in solely monetary terms.

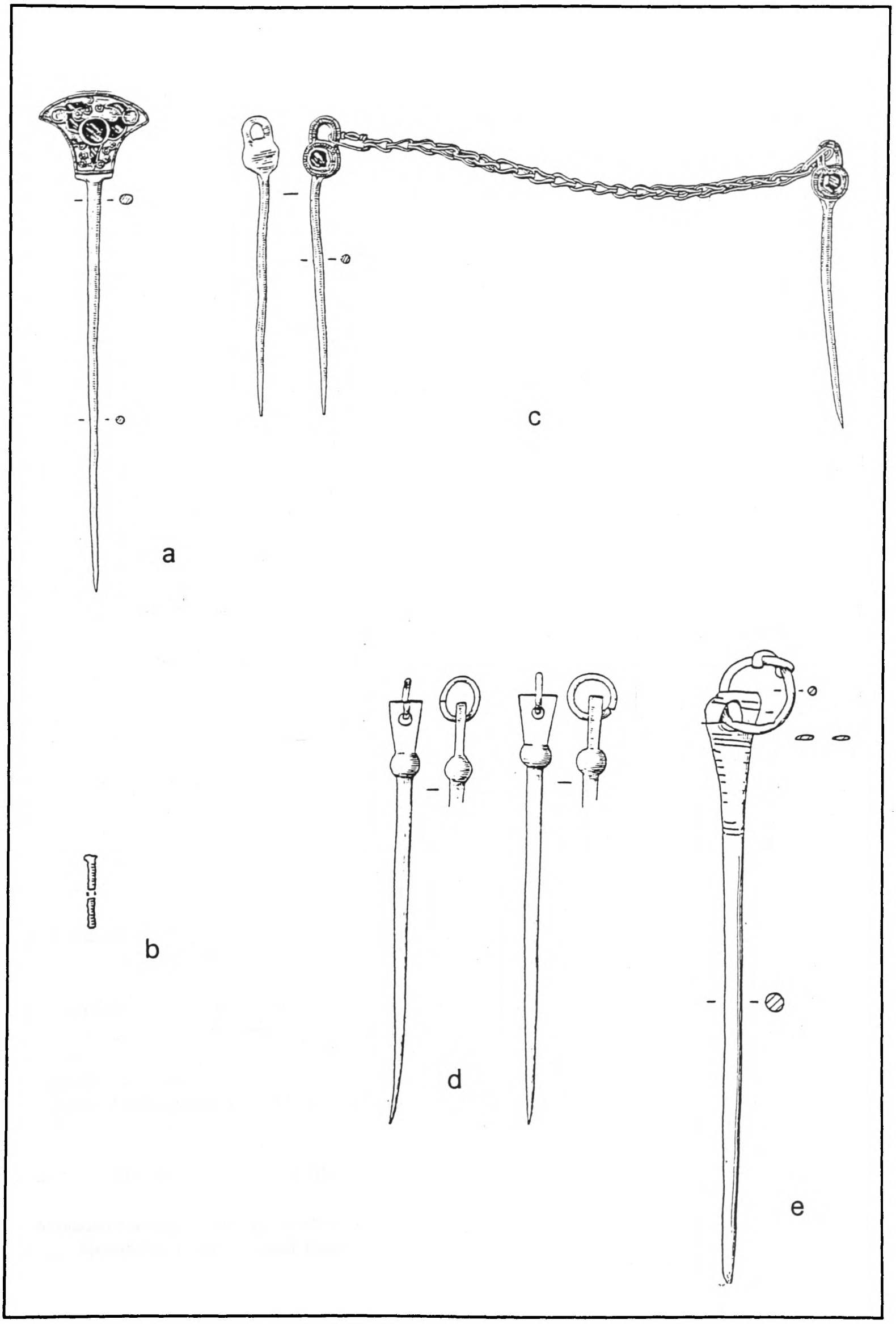

Figure 1.1: Examples of the Diversity of Pin Forms.

It would be erroneous to conceive of pins as unimportant or mundane during this era. The frequency with which they are recovered makes them potentially valuable. Pins developed in parallel with other material culture and reflect the same processes of continuity and change. Each pin has a story, whether it is the exuberant Wingham (Kent) pin (Fig 1.1.a)[7] or a seemingly unexciting shroud pin from the monks' cemetery at Monkwearmouth (Durham) (Fig 1.1.b)[8]. Taken individually pins can provide dating evidence (e.g. the linked pins from Cow Lowe, Derbyshire [Fig 1.1.c][9]), information about contact (e.g. the pair of pins in grave 89 at Bifrons, Kent [Fig 1.1.d][10]), or details about fashion (e.g. the pin from grave 18 at Butler's Field, Lechlade, Gloucestershire [Fig 1.1.e][11]) – to mention only three tales pins can tell. Groups of pins hide evidence, for instance, about exchange patterns (as seen in their distributions), about changes in manufacturing techniques and about varying attitudes towards material culture. Taken as a whole the corpus of Anglo–Saxon pins can shed light on cultural change, demographic expansion, differential spatial patterning, and variation in economic systems. Overall, pins incorporate in a single artefact a wealth of data to support a wide range of observations about the Anglo–Saxon period.

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[7]BM M&LA, acc no: 79,5–24,35 . See the letter concerning its discovery from Lord Albert Conyngham to the Society in 1843 (1844b: 550–551).

[8]Monkwearmouth, small find nos: Mk 67 GR; Mk 67 J4; Mk 67 J0; Mk 67 DR. Professor Cramp kindly showed me this material and in my discussion of these pins for her publication of the site I have expressed some doubts about whether these were actually pins (forthcoming d). I still hold these doubts and have suggested that they might be rivets for organic plaques (carved bone or wood). There are a few possible parallels to these pins: Castle Dyke (Humbs) grave 17a (Whitwell pers comm.) and grave 19 at Holborough (Kent) (Evison 1956: Fig 19, Gr 15.2).

[9]Sheffield Museum, acc no: J.93.703.

[10]Maidstone Museum, acc no: KAS 376 & KAS 377. This type of pin is only paralleled in Scandinavian contexts. Moulds for closely related types are known from Helgö.

[11]Oxford Archaeological Unit, Small find no: 199. The finds from the excavations at Lechlade are actually in the Corinium Museum in Cirencester and not held by the Oxford Archaeological Unit. When I examined the material in Cirencester, however, it had not yet been given accession numbers. For this reason I shall rely on the small find numbers given the material on its initial recovery by the Oxford Archaeological Unit throughout this text.

1.ii. Goals of the Study

In general, pins, as a group of material culture, have been studied with varying success (see Chapter 2). Yet, they are ubiquitous. They may not be as 'information laden' as pottery, but they often contain a great store of information. Pins offer a unique opportunity to investigate, from the vantage of a single class of material, a range of archaeological topics. These include, as we have seen above, methodological problems, theoretical questions and historical issues.

This thesis has two primary objectives. First, the study defines the groups of pins recovered from Anglo-Saxon contexts and establishes a framework for identifying and dating new finds of known types. Since it is unlikely that an example of every group of Anglo-Saxon pins has been recovered, the structure of the typology can accommodate the addition of new groups fairly easily. Chapter 5 details the groups of pins known from Insular contexts dating between AD 400 and AD 1100. Discussion of the individual groups will present the following information:

1. a definition of the characteristics of the group;
2. a definition of the characteristics of known sub-groups;
3. references to previous investigations;
4. an examination of the evidence for the date of the group;
5. a description of the distributions of the group and sub-group(s);
6. details of the relationship between a group and Continental, Scandinavian, and Irish types, as this information is available.

By applying this six-stage descriptive approach it should be possible for the reader to monitor closely the process of typification, understand why groups and sub-groups are proposed, and to see how the dating sequences are determined. The Continental, Celtic and Scandinavian parallels are provided when these pins can be shown to have been recovered in Anglo-Saxon contexts or to have had a demonstrable influence on the development of English pins. Chapter 6 presents and explains the chronological sequence of pins recovered from Anglo-Saxon England. Chapter 7 completes the discussion of the artefact proper by detailing the evidence for function and delineating the interrelationship between change in function and form during the Anglo-Saxon period.

In the concluding chapter we examine the broader issues that a single artefact type, such as a pin, can help illuminate. This chapter examines culture change and continuity, economic and social change, information exchange, and the evidence pins provide for trade networks and the causes

of cultural change. These are fundamental fields of archaeological inquiry, and the intention of this study is to use pins to contribute to our better understanding of the Anglo-Saxon period. I conclude the study by detailing the logical consequence of the methodological improvements to archaeological approaches to material culture proposed in chapter 3.

Before grappling with these two problems, the thesis begins by scrutinizing previous research into dress pins (chapter 2). Surprisingly, there has been a great deal of discussion of pins from various periods. Although the quality of earlier research varies, these studies have contributed to the present work. Awareness of this earlier research offered the opportunity to avoid past errors, such as applying inadequate methods of data collection, synthesis and analysis, and generating untenable interpretations or hypotheses. In several cases it indicated some beneficial approaches. The use of nomenclature that reflects spatial and cultural prejudices plagues nearly every study. So we are told about a 'Roman type' of pin before it has been shown that the particular type of pin belonged in derivation to areas which were spatially and culturally Roman. As well as reviewing the results of earlier researchers, it proved a useful exercise to examine the methods they used (Chapter 2). A description of the typological techniques employed to complete this study follows (Chapter 3). Debate rages among scholars over the methods and techniques of typology or classification (most recently Brown and Whallon 1982; Klejn 1982; Dunnell 1986; Kronenfeld 1985; Adams 1988; Read 1989). The process of investigating a single set of artefacts requires a formal description of the typological methods to be used to undertake the research. In most instances these methods are based upon a body of theory about human behaviour and data. Without this foundation the researcher is unlikely to exploit the data-set adequately and therefore the derived 'model of the data' (which is really all a typology is) will fail to capture the material. Telltale signs of these deficiencies are the poor explanatory force the particular structuring of the data offers, and archaeologists' limited adoption of the system and the concomitant short time before the typology is replaced. Essentially, classification must not be merely a handy way to group things, but must generate meaningful sets of material culture.

As Chapter 2 makes evident, with few exceptions (e.g. Schwarz–Mackensen 1976; Möller 1976a), previous research into pins was flawed because the investigators failed to model the material coherently. I am not convinced that in all cases the cause of this problem was a lack of understanding of the material under study. Instead a lack of theory and a failure to consider or to define the purpose and goals of the specific typological study created the major deficiencies in these earlier efforts. In most cases, researchers seem to have perceived the typological aspect of the artefact studies as an activity which could be done intuitively and did not require any analysis of how the goals of the exercise influenced (or would be influenced by) the collection and organization of the data. From their own discussions of their research one can easily conclude that none of these researchers wondered about what were the most productive approaches to classification. This does not appear to be a healthy approach as it would suggest that they believed typology was something one does without first attempting to understand how one does it.

Typological study of material culture is only the first step in any investigation. Since this is so, the design of the model is crucial. Errors introduced at this stage cause a progressively greater and greater deterioration in the stability of the model as each subsequent stage of analysis is undertaken. If we examine the intellectual process of moving from material culture to discursive propositions (explanadum to explanans), as described by J.–C. Gardin in *Archaeological Constructs* (1979), the difficulties are apparent. He proposed that one moves from the acquisition of data to the making of historical inferences by cataloguing material, classifying it, identifying patterns and drawing historical inferences. So, if at the stage of classification the data analysis is prejudiced by predefining pin groups as 'Roman types' or 'Saxon types' the next stage of pattern recognition is biased and in turn many of the historical inferences that will be derived from the data are predetermined.

The basic difficulty lies with the failure of archaeologists to provide a set of concisely defined and rigorous methods for undertaking material culture modelling.[12] (This problem is undoubtedly exacerbated by the lack of underlying archaeological theory about material culture and

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[12]Adams (1988) has recently attempted to rectify this problem.

rules defining its interpretation. This is a philosophical issue which we shall not consider.[13]) That the available typological strategies do not detail the typological process is hardly a novel claim. Many of the scholars attending the Kampsville seminar, nearly a decade ago, reported this (Brown and Whallon 1982) and little has changed since (Read 1989). Typology is not a technical approach taught in archaeology, rather it is assumed to be a skill that has been naturally acquired. This latter belief has, no doubt, caused great anguish for many both fledgling and long experienced researchers. It is impossible to generate a typological structure unless the processes of data collection, interpretation and analysis are clearly delineated at the outset. The primary questions for which the typology has been developed must be precisely defined in advance as well. Just as an excavation can often be judged by the questions which the excavators set out to answer and the methods applied to do so, likewise in a discussion of interpretations derived from a material culture model, it is frequently possible to understand the failures of analysis from the inadequacies of the typology. As we have seen above, the shortcomings of the typology itself, usually lie with the initial premises and design of the data–model.

Any typology must be functional. This means that other people should be able to use it to identify objects and that the information gleaned from having made the identification has some value. The value might be characterized by the ability to give an absolute or relative date to the object, its usefulness in explaining processes of production and so forth. If it is to be functional therefore it must incorporate the significant attributes of the object, including information about production. So, a good typology not only manifests an understanding of the outward appearance of the material, but it also incorporates a comprehension of the processes of production and the meaning of the object to the maker, the observer and the wearer. To capture successfully any material culture it is necessary to include data about the internal attributes and contextual attributes, such as the function

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[13]On some of the philosophical issues a good starting point is M. Salmon, *Philosophy in Archaeology*, (London 1982). There are a large number of drawbacks to this work. The most damaging is that the model of science which Dr Salmon selected is no longer considered accurate. Nancy Cartwright in the essays collected into *How the Laws of Physics Lie* (Oxford 1983), put forward a more viable model from which philosophers of archaeology might learn. On some of the philosophical issues the recent article by Ernest Adams and William Y. Adams, ' Purpose and Scientific Concept Formation' (*British Journal of the Philosophy of Science* 38[1987]: 419–440), is instructive.

and the relationships of the specific object to other objects. To adequately model any archaeological phenomenon, whether it be Iron Age settlement sites, Roman villa building types or classes of material culture (e.g. belt buckles), the model must accommodate these basic elements. A typology or material culture model is a representational model and its purpose is to describe a class of objects. If the data model is well constructed and precisely adhered to, it will form a strong foundation for achieving both of our primary goals: providing an acceptable representation of the Anglo-Saxon pin sequence (taken in a chronological and non-taxonomic sense) and examining Anglo-Saxon economy, society and culture.

This thesis does not include a description of every pin known from the Anglo-Saxon period. It does not even (for reasons explained below [see section 1.iii.g]) contain a reference to every pin of which I am aware. It is based on an analysis of some 2500 examples to justify the proposed model of pin development. This should be a large enough sample from which to derive our typology and to support a framework into which new types of pins can be inserted as they are discovered. It would be naive to assume that in the unrecovered archaeological record there are no new types of pins which belong to the Anglo-Saxon corpus. There most definitely are. However, given the quantity and quality of recent excavations it does seem likely that any newly discovered groups will have limited spatial and temporal distributions. Indeed, as I wrote this introduction I was invited by the Humberside Archaeological Unit to see the pins from Flixborough (S Humbs).[14] This site has produced by far the greatest number of pins from any site of which I am aware. Among the hundreds of pins (375+ by October 1990) from the site I found only one group of pins which I had not recognized elsewhere. Pin makers during these six centuries were prolific producers of certain types. Although occasionally they experimented with new types (innovation being more common at certain periods than at others), over time the kinds of pins they made tended to belong to an increasingly restricted domain. Pins indicated, as do other objects, that from the early eighth century

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[14]Little material is published on Flixborough, but two small interim reports provide some details: Leahy & Whitwell 1990a; 1990b.

the Anglo–Saxons began acquiring a conservative attitude toward material culture; this is closely related to social, political and economic changes.

1.iii. Constraints of the Study

The boundaries of this study directly influence, as would be expected, the conclusions. These parameters belong to three main categories: researcher–imposed boundaries, such as my decision to study pins recovered from a particular geographic area during a specific period; archaeologically imposed boundaries, such as the changing character of the archaeological record (cessation of furnished graves and the rise in urban settlement density) or the limited recovery of some pin groups because they were made of materials which survive well only under uncommon conditions (e.g. iron); and, finally, bureaucratically and pragmatically imposed boundaries. In general, the specific constraints are:

1.iii.a. Geographic Constraints

This thesis concentrates primarily on the area traditionally referred to as Anglo–Saxon England. For our purposes this area has been defined roughly as encompassing at various times the lands mainly south of the River Tweed and east of Offa's Dyke and excluding the modern county of Cornwall. The interest in particular sub–areas is very much time dependent. Some regions are more important than others and figure in the study with greater regularity. For the middle Saxon period a remarkable amount of our study concentrates on coastal and riverine sites. This is a function of the quantity and quality of archaeological investigation, the location of present and past population and settlement densities, historical patterns of economic exchange, and the differential factors influencing the loss and recovery of objects. Pins from outside this area of Anglo–Saxon England are covered, as was explained in 1.ii, in order to support the definition of Saxon groups and to clarify indigenous developments and identify external influences. Consequently the coverage of pins from Scotland, Ireland, Scandinavia, or the Continent (what is now modern France, Germany and Italy) is not as comprehensive, but is undertaken for its comparative value.

1.iii.b. Temporal Constraints

The period covered by this study, stretching from the middle of the fifth century AD until the end of the eleventh century, covers (in Anglo–Saxon England) the centuries from the end of the Roman period until the beginning of the Norman period. This era is characterized in England by the expansion of Anglo–Saxon settlement, the evolution of kingdoms and the establishment of a Roman Church hierarchy, the rise of urban centres, Viking raids and settlements, monastic fervour, laxity and reform, the proliferation and eventual regularization of trade networks, the solidification of the social structure, the dynamic growth in rural economic systems, and finally the arrival of William the Conqueror and the beginning of the slow process of Normanization of the English and the Anglicization of the Normans. These demographic, economic, social, political and ideological changes had a variety of both direct and indirect influences on pins and Anglo–Saxon material culture in general. Although the primary focus is restricted to these 700 years, it is necessary to discuss some pins made outside this era. For instance, some attention is given to Roman pins (those used after AD 100 and before AD 400) because, by describing the relationship between Roman pins and early Saxon pins, new data is provided for the discussion of material cultural continuity between the Roman and Post–Roman period.

A number of terms are used to refer to particular time frames. The most commonly encountered are Early Saxon (AD c. 400 to c. 650), Middle Saxon (AD c. 650 to AD c.850) and Late Saxon (AD c. 850 to AD c. 1100). The decision to end the late Saxon period roughly 34 years after the Conquest was taken because the terms early, middle and late are cultural as opposed to precisely temporal, and cultural continuity after Hastings is evident in the pins. The term Saxo–Norman is inappropriate because there is nothing Norman about the pins before AD 1100 (this does not mean to suggest there is anything Norman about pins used after AD 1100 either). In a similar vein, deciding to close the study at AD 1100 was rather arbitrary as this date does not represent a precise end to the production of traditional Saxon material culture.

1.iii.c. Constraints on the Class of Objects Studied

The description of the subject of this study (see section 1.i.) may have suggested that other arguably related classes of objects might have been included because they share certain similar diagnostic features with pins. This thesis examines only one class of objects: pins. Other classes of arguably related materials, such as needles (Fig 1.2.a)[15], styli (Fig 1.2.b)[16], and toilet implements (Fig 1.2.c)[17] are excluded.[18] As is explained in Chapter 3, functions, attributes selected for classification, decorative motifs and processes and techniques of production or design may be shared across classes of objects just as they are shared across otherwise distinctive types within an individual class of objects. At the outset of this research pins were defined as a distinctive bounded class and it was proposed that members would share a common basic form and closely related primary function. Needles, styli, and toilet implements do share some similar characteristics with pins, but their function is identifiably distinct from that carried out by pins. Since we are focusing our attention on pins as a class represented by members sharing a closely related form and function, even when these other classes of objects appear in secondary use as pins they are still excluded. There is no evidence to support the suggestion that shifts in the form of objects in any of these other classes had any influence on the form of pins belonging to any of our groups. It is worth noting, however, that when one of these former classes of objects is recovered from a context which would indicate that it served the function of a pin, the contextual information supports the extrapolation of a different set of economic and social data than that supported by a pin

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[15]York Archaeological Trust, Coppergate Excavations, small find nos: 1678 & 933. Shakenoak (Oxon), Ashmolean Museum acc nos: 1970.433; 1969.312.

[16]BM M&LA acc no: Whitby 334 (Whitby, N. Yorks) (see Wilson 1964: 200; Peers & Radford 1943: 64–65, fig 15), Ashmolean Museum, acc no: 1921.1047 (see Hinton 1974: 8, item 2); Brandon (Suffolk) (Carr 1985: fig 13.1); Dacre (Cumbria)(D85 1588 835 [Rachel Newman pers comm 9 April 1990]); an iron example inlaid with gold ornament came from Winchester (Hants) (Winchester Exhibition Catalogue 1973: 21); and possibly one from the Chapel Road North site in Southampton (Hants), small find no: SOU 11 003. Those from Canterbury (Kent) were illustrated by Radford (1940: 506–8).

[17]Ashmolean Museum, acc no: 1966.45 Brighthampton (Oxon); or University Museum of Anthropology and Archaeology (Cambridge) Barrington B (Cambs), acc no: 216150.

[18]Hinge pins, such as those recovered by Bateman at Cow Lowe and described in 1846 (95), are not included. Neither are the hinge pins recovered from Sutton Hoo.

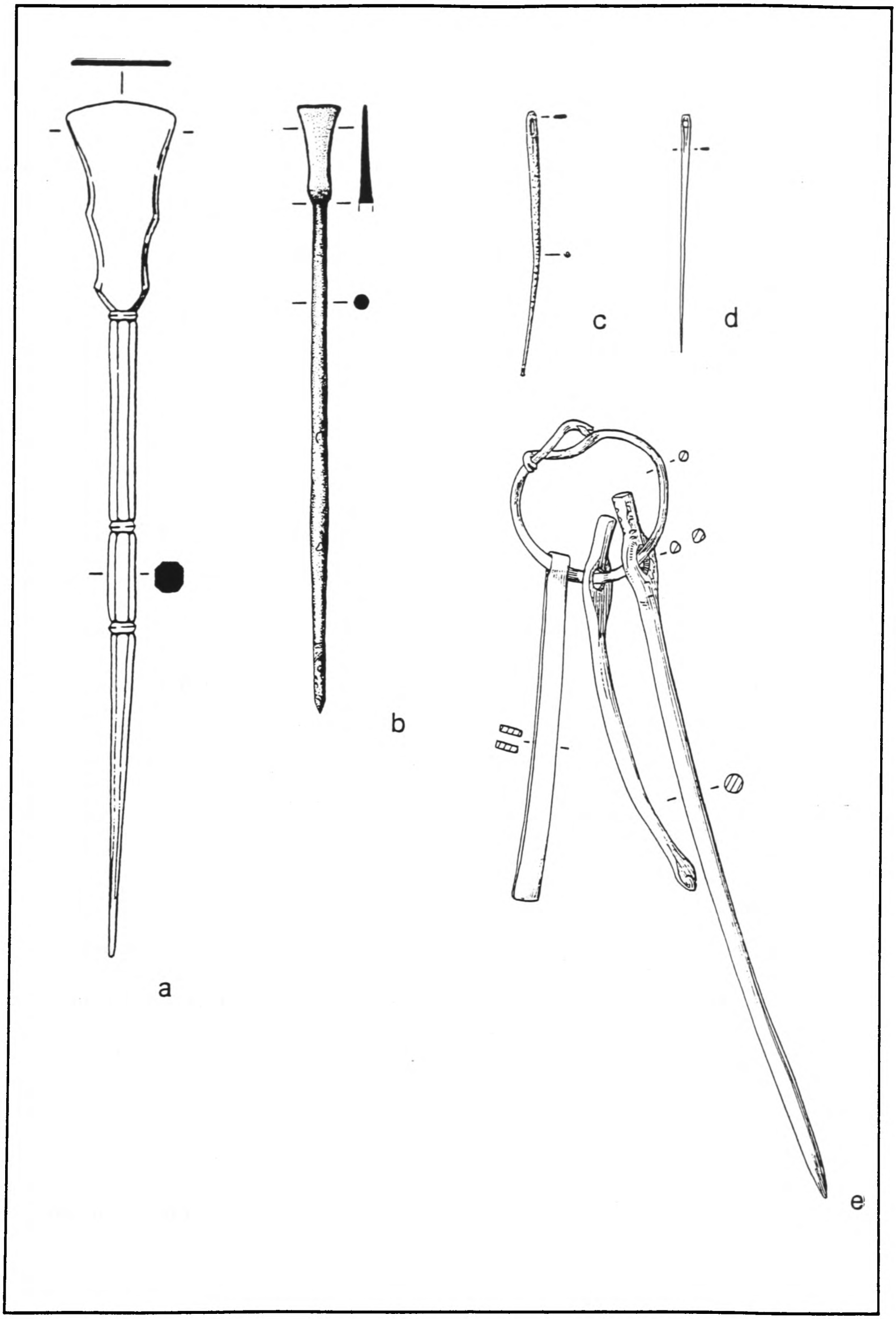

Figure 1.2: Examples of Material Excluded.

appearing in the same context. Contextual attributes created by deposition are easily severed from most material culture, just as deposition in the archaeological record usually severs (except in special cases) an object from the context of its original use. Once the link between the context of recovery (and/or use) has been broken (or gone unrecorded) it is usually impossible to reconstruct it precisely.

1.iii.d. Material Constraints

Pins tended to be made either in metal or from organic/skeletal materials (e.g. wood,[19] bone, ivory). This study, primarily, investigates metal pins. Some types of pins have been recovered in organic materials (of which bone was the most commonly used) and not in metal. Certain pin forms might not be expected in metal on account of the characteristics of metal or the processes of metal production (the converse is also true of bone). In general, the development of bone and metal types was closely interrelated, and most forms were made in both materials. Although the bulk of this sample is drawn from the metal group, the typological framework probably characterizes pins produced from organic materials as well. Where technological factors play a role, the processes of manufacture are different as is, perhaps, the social structure underlying production. (The judicious use of ethnographic evidence might support the argument that the gender basis of manufacture [during particular periods and in specific regions] of some objects from organic resources was different from the gender basis producing metal objects.) This is also particularly true of the economic basis of production.

In the Pre-Norman period, metal pins were made in iron, copper alloy, silver and gold. The majority of surviving examples are copper alloy. This does not necessarily imply that copper alloy pins were the most common metal types produced during these six centuries, but they may well have been. Iron was probably far more widely employed than the recovered material would lead us to believe. Problems associated with the survival of iron are well known and an inability to project the numbers and types of pins produced in this material could be anticipated (see below 1.iii.f). With

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[19]Jankuhn recovered a wooden pin during excavations at Haithabu (1943: 143 & Abb 72). There is always the possibility that this pin might have served as a model.

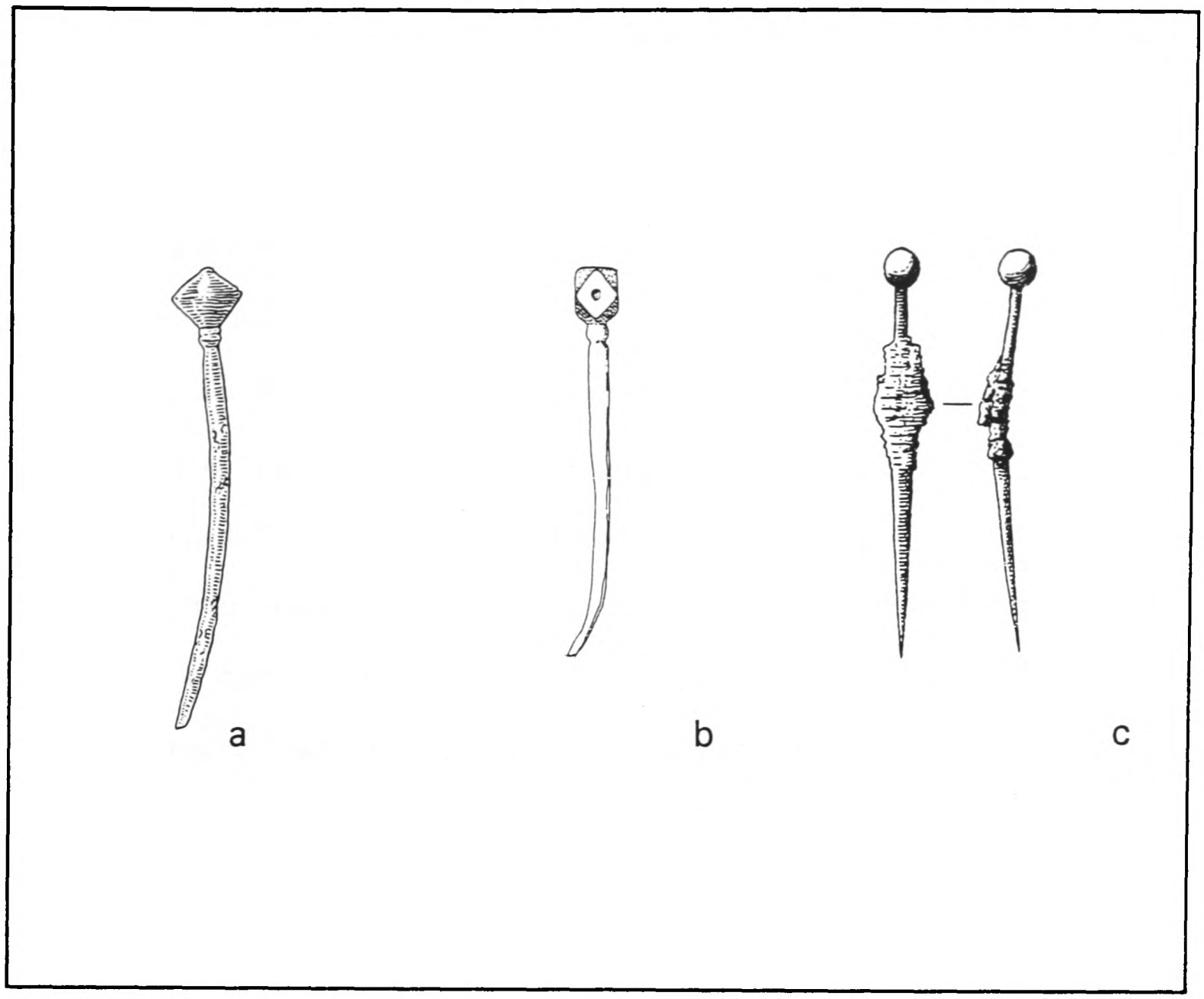

Figure 1.3: Examples of Iron Pins.

the exception of some small groups of pins (for example, from Coppergate (York) [Fig 1.3.a],[20] Ipswich (Suffolk) [Fig 1.3.b][21], a group of curl-headed pins which come from the Anglo-Saxon cemeteries of Morning Thorpe (Norfolk) and Dover (Kent) [e.g. Fig 5.10.c & d][22], or the ball-

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[20]The group from Coppergate is of exceptional quality and includes some pins that had been tinned. SF 10525, a fifty-four millimetre long pin with a faceted head and ring collar below is an outstanding example [context: 28432]. A context the excavators have argued belonged to phase 4b of the site. This phase is thought to date c.930/5 - c.975.

[21]Ipswich Archaeological Unit. These pins were recovered from a number of sites--from Middle-Late Saxon through early Medieval contexts. All were incomplete. They include pins from contexts: IAS 5701 0208 (X-ray: Nx2221); IAS 4601 0515 (X-ray: Nx2176); IAS 4601 0677 (X-ray: Nx2244); IAS 4601 0660 (X-ray: Nx2254). The pin from IAS 7402 0351 is, however, identifiable without an X-ray [Fig 1.3.b]. This facet-headed pin came was associated with middle Saxon pottery. A ball-headed example SF2338, thirty-three millimetres long with a head diameter of six millimetres, came from Brandon (Suffolk) (Suffolk Archaeological Unit, X-ray: Nx1165).

[22]BM M&LA.

headed pins from Shakenoak (Oxon) [Fig 1.3.c][23] (Brodribb, et al 1973: fig 52.321) the evidence from possible iron pins is not significantly diagnostic (even with X-rays) to permit their identification. It is impossible to say therefore, with certainty, either that distinct iron groups existed or that pins were made from iron in forms similar to those made in copper alloy (e.g. **W.167**).[24] More typical of iron finds described as pins are discoveries such as that from grave 4 at Bifrons of an eighty-four millimetre long iron object (Godfrey-Faussett 1876: 303) or the find of an iron rod near the throat of the woman buried in grave 7 at Holywell Row (Suffolk) about which we can say nothing (Lethbridge 1931: 4). The decision to class these objects as pins was taken by the excavator on contextual evidence alone and beyond the general conclusions which contextual evidence may or may not support they cannot be described in any detail. The change in and differential character of the archaeological sources (i.e. cemeteries to settlements) has a paramount effect on the conclusions we can draw about objects with minimally diagnostic features (see below 1.iii.e). Numerous cases can be quoted where contextual attributes provide the only evidence that an iron object was a pin.

The term 'copper alloy' serves as an umbrella for a number of essentially copper based alloys. These range from leaded copper to brass and to bronze. Diagram 1 (after Wilthew 1984: 5) shows the basic compositions of common copper alloys. There are alloys including traces of antimony or arsenic. The inclusion of these materials in copper alloys results in the generation of harder bronzes. Since our understanding of alloying processes during the period is limited, it is difficult to argue about whether the inclusion of these metals in trace quantities was intentional or accidental. If, for instance, a metalworker used scrap as his source he might not have had much of an idea what trace metals or other elements were included in the scrap. Therefore it might be unwise to assume that most trace metal inclusions were anything other than accidental (or in the case of some traces, naturally occurring). However, years of experience might have led the metalworker to acquire the skill to select particular kinds of scrap for particular uses.

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[23]Ashmolean Museum, acc no: 1970.313 and 1970.429. There is also an incomplete example from grave 3 at Jevington (Sussex) (Holden, et.al. 1969: 128 & fig. 2 [129] & fig 3.5 [130]).

[24]BM M&LA, Whitby Loan.

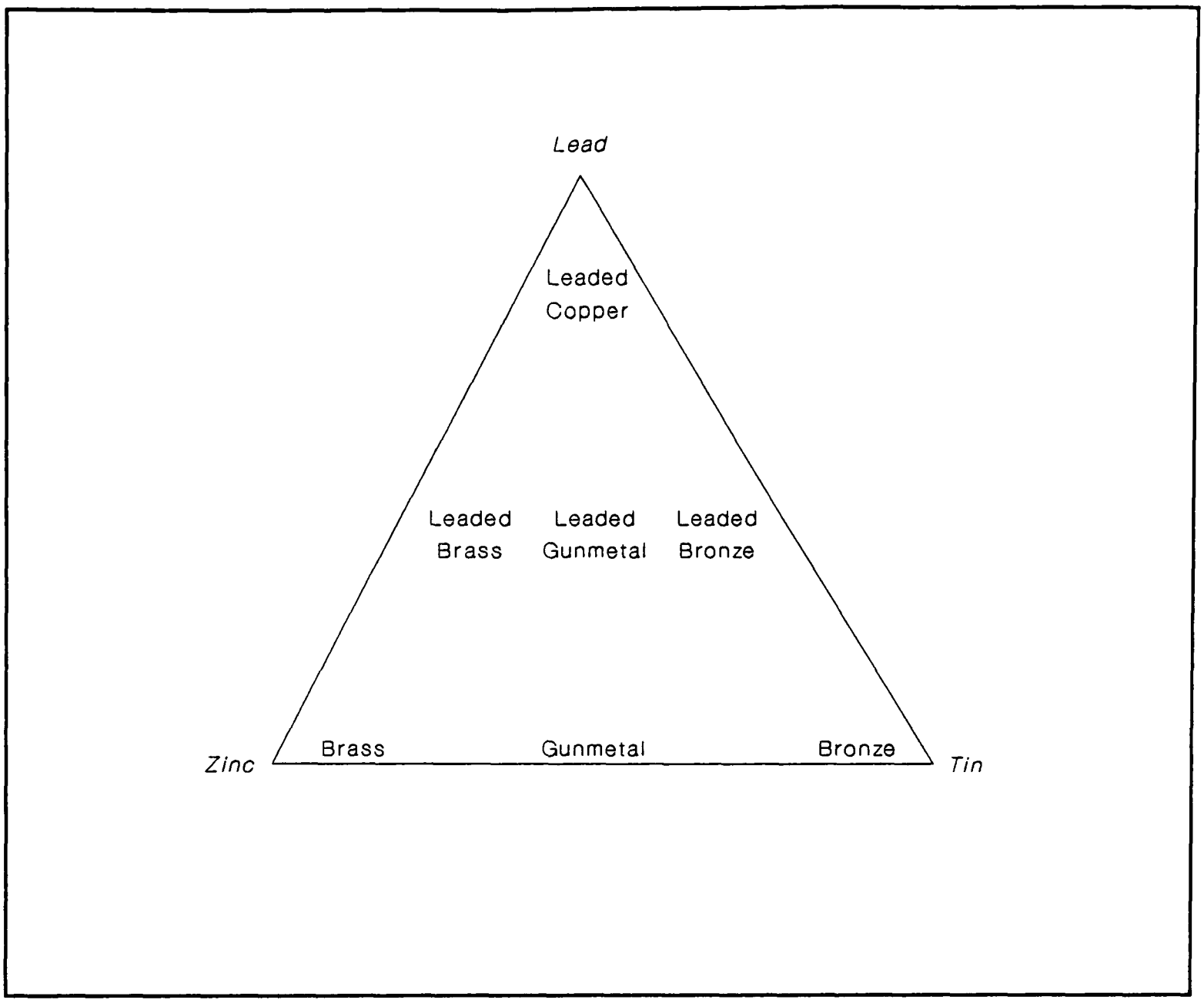

Diagram 1.1: Basic Compositions of Copper Alloys (after Wilthew 1984).

Pins were also made of gold and silver. The use of these two materials seems to have been temporally and spatially dependent, although some of the "temporal character" of the evidence might have been caused by the variation in the nature of the context in which the archaeological data-set was deposited (see below 1.iii.e). Some of the diversity in the distributions of pins in gold may reflect the variations in the demographic character of political and economic groups, and patterns of exchange; the concentrations of populations with access to scarce resources more willing to dispose of this wealth in burial in particular regions as opposed to others. Additionally, some production of objects in gold may have been related to an unequal access to raw materials. The decision and ability to dispose of raw materials reflected ideological, social and economic factors. Few gold pins are known from contexts dating later than the end of the seventh century AD. This may be a reflection of the processes by which pins entered the archaeological record and not that pins were not made in gold after AD 700 (although the number of gilt pins from eighth century contexts will

lead us to propose a slightly different argument). In the seventh century pins were consciously deposited in burials, whereas in later centuries they became artefacts as a result of unintentional loss. These two types of deposit provide entirely different sorts of information to the archaeologist.

Occasionally, during these seven centuries, pins were made in silver. Silver seems to have been more commonly used for the production of pins on the continent and in Italy. The evidence of silver pins may be disproportionately low because of the natural process of decay (i.e. corrosion process) which occurs when silver is deposited in soil.

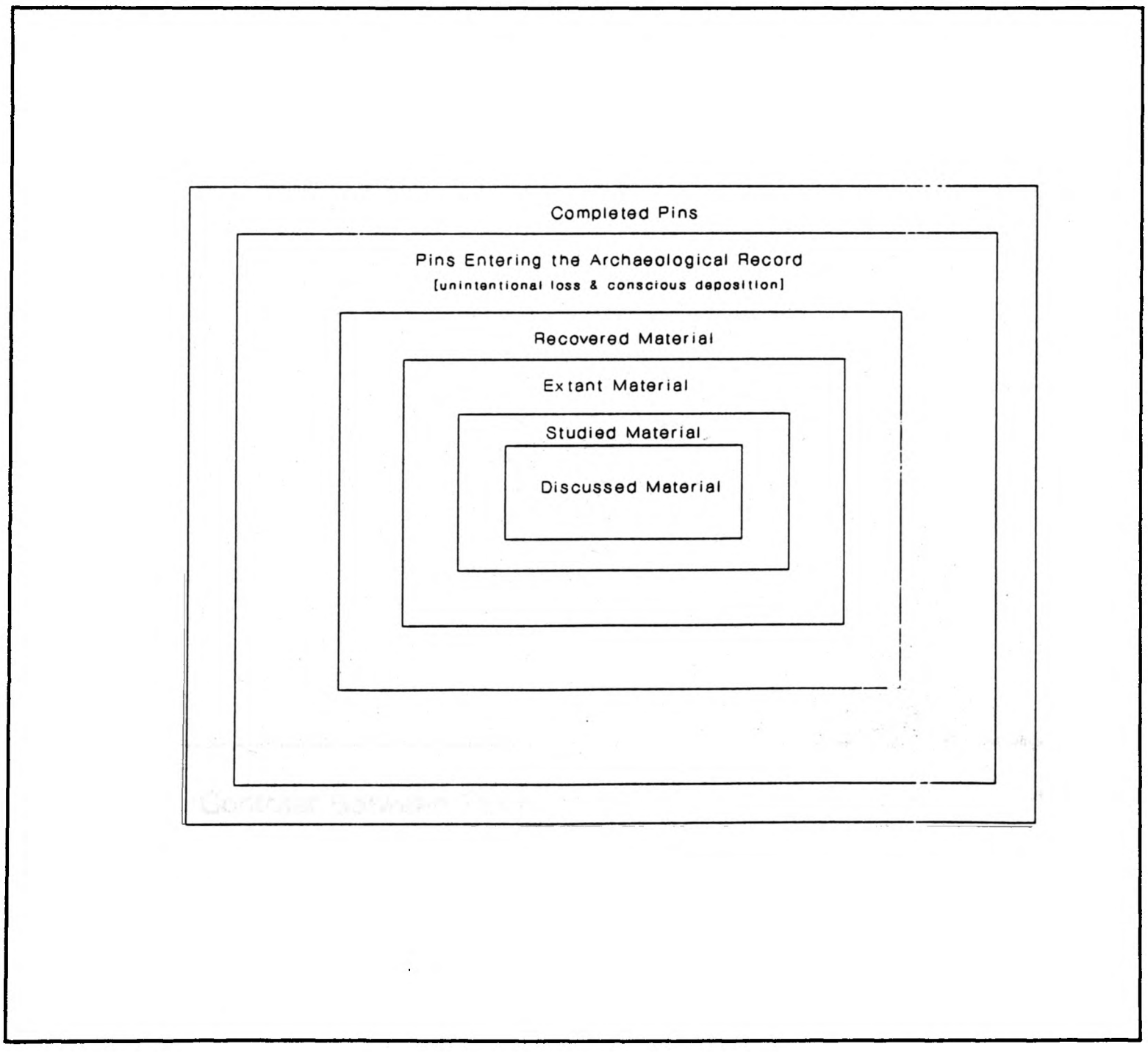

Diagram 1.2: Progressive Degeneration of the Sample.

The material used to produce a pin had a very significant role in determining its relative value, and, therefore, its social implications. This is clearly evident in the contrast between the finely decorated and constructed Roundway Down (Wilts) pins (Fig 1.4.a)[25] and the small disc-headed pin from Swindon (Wilts)(Fig 1.4.b)[26]. Pins did serve as social markers--a function of

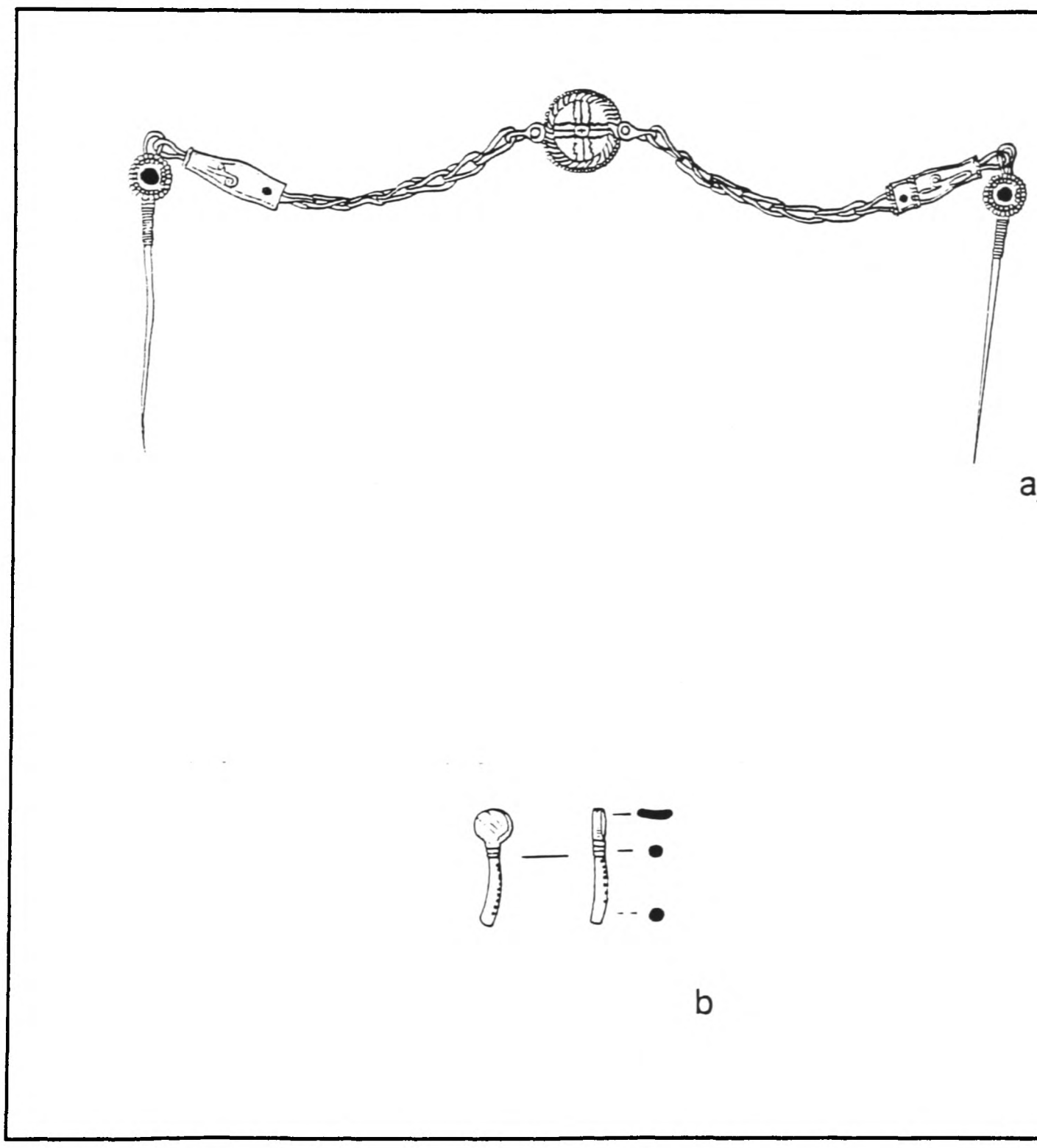

Figure 1.4: Contrast Between Pin Forms.

many artifacts. Even without considering the difference in the contexts of discovery the contrast

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[25]Devizes Museum, acc no: S6f.

[26]Swindon Museum, acc no: Sw75.A25.16.

between these two is apparent.[27] The gold Roundway Down pins, linked by a golden chain, certainly must have signalled the wearer to be of high status, whereas the near contemporary pin from Swindon, although glistening before its loss in new shiny copper alloy, did not set the wearer far apart from the crowd. Material may also function to indicate either cultural contact or the presence of distinctive cultural groups. In her study of Later Atlantic Iron Age Settlement, Foster (forthcoming) found 'antler is a useful chronological indicator, its use in pins being confined, with a few exceptions to the NP [Norse Period]'. The appearance of pins made of this material in such a restricted chronological horizon might indicate either cultural contact or arrival of new cultural groups.

The material in which a pin was made would also impart distinctive meanings to makers of pins because specific materials require the use of different techniques to achieve similar results. Awareness of the influences of raw materials on production is important in considering the mode and process of the production; in particular when related to levels of production hierarchy and the variation in the practice and organization of metalworking groups. Changes in this production structure relates closely to variation in types of pins.

1.iii.e. The Character of the Archaeological Sources

The change in the character of the archaeological record during the period has influenced both the types of pins recovered and their distribution. The lack of consistency over time in the record means that it supports different kinds of conclusions for different periods. It is, therefore, not always possible to say the same things about early, middle, or late Saxon pins. The quality of the data varies along two basic lines: temporally and spatially. Some of the shifts reflected in the temporal and spatial complexion of the material were caused by changes in human activity as a result of a combination of economic, social, demographic and ideological shifts. The explanation of these shifts in relationship to pins is undertaken in chapter 8.

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[27]The Roundway Down pins came from a barrow furnished with a wealth of imported material. The Swindon pin came from a sunken-featured building. The debris in this building suggested that it might have been a weaving hut.

The temporal variation appears to have been the result of a shift in the factors controlling deposition. (The change in the constituents determining the archaeological accumulation of the material are reflected in the context of its recovery.) The change from conscious deposition to unintentional loss as the primary path by which pins entered the archaeological record has a direct influence on the explanations of pin usage supported by the data. With conscious deposition we can describe, with some degree of confidence, what the pins were used for, but with unintentional loss we cannot. So, for the earlier Saxon period we can detail how pins functioned because the majority of our evidence comes from graves and has not been, in most cases, completely severed from its context of use. In contrast, most middle and nearly all late Saxon pins occur on settlement sites, having entered the archaeological record as the result of unexpected loss. These pins are, therefore, severed from the context of use (functionally although not necessarily spatially) and we cannot expect to be able to prove safely what they were used for (e.g. whether they were cloak, hair, or veil fasteners). However, with art historical and textual parallels we might be able to put forward some tantalizing suggestions.

The spatial variation in pins has several causes: at least one is modern while two are Anglo–Saxon. Much of our knowledge about pins comes from excavation, although shockingly the hoards of metal detector users are attempting to redress this (the number of finds from Barham (Suffolk) near Ipswich is an indication of their efforts). Modern excavation has focused mainly on cemeteries, urban centres, and threatened sites. This has meant that, with the exception of cemeteries dug either because they were curiosities or endangered, much of our information is based on concentrated settlement sites. The great majority of these settlement sites began in the middle Saxon period and most have been occupied since with varying degrees of continuity and settlement concentration. The knowledge about the density and hence probably the popularity of pin use on rural sites, will remain undetermined. Similarly whether conclusions about the popularity of groups of pins in specific areas results from the concentration of excavation at particular urban sites and not at others or whether they are a genuine reflection of historic patterns is still unresolved. In areas where only limited excavation has taken place we cannot say much about spatial distribution. In Kent, for example, for

the early Saxon period, it is possible – and this is especially true for the sixth and seventh centuries AD – to describe the distribution of pin types throughout the region quite precisely. But because only a few middle (and maybe late) Saxon sites have been excavated the same degree of spatial precision cannot be achieved for these periods. We can, for instance, detail the groups available in middle (and possibly late) Saxon Canterbury from the excavations at sites such as Cakebread Robey or Marlowe Car Park. Although we can probably predict accurately that similar types would have been employed during this period nearby in Anglo–Saxon Rochester, this hypothesis has not been confirmed by excavations of Anglo–Saxon settlement there. In this way our understanding of the archaeological evidence is affected by the spatial distribution of modern excavation.

The Anglo–Saxons influenced the spatial distribution in numerous ways, but the most significant influence was the shift in settlement location. The other major spatial change was caused by demographic variation. Simply, the spatial patterning of pin groups is affected by the population dynamics, and for the Saxon period it is difficult, as yet, to make coherent statements securely about the causes and nature of demographic variation. So long as this is true some elements about the character of group distribution are difficult to explain.

1.iii.f. Post–Depositional Change

Besides a variation in the character of the archaeological record and the differential location of excavations the archaeologist must confront the problem of accounting for post–depositional effects. Between loss or deposit and recovery pins, like most artefacts, undergo (or underwent) a range of post–depositional changes. These changes constrain the process of data collection and interpretation. Post–depositional shifts, especially true in the case of iron, have made some pins unclassifiable beyond the general threshold of class membership. Some objects, notably those made in materials such as iron or bone, may have been completely decayed and will, therefore, remain unaccounted for in the archaeological record. Objects produced in other materials, as for example bronze, no longer glisten as they probably once did in the Saxon period (a change due to oxidation). They, therefore, cease to impart immediately to the researcher the same meaning they would have

given the contemporary Anglo-Saxon. Michael Schiffer (1976; 1983; 1987: 143-197) described the various kinds of post-depositional changes as a series of transformations. The character of the surviving corpus of pins is a reflection of the effects of many of the post-depositional factors he describes, as well as a few others which he did not include.

1.iii.g. Bureaucratic and Pragmatic Constraints

Several bureaucratic and pragmatic constraints influenced this study. Some were the responsibility of the researcher, others were caused by decades of neglect particular pins have suffered in storage, and still others related to the difficulties which the visits of continual streams of researchers can cause to archaeological units and under-funded individual excavators. There are more recent finds (post-1988) from sites such as Ipswich or Canterbury, which I have not incorporated because from the material found prior to 1988 I had already accumulated a large enough corpus of material to justify the typification and description of the different groups. Some pins have disappeared since their discovery (some of the pins noted by Keele as having come from St Mary's [Southampton] [1857: 60-61]) and because they were not completely published when they were recovered they cannot be securely classified. For various reasons some collections of material were unavailable to me. But in the case of most of these sites we can safely predict from the site's profile - primarily location, type (urban or rural, cemetery or settlement), and date - the groups of pins which would be expected (this does not mean that all the pins in the superset will be present, but we can be fairly precise in stating what might be there). Of course, there may be some local innovations, but, the later we pass into the middle Saxon period the rarer these become and the more predictable the recovered groups are.

Essentially, although some of these factors were a nuisance while I was doing "field work", the complexion of the data made it possible, in the end, to work successfully around these problems.

1.iii.h. Materials Analysis Constraints

I have not undertaken any technical analysis of the pins discussed in this thesis. No doubt, this effects my typological description. The attributes selected to define a group of pins do not therefore include details of metallurgic composition beyond primary fabric assessment by visual observation (e.g. gold, silver, copper alloy). As David Clarke argued in *Analytical Archaeology*, the process of attribute selection directly influences data collection, typological structuring and the process of interpretation (1978:14–15). This could mean that my typology's framework does not incorporate all the measures influencing a particular craftsman's work. An Anglo–Saxon pinner, for example, might have consciously chosen a more malleable alloy (i.e. one with a higher lead content, even 0.5% to 3% of lead in the alloy markedly improves the alloy's malleability) for producing a highly decorated pin which required a significant amount of post–casting finishing. Alternatively the craftsmen might have selected the alloy for its increased resistance to corrosion, by adding tin to the alloy. The selection of the alloy would then have direct bearing upon the production process and possibly result in a variation in the perception of the object on the part of the maker, the wearer, and contemporary observers. Variation in the compositions of alloys would have influenced the colour of the finished object. Some alloys would, for example, be redder while others might be yellower. Those objects made from yellower alloys (say, gold–bronze at 7% tin and 3% zinc) would have had a more 'gold–like' appearance and have imparted different and possibly illusory meaning(s) to contemporary observers. Heavily leaded copper alloys would have had a dark grey almost tarnished silver colour, a colour seen on the inverted–pear headed pin from Barking (Essex).[28] Perhaps having accumulated this data it might have been possible to refine some of the regional groups or to better understand a specific group, or, even, to identify pins from non–indigenous sources based on the discovery of non–Anglo–Saxon alloying practices. For a number of reasons these additional analytic techniques were consciously not applied. There are a few studies of the metal content of pins from which some information might have been derived (Brinklow 1975; Wilthew 1984; Caple 1986). These studies are, however, not adequate (see chapter 2) because they

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[28]Passmore Edwards Museum, Barking Abbey small find no: SF1501.

are not structured on a strong model of the material. I have chosen here, therefore, not to contribute further to the study of the material components of pins because, until the artefact group is precisely defined and all non-laboratory and especially all non-destructive procedures have been exhausted, nothing unique to pins seems to justify subjecting them to additional reductive analyses. Possibly now that we have identified particular problem areas, some of these might be addressed by laboratory investigation. The questions previously studied using pins would have been more usefully the focus of analyses of a set of better understood objects. These earlier analyses have in some cases resulted in the unnecessary destruction of some objects without proper publication of the finds themselves. As material culture has an essential role in Archaeology, little research can justify its total destruction, especially when for much of the research non- or less destructive techniques would have been adequate.

1.iv. The Problem of Chronology and Typology

To give an absolute chronological frame to my typology it was necessary to turn to the typologies scholars have developed for other artefact groups. Artefact chronology and typology remains a major problem confronting Anglo-Saxon studies. More than a century of work has succeeded in producing adequate typological schemes for a fraction of the classes of material culture made between c. 400 and c. 1100 AD. These efforts have defined a few ornamental styles, such as Style I, Style II, Jellinge-style, Trewiddle style, and varieties of interlace. In many instances decorative motif provides a useful guide to the date range of an object. In general ornamental styles offer only crude benchmarks.

Besides turning to the decorative motifs on the pins for chronological guidance, it is possible to seek assistance with dating from the finds associated with the pins, in the form of relative and absolute chronological schemes worked out by earlier researchers. At first it is quite surprising how many artefact typologies have been worked out for, or which are applicable to, Anglo-Saxon material: e.g. applied brooches with floriate-cross decoration (Welch 1975; 1976a), bracteates (Bakka 1981; Hawkes & Pollard 1981), button brooches (Avent & Evison 1982; Welch 1985), disc

brooches (Avent 1975; Leigh 1984), florid-cruciform brooches (Leeds & Pocock 1971), knives (Böhner 1958), saucer brooches (Dickinson 1976), small-long brooches (Leeds 1945), spearheads (Swanton 1973) and wrist clasps (Hines 1984) to mention only a few. There are numerous local pottery typologies of both a general and specific nature (e.g. studies of pottery from Hamwic or Ipswich). Each of these studies provided assistance when any of these datable pieces were associated with pins. Extremely important among attempts to sort out the absolute dating of material culture is Leigh's work (1984; 1980: esp Table 22).

The few coins from early graves discovered up to 1974 have been discussed by Rigold (1974; 1960). No serious attempt has been made to take advantage of the chronological power of this evidence; for instance there is no detailed publication of coin-dated burials, something which would be an invaluable tool. This is not true for the middle Saxon and late Saxon periods where the coin evidence has been used to its fullest.

I have noticed, as probably many before me have seen, that the dating of material culture seems to be governed by a range of principles for analysis. Some of these rules must be applied cautiously. Since these principles influenced my own approach to the material it seems worth stating a sample of them in outline form: (1) presence on the Continent and presence in England; (2) stylistic development in England from Continental originals; (3) presence in England and absence on the Continent; (4) association with Scandinavian, Continental, and Mediterranean dated material; (5) association with coin; (6) evidence for wear; (7) associated pottery; (8) historical evidence; and (9) art historical comparisons. Numerous caveats must be accorded the use of associated finds to date material culture. As Hines has argued, dating is complex and associations often difficult to interpret (1990: 20-25), and I could hardly disagree with the stress he placed on the 'primacy due to dating contexts rather than artefacts' (ibid. 20). Leigh has noted that absolute dating is especially difficult for the fifth and sixth century material. This appears equally true for later periods as well, at least, where pins are concerned.

1.v. Point of Departure

As with most research into classes of material culture the data-set available for study is a quantitatively unknown subset of the initially produced material. The pins dealt with in this study represent a fraction of the original numbers. Although diagram 1.2 indicates progressive shrinkage of the material studied, it is not possible to determine what percentage of the originally completed pins we now have available for study.

The factors promoting a reduction in the material are fairly obvious. Some pins do not enter the archaeological record because they were remelted or reworked into other objects (often other non-pin classes); post-depositional changes and the differential location of excavations further restrict the recovered material. Among the excavated materials some pins (particularly, iron) have suffered from further decay as a result of poor storage, still others have been lost again and a few were destroyed when being subjected to metallurgic analysis, thus creating the sub-set of extant material. I was able to study a large portion, although not all, of the extant pins and have chosen to discuss the majority of those examined.

1.vi. Material Examined

I examined just over 3000 pins in Museums and at archaeological units in Britain. In Table A I have listed the museums and units visited. Some of these locations held pins only from local and recent excavations (e.g. Ipswich Archaeological Unit) while others included pins from a more robust range of sites and representing varying qualities of excavation (e.g. British Museum). With the exception of the material from contexts in Scotland, Ireland and Italy, most of the non-Anglo-Saxon parallels were drawn from published sources. In the case of the Scottish, Irish and Italian finds the quality of site publication required that these pins be examined at first hand.

1.vii. The Handlist

Much of the basic data used in the thesis is summarized in Appendix 1. This is divided into sections by the groups of pins, then were possible ordered by sub-group, variant and sub-variant.

Included in the handlist are only pins from Anglo-Saxon/Anglo-Scandinavian contexts, among the 3000 pins I studied were a large number of pins from Roman, continental and Irish contexts and these have been excluded from the handlist. The handlist includes just over 1200 pins, a number that could be dramatically expanded if the recent material from Flixborough were to have been included. For each pin we have recorded a number of details. In Chapter 3 I explain many of the reasons for choosing to record different pieces of data and how it is noted, as well as recording of the characteristics. These include:

(1) the name of the site at which the pin was found;
(2) the museum or archaeological unit at which it is presently held;
(3) the accession or registration number of the find for museums and for archaeological units the small find numbers;
(4) the grave or context if it is readily available. In some cases the layer or stratigraphic context was not readily available, although general contextual details were;
(5) details of the condition or completeness of the pin;
(6) the type of metal. This refers to whether the pin was made of iron, copper alloy, silver or gold;
(7) the process of manufacturing. We divide this category by primary methods (e.g. casting, forging);
(8) notes about secondary working such as filing;
(9) total surviving length;
(10) head diameter (or width) as a measurement across the medial horizontal plane of the head;
(11) head thickness, where incorporation of this detail adds additional information – this measurement refers to the measurement across the horizontal plane which bisects the plane of head diameter or width;
(12) head length – the measurement from the top of the pin to the beginning of the shaft;
(13) shaft diameter at ten millimetres below the junction of head and shaft;
(14) shaft diameter at a point of swelling, hipping or shouldering;
(15) shaft diameter at a spot between five and seven millimetres above the point or extant end;
(16) details of decoration on the head;
(17) notes about the method used to apply the decoration;
(18) information about the shaft decoration;
(19) details of how the shaft decoration was made;
(20) the type of head;
(21) the type of collar;
(22) a description of the shaft cross section at a point ten millimetres below the head;
(23) a description of the shaft cross section at a point between five and seven millimetres from the point;
(24) information about the type of shaft (e.g. tapering, swollen, hipped);
(25) details of attachment mechanism if one is present on the pin;
(26) an indication of the type of wire ring attached to the pin;
(27) the chain type, if one is present;
(28) some pins were parts of pairs and details of whether the pair survives;
(29) in some cases additional notes about the pin are included.

In some instances descriptive fields may be empty. This may have been caused by one of several factors. The information may not have been available because many pins survive in an incomplete state, or the parameter not have been applicable to the object. In some instances the information is not present because, although available, it was not recorded. This is not an oversight. The final list of attributes is much extended from the preliminary list and it evolved over time as my understanding of the material evolved and as I found I wished to ask more varied questions of it. The expectations for the record of a pin now are significantly greater than they were when I began the investigation.

1.viii. The Role of the Computer

This project benefited from the use of the computer. This included graphics, databases, statistical testing, and the remarkably helpful word-processor. The aim of the computer use was to overcome four main problems frequently encounter in a project of this type. These are (1) terminological ambiguity, (2) inconsistent data collection, (3) maintenance of data, and (4) the need to ease the manner in which data can be manipulated. The role played by computers in archaeology has changed dramatically and data no longer needs to be collected and stored in numeric form since symbolic representation works more effectively. The use of computers vastly expands researchers' tools for manipulating information. As the computing element relates to the typological structure of this work it is discussed more fully in chapter 3. The reader may wonder that I did not use the computer to create the typology by using a statistical technique such as principle components analysis. The results of such analyses were not thought satisfactory for this study. Greep, in his study of Roman bone pins, had reached a similar conclusion (1984). The objectivity that statistical processes provides is at best illusory. An object-attribute-value structure combined with formal methods for developing a relational database creates a more archaeologically sound typology. In the conclusion to the thesis I describe a computer program (a printout of which is in appendix 2) for formalizing our knowledge about pins as advanced in this study.

1.ix. Distribution Maps

It would seem odd not to include maps showing the distribution of the groups of pins discussed here, so I have provided maps. I must admit, however, that their presence perturbs me since distribution maps can be misleading. This is not intentional, just the nature of the beast. Questions immediately arise as to whether the distribution of the pins is not merely a reflection of the places at which excavations have taken place, where metal detector users have worked or a record of those finds which have been reported to me. In my view this is only the beginning of the problem. It is conventional to illustrate the numbers of finds of a particular pin type by different size dots, I have done so. Nevertheless, it must be remembered that these concentrations of finds at a site may be indicative of the intensity of excavation and not, say, evidence of the fact that, spiral-headed (inward-curled headed) pins were actually worn at one site rather than at some other site. The problem is apparent in following the history of the spiral-headed pin through the various attempts to map its distribution (Donovan & Dunning 1936; Pretty 1972; Welch 1976b; Ross forthcoming f). I recommend that caution be applied when considering the meaningfulness of all distributions maps.

1.x. Chapter Summary

This Chapter explains that the purpose of this thesis is to establish a dated typology for dress pins recovered from contexts dating between AD 400 and AD 1100 and occurring in England South of the River Tweed and east of Offa's Dyke - whether of Anglo-Saxon origin or not. For each group of pins we shall argue whether it is an indigenous type or an import. Against this backdrop we shall endeavour to describe the links and contacts indicated by the material. And in conclusion we shall study the information this material holds that might improve our understanding of Anglo-Saxon society and economy.

We have also mentioned the problems associated with typological study and noted some of the aims of typological investigation. The difficulties of typological study will become clearer in the discussion of the history of pin scholarship in Chapter 2 and in the attempt to describe guidelines for typology in Chapter 3. Beyond this we have outlined the constraints imposed on this study and provided details of the kind of information included in the appended handlist.

Chapter 2

Previous Investigations of Pins

2.i. Background

Excavations at sites in Great Britain dating from at least the late Bronze Age produce pins[1], although they are quite rare from Iron Age contexts in Central Southern and Eastern Britain.[2] Work has been done on classifying, dating and detailing the spatial distributions of particular groups of pins for many prehistoric, proto-historic and historic periods. For example, Dunning (1934) sorted out the sequence of British swan's-neck and ring-headed pins, Coles (1959) described the Scottish swan's-neck sunflower series, and Eogan (1974) detailed the 'Pins of the Irish Late Bronze Age'.[3] For a later period Tylecote (1972) investigated a group of eighteenth and nineteenth century AD brass pins, and Caple (1983; 1985; 1986; forthcoming), Crummy (1988), Caple and Warren (1983) and now Biddle and Barclay (1990) have examined late medieval wound-wire-headed pins.[4] For

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[1]There have been a number of studies of pins from other regional and chronological periods which made important contributions to methodological approaches as well as to material culture studies. Probably the most important are Jacobstahl (1956), Beckmann (1966), Courtois & Audouze (1970), and Carancini (1975). Beckmann's typology is an extremely good example. He examined 890 pins from Free Germany and divided them into ten main groups and 137 sub-groups. The advantages of his classification are that it is easy to replicate a similar typological structure by independent examination of the same material and that new finds are easy to identify using the structure he proposed.

[2]In the first ten years of excavation at Danebury (Hants), for example, only three pins were recovered. One of these seems more likely to have been an awl or a tattooing needle (Cunliffe 1984: 339 & 338 fig 7.3 [1.16]). The other two were damaged iron ring-headed pins (ibid.: 371 & 369 fig 7.25 [2.200 & 2.201]). From the fifth century BC brooches became the preferred method of fastening garments in Britain.

[3]See also Simpson & Simpson (1968) who contributed to the discussion of the 'Decorative Ring-headed Pins in Scotland', see also Spratling 1974 & C.F.C. Hawkes 1976.

[4] See Jorrand (1986) for an examination of wound wire headed pins from Picardie. This type of pin became common by the later Middle Ages throughout Europe. There are, for instance, three examples from Otranto (S.E. Italy). All three are complete but bent (SF 77.603):

	Length	Head Diameter	Shaft Diameter
a:	50 mm	4 mm	1 mm
b:	45 mm	3 mm	1 mm
c:	40 mm	3 mm	.75 mm

This type of pin continued to be the most common form well into the nineteenth century with only slight modification, although clearly improvements were made in the processes of production (Tylecote 1972; 1990).

(continued...)

the pre-Roman and post-Roman centuries much of the research effort has focused on metal pins and then often within the context of the finds from a particular site; for instance, Burley (1956) described the groups recovered from Traprain Law.[5] Bone pins have received special attention for the Roman period (e.g. Crummy 1979, 1983; Greep 1984, 1986, forthcoming) and some consideration for the early medieval/Viking period (e.g. Schwarz-Mackensen 1976). MacGregor (1985), in a widely praised study of the production of objects from bone or antler resources, provided a description of pin class groupings cutting across a range of periods; there are a number of strengths and weaknesses to this approach. For example, a vague definition of pin types might lead to the assumption that some types represent cultural continuity, as indeed was an implicit assumption in the work of Caple (1986) and Stevenson (1955). The causes of the similarity of form may be similarity of function, technological influences and/or material constraints. It need not be dependent upon continuity of manufacture. Other reports on bone pins from sites, such as Brough of Birsay (Orkney) (Curle 1982), Caerleon (Gwent) (Greep 1986) or Dover (Kent) (Philip 1981) are mere descriptions of individual objects. They are not investigations of the development of pins or studies of their use as chronological benchmarks, or cultural markers. Moreover, they do not offer definitions of specific types.

Most excavation reports include a reference, a description, and sometimes a depiction of a pin or two; it is this which has led to the large bibliography. Discussion in this chapter does not

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[4](...continued)
In the thirteenth and fourteenth centuries the pin-heads were hammered onto the shaft, but by the seventeenth century they were being stamped on. Some of the improvements reflected changes in the processes of wire drawing (Oddy 1977) while other shifts appear to have occurred in the methods of wire twisting and manufacturing of the heads (Caple 1983). Caple (1986: 6) proposed that these pins represent an end to the regionalization of pin material culture in England. I would suggest that the end to regionalization was a long-term process which, as we shall see, was well under way before the innovation of wound-wire headed pins. But he clearly is correct to see the homogeneity of this group. In the use of these pins it is easy to see that the function of pins changed. Whether this functional shift comes to reflect merely technological innovation or market-driven demand for a different type of pins is not possible to say at present. Manual production began to decline in the 1830s with the introduction of an automated pin making machine.

[5] Burley divided the pins into five classes:
Class I: ring headed (7 examples);
Class II: zoomorphic (8 examples);
Class III: beaded or rosette-headed (8 examples);
Class IV: proto-hand pins (3 examples);
Class V: miscellaneous and indeterminable (Burley 1956: 167-172).

focus on these individual presentations, nor does it detail previous research into clearly defined groups, as for example spiral-headed pins (e.g. Dunning 1936; Pretty 1972; Detsicas & Hawkes 1973; Welch 1976b) or disc-headed pins (e.g. Smith 1911; 1923; Clark 1942; Cramp 1964; Wilson 1964; Smallridge 1969; Bailey 1970). It also excludes very general introductions to Anglo-Saxon pins (e.g. de Baye 1893; Brown 1915; or Jessup 1950). These studies will be included in the discussion of the particular pin types in chapter 5. The present chapter examines the major studies of Roman and post-Roman pins in Britain to establish securely the historiographical and typological background of this thesis. The discussion begins with the Roman period. The discussion of the state of our knowledge about Roman pins is an essential background for the subsequent argument that there was no direct continuity in Britain between Roman forms and Anglo-Saxon forms.

2.ii. Roman Pins from Britannia

H.E.M. Cool, in a doctoral thesis presented in 1983 to the University of Wales at Cardiff, studied the typological development of Roman metal pins recovered, for the most part, from excavations in Southern Britain. Her discussion and typology rests on impressive primary research into surviving pins. Subsequently published excavations (e.g. Baldock (Herts) [Stead and Rigby 1986], Caerleon (Gwent) [Zienkiewicz 1986], Chichester [Down 1981], Dover [Philip 1981], Ilchester (Som) [Leach 1982], Lullingstone (Kent) [Meates 1987], Marshfield [Blockley 1985], to draw attention to only seven such sites) have vastly increased the corpus of securely dated material. This will eventually require some reconsideration of Roman pins, as these new finds alter some of Cool's spatial and chronological distributions, but this is hardly unexpected.[6] The new material has

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[6] Since Cool's study concentrated on Southern Britain her distribution maps give the impression that specific groups were confined to particular southern areas. In many cases this is not correct. Some of the groups which seem to display southern regionalization are known from northern Britain. Geographic distributions of material objects in Roman contexts often (and this is especially true for the last half of the first century AD) have a lot to do with the movements of military units. Many of the later distributions, and in particular those of the fourth century AD could also have been influenced by similar movements. Other distribution patterns, as she might have suggested, bear a relationship to regional market units. One element I found missing in her study was any evidence of whether the pin finds reflected or did not reflect regional market structures. We know, for example, that the New Forest pottery distribution expanded and contracted during the period between the first century AD and the end of the fourth century AD. Whether similar changes in exchange networks affected pin production and distribution remains unanswered.

not radically changed our knowledge of the kinds of pins known to have been made during the period. There are, however, two difficulties with the typology she created to explain the data she had collected. First, her classification is difficult to use in order to identify and date a newly found pin. Second, her classificatory schema can not be said to group pins in a way that replicates the way a maker saw the pins or a wearer (or even contemporary observer) perceived the objects (see chapter 3 for a discussion of the aims, methods and processes of typology).

> Cool based her analysis and groupings on the premise that
>
> a class, is a natural cluster of ornaments that are assumed to reflect the types and fashions which would have been recognizable to the Romano–British metalworker (1983: 43).

Any group should, therefore, represent an agglomeration of elements (i.e. head type, shaft type, length, etc) which would be perceived by the maker or wearer (or alternatively an observer) as a unique combination. By extension sub–groups should be composed of variations of the primary elements which do not generate a unique set of objects. These sub–groups should include pins which represent variation either on the primary motif or organizational adjustments to the relationship of non–structural and primarily decorative elements of the original design. Cool established a set of descriptive pigeonholes without assuring the independence of the slots (i.e. without ensuring that the categories were internally cohesive and mutually exclusive) and then she placed the pins into these slots. She classified Roman pins into twenty–seven primary groups; if a pin did not fit in any of the first twenty–seven groups then it could be placed in the twenty–eighth group. This later group by her own admission includes large numbers 'of one–off pins'. One–off pins may only be one–off because of the context of their recovery and not because they were produced only once. By grouping one–off pins as a single unit it is quite possible, on the one hand, to produce a misleading impression that they formed a group and on the other hand, to hide the material cultural diversity they represent. One of the great difficulties with typology is the fact that it fails to identify the importance of uniqueness. Most of the methods of differentiation struggle to find similarity where there is limited evidence of such. Cool's presentation might have benefited if she had let each of the unique individual pins appear as an individual, but to do this would have been to adopt a non–standard approach to the problem.

Before detailing the valuable conclusions reached by her thesis, let us consider two practical problems. These are typical of those which impair the study. Group VIII, which includes 'handpins',[7] groups pins with heads that 'resemble a hand with the thumb and first finger bent to hold a small spherical object...' (1983: 61).[8] She defined two sub-groups. Sub-group A which has 'a two dimensional appearance, with all the fingers other than the fourth being represented by a single block on which the details of the fingers have been marked by grooves' (ibid.).[9] Sub-group B is a true three dimensional representation of a hand; this group was widely distributed across the Empire and examples (and variants) have been recovered from Dura Europos to Caerleon. The former group, with one exception [Ehl, Rhine], is known only from Roman Britain. Surely these are not parallel sub-groups; certainly sub-group A is derived from sub-group B. Even sub-group B is not very homogeneous and could be further divided into multiple variants and sub-types. (It might, therefore, be more precise to say that one of these sub-groups provides the proto-type for the pins of sub-group A. In this case the available data had a hierarchical nature that could have been usefully captured in the typology.)

Group VIII should actually have been closely linked with the figure pins of Cool's Group XX. Von Gonzenbach's 1951 paper 'Zwei Typen figürlich verzierter Haarpfeile' makes this relationship clearly evident. Excavations at Vindonissa had produced two pins with a hand holding

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[7]This is a poor choice of nomenclature. The term 'handpin' has a long established pedigree. It almost always refers to a group of pins common from Northern Insular sites after circa fourth century AD. See, for instance, the sixth or seventh century Pictish example from the Norrie's Law Hoard (nr Largo, Fife) (Youngs 1989: item 8a [p. 27] & fig 8a) (National Museum of Scotland (Edinburgh), acc no: FC 30 & 31). Other examples include the pin from Gaulcross (Ley, Banffshire) (National Museum of Scotland (Edinburgh), acc no: L.1962.128), or those from Craigwarren Bog (Co. Antrim) (R.A. Smith 1923: 130 & fig 167) and Clogher (Co. Tyrone) (ibid. fig 168). While conventional opinion tends toward the sixth/seventh century dating, Lloyd Laing has argued that the Norrie's Law pins 'could belong to the late fourth or early fifth century' (1991: 41; Laing & Laing 1985: 263-264) a dating that he considers equally fits the Gaulcross pin (ibid. 42). The hoards do not, in Laing's opinion, include any items which might indicate a later date. The argument gains merit if the redating of the pictish symbols is correct (Laing & Laing 1985). A pictish symbol, 'z-rod' can be seen on the reverse of one Norrie's Law pins. The plaques, associated with the pins, are also adorned by symbols.

[8]This is not, as her next sentence indicates, always the case, but she seems to have missed the inconsistency between these two thoughts.

[9]Bushe-Fox (1914: fig 5.11) illustrates one such pin recovered during excavations he led at Wroxeter (Salop).

the bust of a woman.[10] While the meaning of the two pins may have been different, the maker conceived his tasks in a similar manner. This relationship suggests that groups VIII and XX belong in closer proximity and the relationship between the pins of both groups should be recorded.[11] I wonder if the study of Roman pins might have been aided by the application of bifraction techniques to generate proximal and dependency relationships between conceptually similar objects. For instance, representational pins might have been grouped into categories such as anthropomorphic, zoomorphic, or floramorphic. This anthropomorphic group would have been divided into human figures, hands, busts etc. It might be argued, as I do in Chapter 3, that this approach imposes an artificial hierarchical or tree structure on to data when such a structure might not have been originally present. It can be claimed, though, that structures of this kind make it easier to use the material culture model, and usually make it more rigorous. Alternatively she might have grouped them into clearly defined groups and reserved hierarchical relationships for the description of the relationship between a group and its sub-groups. In this instance this might have more closely approximated the reality of the data.

Let me draw attention to another difficulty. This problem involves the difficulty of giving precedence to one attribute rather than another. Group I includes pins with 'plain knob heads' whether they were made of bone, glass, jet or metal (ibid. 45). The group is divided into five sub-groups:

A. onion-shape-headed pins;
B. spherical-headed pins with a horizontal groove at the head-shank junction;
C. spherical-headed pins with a more vertical groove below the head;
D. conical-headed pins;

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[10]Vindonissa 4219 and Vindonissa 4221.

[11]Von Gonzenbach's research pointed to a large corpus of both pins with a hand holding a sphere (Cool VIII) and a hand holding a female bust (not discussed by Cool). He also noted a substantial group of female bust pins, which are similar to those described as belonging to Cool XX, sub-group B. There is a particularly beautiful gilt bronze bust pin from the temple area of Alise-Sainte-Reine (Gaillard de Sémainville 1983: 396). Not only do pins provide a great deal of information about variation in techniques of production, but the busts give details about changes in dress fashion and hairstyles. The contrast in all three areas can be seem by comparing the gilt bronze pin from Alise-Sainte-Reine with the bone pin from Escolives-Sainte-Camille (Inv. ESC 79 GS159 E356; Prost 1983: 277 - 288 (fig 7)). Stephen Greep details those known from Roman Britain. See a crude example from Caerleon (small find no: 1265) in Greep 1986 (201-202 & fig 43), or an example from Colchester (SF BUC 922) in Crummy 1983 (25-26 & fig 445).

E. pins with expanded shanks.

This grouping violates her classifactory rule that 'a class, is a natural cluster of ornaments that are assumed to reflect the types and fashions which would have been recognizable to the Romano-British metalworker' (1983: 43). Sub-group A which includes five pins is coherent and can be accepted. Sub-group B, she reports, is the only homogeneous group with all the pins being similar to each other in shape and size. But surely sub-group B is typologically dependent upon sub-group C; when she tested her typology by comparing the distribution patterns of the groups the narrower spatial and restricted temporal distribution of sub-group B should have indicated this fact (a relationship suggested by her distribution maps). It might have been more useful to have sub-group C as the parent of an additional group containing sub-group B or in the present system B should have been established as a variant of C. Sub-group C belonged to the period from the 2nd century to the fourth century AD and was widely distributed, whereas sub-group B belonged to an horizon of use confined to the late second century AD and was spatially restricted to Somerset, Dorset and Devon. Besides pointing up the problem of identifying and determining the relationship between sub-groups and variants this group also suggests there are problems associated with the selection of objects to put in the group. Most of the pins described as members of sub-group D, a sub-group defined to include pins with conical heads, do not have conical heads. Indeed, many of the published examples are quite biconical (e.g. Rogerson 1977: fig 57.31).[12]

There are other difficulties associated with the existence and characteristics of sub-group E. If the discriminating attribute of a group was what appeared to be distinctive to the Romano-British metal craftsman, surely expanded shanks represented a significant typological shift. The consistency of the swelling could hardly have been accidental. It must have resulted from a conscious decision on the part of the craftsman. Since this feature is not accidental it would need to be reflected in

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[12]The decision to group the biconical-headed pin in Rogerson (1977) fig 57.31 with Wheeler and Wheeler (1936) fig 46.61 seems acceptable. The claimed relationship, however, between these latter two examples and Down (1979) fig 45.15 and Rogerson (1977) fig 57.30 cannot be substantiated. Let us assume, for a moment, that there are actually several groups here: conical-headed pins (this group would have several dependent sub-groups) and biconical headed pins (likewise with dependent sub-groups). Sub-group A of Group XII really is a sub-group of this new biconical group (see diagram 2.1). Sub-group A of Group XII is a biconical-headed pin with three grooves arranged to form a triangle. Those biconical-headed pins with an additional circle just below the head would be a further sub-variant of sub-group A.

the typological structure – maybe a branching in any typological representation might have been appropriate. One might argue that the primacy of this feature and the fact that it crosses the boundaries of head forms would require particular head forms to be subordinate to this unifying element. The decision not to define a sub–group based on shaft swelling ought to have been justified. The importance of this feature should not be underestimated. Greep found this to be the case when he studied Roman bone pins (see below). Just as a change in the length represents a typological change to which, as we shall see, Roman head forms were subordinate, so surely sub–group E of group I cannot be either useful or precise in its present form. Since the presence of the attribute cuts across a number of types it might represent an independent group. The craftsman, as shall be argued, further below, would have no doubt considered decoration as secondary to form and function as a primary determinant of form. It might have been sensible to define a sub–group of swollen shaft for every type of pin incorporating this feature. This would have made it possible to test a variety of hypotheses about the typological and chronological horizon of this feature. This proposal provides a useful model to explain the Roman evidence. From an examination of the pins it is evident that between the first and third centuries as the shafts became shorter the heads became heavier. The form of the heads became more geometric. The decision to make pins with swelling shafts provided a unifying feature for a different group of pins with similar heads, but which had a structural modification to accommodate functional differences.

Two conclusions Cool drew are indisputable. First, pins from fourth century AD contexts tend to be shorter than those from first and second century AD contexts. Indeed, she found 92.5% of pins from first and second century contexts were longer than eighty millimetres and 80% of the fourth century pins were shorter (Cool 1983: 105). She proposed that this change in the length of the pins was related to a shift in hairstyles. Hairstyles of the first two centuries AD tended to be piled high on a woman's head necessitating the use of long pins. This style can be seen on a Flavian bone female bust–headed pin from Verulamium (Herts) [Insula XVII] (Frere 1984: 71 & fig

30.263).[13] Cemetery evidence across the Empire confirms the use by women of long pins to hold hair in place. The graves from the early Imperial cemetery of S. Marco di Castellabate near Paestum (Italy)[14] furnish one illustration. Eventually this hairstyle went out of fashion. Sculptures, coins, intaglios, funerary portraits, and manuscript illuminations show that hairstyles involving the securing of braided–long–hair close to the woman's head were quite common by the fourth century AD.[15] Long pins provided a less effective means of securing tighter hairstyles than multiple short pins. A grave was recovered in the Railway cemetery at York (N. Yorks) with the hair of the occupant held in place by nine jet pins all shorter than seventy millimetres (*Ebvracvm, Roman York* [1962], vol 1: 81). Other pins were probably used to secure a headdress of some kind. This may have been a *vitta* or headband. One such headband from grave 323, a child's burial, at Lankhills (nr Winchester) was held in place by a short copper alloy pin with a glass head (Clarke 1979: table 2[67] & 317). The pins from the Lankhills burials of the second half of the fourth century give good indication of the use and character of these shorter pins (ibid. 317).[16] The two globular headed pins from grave 326 which were recovered in conjunction with the skull may have been used either to secure the ends of braids or to fasten a head covering (ibid. 317).

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[13] See V. von Gonzenbach 1950/51: 3–19. Bone pins offer some evidence for these fashions and like coins and other small portable items may have acted to transport information about the latest fashions across the Empire. Parallels for these pins are distributed from Britain to Gaul (Gaillard de Sémainville 1983: 396) to Pannonia (Bíró 1987: figs 16.c & 17.80).

[14]This Roman cemetery of the first and second centuries AD is unpublished and in the care of the Museo Archeologico Nazionale di Paestum. The grave referred to here is grave 2. It is the grave of a woman who was buried with her hair piled high and held in place by pins. The grave was also furnished with a pair of earrings, three beads, pins, an oil lamp, a handled jug and a glass vessel. 105 burials were recovered from the cemetery.

[15]See, for instance, the sculpture of Poppea dating to about AD 380 in the Capitoline Museum (Roma) (Delbrueck 1933: Tafn 124 – 126). Her hair was braided and the braids fastened round her head. The sculpture of a woman possibly from the house of Constantine (Delbrueck 1933: Taf 71) in the Torlina Museum or the gems bearing busts of Helena (Delbrueck 1933: Taf 75.4 & Taf 75.6) are other similar examples. These trends in hair continued into the fifth and sixth centuries. Galla Placidia appears on coins with her hair braided and fastened closely to her head. The Virgins, in early sixth century church of S. Apollinare Nuovo (Ravenna) all had their hair closely fixed to their head. They all wear a *vitta* from which a loose long white veil flutters. (see below chapter 7).

[16]In grave 326 there were "two silver pins (407,408)...among the decayed remains of the skull, both with their head towards the head end of the grave" (table 2, page 69; fig 87). These pins had spherical heads. In the rich grave 100 two glass pins were among the three pins recovered, but these were not in association with the skeleton (table 2, page 37). There was a facet–headed silver example in grave 331 with four other pins of which two were complete. One has a glass bead head and another made in copper alloy has a pyramidal head (table 2, page 71). There was an iron pin recovered along with two bronze pins from grave 351 (table 2, page 75). The decorated bone pins from grave 276 (table 2, page 61) were found possibly left of skull.

Second, Cool also found that pre-third century AD pins tended to be more complex and more heavily decorated than those common during the last two centuries of Roman administration. The majority of fourth-century AD examples had, like the pins from the Lankhills cemetery, plain geometrically based heads. This includes pins with, for instance, spherical, conical and faceted heads. The diversity of pin forms from Colchester (Essex) is typical of the variance of forms common in the fourth century AD (Crummy 1983: 19-33).[17]

Both of the conclusions Cool drew from her study of metal pins have proved equally true of bone. Stephen Greep, who also worked on a thesis under Manning (at the University of Wales, Cardiff) in the early 1980s found that Roman bone pins changed over time and did so in the same way metal ones did. He also, but independently, noted the same crucial distinction of length and head type in bone pins that Cool had reported (Greep 1984). Greep was not the first researcher to notice this distinction, but as Greep has noted 'previous attempts at formulating a typology of bone pins have relied on local finds' (Greep, forthcoming). This statement characterized the work of Crummy in Colchester (1983) and Kenyon in Leicester (1948).

Five years earlier Nina Crummy, a small finds specialist at the Colchester Archaeological Unit, reported having discovered that

> on pins of types 1 and 2 the head is simply the thicker end of a gently tapering shaft, whereas on pins of types 3 to 6 the head stands proud of a shaft which is usually, though not invariably, swollen waisted (Crummy 1979: 157).

She described the typological distinction between pins common before AD c.200/250 and pins in use after this date. Greep has refined this distinction. Essentially pins of Crummy types 1 and 2 were common before AD c.200/250 and pins of types 3 to 6 were in use after that date. While Crummy's study covered most of the general kinds of Roman pins, Crummy, like Kenyon (1948) before her, had concentrated on a narrow geographic region. As Greep noted, site-specific typologies have the deficiency that they reflect the local nature of production and do not give us a full picture of cross-regional similarity and diversity (forthcoming). Without this picture it becomes impossible to

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[17]See also the worn faceted-headed pin with the taper shaft from Barrack Block 13 (1974) recovered at Housesteads (Nthmb). Housesteads Museum, acc no: H13/54. The pin is c. 40 mm long.

investigate the change in pins over time and space, to identify and examine local innovation, and to study the exchange of form and manufacturing techniques between various areas. It may be unfair to the work of Crummy and Kenyon to criticise it on the grounds that it is too localised, since they were, of course, developing their typologies with the aim of coping with the diversity they found in material recovered from local excavations. The work of Crummy did develop generalised typo-chronological groupings. These effectively allowed her to demonstrate that there were a limited range of Roman types and that these belonged within certain absolute time-bands. It must be agreed, therefore, that Crummy and Kenyon, to mention only two examples, successfully achieved the purpose for which they had developed these typological groupings. By taking a broader view of the material it should be possible to answer more general questions. Greep, whose own work has included a number of local studies (such as those for Caerleon and Canterbury) has addressed the issue with this much needed broader brush. He found bone pins to be quite common during the Roman period: 1179 from Colchester, 734 from Cirencester, 700 from Richborough, 560 from Wroxeter, 554 from Silchester, 508 from Canterbury and 486 from Leicester (1984: 313). Even his local studies have benefited from the Britannia-wide coverage he has adopted.

Greep identified two main groups of bone pins: type A and type B. He described pins of type A as having:

> a straight stem, tapering from the head to the point. The head is rarely larger than the stem which is normally oval or round in section. Only with types A9 and A10, those with carved busts and hands, are the heads consistently larger than the stems (ibid. 324).

Pins of type B had:

> a swelling stem. The swell is most normally at its greatest diameter mid-shaft, but may occasionally be quite high or low down... The heads are almost always larger than the stem. Occasionally the stem appears to taper or only a slight swell is discernable. In these cases, however, the size and type of head in relationship to the stem is the deciding factor (1984: 324).

Pins of type A were in use from circa AD 43 to between AD 200 and 250 after which they appear not to have been in use (1986: 197). 40% of the pins recovered from Roman Britain belong to this

earlier period.[18] Type B pins begin appearing in contexts dating between AD 150 and 200 and continue in use throughout the fourth century AD. Each of these main types were divided out into a series of sub-types and some of these sub-types were further divided into sub-groups.

Just as many of Cool's groups were, for instance, actually derived from other groups so are some of Greep's groups. His selection of the first two gross divisions is commendable, as are his division of Type A and Type B into ten basic sub-types. Many of his sub-groups are not directly derived from the parent, but are actually more directly dependent upon the development of a parallel sub-group. The distinctions which Crummy had made in seven primary groups is reduced therefore by Greep to only two. Type A includes the long fine pins and the 'well decorated pins with elaborate heads' (1984: 324); this type corresponds to the kinds of pins included in Crummy types 1,2 and 7. His type B pins includes Crummy's types 3-6 reworked into a more elaborate and more precise format.

The typological structure he proposed for bone pins could be applied to the Roman metal pins and it would thereby alleviate many of the objections which can be levelled at Cool's typology. As Greep was quick to point out 'more than any other type of bone object, pins may be compared closely with those in other materials such as bronze, jet, glass, silver and gold' (1984: 313). With the exception of a couple of types in common use during the migration and Viking periods I found this claim equally true for later periods as well.

The decision to examine pins by making a distinction between materials seems to be, at least for the Roman period, fraught with difficulties. It has resulted in multiple typologies which do not necessarily bear any resemblance to each other but that share common information. A common typological structure should have been applied to both the bone and metal data sets. This would have provided a useful tool for further study, but on reflection it ought to be conceded that it is only with the benefit of hindsight that we can make this proposal. It should be possible to map the metal groups onto the bone groups (or vice versa) and deviances apparent in the overlay should represent

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[18]While the percentage of extant total is an interesting guide it is probably misleading in the specific. It does not account for the same amount of time, for population change, for differential excavation and preservation, etc.

the effect of different material types on object production. Then it would be possible to investigate whether these divergences are a reflection of functional variation or structural variation in materials or other economic or social factors. The functional uses seem, if form is an indicator of function, to have been quite similar. Therefore, some common design and formal threads must have been present across the boundary of materials. Bone or skeletal forms in general tend to appear as less costly objects and may reflect the types which were being cast in metal. But this is not yet conclusively proven from the archaeological data for the Roman period. These bone types may have been used as models for moulds to cast copper alloy versions (Stevenson 1955: 285) and may actually have been available previously in 'test' form in bone. Some bone types, however, are not known from the period in metal. These tend to be the simplest and crudest of the bone groups. For instance, pins of Greep A1.1 have not been recovered in metal. Similarly certain forms which are known from the migration period only occur in bone. Schwarz–Mackensen (1976) records 11 types, of these 7 types have only been recovered in bone.

So, by AD 400 in Roman Britain, shorter, simpler pins with bulkier heads were common. These pins were less than eighty millimetres long, had predominately geometric heads (e.g. faceted cuboid, ball, conical etc), and the size of the head was larger than the diameter of the shaft. A survey of published Roman pins from continental sites and an examination in 1987 of the Roman pins in Italian museums (e.g. Museo Nazionale di Roma[19]) indicates that a similar state of affairs existed in much of the Western Empire. Prost for example, in 'Le Mobilier en Os Gallo–Romain d'Escolives–Sainte–Camille' discussed the examination of bone objects recovered during excavations at this site (1983: 263–299). He divided the pins recovered into 36 groups based on head type. To support his study Prost examined worked bone recovered from such nearby sites as Mâlain, Les Bolards, Alésia, and Vienne. The diversity of types of pins from Escolives–Sainte–Camille,

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[19]These include pins from the collections of the Museo Nazionale di Roma such as: acc no: **75311** [A copper alloy spherical headed pin with a tapering shaft. This pin is seventy–five millimetres long and its head has a diameter of nine millimetres.] acc no: **75312** [A copper alloy spherical headed pin with a tapering shaft. This pin is sixty millimetres long and its head has a diameter of nine millimetres.] Similar pins are those with acc nos: **75313, 75314, 75315, 75316**. acc nos: **65762** and **65769** are cast copper alloy pins with cuboid facetted heads and tapering shafts. The contexts of recovery for many of these pins is dubious at best. There is little doubt that they come from late Roman Italian sites and mostly from Rome.

however, proved uniquely rich, and regional comparative material could only be provided for a sub-set of the finds the site had produced.[20] The character of the material resembles finds from sites in Britannia with occupation debris belonging to the period between the 1st century AD and the end of the fourth century AD. There are, not surprisingly, some forms which are unknown from Roman Britain. For example, there are no parallels from Roman Britain for type 32, which has a head with a representation of a bull (Prost 1983: 277 & fig 6).[21] Although pin forms converge on a limited range of types unique examples still occasionally appear. In general, the picture provided by the finds from Escolives-Sainte-Camille's confirms suggestions that as we move into the fourth century AD Roman material has become homogeneous across the Empire.[22] These bone pins can be compared with metal pins that came from Vienne. Boucher reported that these pins were all less than eighty millimetres long and most were less than sixty millimetres. They all had round, cubic or polyhedral heads. He considered that these pins belonged to the fourth or fifth centuries AD (Boucher 1971: 196-7).

Pins of similar form are known from Italian sites. An undecorated silver pin seventy millimetres long with a cushion head and a round sectioned tapering shaft was recovered in the Esquiline Treasure (Shelton 1981: 92 [item 47] & Pl 47; Dalton 1901: item 234). This pin, which belongs to the fourth century, was probably deposited in the late fourth or early fifth century. The excavations at the Classis port in Ravenna, for instance, recovered a spherical-headed copper alloy pin which is fifty-two millimetres long and has a head diameter of nine millimetres (Montanari 1983: 185 & fig 16.8). These measurements are typical of late Roman pins and this copper alloy pin, like the undecorated silver pin from the Esquiline Treasure, could as readily have come from the Rhine frontier, Gaul or Britannia.

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[20]Bone is a material that readily gives itself over to the creation of unique types of pins. Bíró (1987: 182) found that manufactories in Brigetio while producing pins that belonged to Western Empire types also occasionally produced unique local types and one-off pins.

[21]Inv no: ESC 69 GS86 1.

[22]In a discussion of comparative Pannonian material Lanyi demonstrated that 4th century Roman pins from this region belonged to seventeen sub-groups (1972). Fourteen of these groups, containing the greater majority of the pins, I would argue belong to S. Greep's Type B (see Greep 1986). The kinds of pins most commonly recorded from Pannonian sites belonged to the group with spherical heads.

The fourth century forms continue in use unchanged in Italy into the early Middle Ages. From the Southern Italian site of Otranto, for instance, there is a yet unpublished copper alloy spherical headed pin not dissimilar to spherical headed pins from fourth century sites.[23] The pin was recovered with pottery dating between the end of the fifth century AD and the middle of the sixth century AD. Maybe the pin is residual, but maybe it is not. Pins of this type are certainly known from other later contexts. One was recovered during the excavation of a seventh century burial at Reggio Emilia in 1947 (Sturmann–Ciccone 1977: fig 3 & fig 20). Others are known from Brescia (Rizzini 1892: fig 7). Unfortunately, the nature of late Roman burial practices which generally precluded the use of grave goods and the earlier nature of Italian archaeology (which was more of site clearance and less of controlled excavation) has resulted in the loss of much cultural information and in particular led to the non–recovery of numerous classes of small finds. This homogeneity begins to disappear in the former provinces north of the Alps after the middle of the fifth century. In particular these Roman types probably ceased being used in Britain by the early fifth century. They are certainly unknown from all indisputably post–Roman archaeological contexts later than the mid–fifth century AD. Earlier researchers have claimed that these shorter pins do, however, continue to occur in other contexts and here we must look to the work of the Scottish scholar R.B.K. Stevenson.

2.iii. 'Scottish' Pins

Scottish pins have been a focus of study by scholars during the past thirty years and the work of Curle (1982), Foster (forthcoming), Laing (1973; 1975), and Stevenson (1955) is indispensable. There has recently been a great deal of debate about the precise dating of the post–Roman Scottish material. Establishing fixed chronological points in Scottish and Atlantic zone artefact typologies has so far proved difficult. The chronological framework of this material is important to understanding the Anglo–Saxon pins. In particular, the development of hipping (a marked swelling

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[23]Otranto, Small Find: SF 78.764. This find along with other later pins from the site were seen at the British School at Rome during my visit in 1987. David Whitehouse, pers comm.

of the shaft probably designed to help hold a pin in place) in the Scottish context might have an important bearing on the confluence of Northern material culture and Anglo-Saxon culture. Essentially, the precise dating of the development of hipping becomes important to efforts to explain its proliferation in Southern England. If Stevenson (1955) and Laing (1973; 1975) prove correct then hipping would appear to have been a Post-Roman Iron Age innovation in Scotland. This conclusion would have intriguing implications for the exchange of information in the seventh century AD. Stevenson, proposed that for Scotland:

> even such minor things as pins may illustrate the double continuity of native and Roman which confuses the Roman and post-Roman Iron Age (1955: 283).

He supported this claim by carefully analyzing the basic groups of pins found in Scotland: 'Roman' pins and native ones. His study identified two trends occurring in the Scottish material. First, there was clearly a 'native' tradition of pins. For example, ring-headed pins belonging initially to the pre-Roman Iron Age continued to be developed into the post-Roman Iron Age. Second, a tradition that may have been running parallel was the continued development of Roman types in the post-Roman period.

Stevenson held the notion that the majority of the sites producing his 'short Roman-type pins' belonged to the seventh century AD or later. But these pins seemed to show a strong 'Roman character' and he thought that this might indicate a continuity or developing Romanization in the post-Roman period. Yet there is no evidence to support Stevenson's implicit premise that there was a continuity of development from the Roman period onwards. Sally Foster, like other Scottish specialists, has argued that in many contexts the artefactual evidence shows a gap in the period between the late fifth century AD and the late seventh century AD (forthcoming). Even Stevenson noted that most of the contexts producing hipped pins at sites such as, those at Buston Crannog, Broch of Burrian (Orkney), and Broch of Burray (Orkney), could not date earlier than the seventh century AD. More recently, Hunter's excavations at Pool similarly demonstrated that the hipped pins belong to contexts dating later than AD 600 with the majority post-dating AD 700.

Laing, however, carried Stevenson's argument further claiming that:

> Present evidence points to the development of a number of early Christian metalwork types in Scotland out of Roman antecedents, which were transmitted to Ireland (1973: 53).

For some material culture such continuity seems likely (see for example Fowler 1963). But in the case of pins there seems little or no conclusive evidence to support such assumptions. Laing (1973; 1975) suggested that there was an indigenous development of Scottish material from Romano-British models. He defined 31 types, some of which he argued were really smaller versions of Roman types. Altogether it has to be said that Laing simplifies typology and his chronology is confusing. There is no doubt about the regional character of these 'Late Celtic' pins. Both the form and decorative motifs are uniquely different from those seen in the Anglo-Saxon material, but the two-century gap is difficult to bridge.

The occurrence of 'Roman-type pins' must not be seen as a continuity of Romanization. These forms represent a natural solution to a problem of design. The continuation of native types should not be perceived as evidence of any continuity in other artefactual spheres. Without further evidence, the mere typological similarity of these groups should not be taken as evidence of unbroken production. It appears that the tenuous threads suggested by Stevenson and argued for by Laing cannot be proven. Sally Foster in 'Pins, Combs and the Chronology of the Later Atlantic Iron Age Settlement' (forthcoming) has brought Stevenson's work into line with more recent scholarship. She concluded that 'an overview reveals that pins found in Atlantic IA contexts fall into four groups:

> A: definitely MIA forms, although not necessarily of local manufacture, for example decorated ring-heads (Simpson and Simpson 1968);
> B: Roman imports or Roman-style pins;
> C: MIA/LIA I, possibly LIA II, fashions which are often part of a general Irish Sea culture province (such as ring-headed or globular pins);
> D: LIA II fashions, short bone or metal pins (favouring forty to forty-nine millimetres length range, but usually < sixty-nine millimetres), commonly with hipped shaft.'

The shortcoming of this approach is that it prejudiced the interpretation of the data by using cultural and temporal labels to perform the classification.

It would have been more useful to describe the groups in terms of the forms of pins included. The claim of continuity is not the correct model. There can be little doubt that the Scottish material

which Stevenson examined is remarkable both in its homogeneity of form and its diversity of decoration.

The derivation of hipping is a problematic phenomenon. It becomes a more and more common feature of pins in the seventh century AD in Anglo–Saxon contexts, and continues in various forms as a functional feature into the tenth century AD on many types (see below). Curiously, it was not a technical modification to pin design widely exported outside the Hiberno–Saxon world. Roes first noted, in a 1963 study of *Bone and Antler Objects from Frisian Terp–mounds*, that although it was possible to point to several examples of bone pins from Birka with hipped shafts, these were rarities in Scandinavian contexts. These few examples probably arrived on the clothing of travellers. None of the pins she detailed two years later in *Vondsten van Dorestad* had a hipped shaft (1965). The former work is one of the earliest studies of worked bone from continental sources, and although it only sketched some broad outlines it indicated the diversity of skeletal material culture. The pins which Roes defined as belonging to the period between the seventh century AD and the twelfth century AD belonged a limited spectrum of types. This might be because they all came from finds present in the Frisian Museum and their presence in the Museum reflected differential selection. More general surveys and detailed analysis of specific sites might provide a different picture. With the exception of small hipped disc–headed pins (i.e. Roes 1965: Pl LIII, 15 & 16) and the ball–headed examples (i.e. Roes 1965: Pl LIII, 19, 21, 22) all the types described by Roes fall neatly under the umbrella of types which Schwarz–Mackensen's study defined (1976). Roes' work is, in part, superseded by this.

2.iv. Migration Period Pins

Studies of comparable detail to the work on Roman pins by Cool and Greep exist for some of the continental material. There have been numerous investigations of particular pin types, but limited success in establishing broad groupings. H.W. Böhme investigated pins from *Germanische Grabfunde des 4.bis 5. Jahrhunderts zwischen unterer Elbe und Loire*. Within these temporal and spatial restrictions Böhme defined four primary groups:

1. pins with spherical terminating shafts or mushroom heads;
2. pins with polyhedral heads;
3. pins with multiple knobs;
4. other pins.[24]

Crossing these crude divisions he proposed six sub–types. The first type has three variants and the others have only one. The Fécamp type includes pins between 120 – 240 millimetres long terminating in a spherical surface of no greater diameter than the shaft. These taper along their length and the upper zone is decorated by bead mouldings created by incisions into the shaft. The Wijster type is 140 – 265 millimetres long and terminates in a mushroom type head with a diameter more than double the size of the head. Type Muids, is not, as Böhme proposes, mushroom headed. It is instead biconical with a medial band. Type Tongern is acceptable as a group of multi–knobbed pins. The Vermand type includes pins with a ring holding a single lunate plate. Metal bangles dangle from wire rings attached to the lunate plate. Besides these groups Böhme reported that within his spatial and temporal zones were discovered a number of small pins with round or polyhedral heads found in groups of two or three in graves. These he assumes to be directly derived from late Roman forms within the Empire. With the exception of this latter group all the other groups are united by a single predominate characteristic: they range in sheer size between 120 and 240 millimetres. Following this there is a fairly consistent set of decorative motifs on them as well.[25] So there can be little doubt that Böhme has uncovered a tightly coupled complex of pins. The difficulties lie in his insistence on four classes; a blocking of six classes would seem to make more sense as it is difficult to see the coherence of the *Haarpfeile mit kugel– oder pilzförmigem Kopf* group. It would make more sense to divide this into three independent primary classes as the structural elements of the pins belie typological independence. The decision to split apart or lump together pins reflects different understandings of the material on the part of researchers. Furthermore this structure reflects the assumption that these pins existed in isolation. This is not so. Indeed the

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[24]Böhme had four primary categories: Haarpfeile mit kugel– oder pilzförmigem Kopf; Haarpfeile mit Polyederkopf; Haarpfeile mit mehreren Zierknöpfen; sonstige Haarnadeln (1972: 35–39). Within these he defined six secondary groups: Fécamp (AD 375+); Wijster (AD 400 – 450); Muids (AD 450); Tongern (fifth century AD); Cortrat (end of fourth century and beginning of the fifth century AD); Vermand (late fourth century to fifth century AD).

[25]The exception to this is the type Muids which has leaf decoration.

Fécamp type bears strongest links with groups found outside of the area studied by Böhme. Curiously in his diagrammatic presentation he accepts a broader divisional structure. The definition of these groups and the ability to see a coherence in dimensions and form provides a backdrop against which the early Anglo–Saxon pins can be set. Böhme has found typological divisions which capture persistent classes.

In a thesis prepared for the Albert–Ludwigs–Universität (Freiburg), Jutta Möller examined *Die Schmucknadeln der Merowingerzeit.* Her work was outstanding in displaying within one artefact type the diversity of material culture of the Merovingian world. In an analysis of 1100 pins from fifth– to seventh–century graves she identified ten groups of pins with dependent sub–groups and sub–variants. The typological structure works well and the pins group well. In this instance one example will suffice to show this. Group I consists of pins with a flat head plate. This is divided into four sub–groups some of which are divided into further variants. It is very simple to identify a pin using this approach and by making the identification a great deal of information is made apparent about the pins (i.e. date range, distribution and parallels).

In several instances rather than enumerate the variant forms she lumps them into a block group that becomes a catch–all for every stray pin which probably belongs to the main parent group, but not to the other defined sub–groups. In group I (Pins with flat ornamental heads) there is a sub–group I.D. This sub–group includes pins with head–plates of different shapes. In other words any flat ornamental headed pins that are not animal headed pins (I.A), pins with a discoid head–plate (I.B) or weapon–shaped headed pins (I.C) belong to this group. While this might appear a convenient means of closing out the typological group and catching all the strays a more organic approach that accounted for the diversity in production would have been one that held these in various sub–groups and allowed for the addition to the system of new sub–groups. This would have made the later group better reflect the formal design of the rest of the group. The rest of the group is fundamentally based around the criteria of flat ornamental heads. The next group down makes specific definitions of the head types. By defining each of the variants the diversity of production becomes apparent.

2.v. Scandinavian Pin Studies

The pre-eminent typological investigation of bone pins from the ninth and eleventh century was undertaken by Gesine Schwarz-Mackensen. Her study 'Die Knochennadeln von Haithabu' is founded on precisely defined typological units. These divisions are relatively easily validated. Schwarz-Mackensen identified 11 classes of worked bone pins from the excavations at Haithabu. These classes she found appeared at a range of sites from the same period in Northern Europe. For example, type 1 (pins with representational heads) sub-group 1 (pins with animal heads) has a further variant of pins with dragon heads. Close parallels to pins of this type found at Haithabu, occurred at 7 other sites as far a part as Birka/Sigtuna and York (Schwarz-Mackensen 1976: 19). The variation apparent in these bone groups from Scandinavian contexts is a change from the earlier metal and bone finds which do not carry similar diversity, but it is in keeping with the production of metal pins in Scandinavian contexts of the same period. The role material plays in the development of pin forms is evident. Schwarz-Mackensen's study may have been inspired in part by Jankuhn's earlier investigation of pins from Haithabu (1943). In this Jankuhn made the conscious decision to divide the pin types by material and then by formal characteristics. In the case of Haithabu this worked well because there is little overlap in form across material boundaries.

Most of the studies of pins have focused primarily on the pins themselves, but there is one notable exception. Waller's discussion of the 'Dress Pins' from Helgö examined both the extant objects and the finds of moulds. She classified the mould matrices first and then related these to the finds of pins from Scandinavia. Her study was based upon the investigation of 315 pin moulds including 412 matrices. The matrices incorporated evidence to allow the definition of 4 groups of pins:

I. head with almost triangular plate and protuberance;
II. head with polyhedron;
III. head with plate with convex upper edge and concave sides and cubical medial zone;
IV. head with almost square plate with rounded corners and sides converging downwards (Waller 1972: 30-39).

Group I, providing 85% of the examples, could be divided into eight variant sets (although mould fragments indicate a ninth group, the evidence is not secure). Group II, has six variants and 11%

of the examples recovered from the site belonged to this group. These appeared to be not only the dominant forms, but evidence would suggest that this was indicative of other patterns. In her study of pins in cremation graves Waller has put forward a revision of this structure (the examples are mine):

I. triangular plate and protuberance (e.g. triangular plate above biconical knob, Holmqvist, et.al. 1961: 115 [item 950] & Pl 38.8; Holmqvist, et.al. 1970: 165 (grave 43) & figs 80.1 & 80.2);
II. plate of other shape than triangular and protuberance (e.g. cuboid protuberance with superior loop, Holmqvist, et.al. 1970: 179 & figs 94.1 & 94.2);
III. polyhedron-headed (e.g. Holmqvist & Arrhenius 1964: 70 [item 2893] & Pl 32.7);
IV. triangular plate and polyhedron-knob below;
V. loop on a polyhedron-knob with a plate of shape other than triangular (e.g. trapezoidal-shaped plate with faceted knob, Holmqvist, et.al. 1961: 158 (items 828 & 860) & Pls 32.4 & 32.5) (Waller 1986: 145-6 & fig 1; see also pages 148-151).

Examination of information Waller collected about Scandinavian pins in general and the pins from Helgö in particular shows two primary groups which overlap in one instance. Each group is composed of sub-groups and variants.

Scandinavian Group I: Head with holed plate and protuberance;

Scandinavian Group II: Polyhedral headed pins.

Helgö group I is a sub-group of Scandinavian group I.

In contrast to many other studies, but in keeping with all the case studies described here, Waller's straightforward approach to classification was based on the grouping of material solely on visual principles. It proved quite effective. If there are limitations to the study these relate to the restricted way the Helgö pins are placed in the context of the Scandinavian pins. This is true from a spatial and temporal vantage. Waller collected a great deal of information and discussed the comparative material at length, but did not impart an explicit typological structure to her discussion. Also the place of these pins within the general framework of Scandinavian pins is in need of discussion. What is apparent is that at Helgö craftsmen were producing a unique type of Scandinavian Group I pins. This suggests a range of interesting evidence for regionalisation within homogeneous groups.

More recently Waller has examined pins from the graves at Birka (1984). In this collection of pins she has identified five groups. Whereas the variation in form across the groups of pins

identified in the moulds from Helgö was limited, the five groups from Birka display much internal diversity. Some of these can be seen among the latest finds from Helgö, although there is no evidence they were made at the site. They cover a range of complex forms. The group A pins have simple heads; group B pins have a head-plate with a hole in it below which was a cuboid, conical, or multiple knob zone; group C pins were obviously a development from group B. Group C pins had four main elements: a head-plate below which were three geometric zones before the beginning of the shaft. The zone just below the head plate is separated from an identical zone by a middle element that is either biconical or faceted (e.g. Holmqvist, et.al. 1961: 115 [item 2411] & Pl 28.1; 115 [item 1503] & Pl 28.2). Group D has three zones and begins to display abstract decorative motifs that give way to more decorative patterns. For example Bj 513 bears a face with a moustache following the line of a sloping mouth. Group E is more realistic, including pins with human faces, or in the case of Bj 414 one can see a four footed creature with its two forepaws on top of the human bust which terminates the shaft.

There is an interesting implication in the way she has laid out her five groups. It is possible to argue for a developmental progression that takes us from the pins of group A to those of group E. In demonstrating the existence of this linear development her typology has taken on an implicit chronological character. The form of the pins from the Birka graves clearly owes something to the forms of the Scandinavian group I pins. Further investigations of this material might focus on identifying the link between the Birka and Helgö material and its Scandinavian background.

Other researchers have covered types not discussed by Waller. Nerman examined Swedish pins with heads in the shape of birds from the epoch of migrations (1940). Fanning recently studied a ringed-pin from Ribe (1986). He has argued that this particular pin belonged to a type derived from Hiberno-Viking groups. I shall argue that this is not correct. This pin, like the many related types, reflects independent developments of earlier forms common on the continent and is unrelated to the Hiberno-Viking groups. This is to be contrasted with other work of Fanning investigating the ringed-pin finds from Haithabu (1988). In this work he draws together the evidence for ringed-pins stressing the Irish character of these Hiberno-Scandinavian groups. Graham-Campbell and

Thunmark–Nylen have detailed the ringed–pins from Birka (1984) and Petersen studied those from Norway.

2.vi. Celtic Studies

In 1922 Armstrong presented the results of his study of the 'Irish Bronze pins of the Christian period'. As a result of seeing the success Smith had had using typological methods to study Irish handpins, Armstrong set out to use the same methods to classify the then unstudied Irish material. At the outset it must be agreed that Armstrong made a fundamental contribution, even if with hindsight we might today find his work deficient in many areas. Armstong's task was all the more ambitious when we consider that when he set out on his research there was no point of guidance for him to set his course. He set out to study both the 'ring pins' and the stick pins and he succeeded in demonstrating the diversity of the material and in laying a foundation for subsequent research.

There are three problems with Armstrong's study. First, he included in his study both pins and objects which we would probably not now class as pins (i.e. brooches). We must concede the line between them is on occasion fine. The second difficulty is that his dating is often, even though general, incorrect. The third obstacle lies in the area of sequencing. Because typology was a relatively new discipline he did not have any rules that he could apply to determine the direction in which the sequences ran. This, combined with a lack of chronological evidence onto which he could peg either end of his typological evidence, left him to arbitrarily set the sequential direction of his material.

Reginald Smith examined the problem of the development of the hand–pin in the first decade of this century (1903–5 & 1913). This investigation was taken up again more recently by Lasairiona Duignan almost twenty years ago, but sadly her work has not been published. In an article describing 'A Hand–pin from Treanmacmurtagh Bog, Co. Sligo', Duignan discussed the typological framework she had developed as a result of her earlier examination of the corpus of hand–pins. She reported her conclusion that there were two significant features in terms of the development of the hand–pin:

> (i) the capping of beads (pellets) or fingers: this could be arcuate or horizontal. It can be shown that the number of fingers is devoid of chronological significance;
>
> (ii) the form of the plate, which may be (a) U–shaped; (b) semi–circular; (c) peltate (Duignan 1973: 220).

The study also resulted in Duignan's demonstrating that the presence or absence of a perforation in a semi–circular plate provided a significant typological marker.

C. O'Rahilly examined the stick pins from the excavations in Dublin (1962–1972). She identified 15 main groups of pins along with some associated sub–groups. Into these groups she placed the 532 pins which ÓRíordáin had found during his diggings at three sites: E43 – High Street; E71 – High Street; and E81 – Winetavern Street (1975: 2). She grouped the pins based on the form of the head. In addition to this primary criterion, she examined the secondary features of the head and decoration on the shank. While the secondary features were sufficient in several cases to produce sub–groups, the latter feature was not a sufficient criterion to justify the formation of groups (O'Rahilly 1975: 14). Her criteria proved satisfactory to produce a functional typology. The efficacy of her classification can be demonstrated by its reproducibility. Independently, and before having had the privilege to study O'Rahilly's MA thesis, Patrick Wallace gave me permission to study the pins from his excavations in St John's Street and Fishamble Street, while Michael Ryan arranged my access to pins from other Irish sites and specifically from Dublin in the National Museum of Ireland. My survey was intended to be solely for the purpose of comparison with the pins from Anglo–Saxon contexts. As such it was merely designed to give a coarse understanding. However, when I compared my preliminary groupings with O'Rahilly's work there was an overlap of interpretation. This indicated that O'Rahilly's work met the classification criterion of reproducibility. The deviations could be shown to reflect a conscious decision to lump together certain pins into one group rather than to split the group and create several smaller groups.

After successfully defining the classes, O'Rahilly proceeded to detail the chronology and typological development of the pins. Instead of seeing each group as independent she attempted to show an interdependence between the groups. This attempt to link the types into an artificial hierarchy was the least successful of her approaches to the material.

Fanning investigated bronze ringed pins as a part of research towards an MA at University College, Dublin. This work may become widely available now that I understand it has been expanded and submitted as a doctoral thesis. According to his report on these researches in a discussion of the 'Bronze Ringed Pins in the Limerick City Museum' two basic components were sufficient to account for the variation in the form of the pins. These were the ring and the head. He found six forms of the rings were common 'spiral,[26] plain, kidney, stirrup, rib and knob' but only four main head forms 'baluster, loop, polyhedral and crutch' were prevalent (1969: 6). More recently (1983a) he has noted the existence of a group of needle-headed pins. To classify the pins Fanning argued that the primary groups could be derived from the 'ring form and sub-divided, where necessary, according to their pin-head form' (1969: 6). His subsequent survey of 700 ringed pins from Irish contexts and sixty from Scottish contexts resulted in his identification of seven main groups (1983a):

1. spiral-ringed, baluster-headed;
2. spiral-ringed, loop-headed;
3: plain-ringed, loop headed;
4. plain-ringed, polyhedral-headed;
5. plain-ringed, baluster-headed;
6. kidney-ringed, polyhedral-headed;
7. stirrup-ringed, crutch-headed.

This is quite a straight forward approach and will result, no doubt, in a verifiable classification tool when it is finally published in full. At present we have only seen an initial statement of the system. An evaluation of his discussion of both the Limerick pins (1969) and the pins from Scottish sites (1983) demonstrates that the chronological evidence for the deposition dates of the pins maps well on to his typological structure. The measure of fit between the typological system and the chronological dates is a powerful tool for evaluating the suitability of a system. The second measure of a successful typology is the coherence in the distribution of the finds. Fanning's system seems to map well on to this evidence as well. The approach appears relatively easy to use to identify finds of new pins and robust enough to accommodate the identification of new types. In the case

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[26]This is the ring-type which Armstrong (1922-3) defined as 'double-ring' (75).

of the spiral–ringed pins we can argue about whether his dating of the types is accurate (see chapter 5). While his study has concentrated on observable morphological features his published discussions have not so far taken into account technological processes. Kelly (1986) in an examination of a group of pins from county Louth has attempted to fill this gap. His preliminary technological division needs to be related to Fanning's earlier work. Kelly argued that pins represented two kinds of manufacturing activity: casting and hammering (forging). The technological differences he showed were as significant in terms of the information that could be gleaned from the pins as the structural similarity between pins that were made by casting and those made by hammering.

2.vii. Anglo–Saxon Studies

Some of the earliest work on English pins was carried out by Addyman and Hill (1969) at Southampton. Although they did not develop a full typology they noticed many of the features of the pins which became the backbone of subsequent discussions. They identified the essential features of this Saxon group. Southampton is rich in finds of middle Saxon pins and subsequent investigation of the material was carried out by Parsons (1985). She examined the 159 pins from Hamwic excavations and produced a typological catalogue dependent upon head–form with sub–classes based on the presence or absence of collars and whether the shaft was hipped, swelled or unswelled. She derived seven basic categories of head–type: spherical (61); polyhedral (48); biconical (29); spiral (8); flat (including disc)(7); and, a miscellaneous group. These seven categories (A–G) were sub–typed by head decoration [(a–d), undecorated, wrythen, ring and dot, miscellaneous], collar type [(1–3) no collar, ring collar, wrythen collar] and by shaft type [(i–iii) unswelled, swelled, hipped]. Overall as a site specific study her effort was credible. The discussion is, however, very much an extension of the short study prepared by Paul Wilthew (1984) as a part of his technical analyses of the metal content of these pins. Previous studies of Anglo–Saxon pins have neither been as well developed nor as comprehensive as the studies of Roman material.

In 1986 Christopher Caple submitted a thesis at the University of Bradford: *An analytical appraisal of copper alloy pin production, 400 – 1600 AD: the development of the copper alloy, pin*

industry in Britain during the post-Roman period based on analytical, metallographic and typological examination. Unfortunately, this study includes numerous misconceptions about pins, Anglo-Saxon material culture, Roman continuity, typological method and the historiography of his subject. Whether similar errors were made in the process of scientific analysis and in the interpretation of these results has not yet been ascertained (see above I.iii.h). But, certainly, as shall be explained below, the limitations in the typological structure make it difficult to accept his conclusions about the technical aspects when applied to specific groups of pins.

Christopher Caple correctly noted that previous research had shown a bias towards the study of pins from Highland zones (1986: 73), a possibly excessive interest in ornate Anglo-Saxon groups, the weakness of the Celtic chronology and the plethora of Roman pins. It would have been helpful if he had explained that pins in the 'Highland Zones' have particularly diagnostic features and designs, belong to a narrow range of diagnostically distinct types, are the most common non-ceramic find category, and therefore represent an essential 'find-class' to understand. The earlier over-emphasis on the study of ornate Anglo-Saxon pins was in part a reflection of the context of their recovery (cemeteries) and the fact that these particular archaeological sources were exploited with greater vigour than other site types during the last two centuries. The ease of identifying ornate groups and the links which decorative motifs provided with objects belonging to other artefact groups probably contributed to fostering this investigatory bias. The less ornate pins came from settlement sites and only a few examples were known before the Second World War. Those examples published before the end of the war were recovered by Hume (1863) at Meols (Mersey) and by Peers at Whitby (N. Yorks) (Peers & Radford 1943). It was not, as might be implied by the lack of discussion, a reflection of any paucity of interest in the less- or non-decorated groups, but the fact that they were not common that lead scholars to concentrate on the classification of the easily understandable groups. There is a general weakness in the Celtic Chronology. With all the shortcomings of their individual work the chronological deficiencies do not lie in the work of Armstrong (1922-3), O'Rahilly (1975), or Duignan (1970; 1973). The weakness is in the absolute chronological framework of Celtic material culture, but this is not necessarily a reflection of poor

typological research or less than adequate relative chronology. For the period before the ninth century Celtic material is notoriously bereft of chronological benchmarks. Fowler lamented this state of affairs twenty-five years ago and not much has changed since (1964). Duignan could write in 1973 that

> Unfortunately, as is so often the case with ornamental metal work of the Early Christian period, the precise chronological implications of the typology are not as clear as might be wished. This is all the more unfortunate since no hand-pin has, as yet, been found in an unambiguously dated context (222).

Those working with the material are hardly to be criticised for the lack of absolute dating benchmarks. There are, though, some drawbacks to Duignan, O'Rahilly and in the work done by Armstrong over half a century ago, as we have seen above. Fanning (e.g. 1969; 1983a; 1983b) working on material from a later period has not been beset with these difficulties and has been able to place his material as we have seen in an acceptable chronological framework. So, while I have found reason to comment critically on the work of Armstrong, Duignan, Fanning and O'Rahilly, I do not consider Caple's criticisms of their work justifiable.

It would be fair to state that Caple's notions about the continuity of the Roman pin tradition are fascinating (1986: 75). They seem to be founded on the conception that the similarity in form represents continuity of production. As I suggest in the discussion of the work of Stevenson (see above) this is a fallacy. With the possible exception of Scotland and by extension some other areas of the Atlantic province, where the jury may be still outstanding, there is no evidence of direct continuity between Roman types of pins and similar types used during the Saxon period within the Anglo-Saxon world. Conceivably, Caple's thoughts on the subject were an extension of Stevenson's (1955) and Laing's (1973; 1975) interpretations of the Scottish material. But, while proposing and arguing for the continuity in highland zones (on possibly solid ground although we have disputed this above), Stevenson did not demonstrate similar continuity South of the remnant Wall. Indeed, he did not seek to demonstrate such a claim and there is no evidence to support this claim (e.g. see chapter 5 below for a discussion of the facet-headed pins that considers this problem).

More damaging to Caple's argument is the problem alluded to earlier: the lack of a single classificatory criterion. Using one is absolutely essential and neglecting to do so disastrous. Without a consistent and overarching classificatory criterion it is impossible to proceed in a uniform manner, to assure cross type independence, justify and verify cultural labels and to assure that other researchers understand and can reproduce similar sets of results from a study of the same material. He might, for instance, have defined his class by a combination of details about form and function and used form as a primary method for dividing pins into individual types or groups. Instead, he generated groups with what he considered a unifying idea but not necessarily one which clearly separated one group from another--a failure, in other words, to assure equidistance between types. He proposed groups such as 'general type', 'migration period pins', 'saxon pins', 'viking pins', 'ringed form headed pins', and 'ring-and-dot decorated pins' to mention only six of the types. Dunnell's criticism that a partial listing of the chapter headings from McGuire's 1899 publication on the *Pipes and Smoking Customs of the American Aborigines*, 'clearly reveals the unsystematic, and adhoc nature of McGuire's categorization' (1986: 155) applies equally to Caple. The Saxon Decorative Pin Group, a categorization based simply on the presence of decoration without regard to its character and type, includes in one group the Kegworth (Leics) and Birdoswald (Cumbria) pins, the Roundway Down (Wilts) and Cow Lowe (Derby) pins, the Sleaford (Lincs) and Wingham (Kent) pins, the bird headed pins, spiral headed pins, and globular headed pins. He might not have needed to aim at irreducible groups but merely meaningful groups. There can be little doubt that the maker of the Birdoswald and the Kegworth pin shared the same 'mental template' (or mode in Rouse's terminology [1960]) but it was hardly one shared with the maker of the Faversham bird-headed pin or the maker of the Wingham pin.[27] As we shall see in chapter 4 the methods of manufacture were radically different. Some of these pins belong to the seventh century AD, others to eighth century and still others span the period from the seventh to the tenth century. Some are the result of indigenous developments and still others were imported from the continent and were not Saxon

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[27]The claim becomes more outrageous when one considers that the Faversham pin is a Frankish import and the Wingham pin reflects Frisian jewellery production, although it is probably not an import.

at all. Some bear strong resemblance to pins belonging to other groups and bear only weak resemblance to pins of the group in which they were placed.

The presence of decoration is not a sufficient criteria on which to group pins. This has been long acknowledged in the literature, and yet it emerges as the primary categorization technique in Caple's study of a large group of ring– and–dot decorated pins with at least seven sub–groups. Most of these pins are merely decorated forms of his 'general type' pins. In this decoration might have been acceptably called upon to provide the basis for *varieties* of certain types, but it can hardly function as the *basis* of a type. It would seem obvious that a typological structure might usefully show a relationship between decorated examples and undecorated forms. The labels hide frightening conflicts between the groupings and conceal overlapping forms. The groups also lack category/type independence which requires that type definitions display internal cohesion and external exclusion (Cormack 1970: 322–323). Caple's 'general type' pins consist of pins with heads in a range of geometric shapes, which would be acceptable if he had incorporated all pins which had geometrically based forms in this group, but he does not do this. His group of saxon pins, for example, includes 'SP1' which is a pin with a geometrically shaped head. All in all there is a limit to the coherence of this analysis of the material.

Caple does say that he had not prepared 'a general typology. It was prepared solely to enable the author to better utilize the technical information they [pins] contained' (1986: 8) However, it cannot be over emphasized that the meaning researchers obtain from the aggregate technical information reflects how they have structured the objects under study.

> In a very general way we cannot find fault with Caple's conclusion that:
>
> Roman and Dark Age contexts produced a small number of relatively large pins, often decorative. The transition to the medieval period is marked by the use of a large number of relatively small pins of an essentially functional nature. This change resulted from changes in the style of dress. (Caple 1986: 566)

On a more specific level this assessment is deeply flawed: (a) it is only true for some of the period that the pins were 'large' (late Roman pins were certainly not 'large'); (b) it is not uncategorically true that many were decorated, as the use of decoration varies in time and space; (c) it certainly obscures the fact that a homogeneity of pins was present at least by the beginning of the eighth century; (d)

it reiterates the unproven relationships between early Saxon material and Roman material; and (e) it is not true that in the medieval period ornate pins ceased to be used, they merely ceased to be the most common (see below). On questions of typology and chronology his work is at its weakest, and his general conclusion has little to do with typology. He also asserts that:

> Roman and Dark Age pins were often cast in two piece moulds, often from leaded bronze. Brass and other copper alloys were also wrought, often from square or rectangular sectioned rods to form pins. (ibid. 568)

Again, in a most general way there is little that can be found in the evidence he collected to dispute this claim. However, there are two large groups of pins that he entirely neglects to consider in his discussion of manufacturing: one type which I argue below was common at the end of the fifth century and during the first half of the sixth and another group common during the seventh century that are just not covered in these discussions of manufacturing. The former group are those made from flat-strips of metal and the latter group includes pins made from composites of materials.

2.viii. Conclusions

These earlier studies provide two kinds of information. First, they provide the data about typological methods applied by earlier researchers and about rules that might have advantageously governed their research. Secondly, they provide evidence and arguments that help us to place Anglo-Saxon pins into the context of non-English pins and against a Roman background. Much of this earlier research has been unsuccessful at either selecting or utilizing viable typological methods. This is a reflection of the perennial weakness of typological theory and also the mistaken assumption in analysis of artefact groups that definition of methods is not necessary. Much of this earlier research was not problem oriented. That is, researchers began with the notion that they would develop a typology of pins without reference to the purpose for which they were undertaking the work. Simply, the careful re-examination of the material studied by earlier researchers with more rigorous methods would yield much new information and would probably foster a more comprehensive understanding of the material. The use of solely visual sorting of objects proves in general unsuccessful, although Jutta Waller did produce two extremely solid studies (1972; 1984;

1986) using these methods. It must be borne in mind, that in both instances, she was working with a data-set that displayed a narrow range of noticeable variation. In general though it is often difficult to successfully develop classifications using only an intuitive approach. It is evident that a structured approach must be applied to the analysis of the data. While one solution is to dash towards statistical sorting techniques this would probably prove too restrictive. A more powerful approach probably involves more detailed conceptual modelling of the data and development of data models. The use and application of data modelling techniques developed to solve problems in information technology may prove beneficial (such as those discussed by Chen 1976 or Date 1986).

Ultimately the major deficiency of all the studies is that they are not planned as organic systems. Each researcher seems to have concluded that he/she has identified all the types of pins which would be located within the temporal and spatial constraints of their research. This is true for some cases (e.g. pins from Birka graves), but there is little evidence that it is correct or accurate in general (e.g. for the Roman examples). Typological representations must not be closed systems because it is rare that the character of archaeological evidence is comprehensively known since it is derived from a universe of often undetermined dimensions. These systems must be easily modifiable and open to new additions of variations within types and among new types.

These earlier studies have given us a vast amount of details about particular pins. This information will offer the opportunity to compare Anglo-Saxon finds and to create a profile of indigenous pins and to identify those which were imported or are residual. The existence of residual pins unfortunately confuses some of the dating issues and may in some cases have caused confusion to typological study. The work of Cool and Greep has demonstrated that in the Roman period there was minimal variation in the types of pins made in different materials. The pins made in jet (Crummy 1981) are the most restricted sub-set of the types made during the period. This small set overlaps the bone and metal groups perfectly. Prost, Greep, Cool and our survey of the material in Italian museums confirms hypotheses about the homogeneity of late Roman pins. The evidence produced so far for the migration period by Böhme, shows six types to have been common in the fourth and fifth centuries AD between the Elbe and the Loire. These types, as we shall see, give

a backdrop for the early Saxon material. In Scandinavia from our earliest evidence we see a limited range of types. Over time there is an increase in diversity as can be seen by the find of a large number of bone types at Haithabu or metal variants from the graves at Birka. From the types of pins apparent at Helgö to those recovered from the Birka graves there is a remarkable change. At Birka, Jutta Waller, found five classes of head form. But the actual homogeneity of these groups is weak and these encapsulate a large amount of formal diversity. The richness of the plastic figure heads of Group E can be compared to the variation in the bone examples described by Schwarz-Mackensen. The growing diversity in the pins of the Scandinavian region during a period of blossoming homogeneity in the rest of Northern Europe raises questions about the causes of material culture variation.

The diversity of the Merovingian material described by Möller can only be compared to a similar diversity apparent in seventh-century AD England. While Möller's work gives a continental backdrop, the other studies of continental pins are quite limited. There is little or no evidence from settlement sites of the post-Merovingian period except from North Germany. This makes it, at present, impossible to compare Middle and Late Saxon pins with the continental material, or even to decide if any such comparisons would be valid.

The studies of the Anglo-Saxon pins have proved limited. The most important of these, Caple's investigation, has been shown to be unsatisfactory. From this vantage we can see how crucial a solid typological foundation is in order to place seven centuries of Anglo-Saxon pins into the context of Europe and to define the Anglo-Saxon character of the material.

Chapter 3

Re-thinking Typology: Designing Material Culture Models

> With all its faults typology, or the application of the principles of evolution to archaeology, has proved of immense service in determining the relative chronology of several groups of antiquities. It is sometimes said that this method has been worked to death, but I venture to think that in this country full use has not been made of this potent instrument of research. (Smith 1903–4: 344).

This chapter is divided into three parts. In the first I discuss the problems associated with typological research. In the second I explain how I undertook this typological study of the pins. The third section includes definitions of the terms used to discuss pins. These are essential, and form the basis for discussion in all subsequent chapters.

3.i. Typological Research

Archaeological study aims to understand and chart human behaviour and culture stability and change. This must be done from fragmentary evidence. Material culture is a primary source of archaeological data. To use artefacts as a data source it is often necessary to group material into sets including related material. These sets form the foundation for the identification of stability and variation across time and space. The first concern in this chapter is to explain how researchers can begin with material culture and proceed to develop a structured data–set that allows us to draw inferences about past human behaviour and culture. To begin it is necessary to define the processes of abstraction and analysis, and the requirement that the results of these processes be reproducible by other researchers. Some of these processes have been debated in the theoretical literature with varying success. The aim here is to use our experience with the practical application of data analysis to identify the processes involved in object analysis. As D.W. Read explained:

> Classification reduced to its minimum, consists of two basic interrelated operations: (1) the definition of classes and (2) the assignment of entities to classes (1989: 158).

Definitions such as this are by nature reductive. What has been obscured, here as in most other published discussions, is the 'process of typification'. The 'process' of research is in desperate need of definition.

On balance, it is fair to say, typological analysis is not fashionable: it remains a focus of theoretical study and the basis of practical research. Indicative of this lack of popularity is the attitude expressed by a Committee of the Society for Medieval Archaeology in 1987. They reported that it was the Society's consensus of opinion that:

> although good dating sequences are still urgently required, there has been too much mere classification and that all work on objects, from excavations or other sources, should concentrate upon deductions about society and the economy that may be made from them, and the technologies that produced them (Hinton 1987: 80).

Hodges and Moreland express a similar view, but do so more bluntly:

> To study the objects/sites for their own sake is to adopt an antiquarian approach, to study the objects/sites as data with which to analyse their content is to adopt a historian's approach (1988: 89).

Hardly is their room to disagree with the premise of either the Committee of the Society for Medieval Archaeology or of Hodges and Moreland that the goal of the study of artefacts ought to be 'deductions about society and the economy'. Before embarking on any study which would use the results of an analysis of artefacts as its base it is necessary to undertake a detailed examination of the material culture itself. For the results of this study to be useful for further work they must be based on a sound typological foundation. To meet the last requirement two issues must be addressed: what are the processes of typological analysis and how should they be applied. To focus, therefore, on the goal of the research at the expense of the process may not lead to a good data resource for drawing conclusions about society and economy.

Typological analysis is the structured arrangement of objects into homogeneous correlated groups – these groups are normally only related by a degree of 'family resemblance' and their grouping does not imply the existence of a hierarchical arrangement of the material. The term taxonomy describes the hierarchical of arrangement of entities. The activity of categorization of material involves a combination of hierarchical and relational classification methods. The main aim is to produce ordered and reproducible sets that can support the rapid identification of members of

groups of sets in general and members of individual sets or subsets in particular. While a typology will include many (even most) types it will never be complete. Any system must facilitate the incorporation of newly discovered types. As a secondary benefit typologies should provide meaningful information about an object when it is identified as a member of a particular type. That is, a corollary benefit of knowing a particular pin is a member of a specific group is to know something about how it compares with other pins, its probable spatial distribution and temporal position. In other words, typology is first a descriptive tool and only at a second stage forms the basis for drawing 'deductions about society and the economy'.

Arriving at a typological structure involves the resolution of conflicts. The first such conflict is between the theoretical methods and the practical techniques. This divides archaeologists into two groups of researchers as well; those who struggle to find ways of doing and those who do. As Adams explained:

> Where once we had successful but rather inarticulate field practitioners trying to find words to describe what they were doing, we now have sophisticated theoreticians trying to find ways of doing what they are saying... (Adams 1988:41.)

A survey of typological work shows that often theory and practice are unrelated (Dunnell 1986: 150). Obviously this situation is neither beneficial nor productive. Archaeologists need a typological method which accommodates both practical issues and theoretical tools.

Two major factors govern the success of typological methods. The first factor is practicality: methods must be easy to use and succinctly defined. The second factor is purpose: the purpose of the structured ordering should set the agenda for both theory and practice. Practical and theoretical work must respect meta-guidelines (i.e. 'common sense') which provide the basic fabric for research. These rules are no different from the standard rules supporting research in other disciplines. It is the definition of these terms of reference which is lacking, but should be the first focus of research. Efforts should be focused on a general definition of the methods of classification.

3.i.a. The Typological Process

Adams pointed out in his 'Archaeological Classification: theory versus practice', that typology is a process of synthesis and analysis. Unfortunately he failed to define the process. I shall make an attempt to fill this void.

The practical approaches and theoretical tools should not define the process of analysis and synthesis. As Rouse, explained in his now classic article on 'The Classification of Artifacts in Archaeology',

> Classification, like statistics, is not an end in itself, but a technique by means of which to attain specified objectives, and so it must be varied with the objective (1960: 313).

Theory must provide the tools, but not set the agenda. In a series of metallurgical tests, for example, the experiments and equipment used to determine the metal content of an object do not define the process of analysis, although certain rules may govern the use of equipment and the interpretation of results. The tests are selected as a part of an over-arching application of a systematic scientific strategy. The strategy is defined by rules of scientific method. Scientific research is, like good butchery or good car repair, carried out by the application of a set of structured methods. There is in all these disciplines an allowable margin of error. Such error must be restricted within defined boundaries, but from discipline to discipline the types and amount of acceptable error varies. These boundaries may also vary over time as a discipline develops and becomes more rigorous in its achievable expectations.

Any discussion of process must consider the critical place of creativity and intellectual discovery. These activities, which result in original ideas, do not in and of themselves result in the establishment of verified facts. The validity of a hypothesis must be tested by the application of rigorous methods. An archaeologist might notice a relationship between certain material culture in East Anglia and Scandinavia, but until the evidence is closely examined and the connection demonstrated the link can only be described as a notion worthy of study. Once the evidence showing the correlation is presented it can be stated as fact.

When I began studying pins there was no single source which provided a concise description of the methods of typology. There is literature on the characteristics of a typology (e.g. Krieger on types [1944]; Rouse 1939 & 1960 on 'modes') and there are also a number of detailed studies of tools or approaches to classification (Spaulding 1953; Whallon 1972; Kampsville seminar [Brown & Whallon 1982]). The restricted character of these sources, however, indicated that it was necessary for me to articulate my research procedure. In so doing it is hoped to advance our understanding of the process of typological research.

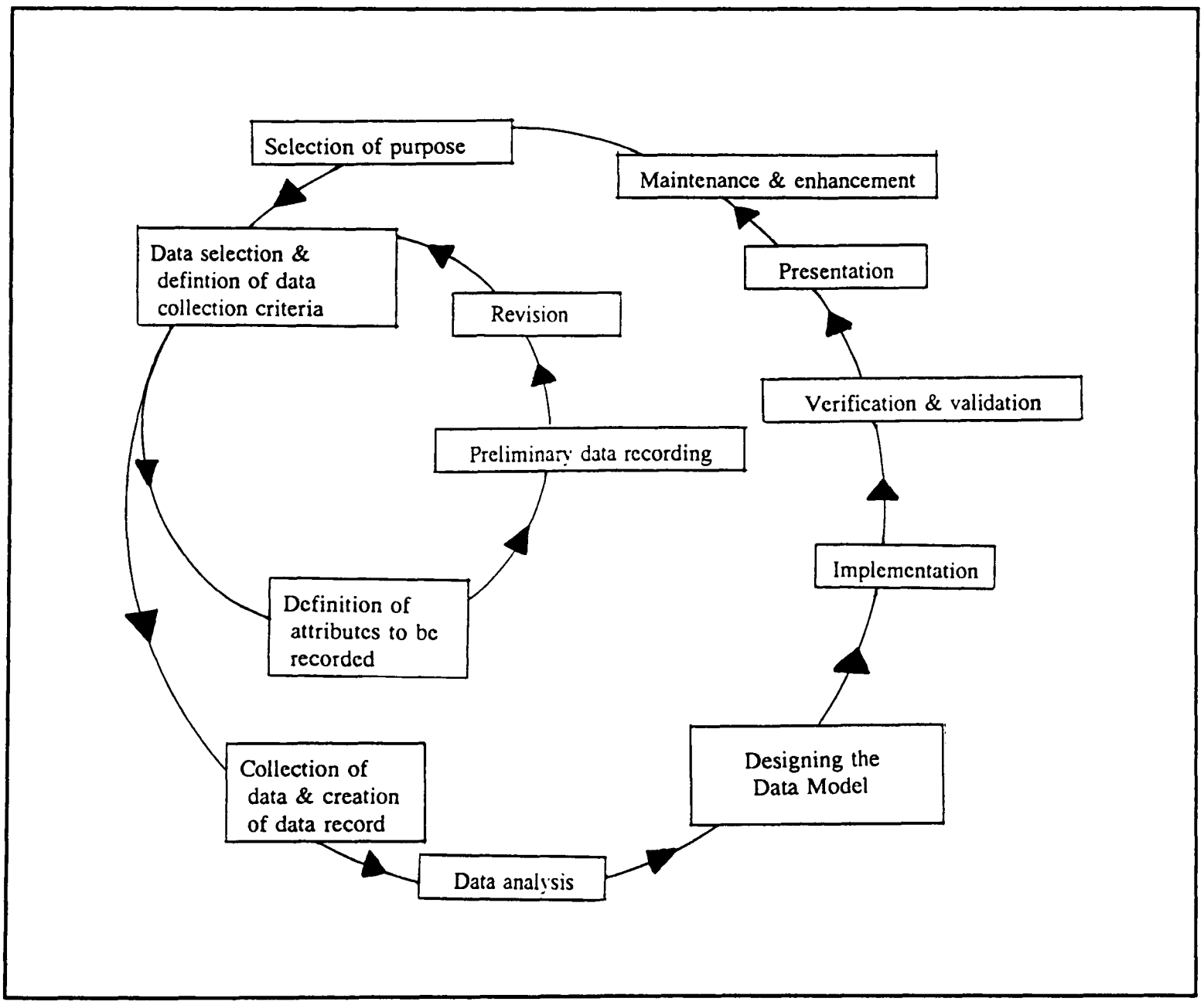

Diagram 3.1: *Typological Research Method* – Data Structure Pathway.

The first requirement was to define the process, determine the structure of the analytic system, and articulate the characteristics that would be required of a system in the process of verifying and validating it against the data-set. As I monitored my research I found that it progressed through twelve stages. These twelve steps represent the phases of the life-cycle of typological study (Diagram 3.1) and are described as the *Typological Research Method (TRM)*:

1. Selection of purpose – definition of the goals of the study and articulation of criteria for choosing the specific material;

2. data selection and definition of the data collection criteria;

3. definition of the attributes to be recorded about each object examined;

4. preliminary data recording – the investigation of a sample set of data to develop some familiarity with the material and to test whether the researcher is recording sufficient information;

5. revision of the boundaries of the data to be collected and redefinition of the attributes being recorded and the redefinition of the acceptable standards of recording;

6. the collection of data and creation of a detailed record of the evidence;

7. analysis of the data;

8. designing of a typological model of the data;

9. implementation of the model by adding members to the sets of data (i.e. groups or types);

10. verification and validation of the model;

11. presentation of the model in a form which makes it possible for others to use it;

12. typological maintenance and enhancement.

The majority of published research into typology concentrates on the topic of analysis (Stage 7). This is only a small part of typological research and the results of analysis are heavily dependent upon what data was collected and how that data was collected. In the past, certain activities have been completely overlooked in the literature, for instance discussion of the problems of verifying and validating typological models has been entirely neglected and the problems associated with the enhancement and maintenance of typological work after the construction of the initial system have

not been considered – analysis of the way additions to other typologies are made suggests that this is frequently done in an ad hoc way. I must stress the iterative character of such research – merely collecting the detailed attributes–value tables for the object and processing these is not sufficient to arrive at meaningful sets. We have noted that there must be in the initial stage a great deal of reassessment of the attributes collected and even then at the end of the study it is possible to conclude that an additional attribute might have been useful – for example I concluded that knowing something about the weight of pins would have provided some information about the world of production that I had overlooked.

'Classification is not', according to Adams, 'intrinsically a scientific process' (1988:51). This is incorrect. Indeed it is based on a notion of science generally rejected by philosophers of science and scientists. Actually classification is very science–like, as I have suggested. We have seen that the systematic classification of material follows a definable step–by–step process, a process which compares favourably with methods accepted in other sciences. The process of classification must be testable (stage 10). To meet this goal it must be possible to verify that the model accounts for the data. We could test a typology in several ways: (1) adding new members to the classes; (2) performing spatial distribution validation tests; and, (3) carrying out temporal distribution tests. It is possible to test a classification against a control data–set to see if it covers the represented phenomena. It can be further tested against the criterion of reproducibility which tests whether given the same purpose another worker, with a small margin of error, arrives at the same conclusion. On this criteria, I would argue, Cool's classification of Roman pins (1983) (see chapter 2 above) fails, whereas the system proposed by O'Rahilly (1975) for Irish pins or Greep (1984) for Roman pins would both pass successfully. This basic premise of classification, that another researcher looking at the same data ought to arrive at similar conclusions, has often been neglected, although it is not a new claim (see Taylor 1948: 129–130).

3.i.b. Objectivity and Intuitive Data Analysis

I propose that the use of 'intuitive data' analysis methods provides the most suitable means of arriving at types. These methods are often considered to be less than objective. They are, however, as objective as other methods one might propose. If we first examine the meaning of 'objectivity' and then the role of statistical analysis in archaeology this claim becomes self-evident.

Everything about data analysis is biased to some degree. Denying this claim tends to obscure the causes of subjectivity and impart illusory characteristics to the results of research. Where does objectivity lie ? A range of factors make complete objectivity an unachievable goal and researchers can only strive towards *proximal objectivity*. *Proximal objectivity* is the closeness to the standard measure of objectivity achieved by the researcher. A standard measure of objectivity might be: do or would other researchers evaluating the same material and undertaking its analysis consider that biased or suspect methods were used to arrive at the reported result. Some research methods achieve results nearer the target of 'pure objective analysis' than others do. The measure of what is an objective result varies from time to time, place to place, and situation to situation. Every attempt at objective analyses requires that the researcher limit the factors causing subjectivity. This, first, requires the skill to identify the possible factors and second the ability to define them so that they can be avoided or accounted for in any analysis. Baises include the background and training of the researcher, previous research on the topic, and available data sources, to mention only three influences. What a researcher must strive after is a formal statement of the relationships among data, but this formal statement should not overlook hunches. The primary difficulty is that before creating the formal statement describing the data it is necessary to analyze it. To do this it is necessary to select a suitable approach.

3.i.b.1. Statistical Approaches

Statistical techniques have often been proposed as one method for doing 'objective' analysis. The claims to objectivity made for these approaches are unfounded. What is more troubling is that statistical techniques give to the result of analyses the illusion of objectivity. Spaulding in 1953

heralded statistical methods as a useful tool for 'extracting information of cultural significance from archaeological data' (305). He thought that it was possible for these tools to group material into types. We were promised replicable and objective solutions to the problem of analyzing data-sets. Subsequently, the statistical paradigm has taken hold in archaeology (Aldenderfer 1987). One of the major problems with the statistical approach is that it cloaks scholarship in the illusory gown of objectivity by hiding in its folds all of the subjective decisions. The causes of loss of objectivity to statistics are: (1) data selection and collection; (2) attribute selection; (3) assigning values to attributes; (4) statistical test selection; and, (5) the interpretation of results. If we were to select randomly a set of attributes and subject this material to a statistical test we might easily arrive at a different arrangement of the material from that achieved by a different kind of sorting. This is not to suggest that statistical tests do not have uses, but merely to establish that they cannot lay claim to providing objective methods. They certainly do not give us the only mechanism to meet the demand for formalism within archaeological research. This view was elaborated by Read in his analysis of the nature of 'Intuitive Typology and Automatic Classification':

> Numerical taxonomy procedures take as their beginning point morphological similarity and dissimilarity. The argument given here is that morphological similarity is the consequence of, not the basis for, class and class structure definition. If so, numerical procedures provide at best a foundation for inductive inference, not deductive determination, of classes and class structure. This is a far cry from their original promise of providing an objective, replicable means for producing basic units. In retrospect, it is not surprising that a methodology which ignores the processes by which data are structured should fail to provide the fundamental groups...It would be quite remarkable if one had such a procedure. (1989: 183-4).

This is not to suggest that the use of formal methods should be entirely avoided, but might indicate that, as I argue in the conclusion, their role should not be in the first stage of classification. Statistics must also not be perceived as the best formal method for typological research.

3.i.b.2. Archaeological Bias

Archaeologists' bias their classification at a number of different stages. Beck and Jones (1989) identified three primary points at which bias could be introduced:

> (1) the explicitness of attribute and class definitions being applied; (2) differences in the perception of analysts; (3) changes in an analyst's perception over time. (ibid. 245)

Each of these was a problem that I confronted in the process of undertaking this classification of pins. The problem of definition was critical. Even explicit definitions did not overcome the fact that as my understanding of the material changed so did the way I defined the groups and the data that I had chosen to collect. Returning at the end of my study to the material I examined at the very beginning I could see many things that had gone unnoticed initially. Although I had sought to look at the material in a careful and impartial manner, my vision was not complete from the first. Careful study led to a growth in how I perceived. The types of definitions developed at the initial stage were not those used at the end. The use of explicit definitions, although necessary, can not be considered sufficient.

Much of the concentration on the search for objectivity is focused on the stage of data analysis, but, as we pointed out in the introduction, this is a late stage. The earlier stages of attribute selection and data recording demand objectivity and this is just the stage where subjective decisions are most likely to be unconsciously made – the choice of attributes, the choice of data, the assigning of values to attributes in the examination of a particular object all involve the taking of subjective decisions. Definitions of the attributes and explanations of the criteria that need to be present for a definition to apply have the beneficial result that they make the arguments easy to follow. As Beck and Jones note: 'Even apparently explicit definitions can only aid objectivity so far; differences in individual perception must be recognized and either eliminated or the level of variance accurately estimated' (ibid. 245). By also providing rules of governing the application of definitions it is possible to decrease the variance caused by ambiguity in meaning and perception.

Archaeological studies are further biased in that the terminology and categories used to classify material often have little resemblance to the terms which were used by contemporary observers to classify material. Researchers must distinguish between internal and external classifications. So while analysts may arrive at a plausible classification it is difficult to say whether it bears any resemblance to historic reality. It seems worthy to reconsider the advantages of intuitive methods.

3.i.b.3. Intuitive Classification

A case therefore can be made in support of intuitive methods of classification on the theory of *proximal objectivity*. The premise is that intuitive methods allow the researcher to derive the categorization from an understanding of the material, rather than impose a grouping upon the material as might be done using tools of statistical analysis.

In an effort to reinstate intuitive methods after these methods suffered decades of criticism by the 'quantitative school', Read identified four benefits inherent in intuitive techniques. These were that intuitive classification (1) allowed for 'sensitivity to subtle patterning', (2) accounted 'for varying relationships between local and global properties', (3) provided a means by which 'quantitative and qualitative aspects can be considered simultaneously', and (4) they were responsive to the evolving understanding of the material (1989: 164–5). These were all requirements to be met by a typological method, but were not addressed by quantitative techniques alone. Read argued that while these advantages commended intuitive methods to the researcher, these methods were deficient in areas of replicability and verification. I have suggested there is little truth in this claim. As I argued above a successful typology will be verified by the fact that it works and should be replicable by another researcher. But these are less than formal measures. What Read was looking for was a formal method that presented the data in a way that would make replicability inherent in its presentation and verification possible. It is a problem to identify the rules governing replicability. We have indicated that it ought to be sufficient for subsequent researchers to arrive at a similar model. Other standards might apply. In the conclusion (see section 8.iv) I shall suggest that there are formal methods, other than quantitative methods, that meet this need, and could be widely adopted in archaeology.

Intuitive classification is based upon the premise that repeated study of objects combined with an understanding of the culture which made them allows you to get inside the mind of the maker and identify the categories that contemporary makers and users had for material culture. In any study of a material culture we must assume that there is a norm against which all artefact makers were working. In pin making the pinner, therefore, knew whether he had achieved success against

the norm or not. In the process of building the typology the range of surviving and acknowledged variation functions as the boundaries of the group. These should equate with variation in form seen and accepted in the maker's world. Binford has argued that this search for types with boundaries of the kind restricting prehistoric/historic normative scales is little more than 'paleopsychology' (1967: 234). This is not the case at all. Within some types the identifiable variation defines a class so tightly that there can be no doubt of the normative scale against which the craftsman worked – the Kingston disc–headed type pins are a case in point **(Type L)**. In her ethnographic study of Pueblo Indians in North America in the 1920s Bunzel reported a similar phenomenon (1929). She found potters compared their work against type standards. The acceptability of the pot being measured by the form falling within a range of 'correct forms' and variability was only accepted by makers and contemporaries within these constraints (1929: 86–87). These forms were socially determined. Irving Rouse came to the same conclusion in his 1939 study of *Prehistory in Haiti* and reported later that by:

> the term 'mode' is meant any standard, concept, or custom which governs the behaviour of artisans or a community, which they hand down from generation to generation, and which may spread from community to community over considerable distances (1960: 313).

He proposed that classificatory types ought to cover the range of forms contemporaries held to be acceptable for a specific artefact type – his term 'mode'. A classification must at the end of the day be measured against this result. These 'modes' are therefore the basis of classification and morphological similarity and dissimilarity are, as Read has noted, the consequence of this (1989).

3.i.c. Characteristics of a Typology

Using methods, such as **TRM**, the researcher may arrive at a classification reflecting good research practice, but this will not mean that the system will be functional. A measure of a typology, in common with other tools, is its usefulness. The attribute of usefulness can be assessed against a series of benchmarks. These require that for a typology to be successful it will be:

1. easy to apply;
2. rigorous;

3. meaningful, in our case this means that it needs to closely represent the way Anglo-Saxons viewed the material;
4. functional;
5. replicable by other researchers;
6. extendable;
7. beneficial – provide a benefit beyond the mere grouping of recovered material into pigeonholes (i.e. those who use the typology can gain information of use to further research [e.g. chronological/spatial data]).

Even given these characteristics it must be noted that most studies of typology are terminologically opaque. Much of this difficulty could be avoided by the definition of terms. From among the studies of pins discussed in Chapter 2, Möller's (1976a) investigation of Merovingian pins and Fanning's (e.g. 1989; 1986; 1983a; 1969) work on northern European ringed-pins are examples of two systems which pass all seven tests.

3.i.d. Entities, Attributes, Values

A comparison between pins and language is instructive because pins, like language, have a controlling grammar. The pin, as a surviving artefact, conveys a visual message to the viewer (or researcher). The message is made of individual signals organized according to syntactical rules. The individual elements represent the vocabulary or 'message elements', and the rules governing form are the syntax and the whole object conveys the message. Pins are composed of independent elements. These elements were selected by the maker from a repertoire of forms. The pinner combined the elements in a conscious effort to make pins of a form falling within the range of accepted forms (e.g. Bunzel 1929; Rouse 1939). This can be extended to argue that the rules governing the combinations of elements reflected a contemporary grammar of pins. The problem in classification is to identify the elements used by the makers and to employ these to group the pins. From the groups it ought to be possible to identify the rules governing construction. We have chosen a model of a database and have equated pins with the concept of entities. An entity is a real world object. Pots, pins,

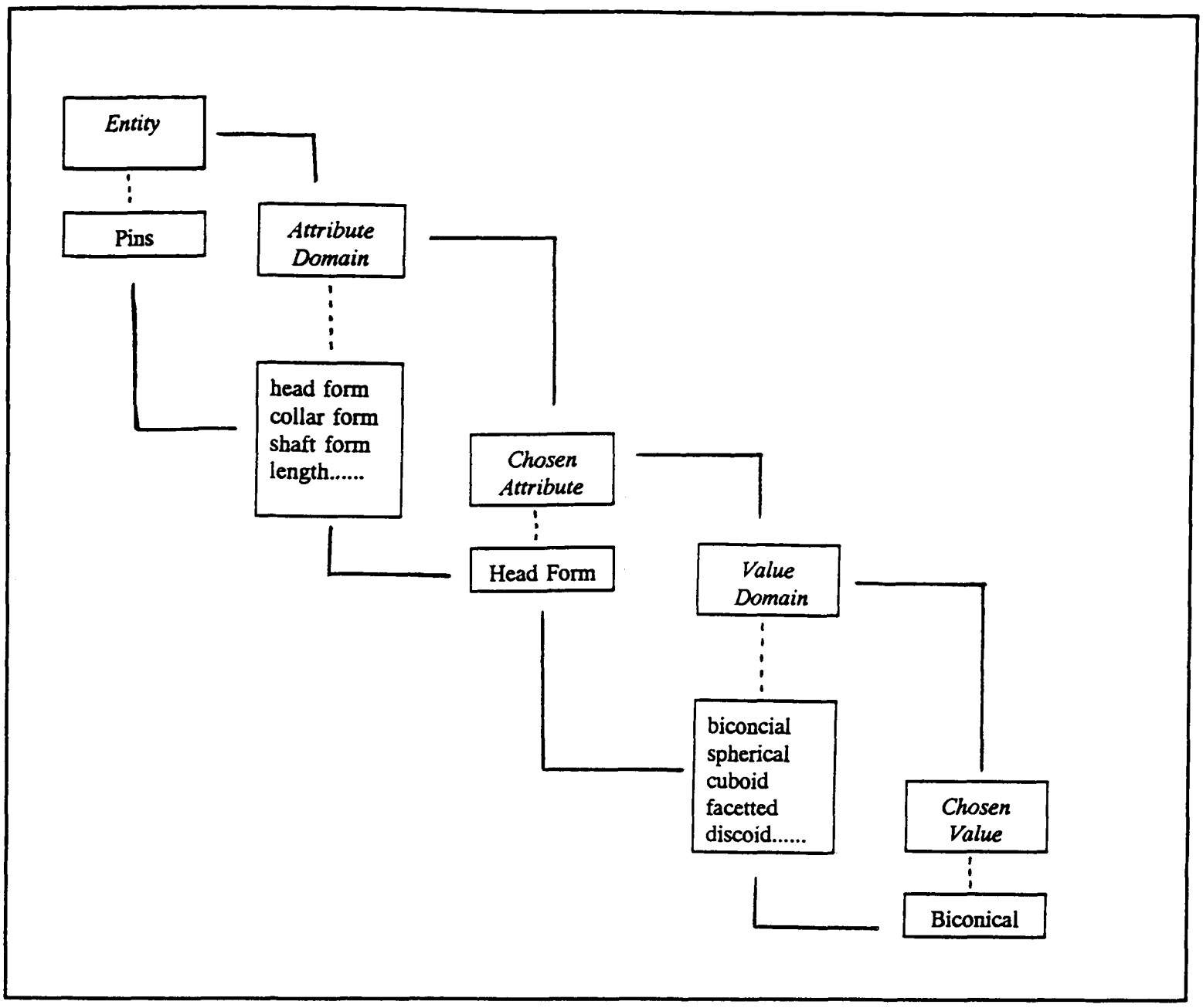

Diagram 3.2: Entity–Attribute–Value Schematic.

buildings, and contexts are all entities. These entities are composed of a combination of attributes (e.g. shaft form, head form); types of information held about an entity. The attributes take on values such as (e.g. swelled, biconical). Attributes of entities must belong to a pre–specified domain as must values, although in the initial stages of research it is likely that this set is not defined. The domain associated with an attribute might be one or more of the following: the dimension of the element length might be defined as having the range of values 1 – 500 mm or head type might be restricted to the domain of terms similar to: biconical, spherical, faceted, etc. The attribute domain includes the meaningful values an attribute may hold. Basically we move from the element to the domain of an element to the attribute to attribute domain to the type and finally to the class (Diagram 3.2).

All attributes may be relevant, but not all attributes are significant. In the case of pins we can divide attribute types into two categories: intrinsic and contextual attributes. The intrinsic

attributes are essential to classify objects as pins in general, but to determine function (e.g. to differentiate between hair–pins and dress–pins) contextual attributes are essential. Some attribute combinations or values may be unintentional and exhibited in only one specimen of a type. If an attribute which does not conform to the attribute domain of the particular type is present the researcher must ask whether the maker intentionally incorporated it to make the pin an individual or whether its presence is attributable to accident.

3.i.e. Definition of Attribute Selection

Any classification of artefacts results from the researcher's conscious choice among attributes on which to construct the grouping. The researcher selects to collect details about particular attributes and chooses to ignore others. The decisions made at the initial recording and description phase shape the rest of the study. Malmer argued that there were five kinds of attributes internal to an object:

a. decorative elements;

b. material/compositional elements – copper alloy, tin, zinc;

c. dimensional elements – length, width, weight;

d. elements of form – or surface topography;

e. technical elements (1963: 257).

Each of these attribute types can be broken into a variety of levels. The selection and use of attribute sets or specific levels is closely related to the purpose of the typology. For instance, in this study of pins I used information from all five element sets. Certain element sets and different levels of information were significant to achieving my purpose. Rouse would distribute Malmer's attributes into two categories: those that had a conceptual control over the maker and those that influenced his procedures, these he called procedural modes. Into the first group we shall place Malmer's a–d and into the second e. This division is not clear cut since certain aspects of form could only be produced by the craftsman carrying out specific procedures.

There are probably some general rules which must govern the selection of attributes. I would venture to suggest that they must be natural, must have been meaningful to the maker and should have been meaningful to the observer. It would probably be pointless to attempt to create a typology of pins based upon randomly selected criteria. In essence, the researcher develops a vocabulary and grammar to detail the material under study. One would hope that this vocabulary and grammar would closely parallel that used by the contemporary manufacturers.

3.i.f. Types, Classes, or Groups

Pins with unique attribute combinations are categorized into types. Definitions of types form boundaries of sets that allow us to describe particular objects as being members of the set. In general Spaulding's (1953) definition of the type is acceptable to most others (Krieger 1944; Adams 1988). Spaulding proposed:

> the artifact type is here viewed as a group of artifacts exhibiting a consistent assemblage of attributes whose combined proportions give a characteristic pattern (1953: 305).

But this is not a sufficient definition because it only tells us what a type is but does not provide us with the characteristics to be expected of an 'acceptable type'.

Adams basing his work on Krieger (1944), Rouse (1960; 1939) and others, argued that the categories must have six characteristics:

1. rigid boundaries;
2. comprehensiveness;
3. mutual exclusiveness;
4. equality of units;
5. equidistance of units;
6. independence of units (1988).

Few of the typological systems discussed in chapter 2 can be shown to meet all or even most of these criteria. Greep (1984; 1986) and Fanning (e.g. 1988; 1983a; 1969) are probably two studies that satisfy all six requirements.

These types can be viewed merely as a place holders for members, the objects which have the properties required to belong to the specific type. To describe a class of vessels a researcher might start from the basic definition that vessels share the general property that they hold things. Every sub-class of vessel must share this property to be a member of the sub-class. So in our class of pins every pin belongs to the parent class 'pin' and therefore must have the attribute of being a pin - what a philosopher might call 'having pin-ness'.

An example of a type is the Kingston type disc-headed pins. In this instance all pins to be included as members of this group share certain properties. They must have a discoidal head. This head must be under four millimetres in diameter, less than three millimetres thick, the shaft diameter must be between 1.75 mm and 2.5 mm. The surviving complete examples range in length between thirty millimetres and sixty-five millimetres. This description should satisfy Malmer's requirement of precision in type definition. The attributes selected appear to be those most capable of directly allowing us to create boundaries for the group. They are intrinsic to the group, being properties of the object itself. With this definition new finds of pins can be tested to see if they are members of the group by asking questions of their general character.

3.i.g. Recording of Information

After selecting the attributes to record it is essential to define the standards and methods of recording them. In the 1960s and 1970s recording information was undertaken by using data coding. This was required by the limitations of computer systems then used to handle the data. Such approaches are no longer necessary. Now, it is feasible to record textual information. This means that we can note a value assigned to the head-type attribute not as 759 but by a natural language reference (say, facet-headed). This is more easily understood. After determining the recording method, we need to ask about the standards to which information will be recorded. The first issue that arises in the recording process is that of terminological ambiguity.

3.i.g.1. Terminological Definition

Investigators regularly note that the terms used in archaeological classification are poorly defined. This has frequently led to the introduction of ambiguities and logical inconsistencies into the data recording process. Terms must have bounded meanings so that they are applied only when a set of restricted conditions are met. Terms such as short or long, must be avoided because they have meaning only by comparison against a nominal scale of measurement. This does not mean that ordinal scales of measurement are necessarily any more meaningful. Indeed much of the meaning must come from comparison against the known scale and this is what ordinal scales of measurement offer. Similarly we have pointed out that the values of attributes belong to defined sets and these need to be described. The conclusion, must be that, the terminology, or vocabulary, must be clearly defined.

3.i.h. Constraints on classification

Besides archaeological bias, there are other factors influencing classification. These I have termed 'classification constraints' and they include the classifier's past–experience, the purpose and intention that underlies the activity, and the scope and results of previous research on the data. These elements influence the final data structure. Furthermore, the entire process, is shaped by a researcher's criteria for selection. For instance, one of the first questions to be asked of our Anglo–Saxon material was whether 'type of material' was a primary criterion for classification. Classification according to material type was problematic because survival levels of scarce materials such as gold and silver make them a low proportion of the total corpus and we do not know whether the low proportion is an accurate reflection of historic levels. Using form as a primary classification attribute appears more successful. Method of production also proves a credible classification criterion. There were four main methods in use during our period (casting, forging [worked wrought rod], rolling, and strip–drawing). However, as is explained in chapter 4, composite production was common (a pin is composed of various different elements added to a base form). This raises the question of whether we should include composite production as a primary process? In other words, was the addition of such decorative elements as filigree and garnets a process of adornment

analogous to punching of ring–and–dot decoration on to a cast pin, or was it more analogous to the actual decision making process that went on in the making of the mould and so constitutive of an independent classificatory type? The latter hypothesis has been favoured.

Obviously a significant constraint on all this is the conceptual aspect. What an archaeologist conceives as an important classificatory criterion may not have been significant either to the maker or to the wearer. Makers of objects operate in conventional frameworks. Particular pin forms persisted for long periods in the absence of innovation, external influences, conceptual shifts, or functional requirements for change. Some changes will be functionally driven and others will be information driven. The functionally driven changes are those which occur when a shift in the uses of objects forces an adaption of form. Information driven change is caused by availability of external ideas and their adoption. As we shall see below, some changes are both information driven and functionally driven.

3.i.i. Process of typification

There are two basic methods of typification. The first is top–down and the second is bottom–up. In the former approach a researcher begins within the premise that a 'group of entities' (e.g. a group of pins) forms a bounded set. Then the researcher attempts to select and define characteristics shared by the material and to determine whether objects/entities proposed as members of the group have the required attributes. In this approach the set becomes equivalent with the type.

In the second approach the investigator starts with the objects and proceeds to describe the component elements. The elements are then grouped into attributes and the attributes subsequently grouped into restricted sets. These are shared component types that carry meaning. This method causes a greater number of characteristics of an object to be detailed, but it does not necessarily result in better classification. The classification process must account for causes of variation such as function, technology, material and artistic input – those items listed by Malmer.

3.i.j. Hierarchy in Classification

Hierarchy normally refers to a taxonomic structure of sets (Kronenfeld 1985). A common assumption is that from a *first* Anglo-Saxon pin we ought to derive all pins. This is a myth. Attempts, such as that of O'Rahilly (1975), to create such a developmental sequence have so far proved unsuccessful. What we can do is to define discrete types of pins. These groups can be split into sub-groups and further into variants and in some cases sub-variants. The main groups are not necessarily taxonomically related; they merely share 'family resemblance'. That is, all the types clearly belong to the family of pins. Some types are more central than others, but they do not all share a hierarchal relationship. The hierarchy is found only within the types/groups themselves.

3.ii. Process Applied Here

This investigation was governed by the rules and concepts described in the preceding sections. We must stress that the form in which I present this typology reflects the result of iterative development and not the forcing of data to fit conceptual categories. I redefined the type structure and the questions I asked of the data until I arrived at structures that I could demonstrate reflected the material before us. Essentially the process of analysis is intuitive and mainly visual, but by modelling the result of the analysis I was able to validate and verify the results.

3.ii.a. Methods of Division

In some cases the archaeological evidence points to some pins being, so to speak, one-off items. That is, we have at present archaeological evidence for only one or possibly two occurrences of the pins (pins with hour-glass heads [Wallingford] or pins like the example from Wingham [Kent]). One wonders whether it would be wise to group these within a miscellaneous category or whether they should be enumerated individually. I argued in reference to the work of Cool on Roman pins that the lumping of individual types into an artificial category obscures the character of the evidence. It obscures the otherness of the objects, by suggesting that otherness is a criterion for creating similarity. In other words otherness falsely becomes a feature in the attribute matrix. This

individuality may result from a large number of factors. For instance, it may derive from the regional character of the find, the present distribution of excavation work, or it may reflect the idiosyncrasies of the maker or patron or it may reflect contemporary style or the need for status indicators. The latter argument will be called upon to explain the diversity of seventh-century types. On the experience of studying the seventh-century evidence it indicates the significance of recording all pins in 'natural groups' and not hiding them under artificial groupings as for example, floramorphic or anthropomorphic forms.

In this study I have grouped pins on the basis of the visual message they convey. Each object has been broken down, like a sentence, into its constituent parts. Similar combinations of forms and constructions, using identical vocabularies have been grouped together, unique constructions have been formed into independent types. A unique construction would include pins formed following accepted rules of construction, but might use a non-standard or individual vocabulary. A consequence of this method is that pins which might be described by a single umbrella term are grouped separately. However, the main shortcoming of the single umbrella term is it tends to group pins into similar groups without respect to vocabulary and syntax of their construction. The umbrella term or general category method might use conceptual categories for grouping such as, geometric, floramorphic, zoomorphic, anthropomorphic. These are artificial categories as they represent a descriptive word applied to form a catchment for a block of material.

The approach is exemplified in the following manner: the zoomorphic category might have included a sub-group of bird-headed pins. Into this sub-group all pins with heads resembling a bird would be grouped. So the Faversham flat-plate bird-headed pin (**XXXII**), the Sibertswold bird-headed pin (**LVII**), the Bifrons bird-headed pin (**XXXVI**), the Moulded-bird headed pins (**XXXVII**), and the Dover bird-headed pin (**XLI**) would all belong to one group. The advantages of this approach are immediately apparent: it eases the process of identification. Liabilities, however, appear to outweigh the benefits.

The major objection to the approach is that it applies a modern interpretation to the material. Each of these pins represents the vocabulary and syntax current at the time they were produced. As a set of vocabulary it is drawn not by comparison, necessarily, with other bird-headed pins. The

Faversham bird-headed pin has little common with the Bifrons bird-headed pin, beyond the fact that both heads appear to resemble birds. Indeed the Faversham pin reflects a continental production of composite objects whereas the Bifrons bird-headed pin was cast in Style II. So rather than apply artificial conceptual categories to the data I have chosen to seek out the intrinsic categories.

3.ii.b. The Process of Typological Analysis

This thesis is centred on the structured approach to the organization of information about artefacts. As I explained in the previous section the development of a typology is founded upon the ordered construction of a typological scaffolding. *To build this scaffolding I started with the features of the objects themselves* and worked backwards to define the boxes which could hold the specific pins - i.e. I defined the types or groups and then inserted the members into the group and checked the resulting member-sets to see if the groups 'made sense'. We began with a bottom up approach.

The groups are therefore defined in the following manner. Those characteristics which apply to the group as a whole are defined first, and those which apply to each sub-group second. The system is constructed in such a way that one can assume that the properties used to define the parent group belong to the sub-group, those which belong to the sub-group and the parent group also belong to the variant and the sub-variant. This idea is founded around the concept of inheritance. The concept as used here is borrowed from the field of information management in computing called expert systems. As such it is possible to define the properties of a pin as applicable to all groups, and to know that the properties held to be true for every higher level are true for every dependency.

There are several functions which result from this definition. It eliminates redundancy from the classification. It is, in other words, only necessary to define attributes at the highest level they can be applied. So all members of set A have properties X and all members of sub-set A(1), have properties X and characteristics Y and so forth.

In some instances the use of a different set of attributes would have led us to a different pattern of classification. For instance, although in the following section the classification is done based upon internal features of the object, it would be possible to consider an alternative method of classification based upon the technology of manufacture. Indeed this proved to be such an important

distinction that the pins themselves which are discussed initially as part of one classification scheme are redefined using the method of manufacture as the criterion in Chapter 6. This redefinition demonstrates how methods for making pins compare to the other methods of manufacturing which were used during the period and allows us to see the transition within the craft.

3.ii.c. The Role of Decoration

The significance of decoration within these groups of pins varies. In some instances the form was designed with the plane for decoration paramount in the mind of the maker. In other words the medium reflected the decorative plans. This is particularly true of group of Witham type disc-headed pins, or of the group of the Roundway Down type linked pins. In general, however, for most Saxon pins decoration was secondary and often applied to pins without regard to their form.

As well as considering decorative forms we shall also investigate the method of execution of the decoration. In our material four methods are common. The maker either incised, punched, applied or cast the decoration. In certain cases decoration influenced the form of the object. In the composite group of pins this kind of symbiotic relationship between form and decoration is most evident. The form was designed to hold the decoration, This accommodation of form to decoration also seems to have characterized groups like the Witham disc-headed pins.

The role played by decoration varies, as do the rules for classifying a feature as decoration. Facet-headed pins could be described in some schema as cuboid or rectangle-headed pins decorated by facets. We have chosen not to do this here, but rather to define the faceting as a primary feature, and to consider the addition of dots or ring-and-dots as embellishments of the primary form.

3.iii. Components of Anglo-Saxon Pins

This section concerns the components of Anglo-Saxon pins. Its first aim is to introduce the reader to the features of Anglo-Saxon pins and its second goal is to define a terminology we can use to discuss the material. These tasks have not been relegated to a glossary because this matrix of descriptive terms is central to any understanding of the material before us. In the 'Introduction' an extensive list of attributes used to describe the pins was set out. Many of these attributes are useful to allow us to distinguish between sub-groups, variants and sub-variants but are not essential for the first level division of pins.

In describing a pin an important record is a dimensional one, although it is not necessarily the primary attribute of typification. The length of the pin, the diameter (or width and length) of its head, and the diameter of the shaft, are the primary features. Emphasis is placed on dimensional categories because they offer a standard data category.

3.iii.a. Measurement

A number of different types of measurements can be taken from pins. These include length, shaft diameter, head diameter (or width, thickness, height), ring diameter and collar diameter. In many cases several measurements may prove useful. This is particularly true in the case of shafts. For pins with a round-sectioned tapering shaft it is probably sufficient to take only one or perhaps two measurements (say, ten millimetres below the junction of the head and the shaft and between five and seven millimetres above the tip). Two measurements might not be sufficient to define the character of the shaft of other pins. If the shaft were hipped, shouldered, or swollen, two measurements would fail to record the distinction between the swelling and the rest of the shaft. For some pins, therefore, it is necessary to measure the shaft at three points. So, in addition to the two positions mentioned it is useful to measure the point of maximum shaft swelling or hipping. Pins with shouldered portions can be

usefully recorded with a measurement just above the shouldering and a measurement at the maximum point of shouldering.[1]

The length of some pins is more critical than head-type or shaft-type in discriminating between groups. Anglo-Saxon pins can be divided into two main ranges of length: those measuring longer than 80 ± 10 mm and those measuring less than 80 ± 10 mm. The variation of ± 10 mm may seem statistically significant but practically it is not. The reasons will become clear.

3.iii.b. Technological Categories

Chapter 4 addresses many of the questions and examines the processes associated with pin production. Here, however, it is necessary only to note briefly the main methods used to manufacture pins. I have identified five methods of manufacturing pins:

1. Casting – these pins were produced in a mould from molten metal;
2. Rolling – these were pins were made from sheet metal which was rolled;
3. Forging or hammering – this term refers to pins produced by hammering into shape a pin from a blank or from a metal rod;
4. Composite – these were constructed from a number of different materials, and their production involved a range of techniques. They, therefore can be best described as composites;
5. Drawing – these pins were produced from drawn wire.

Methods 2,3,4, and 5 can each be demonstrated to have been pre-eminent during a specific time frame. It might be argued that they each characterize a particular social structure of manufacturing. Casting was used throughout our period although sometimes with greater frequency than at others.

3.iii.c. Head forms

The form of the head is the most significant attribute used in the classification of pins. Since

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[1]The importance of shaft diameter was not an immediate conclusion and therefore we do not have these measurements for all the pins in our sample.

head types are the base criterion for pin classification they are described in chapter 5 in greater detail. It should be noted that the heads of pins can consist of primary and secondary forms. The primary form might be biconical, spherical, cuboid, or rectangular. Facet-headed pins might secondarily be cuboid or rectangular, while biconical-headed pins might be secondarily medial banded.

3.iii.d. Types of head-plates (figure 3.1)

Above the top knob some pins have a flat plate or ring. In many cases this plate has a thin

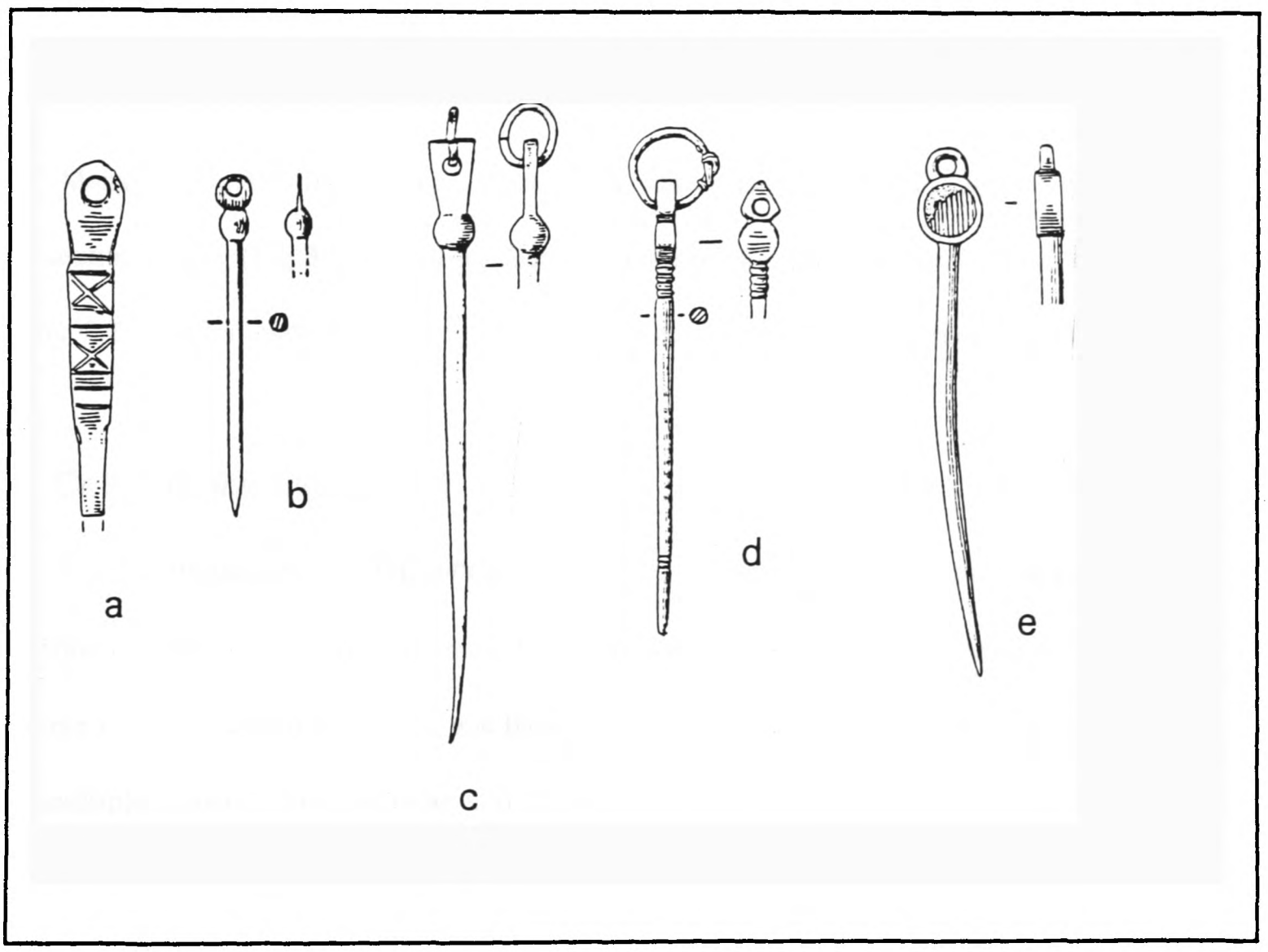

Figure 3.1: Kinds of Head-plates.

rectangular section and usually has a curved (Fig 3.1.a), circular (Fig 3.1.b), trapezoidal (Fig 3.1.c), or pyramidal/triangular (Fig 3.1.d) outline. The main exceptions are those with a round eyelet since these terminate in a circular sectioned loop (Fig 3.1.e).

3.iii.e. Types of Rings (figure 3.2)

There are two basic types of rings: those that only swing and those that swivel and swing (Fig 3.2.a). The former rings are either fitted to the shaft by small tenons (Fig 3.2.b) and are not rings at all, or they have a notch and a narrower zone that passes through the head. These notches (or pinched zone) prevent the ring from sliding through the head of the pin (Fig 3.2.c). The only allowable motion is for it to swing back and forth. The type of head and how the ring is to be fitted to it influences the choice of ring and in a few rare instances the type of ring is the result of fashion. A critical third distinction between groups can be made by an analysis of how the ring relates to the plane of the head. In a few pins the ring is attached to the sides of the pin head, in other cases the ring transects the head of the pin, and in still other cases it passes through a plate which surmounts the head. This plate can either be set parallel to the plane of the head or it can bisect the plane.

Many head plates held a ring. These rings can be grouped into the following types: cast–round–sectioned ring (Fig 3.2.d); cast–carinated–sectioned notched–ring (Fig 3.2.e); slip–knot wire ring (Fig 3.2.f); open–ended–wire ring (Fig 3.2.g); and tenon attachment ring (Fig 3.2.h).

3.iii.f. Collar forms (figure 3.3)

3.iii.f.1. Incised Ring Mouldings (Fig 3.3.a). These include bead mouldings produced by the incision of lines into the shaft to create the impression of a raised bead running around the shaft. They were rarely produced by casting and they are never of greater diameter than the shaft. In cases where multiple incisions have been cut into the shaft, the pin often appears to have a threaded collar. Some of these collars appear scaled with one ring appearing to fit inside the one below – creating a blossom effect.

3.iii.f.2. Raised Ring mouldings or Ring mouldings (Figs 3.3.b & .c). This is a collar which forms an actual raised ring around the shaft of the pin. These collars can be divided into two varieties:

A. D–shaped sectioned shaft rings (Fig 3.3.b). These collars, in other words appear to be round rings that encircle the shaft;

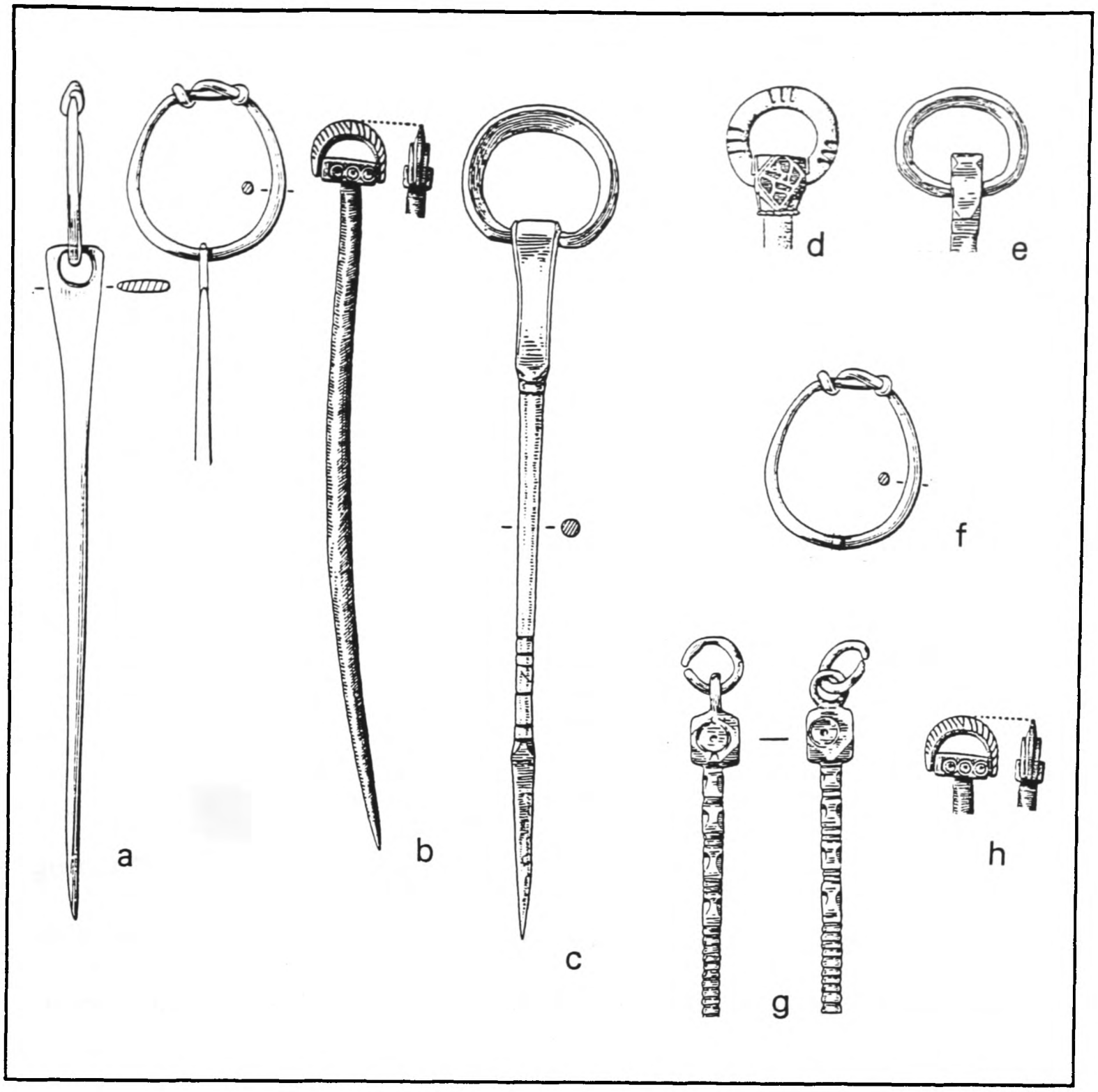

Figure 3.2: Kinds of Rings.

B. collars with a >–shaped section (Fig 3.3.c). These collars are described as carinated.

3.iii.f.3. Barrel mouldings. These are convex mouldings (Fig 3.3.d). They were produced either by casting or by incising lines into the shaft a short distance apart and sloping the shaft towards the lines so that the shaft takes on the character of oak wine barrel. The sloping effect was created by filing the shaft.

3.iii.f.4. Casting Collar (Fig 3.3.e). On a number of pins there is at the junction of the head of the pin and the shaft a crude collar. This collar seems to represent the use of a poor quality mould. During secondary working the pinner had not cleaned–up the residue metal. This residue

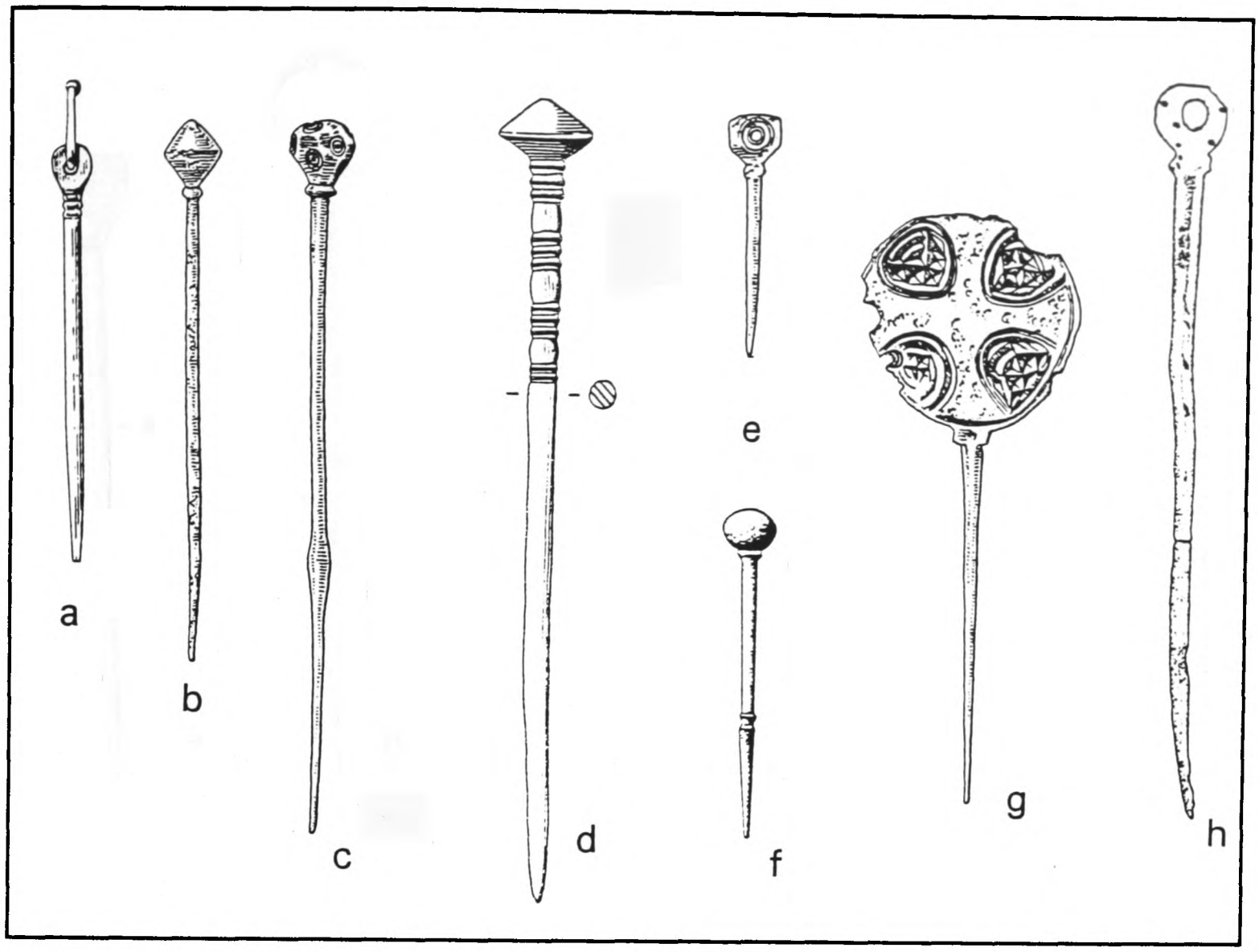

Figure 3.3: Kinds of Collar Forms.

must have been caused by a flaw in the mould – it lacked a smooth transition from the shaft to the head portion of the pin. While this is not a true collar, that is an intentionally made collar, the presence of such metal residue is an important feature to record, if for no other reason than for the information it gives us about the low quality of workmanship carried out by certain pinners.

3.iii.f.5. Cushion Collar (Fig 3.3.f). This term describes a collar which forms a seat for the head. The effect given by these collars would be created by placing an heavy ball on a cushion.

3.iii.f.6. Stepped Collar (Fig 3.3.g). This refers to collars that exist in two planes and assist the transition from the head of the pin to the shaft by stepping the junction.

3.iii.f.7. Fillet Collar (Fig 3.3.h). Collars of this type have a flat section. They terminate in a point.

3.iii.g. Shaft forms (figure 3.4)

3.iii.g.1. Plain Tapering (Fig 3.4.a). This term applies to shafts that taper gradually along

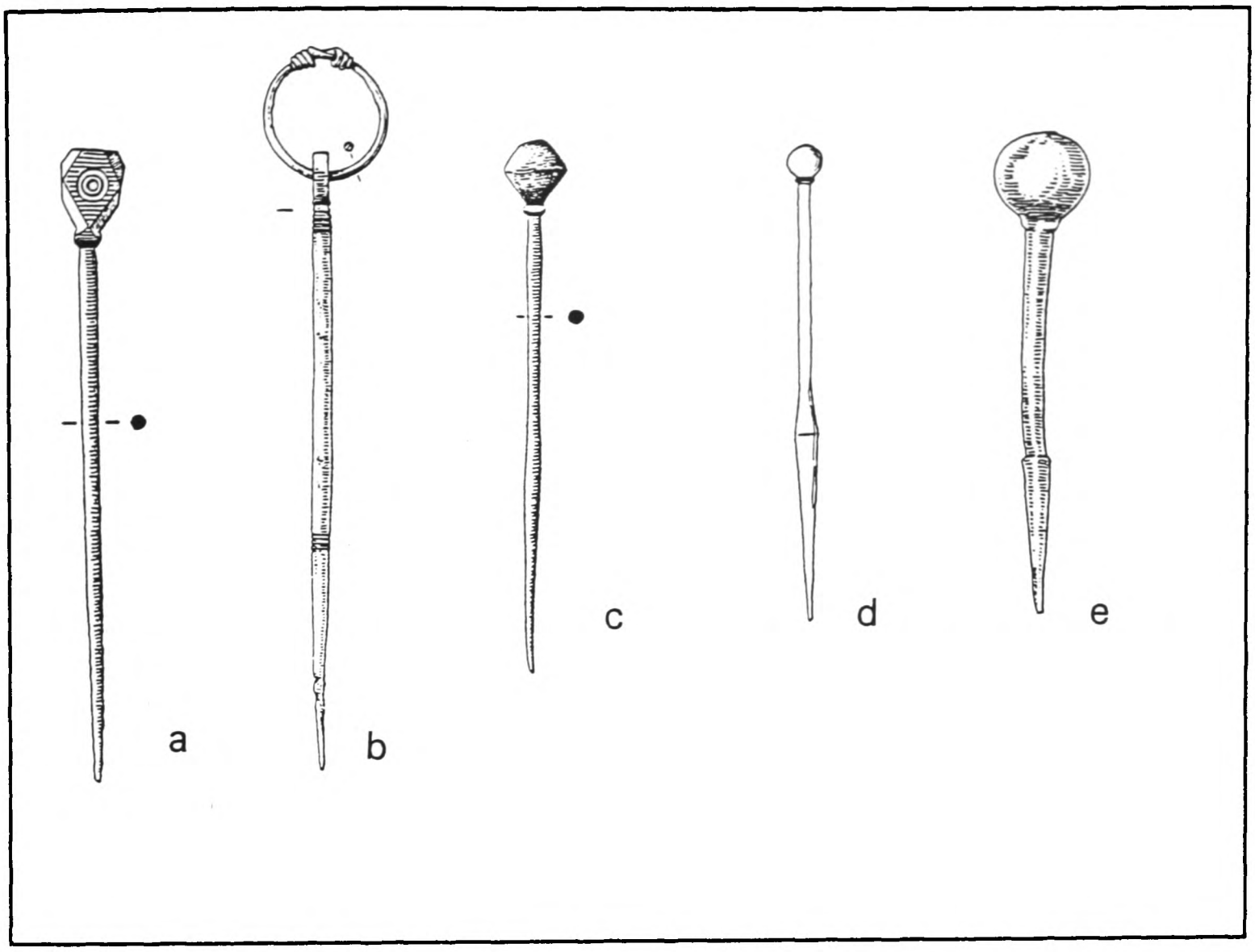

Figure 3.4: Kinds of Shafts.

their length. The widest part of the shaft is just below the head and it narrows from this point.

3.iii.g.2. Incised tapering shafts (Fig 3.4.b). Some of the tapering shafts have lines incised into the shaft at a point about two-thirds of the way along the pin. Linear ornament of this form was probably intended to help secure the pin by creating a notch to keep the shaft from slipping. But they may have served a decorative purpose only.

Linear ornamentation can appear on all manner of shafts. Since it crosses all shaft forms it might be argued that each variety of shaft be considered as having a variant with linear ornament. Linear ornament can occur in conjunction with hipping and faceting of the shaft, a feature seen in a pin from grave 134 at Dover (Evison 1987: Fig 55[134.5]).

3.iii.g.3. Hipping. This is a term which is used to describe an expansion of the shaft. There are three common types of hipping: (A) the shaft has a gentle swell (swollen shaft) (Fig 3.4.c); (B) the shaft has a confined zone of sharply carinated swelling (hipped shaft) (Fig 3.4.d); (C) the shaft has a shouldered hipping (Fig 3.4.e). The term 'shouldered hipping' may be a misnomer because it

refers to an expansion of the shaft at more than 50% of the way down its length. On occasion this hipping occurs at between 80% and 90% of the way along the shaft. The expansion can between 0.2 mm and 1.0 mm.[2] From this point the pin contracts along the remainder of its length. Below this shouldering the section of the pin can take one of four forms: (A) round, (B) faceted, (C) square, (D) flat [rectangular]. Some variation in the amount and position of the shouldered hipping can be noted. In some instances the pin resembles the shaft of a spear entering the spear head the hipping is so marked.

3.iii.h. Shaft Section (figure 3.5)

A variety of form in shaft section can be noted. Many shafts have a round section and this

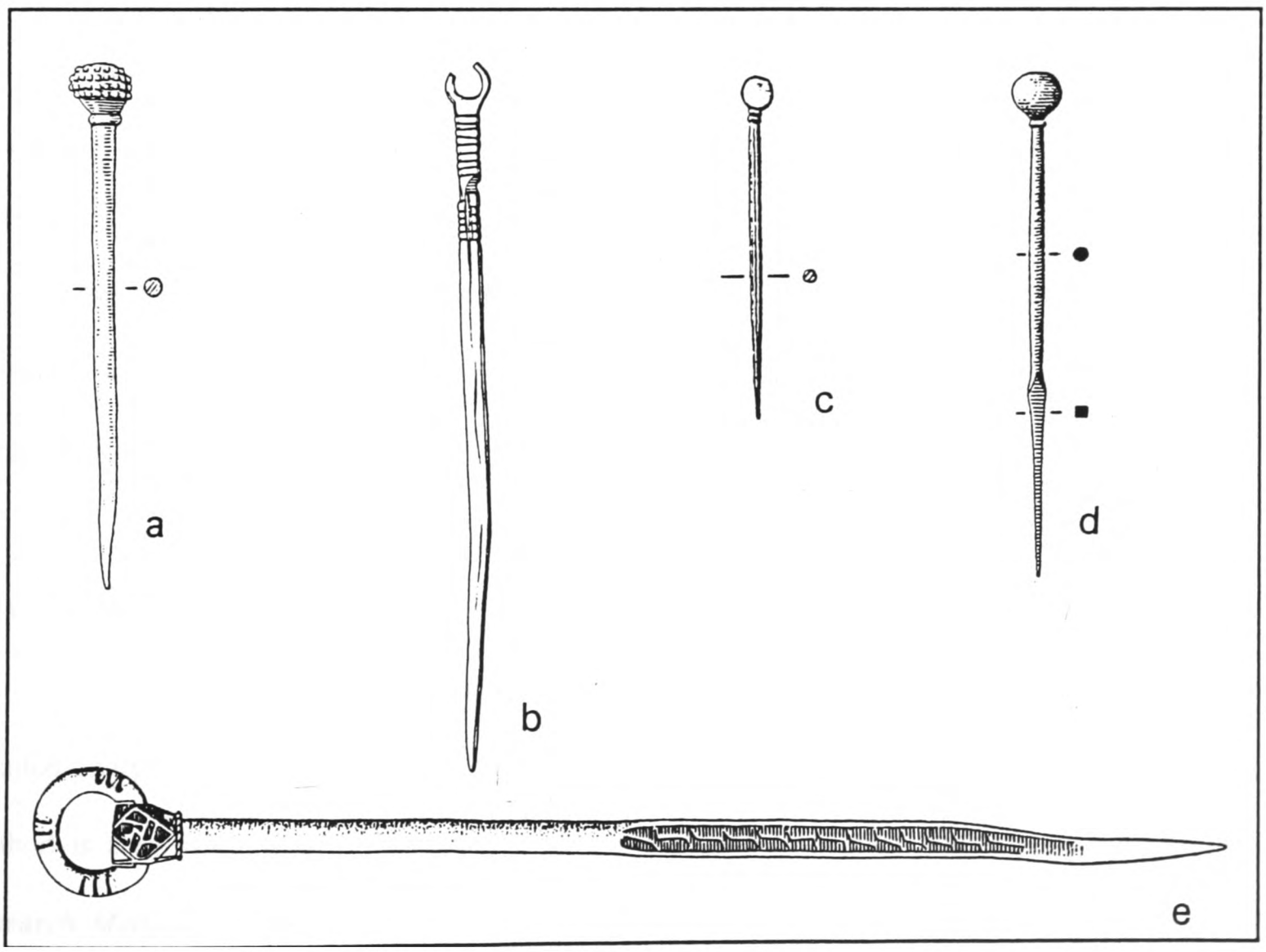

Figure 3.5: Examples of shaft sections.

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[2]The shaft of a garnet-set pin from Faversham expands from two millimetres to three millimetres in diameter at the point of shaft shouldering (Salisbury Museum, acc no: 3D2A13).

is the most common type encountered. The other types include elliptical, faceted, square, and flat. As is explained in the next chapter some of the forms of the shaft result from the method used to make them. For instance the polygonal shafts take that form because they were cast square and finished to have a round character by filing.

3.iii.i. Decoration

Decoration on pins can be categorized into one of four types: (a) incised; (b) stamped or punched; (c) applied; or (d) cast. Applied decoration includes both settings and filigree work. Under this umbrella we would place the two disc-headed pins such those from Southampton with sheet metal applied to their faces and pins such as the Wingham pin.

The difference between the stamped & punched decoration and cast decoration is most readily seen in the case of pins decorated with ring-and-dot ornament. In those examples where the decoration appears to lift-off the surface it was probably included in the mould itself (i.e. cast decoration). This is to be contrasted with those cases where the decoration is impressed into the surface (i.e. punched decoration).

There is a range of decorative motifs to be seen on the pins and it includes: ring-and-dot ornament, knot-work, interlace, wrythen, free incised lines, and filigree. But as I explain below, the range of decorative motifs is narrow.

3.iv. Conclusions

In this chapter we noted that archaeological methodology has been plagued by a neglect of detailed analysis of the 'process of typification' and I have argued that the articulation of such a method is a pressing issue. To begin to address the problem I have proposed the *Typological Research Method* (TRM). This method formalizes the process of research detailing the stages of typological study from the definition of purpose to the stage of typological enhancement. This model of research was developed in conversation with the methodological literature and by analyzing my own research process in this study. It is hoped that by applying it to other research projects it might

be possible to refine it further. I have examined other issues associated with typology in an effort to come to grips with questions about purpose, the criteria for selecting attributes and those characteristics to be expected before accepting a type, the problem of objectivity, and the expectations of a typological system. While many typologies fail because they do not adhere to systematic methods others, fail because they lack terminological definition. In the last section we addressed this problem with reference to pins, by providing a set of definitions.

Chapter 4

The Processes of Production
&
Technological Change

4.i. Background

This chapter demonstrates that the technical processes and the organization of pin production changed during the period between the end of Roman provincial government and the Norman Conquest. These changes included not only the transition from peripatetic craftsmen to sedentary workers, but also the reorganisation of metalworking activities. In the middle Saxon period the growth of trading towns, such as Ipswich, contributed to a diversification in the access to some types of raw materials. It must, as Hodges has pointed out, have been difficult for élites to maintain control over the influx of goods through these emporia (1989: 70). As a consequence of the success of these ports the concentrations of populations grew and materials such as bronze and iron became accessible to a broader cross section of the population. The control of raw materials must over time have devolved from direct political or 'big man' redistribution to economic access. Production by jewellers under the control of nobles gave way to manufacture by craftsmen for a popular clientele. The latter situation provided the opportunity for specialist craftsmen to begin making small objects, such as pins and strap–ends. Changes in fashion created an increased demand for pins and may have contributed to fostering changes in production methods. The changes noted here reflected demographic and economic shifts evident at the end of the seventh century and the beginning of the eighth century. In the developing towns such as Hamwic or Ipswich population concentrations reached levels unknown since probably the beginning of the fifth century and economic exchange exceeded anything seen since the late fourth century. The growth in the popularity of pins was motivated and influenced in part by social and ideological shifts (e.g. religious change). Technological innovation also contributed to fostering changes in the types of pins made. These transitions influenced the uses of pins. The increased popularity of pins in the eighth century, for

example, gave rise to a radical shift in the structure of manufacturing. Whereas in the seventh century the emphasis had been on the creation of individual pins (or sets of pins), from the eighth century onwards the concentration was on mass production of a limited range of types. As we shall see below, this change does not bring the creation of elaborately ornamented and gold embellished pins to an end. But these types become an increasingly small part of what is now a more popular craft, aimed at creating a widely worn item of dress.

These social, economic and political changes gradually fostered the development of a specialist craft group, known as pinners, who by the late Middle Ages were established in guilds in many towns.[1] The archaeological evidence would suggest that long before the establishment of guilds, pin production was part of a specialised craft.[2] The remarkable numbers of pins recovered from urban contexts,[3] and the demonstrable changes in the production processes combine to show that the manufacturing of pins was, by the mid-eighth century, no longer an occasional task for a craftsman or a jeweller. Now, it was a specialised activity possibly carried out in conjunction with needle and wire making (see below). The distribution of finds and debris would initially seem to indicate that pins were made predominately in urban centres. They were produced at Hamwic (Southampton), Ipswich, Fishergate and Coppergate (York), and Canterbury. Comparatively few have been found on rural sites, but this may be a reflection of the distribution of excavation, differential recovery by metal detector users, different degrees of affluence, and the difference in the numbers of opportunities for loss on rural as opposed to urban sites. In general, the character of production does not exclude production outside of these urban centres. I can see no reason to assume they were not made at monastic sites, such as Barking or Whitby. Certainly there is evidence of metalworking from the monastic site at Hartlepool, although here few pins were found.

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[1]There were guilds recorded at Coventry, London, and York in the late Middle Ages. See for example Harriss, *The Coventry Leet Book: or Mayor's register containing the records of the City Court Leet or view of frankpledge AD 1420 - 1555,* 4pts (London: 1907 - 1913).

[2]This would be compatible with other evidence from the late Saxon period. Dodwell (1982:67) argued that an analysis of commissions for objects made at Evesham, Winchester, and Wilton indicated that goldsmiths worked in teams.

[3]To some extent the increase in the numbers of pins being made and lost during this period might be explained by some demographic changes (i.e. population increase which promoted an increased demand for pins).

4.ii. The Categories of Evidence and the Processes of Production

Pin production involved a sequence of diverse tasks. These began with resource procurement and included processing, casting (or forging or rolling), ornamenting, finishing, exchange (sale/barter), maintenance and finally loss. Each process hides a range of sub–processes and activities that needed to be performed by the craftsmen, by wearers and eventually by natural forces. In this chapter we are concerned with processing, manufacturing (e.g. casting) and finishing only. We exclude discussion of exchange, maintenance[4] and loss. For some periods resource procurement and processing may have been restricted to the collecting of scrap metals and cutting and hammering them into shape. A group of folded, rolled, and hammered pins, which was possibly made from scrap metals has a broad distribution with a focal point in the Upper Thames Valley and Wessex at the close of the fifth century and during the first half of the sixth century (see chapter 5 below Group **XV**, sub–group **XV.i**). In the case of cast pins, production was more complex as it involved numerous sub–activities. Among the many sub–tasks model–making and mould–making are primary. Both these tasks represent diverse skills and required that the craftsman be trained in woodworking or boneworking and have a knowledge of the properties of clay. Much of our knowledge of pin production depends on evidence derived from a study of the pins themselves. From this it is possible to work out what the craftsman did to achieve the final result. Other sources including moulds and tools provide data, but by comparison to the pins themselves, these sources are scarce and provide only secondary evidence. In some instances it is easy to see that to produce certain characteristics the maker of a pin must have worked in a particular manner because there is no other method that could be used to create the specific features of interest. Many pins bear distinctive remnants of their having been worked; the marks remain in the form of file, hammer, punch, and draw marks. Some of these marks represent activities involved in secondary working to clean up poor casting efforts;[5] others betray attempts to improve the decorative appearance of the

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[4]Maintenance refers to the cleaning of a pin when it became dirty or its repointing when its end became broken.

[5]Secondary work can be seen on pins from outside Anglo–Saxon England, as one might expect. The pin from grave 144 at the Lombard cemetery of Nocera Umbra is one such example. File marks are clearly visible on the triangle decoration which adorns the shaft of this pin (point lost, 117 mm long, 3.7 mm diameter at head, (continued...)

pin, and still others reflect production tasks done after the initial form was produced (i.e. making holes in the head-plates, and the addition of decorative patterns). These markings can be categorized into those that are the result of primary production and those caused by secondary work. The latter category includes those left as a part of efforts to ornament the pin, whereas the former were caused by work of craftsmen eager to compensate for imprecise casting. Draw lines, fold sutures, and casting flashes, show 'primary production' activities, while the marks of punches, awls, and files represent 'secondary production' work. This internal evidence can be linked with tools recorded from cemetery and settlement contexts. The recovery of file residues, hammer scales, draw-plates and moulds give further support to the theories to be proposed about pin production based on internal evidence. Finally, it may be possible using analytical methods to uncover additional confirmation for assumptions about production processes. This kind of evidence might make it possible to determine whether alloys were selected for properties of ductility, malleability, or durability. We have seen Caple's attempt to harness the internal metallographic and compositional data in his quest to understand the production of wound wire-headed pins. The results have so far proved less than successful.

The shift in the character of the material remains shows that by the middle Saxon period pins were made both independently of and in conjunction with other closely related activities (e.g. needle making). In the seventh century, and probably in the fifth and sixth centuries, pins were made as a part of the repertoire of fine metalwork. The way the processes involved in pin production reflected other jewellery techniques indicates this most strongly for the seventh century. During this century production concentrated on the fabrication of ornate and one-off pins; although some groups, such as the linked pins, share typological similarity (have family resemblance) each set stands out decoratively as an individual item. Only one or possibly two seventh century pin types seem to be the work of mass production at a single workshop (i.e. Kingston disc-headed pins[6]). The

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[5](...continued)
15 mm below head at 4 mm point, near broken tip the shaft is 3 mm, Nocera Umbra, Museo dell'Alto Medioevo (Roma), acc no: 1052; Paribeni 1919: 327).

[6]These pins come predominately from Kentish sites, although two copper alloy examples are known from the Upper Thames Valley. These are the pin from a grave at Bampton, Oxon (Pitt-Rivers Museum), and the (continued...)

predominance of pins embellished with (1) cloisonné garnet work; (2) filigree decoration; (3) gold foil backing for garnets; (4) the production of gold and silver pins; and (5) the individuality of the pins all confirm that in the seventh century pin making was integrated with other forms of jewellery fabrication.

We have for our period a large artifactual data-set, but almost no information about production independent of these finished objects. Migration period graves, and middle and late Saxon settlement sites in England have yielded large quantities of fine metalwork ranging from gold bracteates to pins adorned with intricate decoration (e.g. the pin suite from Roundway Down[7]). Archaeological contexts in England belonging to these seven centuries have provided meagre evidence for the character of metal workshops. In Scandinavia, by contrast, at Helgö, a team led by Holmqvist has recovered an uniquely rich production site (Holmqvist 1972). Other sites are known from the Celtic fringe (i.e. Dinas Powys [Alcock 1963], Dunadd [Craw 1929-30; Lane 1980; 1981], Brough of Birsay [Curle 1982], Lagore Crannog [Hencken 1950] and Mote of Mark [Curle 1914]). There is some evidence for metalworking at middle and late Saxon sites[8], but as J.G. McDonnell argued in a study of 'Iron and its alloys in the fifth to eleventh centuries in England' there is an overall paucity of evidence for production (1989: 380). The work of Cramp and Daniels at the site of the seventh century Anglo-Saxon monastery at Hartlepool has resulted, however, in the recovery of 'the best evidence so far excavated of metalworking traditions of Anglo-Saxon Northumbria' (1987: 429). The site produced crucibles and moulds for making fine metal objects (Bayley in

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[6](...continued)
pin recovered in a seventh century structure in what is now the Market Square, High Street, Swindon (Swindon Museum, acc no: SW75.A25.16). There are other bone examples from the Upper Thames. These come from Swindon (Swindon Museum) and Puddlehill (Matthews & Hawkes 1985). The Kentish examples come from both graves (Dover) and settlement sites (Canterbury). See, for example, Canterbury: Canterbury Archaeological Trust, Cakebread Robey, SF411 & SF531, Marlowe Car Park I, SF783, Marlowe Car Park IV, SF54 & SF542; or cemetery sites: Dover grave F [BM M&LA, acc no: 1963,11-8,760], Dover grave 10 [BM M&LA, acc no: 1973,11-8,47], Kingston Down grave 6 [Merseyside County Museum, acc no: M6089], Sibertswold grave 24 [Merseyside County Museum, acc no: M6450], and Sarre grave 154/155 [Maidstone Museum].

[7] Devizes Museum, acc no: S6F.

[8] Evidence in the form of slag (Haslam 1980) and moulds (Taylor & Webster 1984). Quite probably SOU29 was a smithing site (Oxley 1988). Rook Hall in Essex has produced the most extensive evidence for Iron working so far identified for the Anglo-Saxon period. The site is near Maldon on the River Blackwater. The work of Adkins (1989) has resulted in the recovery of slag, smelting furnaces, and smithing hearths. There is also Iron Slag from Blaston [Top Mill Field, SP 799 558]. This is a sixth to seventh century site (*Medieval Archaeology*, 32(1988): 259).

Daniels 1988). This evidence can be grouped with other material recovered from Whitby, Jarrow and Barrow-on-Humber.[9]

But the finds are limited and hardly begin to account for the quantity and diversity of Anglo-Saxon metalwork. Bronze slag has been recovered on middle Saxon sites, such as, at Burrow Hill (Fenwick 1984: 41), Southampton (Riddler, pers comm.)[10], Ipswich (Hatton, pers comm & Wade 1989: 74)[11] and Coppergate in York (Tweddle, pers comm.).[12] Slag has also come from early Saxon sites such as West Stow (West 1985: 69) and Mucking (Jones 1977; Hamerow 1987: 149-151)[13]. This all suggests continuous metalworking in the Anglo-Saxon world from the fifth to the eleventh century. The evidence is not confined to waste either. A limited range of tools have come from migration period graves (Tattershall Thorpe [Lincs][14]), middle Saxon emporia (Six Dials, Southampton[15]) and late Saxon towns (Coppergate, York[16]). Recent excavations at the Butter Market in Ipswich have produced crucibles and moulds used in the seventh century for metalworking (Hatton & Wade, pers comm.). Hartlepool has produced some of the best evidence (Cramp & Daniels 1987; Bailey in Daniels 1988). But the chief sources for metalworking in the early middle

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[9] Cramp 1969; Cramp 1976.

[10] For middle Saxon Southampton, the work of Addyman and Hill (1969:66-67) revealed evidence of a metal working site (SOU 16: pit 147). More recent excavations have produced moulds, slag and other metalworking evidence indicating the presence of more substantial smithing sites (Mark Brisbane, pers comm). Slag, from SOU 238 is a good indicator of this. Bayley in 'Analytical Results for Crucibles from Various Sites in Saxon, Southampton, Hants,' (Ancient Monuments Laboratory Reports 2/86) reported that qualitative studies show that a number of copper alloys, as well as gold and silver were used at Southampton.

[11] At the Ipswich Butter Market and St Stephen's Lane: 'Intensive craft activity is associated with 9th c. occupation including an Ipswich ware potter, a bronze smith and a bone/antler worker' (Wade 1989: 74).

[12] There is also slag, hearth lining and a single crucible from a site in Thetford (Site A). Paul Wilthew (1986) detailed this material in an *Examination of Metalworking Waste from Site A, Thetford, Norfolk*, [Ancient Monuments Laboratory Reports, 25/86]. The slag was mostly ferrous, but the crucible had been used to melt silver. There are silver Middle Saxon pins. The metal-detector find from Barham (IAS 018 389, but now in the BM) is an illustration. This is a discoid headed pin similar to the one from Birdoswald (Cramp 1964).

[13] Hamerow explains that while much of the slag comes from sixth and seventh century deposits, much of it is in secondary and not primary deposits.

[14] See Chowne 1982 for some account of its contents and White 1990 for a discussion of the technical investigations of the material.

[15] Mark Brisbane, Southampton Archaeological Unit, 1986, pers comm.

[16] Patrick Ottaway, York Archaeological Trust, 1987, pers comm. At present the York material is being prepared for publication.

ages remain, as yet, mainly the finished objects themselves. Because of this paucity of evidence, the processes and activities involved in metal production are hotly debated. This is especially true for the migration period.[17] Any attempt to determine which explanation or what combination of explanations best describes the reality of migration period production processes reveals, in itself, the immense complexities of the subject. The variation in production methods was also a feature of later periods. Pins shed some light on these workshop activities, if only to indicate that metal production involved both simple and complex methods, and varied over time, space and artefact categories (i.e. production tasks). To illustrate this claim I propose that we look closely at a couple of Anglo–Saxon pins. In dissecting them we can observe some of the activities involved in their production.

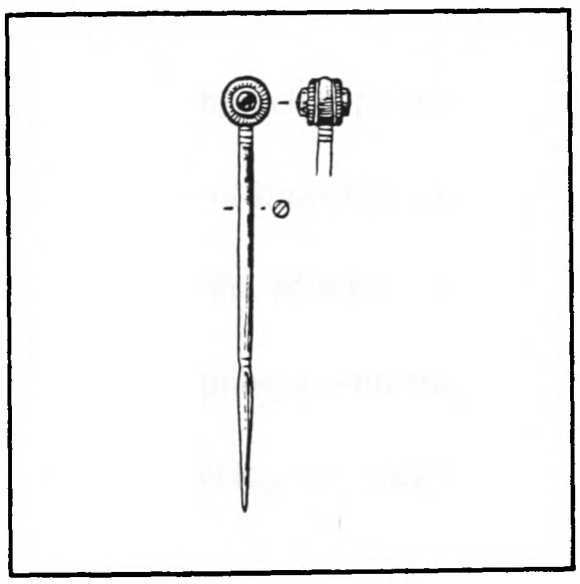

Figure 4.1: Pin from grave 44, Chartham (Kent).

I shall use three examples to show how jewellers were involved in pin production. Let us consider for a moment how the craftsmen made the pin from grave 44 at Chartham (Kent) (Faussett 1856: 173–4, Pl 12 fig 18).[18] This silver pin, the head of which is composed of garnets set in a gold cylinder and surrounded by beaded bands, is 43 mm long (Fig 4.1). The maker made a mould and cast a hipped shaft with a ringed head. This was then worked to finish (i.e. filed and smoothed), an activity that included not only smoothing the object but also the engraving of three lines on the shaft below the head. The highly finished quality of the surface leads us to the conclusion that casting residues had been filed away and the file marks removed by some fine gritty stone or sand and then the object was polished smooth. The craftsmen inserted a hollow gold cylinder into the hole in the silver ring head. This cylinder was then heated

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[17]Arrhenius (1973; 1975; 1982), Axboe (1982; 1984), Capelle (1970), Capelle & Vierck (1971; 1975), Dickinson (1982), Genrich (1972; 1977/8), Holmqvist (1972), Holmqvist, et.al. (1970), Lamm (1973; 1977; 1980), Lamm & Lundstrom (1976) and Waller (1972) have assessed the material remains and address production topics: models, moulds, wax vs lead loss, positive vs negative models, processes of casting, and mould production and reuse. As we shall see below in most cases they have created complicated explanations for quite simple tasks. With these discussion should be included that of a grave at Poysdorf, Lower Austria. There is thought to have been the grave of a warrior goldsmith (Beninger 1934: 104–112 & Abb 53 & 54; 1966: 177–8 & Tafn 5 & 6).

[18] Merseyside County Museums, acc no: M6734.

and two garnets were dropped in; one on either side of the head to create the faces.[19] Each garnet, prepared in advance, was backed by gold foil,[20] which was also specially prepared. The cylinder-set-garnets were then encircled on both faces by a ring of beaded gold-wire.[21] This beaded wire would have been made up in advance with a bead-file or, as this particular pin belongs to the seventh century, possibly with an organium (Duczko 1985: 21). Pre-made wire, like pre-made gold foil, is to be expected.[22] So, far from merely casting and finishing the Chartham grave 44 pin, the jeweller had to employ a full range of technical skills. A remarkable number of pins in use during this period show the same characteristics.

The tasks involved in producing this pin were a cross-section of those seventh-century craftsmen would have carried out in the course of producing fine jewellery, such as, for instance, composite brooches (Avent 1975).[23] The proposed comparison will become clear if we examine the making of brooches such as those from any one of a number of graves at Dover B, the Amherst Brooch, or the Monkton brooch, for example. Making one of these brooches was a multi-staged process beginning with the creation or copying of a design, through the casting of components, to the final piecing together of the finished piece. To produce a keystone garnet disc brooch at least seven stages were involved, after the initial design had been selected. During the first stage the silver brooch is cast in a mould (which had of course to have been produced first [see below]),

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[19]The quality of the garnet setting on this pin can be contrasted with a similar gold pin recovered in a residual context during excavations at Lady Wootton's Green, Canterbury (Frere, et. al. 1987: 183 & Pl XXVII.F, G, H). Whereas the garnets of the Chartham grave 44 pin appear to have been cut especially for their setting, this is not true of the pin from Canterbury. Here the gold cylinder into which the garnets were set was bent onto the face of the garnets to hold them in place. The garnets were also misshaped and damaged. The pin was returned after discovery to the care of St Augustine's College, but may now be lost. Professor S.S. Frere called my attention to the find and provided a photo of the pin.

[20]Since it seemed imprudent to disassemble the pin, we were unable to be certain whether each garnet had its own gold foil backing or whether they both shared the same one. The production of the gold foils was an intricate task in its own right. Avent & Leigh (1977) have discussed at length the process of producing gold foil. East (1985) examined the gold foils from Sutton Hoo. The results of both these efforts points up the complex processes involved in foil production and use.

[21]There is a comparative example from grave 172 at Sibertswold (Kent) in gold [Merseyside County Museums, acc no: M6553c]. Other pins of this type were made in silver. B. Faussett recovered one from grave 180 at Sibertswold (1856:133). The shaft of this pin is circular above the hipping and square below [Merseyside County Museums, acc no: M6539].

[22]There is a Viking period metal-worker's burial which includes in the associated tool-chest a coil of pre-made wire (Munksgaard 1984: 87).

[23]See for example the Monkton and Amherst Brooches (Hawkes 1975 & 1984).

which would incorporate much of the ornament. After casting the finished object was cleaned and with a graver the craftsman stripped away unwanted casting debris and 'touched-up' the decoration (stage 2). In stage 3 niello was applied and following this, the outer-rim was attached (stage 4). In stage 5 the brooch was gilded, most commonly with mercury gilding. The keystone and subsidiary settings were fitted (stage 6); with pre-prepared garnets. At some point the catch was placed on the reverse of the brooch. The resulting brooch has a circular stone setting in the centre. Radiating from this are three or four wedge, triangle or T-shaped garnet settings. In some cases the rim was adorned with nielloed triangles. The result of this effort was the production of a high-status ornament and a significant piece of production. Manufacturing plated disc brooches and composite brooches depended upon both filigree and cloisonné work. Composite brooches consist of a central setting surrounded by concentric rings of cloisonné between which are rings of cloisonné or filigree work. The elaborate character of these brooches represents an ostentatious development of the plated disc brooches. Pins from this period frequently reflect numerous jewellers' processes and methods.

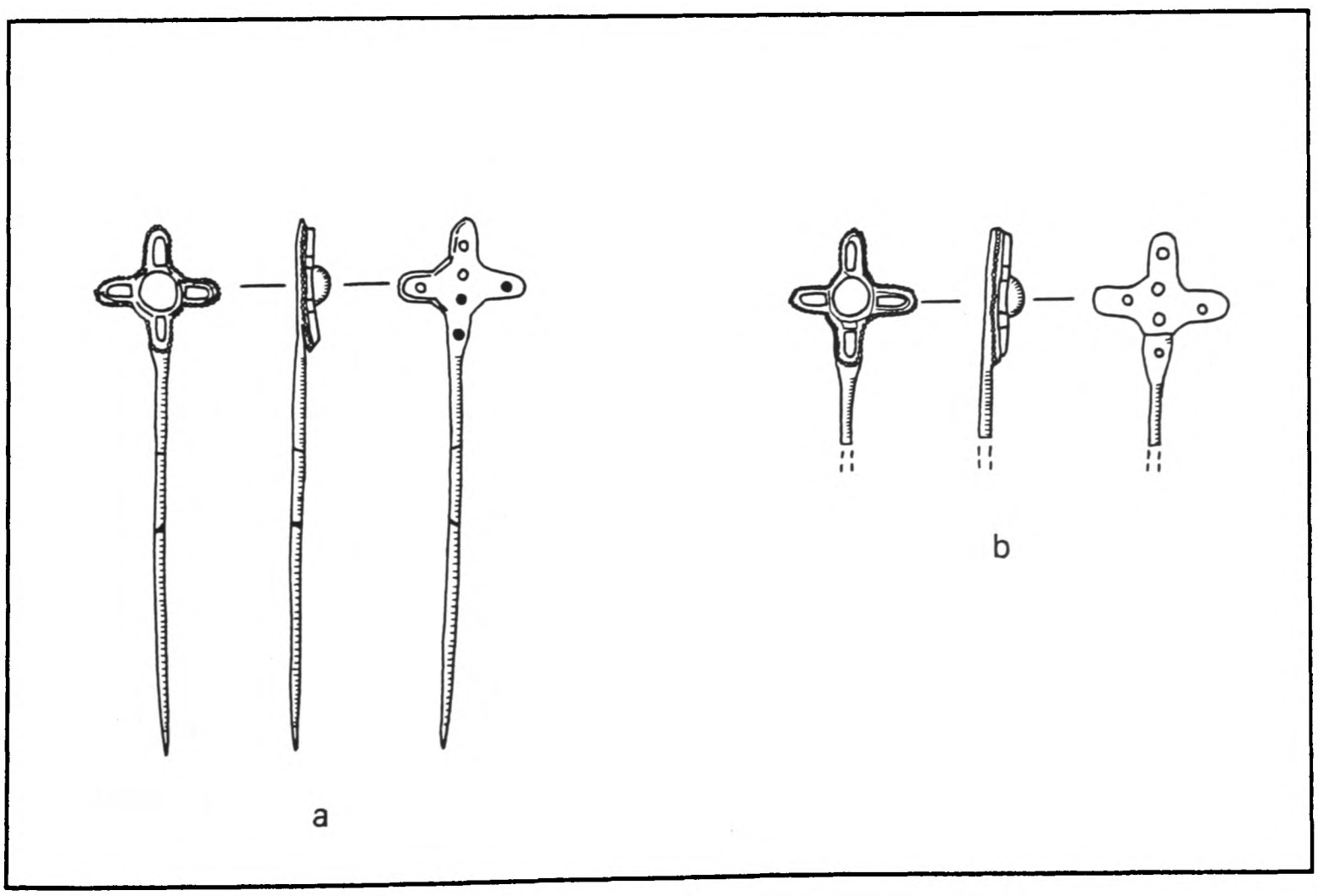

Figure 4.2: Pins from Wigber Low (Derbyshire); (After Collis 1983: fig 40).

The diversity of production skills can be seen by a comparison of four pin suites (pins linked by chains forming a single dress fastening unit): the Evesham pins (Smith 1901b: 229 & fig 2) (Cl Pl II.a & Fig 5.28.b),[24] the pins from Cow Lowe (Bateman 1848: 91–94) (Cl Pl II.c & Fig 5.29.b),[25] those from Wigber Low (Ager in Collis 1983: 73–76 & fig 40) (Fig 4.2),[26] and those from Lechlade grave 50 (Fig 4.3).[27] These were not merely cast items. In the same manner in which the jeweller undertook the production of composite brooches and the Chartham pin, he undertook the making of these latter pins. They are all fabricated from a cornucopia of components –cast shafts, cut garnets, gold filigree and foil. Their production involved a range of technical skills – model and mould production, garnet setting, and fixing filigree.

This composite character required that the maker have access to a range of scarce raw materials (e.g. gold, silver, garnets) and access to a range of technical skills (e.g. garnet cutting, casting [silver, gold and copper alloys], gold foil pressing, filigree decoration). Even though rare metals were available, in some cases artisans still used non–precious metals in the fabrication of jewellery. For example, there is a parallel to the Chartham grave 44 pin from Faversham. The basic form of this pin was cast in bronze and decorated with garnets and beaded wire.[28] As in the making of other decorative items craftsmen took advantage of the available materials, although we must not exclude the possibility that they used the materials their client could afford.

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[24]BM M&LA, acc no: 64,12–20,1.

[25]Sheffield Museum, acc no: J.93.703.

[26]BM M&LA, acc no: 73,6–2,96 & 73,6–2,97.

[27]Corinium Museum, but Oxford Archaeological Unit small find numbers still apply: LBF85 SF226 & LBF85 SF227.

[28]Salisbury Museum, acc no: 3D 2A 13.

In numerous cases objects fabricated in rare metals are concentrated in individual graves. This suggests that these materials were only available to élite or preferentially selected members of society. Archaeological, ethnographic and historical evidence offer confirmatory data to allow us to conclude that the use of rare materials was restricted to the manufacturing of prestige goods for an élite segment of society. Access to scarce resources indicates, for this period, a close link between

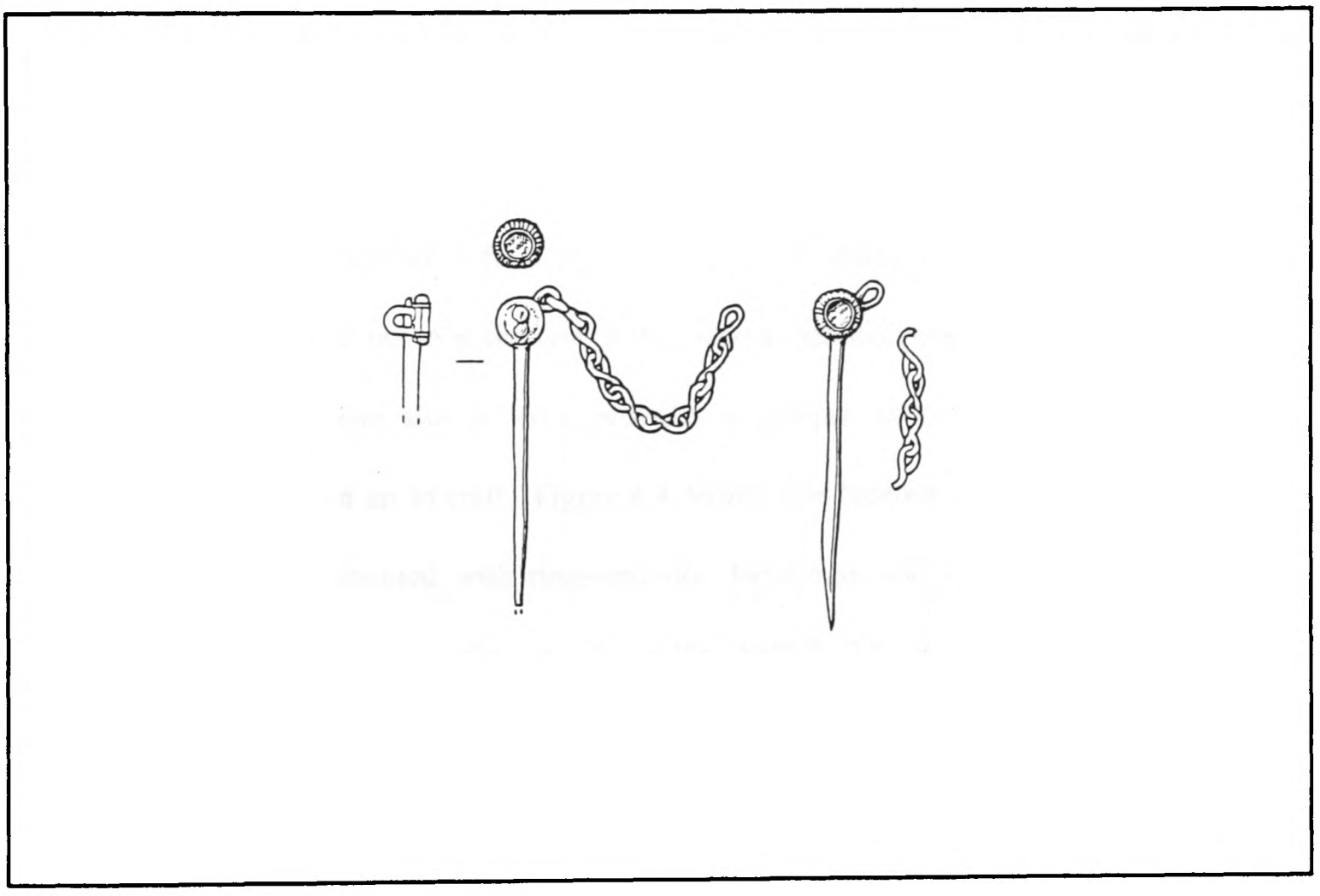

Figure 4.3: Linked pins from Lechlade (Glos),(Drawing by Wendy Page, Oxford Arch Unit).*

craftsmen and political/economic power brokers. An increased interaction between the Anglo-Saxons and continental sources of prestige goods made these scarce materials available in the sixth and seventh centuries. The window of availability was narrow. But, the jewellers and patrons developed remarkable skills in a short time span. During a century when a mix of precious materials was available there is an unprecedented proliferation of composite objects. In earlier periods, as well as in later centuries, the emphasis was on decorative motif, but during the seventh century the

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*[The garnet surrounded by beaded-wire above the pin on the left was originally fixed to the face of the disc setting, but has now become detached. The shafts of are round in section and have a slight swelling.]

jeweller could avail himself of both combinations of rare materials and intricate decorative patterns created by the interplay of garnets, filigree and order. The objects contrast most dramatically with material made in the fifth century and during much of the sixth century. Nowhere is the contrast so great as it is between the seventh and the eighth century. The exuberance of this magnificent composite production came to an end probably not long after the beginning of the third quarter of the seventh century (c.660s). Middle Saxon sites provide a markedly different array of pins which indicate a radical shift in production methods.

The evidence from Saxon Southampton like that from Anglian York displays an obvious change in the production activities. Pin production at these sites does not reflect the activities of a jeweller's workshop. The tasks carried out to make one of the faceted–headed pins recovered from the Fishergate site in York provides a glimpse at the transition of pin making from art to craft. Figure 4.4 depicts this faceted–headed pin with faces ornamented with ring–and–dot decoration and a slight swelling about two–thirds of the way down the shaft.[29] The pin maker cast or obtained a pre–cast cuboid–headed pin (i.e. a pin blank[30]) with a rough shaft. This he subjected to substantial secondary working. The pin provides the telltale evidence of filing in the form of multiple fine parallel grooves that show up under magnification both on the head and the shaft. The ring–and–dot decoration was either punched and engraved,

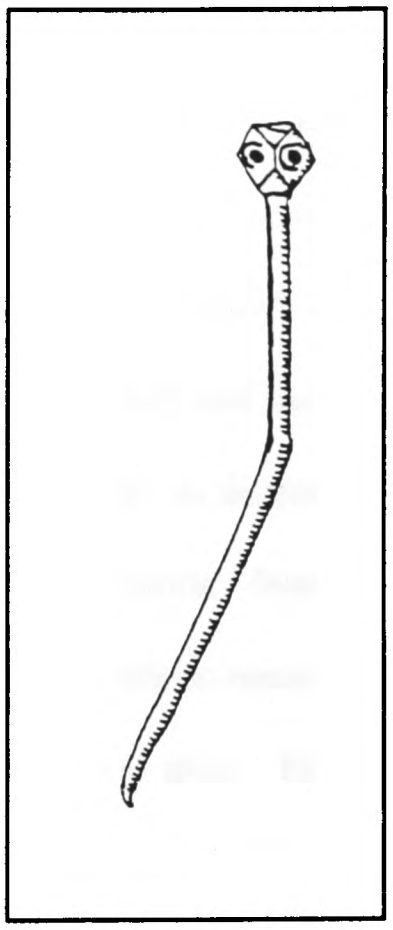

Figure 4.4: Facet–headed pin (Fishergate, York).

or possibly drilled (but see the discussion below b.iii.c), on to the four side faces; the evidence for

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[29]York Archaeological Trust, small find (1986.9 3342 III) 4189.

[30]It is possible that the copper alloy pin Fishergate 5388 [York Archaeological Trust, 1986.9 III Context–3468 Small Find–5388] is an example of a pin blank. This pin has a rough round shaft with a swelling 2/3 of the way along the shaft. The head has a flat top and the sides are filed, making the head resemble a mellon. It seems likely that this pin was in the process of being transformed from a square headed pin into a ball or biconical (or possibly medial–banded biconical) headed pin. The pin is 78 mm long, has a shaft diameter of 2 mm and the maximum girth of the head is 8 mm.

this was left behind in the form of fine concentric grooves on the faces.[31] Certain types of ring-and-dot ornament were punched. Others could not be have been produced by punching. In some pins we can see raised rings. One possible way of making these might have been to file the surface down around the intended ring and to use an awl to make the hole in the ring. But the consistency of the known ring-decoration suggests that this would have been a formidable task. So it seems unlikely that the raised rings were made as a result of secondary work. These rings were the result of casting. While the decoration may have been incorporated in the bone or wood models it is more likely that it was made by punching directly into the mould. When the ring-punch was pressed into the clay mould it would have created impressions that would have filled with molten metal when the mould was poured. A close examination of YAT **SF 4189** makes it possible to reconstruct the stages involved in the manufacturing of this pin. The pinner took the rough blank, trimmed away the ingate remnants, the casting spout, and any tabs from the point with a hammer and chisel.[32] With a rough file he then filed off the corners of the head to produce a faceted head. In the process he ran the file across the top of the pin to remove any residual casting marks or debris. Possibly, before filing the top, the pinner removed the flashes from the shaft with a drawknife to reduce the amount of unnecessary filing--this would have saved on tool wear and probably time. Flashes would have been left behind if the mould had not fit perfectly together. Then he lightly filed the shaft to remove any imperfections and to make certain it was round (or appeared round). In the case of this pin the file marks cross the shaft at an angle of about forty-five degrees. Since they follow a consistent direction and are evenly spaced it is apparent that he only turned the pin, while filing, after completing the pass of his file along the entire length of the shaft. Following this he laid the pin on his anvil and punched the ring-and-dot ornament. He cleaned up each punch mark with a engraving/chasing tool and in the process left behind the concentric grooves which line the bottom of the punch marks. To make the ornament he may have needed to strike the surface several times and possibly with more than one punch. This depends upon the type of punch which was being

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[31]These marks may have been left by a graver or possibly a centre-bit drill.

[32]Quite probably the ingate debris was limited because a skilled craftsmen would want to minimize the amount of metal wasted at any one time and it was not necessary to fill the ingate completely.

used. One punch may have been pointed and would have produced the internal dot and this was followed by the ring punch. Alternatively, he might have had a punch with both elements in the tip or pein of the punch; this would help to explain the consistent dimensions of the ornamental decoration. There can be little doubt that the ring-and-dot decoration on Southampton **SOU 177 004**[33] was produced by a punch, an hypothesis confirmed by the precision of most ring-and-dot decoration. The pin from Fishergate **(SF4189)**, like many other late middle and late Saxon pins, was not well finished. No efforts were made to polish away the file marks. Moreover, it is difficult to say whether different grades of files were used. The initial cruder filemarks would have been removed by subsequent work. But the filemarks appear coarse, so it seems unlikely that this happened here. The amount of secondary working on the shaft was certainly minimal and it seems safe to conclude that it was cast with its slight swelling; a supposition supported by the consistency of the diameter and the quality of the turning of the shaft. This pin is typical of those recovered from other sites (e.g. Southampton[34], Canterbury[35], Ipswich[36]) and the techniques involved in its production are similar to those used to make the other middle and late Saxon pins that we have examined[37]. The process is, as has been suggested radically different from what was common in the seventh century.

Although there was some consistency in the methods of pin production during the middle and late Saxon periods, analyses of the material point to significant changes in the processes and attitudes towards production by the eighth century. This period emphasized quantity and not the quality of production so that pins were mass produced using a limited range of tools and in a limited

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[33]Southampton Archaeological Unit or alternatively SOU 24 819.

[34]See, for example: Southampton Archaeological Unit small finds: SOU 23 4; SOU 31 1460; SOU 169 245; SOU 31 1487; SOU 169 1605.

[35]Canterbury, Marlowe Car Park examples include [Canterbury Archaeological Trust, Small Finds]: CAT MIII SF932; CAT MIV SF864; CAT MIII SF1710; CAT MIV SF1469; CAT MIV SF780; CAT MT SF855.

[36]See the comparative examples recovered from Ipswich [Ipswich Archaeological Unit]:IAS 45 4601Cu; IAS 92 4801Cu; IAS 136 4601Cu; IAS 142 4801Cu; IAS 152 4601Cu; and a pin from context: IAS 5701 0113.

[37]e.g., those from Brandon, Ipswich, or Southampton, Suffolk Archaeological Unit: Brandon SF 945; Ipswich Archaeological Unit: IAS 4801 0973; Southampton Archaeological Unit: SOU 31 574; SOU 31 600.

range of types (a claim given support in the following chapter). The punch marks were restricted almost exclusively to ring-and-dot, but occasionally lines were engraved into the shaft and into the head. For example, one might see the cross engraved onto the flat top of the wrythen decorated hot-air-balloon-headed pin from Brandon.[38] During much of the middle Saxon period the tasks involved in the making of the Fishergate pin were typical of those commonly carried out by pinners.[39]

The most ornate eighth century pins, such as the Kegworth pin [Pl 5.III.b],[40] the Witham pins [Pl 5.II],[41] or the pin with opposed animals from York [Fig 5.46.a][42] are an exception to the trends in pin making. The finishing of these pins went so far as to include their being gilded. In most instances decorative pins of these types were filed, chased, graved and polished. These pins bear strong links with objects, such as strap-ends or disc brooches, produced as part of more decorative metal production. The decorative ornament on these pins was produced by a combination of casting and post-casting finishing with chasing tools. These decorative patterns may have first been incised into bone, a suggestion given credence by the known bone trial pieces. The motifs are similar to those on the Tassilo Chalice. In the instance of the discoid-headed pin from Brandon an even closer parallel can be seen in the Gandersheim Casket (see below). The Kegworth pin[43] was cast in a two-piece mould and probably in a mould not dissimilar to the one for a free-armed cross

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[38]Brandon, Suffolk Archaeological Unit, Small Find SAU 945. The pin was also decorated by two parallel lines on the shaft.

[39]Secondary work can be seen on pins from outside Anglo-Saxon England as well. The pin from grave 144 at the Lombard cemetery of Nocera Umbra is one such example. File marks can be seen across the triangle decoration which adorns the shaft of this pin. Nocera Umbra, Museo dell'Alto Medioevo (Roma), acc no: 1052, Paribeni, 1919: 327. Point lost, 117 mm long, 3.7 mm diameter at head, at the position 15 mm below head it is 4 mm in diameter and 3 mm at the broken end. The pin is decorated with alternating zones of engraved lines around the circumference of the pin and zones of incised triangles which point along the length of the pin but run in zones band the pin.

[40]Leicester Museum Service, acc no: 11 IL 1956; Wilson, 1964: Pl III.a.

[41]BM M&LA, acc no: 58,11-16,4; Wilson 1964: item 19 (132-4) & Pl XVIII; Wilson 1984: Pl 33. [I shall dispute below whether the Witham pins were intended to be pins at all. My analysis suggests that in their 'original life' they were not.]

[42]Yorkshire Museum.

[43]Leicester Museum Service, acc no: 11 IL 1956.

recovered by Cramp and Daniels at Hartlepool (1987: 429). The pin from Roos resembles the decorative structure of these moulds most closely.[44] It would not be too daring to suggest that these moulds were used to make pins similar to the Roos or Kegworth pins. The amount of secondary working would in all likelihood have been minimal, comprising as it did chasing, polishing and occasionally gilding. But here lies a distinction not evident in pins before the end of the seventh century. The later ornate pins, such as the Kegworth pin or the discoid pin from Brandon (Cl Pl III.b)[45] were not composite objects. Instead, they represent activities of model-making, casting and gilding. The artistic quality of these pins does not lie in the same areas of craftsmanship that characterize the seventh century ornate pins. Pinners had turned to skills, such as woodcarving, boneworking and sculpture, which were not part of their craft in the previous century. We must keep in mind that these pins were not run-of-the-mill, but are rather unique among the corpus of eighth and ninth century material. In contrast, the Fishergate pin described above is typical of the kinds of pins and of the craftsmanship of pin making from the late seventh century onwards. The evidence derived from common middle and late Saxon pin groups indicates that a simple set of homogeneous activities was involved in manufacturing these pins (see the Fishergate pin discussed above).

We know that in both the middle and the late Saxon period fine jewellery was made; many surviving examples have long been illustrated in David Wilson's catalogue of the late Saxon metalwork in the British Museum Collections (1964) and more recently in his *Anglo-Saxon Art* (1984). To make a good deal of this material craftsmen relied on skills of carving models; from these moulds could be made. A few pins relied on individual models. Pins of less complex composition made from simple models were more common. They were, as we have seen, heavily worked after casting. The greater majority of these pins were not finely detailed or carefully polished; rather the survival of tool marks suggest they were quickly and cursorily finished. It seems likely, therefore, that the pins were the work of craftsmen as opposed to artists. Although skilled

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[44]Hull Museum, acc no: 1500.42. See also, Clark 1942: plate facing 333.

[45]Suffolk Archaeological Unit, (Bury St Edmunds).

they were independent artisans. These craftsmen made the pins like those from Hamwic[46], Fishergate[47] and Ipswich[48]. In contrast to this some pins like the Kegworth, or Barham[49] disc-headed pins are part of specialized metalwork in which intricate moulds were used and detailed models required to make these moulds. But as a group they are an exception to the general trends in pin making which fostered the development of an independent craft. This new craft must have been a draw for workers because the post-casting effort was quite labour intensive. But the most influential cause of increased labour must have been a rise in the popularity of pins as a result of changes in fashion. To satisfy these market demands more pinners would have been needed. The community of individuals specialized in producing these commodities, therefore, grew.

The documentary evidence is of little help in improving our understanding of metal production. I did wonder if it would be safe for us to draw assumptions about workers from the relationship between a smith and his noble recognized in written laws of one Anglo-Saxon king in the seventh century? A smith, according to these laws, belonged to his noble. King Ine, in his laws, established the right of a noble to take his smith away with him.[50] This would suggest that when Lords were sedentary so were craftsmen. A smith was essential to a lord, not only because smiths produced weapons, but also because smiths made tools. Whether smiths were skilled in jewellery making is difficult to say. For all but the most powerful and wealthiest of society the requirements for jewellers would have been less frequent than the demand for weapons and tools.

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[46]e.g., Southampton Archaeological Unit, small find nos: SOU 24 18; SOU 26 300; SOU 32 161; SOU 169 1973.

[47]e.g., York Archaeological Trust: Fishergate small find nos: YAT SF4451; YAT SF2669; YAT SF4935; YAT SF4177; YAT SF3964; YAT SF6174.

[48]e.g., Ipswich Archaeological Unit, small find nos: IAS 43 4601Cu (context: IAS 4601 0034); IAS 359 4801Cu (context: IAS 4801 2108).

[49]IAS 018 389. Silver disc-headed pin recovered by a metal detector user at the site of Barham in Suffolk. The pin shaft is lost from just below the head. The decorative motif of the pin closely link it with the Roos pin. [This pin was purchased by the British Museum, after I had examined it in Ipswich.]

[50]Laws of Ine, number 63. "Gif gesidcund man fare, Ponne mot he habban his gerefan mid him 7 his smid 7 his cildfestran." F.L. Attenborough, 1922, *The Laws of the Earliest English Kings*, (Cambridge: Cambridge University Press).

Whether jewellers served one master, were sedentary or were peripatetic they produced in the late sixth and seventh century at least jewellery of a style not common before. These workers must have plied their skills as demand and materials dictated. It is no use postulating workers with equal access to resources beavering away in one place buying goods as needed when scarce resources were the result of long–range exchange, which was also probably infrequent. The only local alternatives were hoarding, raiding and occasional gifts––hence a craftsman tied to a lord might be equated to a warrior: he remains only as long as his lord can provide wealth. Since most of the pins we see from this century were composite, like jewellery, we can observe a radical change between this and the next century. In the next century pins were not composite, they were cast from copper alloy and then finished. Such production methods were made possible by the beginnings of an urban economy which brought more consistent supplies of raw materials to specific locations. Changes of this kind made it possible for workers to concentrate on production at a single place. Moreover, demand for their work appears to have been fairly large. So, whereas in the seventh century jewellers were tied to their lord either in a way similar to the bonds which held the smith or because the lord controlled scarce resources, these ties can not be said to be a feature of the eighth century. Even if ports were regulated as to the incoming and outgoing of goods the control would have been for taxation purposes and probably would not have effectively exercised control over redistribution.

In the fledgling urban environment of the eighth century, changes in exchange networks and more general availability of some classes of metalwork (e.g. strap–ends[51]) fostered a broader access to raw materials. If recovered finds are a representative cross section of the material in use, these were predominately small functional objects. If the concentrations of finds are a fair indication, the demand for pins was large. Independent craftsmen would seem by the early eighth century to have begun making pins in this urban environment with its increased access to materials. The relationships and controlled access to raw materials that underlay seventh century production systems

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[51]The proliferation of strap–ends may have been the result of a change in fashion, but it is indicative of the growth of a popular metal working industry.

now differed radically from that apparent in the eighth century. This diversity of access continued to evolve throughout the next four hundred years.

4.iii. The Tools

Even to produce the limited range of middle and late Saxon pins workers used a variety of tools: files, gravers, scorpers, chisels, punches, hammers, anvils, pincers, tongs, rasps, awls, draw-knives, and draw-plates. The use of many of these tools is indicated by the marks they left behind on pins; the use of others can be demonstrated to have been necessary for the craftsman to achieve the results we see today. The former group would include files and punches, whereas the latter group includes anvils and pincers. There is, moreover, good archaeological evidence for many of these tools, although the vast majority of the evidence comes from outside Anglo-Saxon contexts. The similarities between the marks on Anglo-Saxon and other Northern European jewellery combined with the similarities between those few Anglo-Saxon tools which are known and Scandinavian finds, allow us safely to use this contemporary but foreign evidence. An important sixth century group came from grave 10 at Hérouvillette (Calvados) (Decaens 1971: 12-17, 83-91, & figs 18 & 19). Viking tool hoards (e.g. the Mästermyr toolchest described by Arwidsson & Berg 1983; the finds from Staraja Ladoga detailed by Uino 1988); and the artifacts found in numerous smith's graves (e.g. Böhner 1939; Müller-Wille 1977) are examples of foreign sources of comparative data.[52] Petersen (1951) and Oldeberg (1966) also contributed to our knowledge by summing up vast amounts of evidence recovered by earlier Scandinavian excavators. Surprisingly the tools in Anglo-Saxon graves are understudied (but see Wilson 1976: 253ff).

The tools most commonly used in Anglo-Saxon pin making of our period, were files, gravers, punches and hammers. The use of drills has been suggested based on the structural characteristics of certain marks present on the pins (see Caple 1986). This claim will be discounted,

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[52]There is room for debate about the whether all of the graves which include smithing tools represent graves of smiths. Wallander (1989) argued that Grieg (1922) and Petersen (1951) were too liberal in assigning graves to smiths and suggests following Sjøvold (1974) that the better term is graves with smith's tools. In my view there is still a problem here and it is the failure to distinguish between a smith's grave and that of a jewellery maker. Surely there must be some distinguishing characteristics in the tools that were used.

and the marks explained in other ways (see below section **4.iii.c**). These tools make up a small part of the craftsman's set, which also included tongs, anvils, scissors, and chisels.

4.iii.a. Files

The marks of files can be seen on large numbers of middle and late Saxon pins.[53] With some minor exceptions they are quite rare on early Saxon material. This, however, ought not to be taken as conclusive evidence that they were rarely used, because early Saxon pins were finished to a much higher quality than late Saxon material and the file marks were probably removed. To produce a pin like the one from Leagrave would have required some significant post-casting efforts.[54] The file marks on middle and late Saxon pins tend to be crude and represent rapid workmanship. In general the passes of the file seem to have been taken in the same direction as there is almost no crisscrossing or hatching of file lines. The evidence for the use of files is not confined to the marks on the artefacts. Petersen (1951: 94–97) discussed files from Norwegian sites, Oldeberg (1966: 70) described others from Scandinavian contexts, and Arrhenius detailed those from the smith's grave at Hovgårdsberg (Vendel) (1979: 407–411). Three files are known from Helgö (Tomtlund 1978: 16). Other files come from Danish graves and hoards, such as the smith's grave at Lejre (Andersen 1963; Müller-Wille 1977: fig 7.3 & .4), and the smiths' hoard in the wood at Tjele Manor (Munksgaard 1984). At least two files were recovered in the Mästermyr tool-chest (Arwidsson & Berg 1983: 12). The question of whether the Mästermyr files are for woodworking or metalworking remains unresolved. But if the woodworking tools were intended for making handles for items such as knives or tools and models in bone or wood then they would not be out of place in a metal worker's toolbox. Certainly we would be mistaken to assume metal workers were not skilled in bone or wood working.

In Anglo-Saxon contexts files have come from Thetford (Rogerson & Dallas 1984: 77 & fig.116.10) and the rich metalworkers grave at Tattershall Thorpe (K. Leahy, pers comm.). The

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[53]See the York example described above.

[54]BM M&LA, acc no: 1906,2-13,6 (pin is marked 1906,2-13,7).

excavations at Coppergate have also produced these tools (Ottaway, pers comm.). All the files so far recovered are made of iron and range in size from over 410 mm at Nes, Kvinnherad [Hord.] (Petersen 1951: 94) to the very small file at Coppergate of 87 mm (Ottaway, forthcoming). Tomtlund reported on the three relatively small files from Helgö (1978: 16).[55] He thought these had been used to finish objects such as pins. At Coppergate, analysis of the iron files produced bronze residue adhering to the space between the teeth (Ottaway, forthcoming). As yet there is no evidence to link particular pins with any files, but the evidence for working confirms their use. At the very end of our period, Theophilus in his *De Diversis Artibus* reports on the making of files. His work indicates that a workshop would have had a series of graded files which included not only files of different coarseness and spacing of teeth, but also a variety of shapes. The quality of the file evidence is not as rich as the marks on the artefacts themselves (see for instance Fishergate **SF4177** or **SF3964**; Brandon **SF4223**, **SF3322**, or **SF2301**).[56] Nor is it as diverse as the historical evidence would lead us to believe it should be. Of course, with many of the tools having been produced in iron we would hardly expect that many tools would survive the natural process of decay.

4.iii.b. Gravers

No tools for engraving decoration have so far been identified from Anglo–Saxon contexts, but the telltale marks have been observed on pins. Much of the evidence is restricted to engraved lines that adorn the pin shafts, but some evidence comes from the post–casting work on the heads of the pins where linear ornament needed to be engraved. The thread–like multiple ring collar on

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[55]Files from Helgö:

Small Find Number	File Length
1261	103 mm
1500	80 mm
2281	92 mm

Although 1500 is smaller than the Coppergate file it is not the smallest because the tang is fragmentary and incomplete.

[56]York Archaeological Trust and Suffolk Archaeological Unit. Also filing may be seen on pins from Flixborough: SF3675; SF1815; SF5750 [Humberside Archaeological Unit].

the silver pin from grave 6 at Kingston, along with the five incised lines on its shaft were produced by a graver after casting (Faussett 1856: 42–43 & fig in text).[57] Similar work appears on the pin from grave 12 at Sibertswold (ibid. 105 & Pl 12.fig 22).[58] From middle Saxon contexts at Southampton comparable engraving can be identified on **SOU 169 245**.[59] This pin has two incised lines 27 mm above the tip. Some gravers would need to be quite complex. The tool used to make the beaded wire surrounding the inlaid garnets from Faversham is an example of such an instrument. A common middle Saxon motif on ball–headed and hot–air–balloon–headed pins was wrythen ornament: it appears on at least twenty–seven pins in our sample. This is illustrated by the decoration of the ball–headed pin from Six Dials (Southampton) [**SOU 31 11**] or the hot–air–balloon–headed pin decorated with wrythen ornament [**SOU 24 014**].[60] It can also be seen on pins from Ipswich,[61] Brandon,[62] Colchester (Crummy 1983: 30 & fig 31.499), Shepperton Green (Clark 1979: 118 & fig 13.6), and on a pin recovered from a pit dated between 850 and 1050 at Canterbury.[63] The form and the consistency of the wrythen ornament leaves me in doubt whether it was engraved after the pin was completed, but there can be little doubt that gravers would have been useful to add definition to the ornament after casting. Gravers are not entirely unknown, but our examples come from Scandinavian contexts. Werner's analysis of 'Goldsmiths', Silversmiths' and Carpenters' Tools" from Helgö led him to propose that six tools might have been gravers (five ball–tipped and one pointed graver) (Werner 1981: 46). One of the difficulties with identifying gravers

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[57]Merseyside County Museums, acc no: M6089.

[58]Merseyside County Museums, acc no: M6391.

[59]Southampton Archaeological Unit.

[60]Other illustrations include: Southampton: Southampton Archaeological Unit, small find nos: SOU 26 398; SOU 169 6; SOU 177 629.

[61]Ipswich Archaeological Unit, small find nos: IAS 154 4601Cu; IAS 19 5502Cu.

[62]Suffolk Archaeological Unit, small find no: 945.

[63]Canterbury Archaeological Trust, Marlowe IV, small find SF780 form layer 247. This is a ball–headed pin with a cushion collar, hipped shaft, but faceted–round shaft above and below the waist. This pin is 79 mm long, has a diameter of 2 mm, a maximum head diameter of 5 mm. The hipping begins 28 mm from the tip.

relates to the survival of the sharp end which was subject both to wear and corrosion of iron and therefore becomes almost impossible to identify.

4.iii.c. Drills

The evidence for drills comes solely from the marks left on the pins and it might be argued that much of the ring-and-dot ornamentation on pins of middle and late Saxon date was produced by the use of a drill. The evidence appears in the form of turn marks on pins from Southampton, Canterbury, Ipswich and York. Even if we were to accept the hypothesis that these marks are the telltale signs of drill use, drills are with one exception absent from the archaeological record. Theophilus, the author of our twelfth century source on manufacturing, makes no mention of them as present in the metalworker's workshop, so conceivably these marks might not have been left by drills at all. They probably result from either a special kind of graver used to make such ornaments or a chasing tool intended to touch-up punch marks. Alternatively this concentric marking may reflect the turning of the punch during striking of the pin. Although Waller has suggested that drills were used to make the holes in the triangular head-plates of some pins from Scandinavian (1972: 44), it is impossible to support the suggestions of their use in Anglo-Saxon contexts. Since I have not examined the holes in the head-plates I have not been able to substantiate this supposition. It seems most likely that these holes were punched and finished with a circular-sectioned file. There are two pins from Bifrons' grave 89 which are most closely paralleled by pins from Scandinavian contexts.[64] These pins belong to a sub-group of Scandinavian Group I (see above Chapter 2). They have holes in their flat triangular terminations and these held wire rings. These holes appear to have been the result of punching and filing. This suggestion was not confirmed by microscopic analysis. Since the marks inside the hole have been smoothed by the rubbing of the wire rings against the interior of the hole we would probably learn little from further investigation. Pirjo Uino reported that among the tool hoard of Staraja Ladoga there were two drills (1988: 217). If this is the case then it might be possible to explain many of the markings on the pins by reference to these

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[64]Maidstone Museum, acc nos: KAS 376 & KAS 377.

tools, but the evidence is limited and there are plausible alternative explanations. So, for the moment we must reserve judgment on the issue of drill use in pin making.

4.iii.d. Hammers

Hammers were a common feature of the metalworkers' toolbox. They have been discussed at length by Petersen (1951: 78–84) and Oldeberg (1966). Tomtlund (1978: 23–25) described those from Helgö and Arwidsson & Berg (1983) examined those from the Mästermyr tool hoard and Munksgaard depicted the four from the hoard of tools found at Tjele Manor (1984: fig 1) and Decaens recorded those from grave 10, a mid–sixth century grave, at Hérouvillette (1971: 83–90 & fig 18). Hammers are known from Anglo–Saxon contexts: Coppergate (Ottaway, pers comm.), Southampton (Brisbane, pers comm.), and Thetford (Rogerson & Dallas 1984: 76 & fig 115). The evidence indicates that in any workshop a range of hammers would have been used. Indeed, Müller–Wille figured a great variety of different types of hammers coming from the graves of smiths (1977: Abb 9). The grave find at Byland included a range of hammer head sizes and shapes in one grave (ibid.). In a restudy of smith graves in Norway, Anders Wallander reported that three types of hammers were common: bush hammers, double–headed hammers, and 'rest hammers with peins' (Wallander 1989: 127–129 & fig 2). As Müller–Wille has shown, although the hammers may fall into three types, metalworkers had a full range of hammers of many different individual types with which to work.

4.iii.e. Punches

Werner divided punches into two main groups: dot punches and pattern punches (1981). Most punches were made of iron. Because the pein on a punch is subject to substantial wear and to oxidation, there is little surviving evidence of the motifs on punch peins. For example, those from Thetford described by Rogerson & Dallas (1984: 77 [figs. 116.8 & 116.9]) like those from Helgö (Werner 1981), had unidentifiable patterns on their pein. One punch from Thetford (PN8, Site 2N [668]) probably was not used for a decorative purpose but was used for punching holes in iron or

copper alloy. The marks left by various punches on the lead pad in the Mästermyr find include rings-and-dots and an hourglass. The predominant motifs were combinations of rings and dots.[65] This is the most common form of decoration on Anglo-Saxon pins, although there is no reason why these should be the only patterns used. Irish pins of the tenth and eleventh centuries, for instance, are decorated with a range of other punched patterns (e.g. grid patterns[66]), but these do not appear on types identified from English contexts.[67]

4.iv. Gilding, Granulation and Filigree

Even a cursory glance at a handful of pins shows that other techniques beyond those discussed must have been employed in their construction. Other activities involved in pin production include gilding, granulation, filigree decoration, garnet working, and gold-foil making. In some instances it is possible that pre-made components were obtained by craftsmen. For instance pre-cut garnets or beaded wire might have been exchanged. There are some patterns of use to decorative activities. Use of gold foil and garnets was confined to the seventh century. Filigree work occurred often in the seventh and with some regularity on one or two ninth/tenth century types. Gilding, one of the methods which affected pin production, began to be more frequently used from either the end of the seventh century or the beginning of the eighth century and was, at least during the middle Saxon period, a common activity. We can begin by mentioning a gilt ball-headed pin from Ipswich

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[65]This includes: e.g.
Ring:
Ipswich Archaeological Unit IAS 142 4601Cu (context: IAS 4601 0936).
Ring-and-dot:
Whitby, British Museum Whitby Bequest, items 306, 308, 310-319.
Raised-ring-and-dot:
Brandon, Suffolk Archaeological Unit 2068.

[66]See, for instance, the decoration on E190.4443 (28.10.80) Dublin, 1980 [FS III 80:1810]. The kidney-shape-headed stick pin is decorated on both its obverse and reverse by a spotted diamond shape. The pattern is grid-like.

[67]See the decoration on E190.6232 from Fishamble St, III.6 (Dublin, 1981). This facet-headed pin has a variety of decorative motifs on its head.

with wrythen ornament.[68] Oddy has discussed the process of gilding at length (1981). It seems that much of the gilding was done with fine gold leaf and animal or vegetable glues (ibid. 76). In the case of 'fairly pure silver or copper by burnishing [it could be applied], provided that the substrate is scrupulously clean when the leaf is applied' (ibid. 77). However the most common method of attaching gold foil was by mercury gilding. In this process mercury was applied to the surface of the pin and gold leaf was placed on top of this and then the material was heated, the excess mercury evaporated and the gold adhered (ibid. 78–79).

Excavations in 1985 at Barking (perhaps the site of Barking Abbey) recovered 30 pins from contexts most of which dated before AD 800 (MacGowen, Passmore Edwards Museum, pers comm.). Of these four were partially gilt silver.[69] In all four cases the gilding survived only on the head of the pin and on the first couple of millimetres of the shaft. Below this point no gilding can be seen. This does not seem to be because it has worn off since gilding generally wears off unevenly and examination discloses no occasional flecks or patches on the shaft, an effect which can be seen on the gilt pin from Dover, grave 83.[70] It seems, then, that the pins were not gilded below this point. This restrictive use of gold might be taken to suggest that the limited gold resources were being extended to provide the maximum effect. In four cases the pins are otherwise undecorated ball–headed pins with head diameters of between 3 mm (Barking Abbey **SF1764**) and 5 mm (Barking Abbey **SF1699**). One of the Barking Abbey pins, **SF1748**, a pseudo–inverted–pear–headed

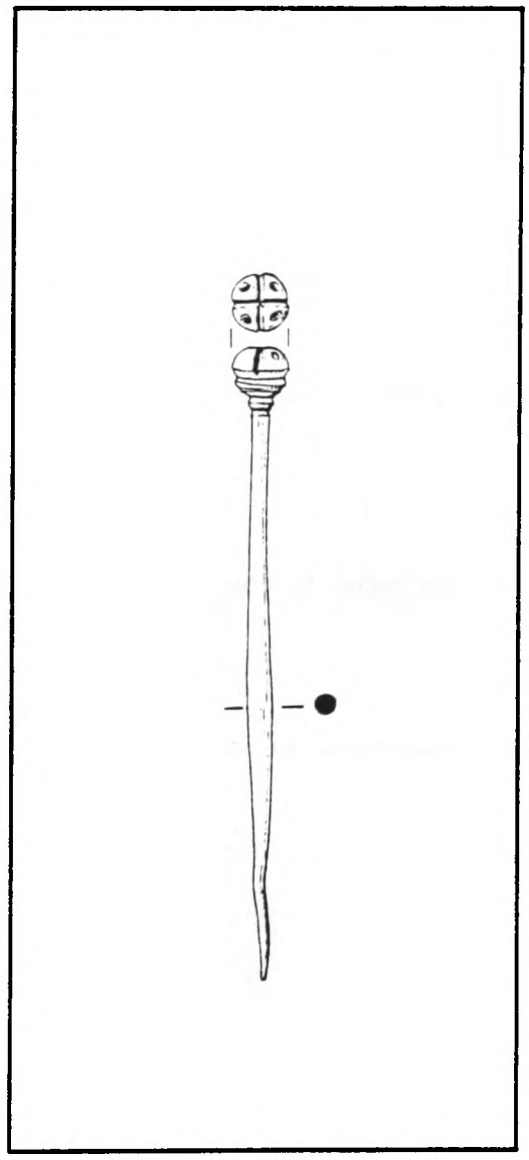

Figure 4.5: Pin from Barking Abbey.

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[68]Ipswich Archaeological Unit, IAS 154 4601Cu (context: IAS 4601 0844). This cast pin only survives to a length of 33 mm. The diameter of the shaft is 2 mm and the head has a diameter of 7 mm. The pin was cast. Although there were no directly associated finds, the stratigraphic evidence allows us to assign this pin to the middle Saxon period.

[69]Passmore Edwards Museum, Barking Abbey, small find nos: SF1764, SF1699, SF1748, SF1895.

[70]BM M&LA, acc no: 1963,11–8,447.

pin, was decorated (Fig 4.5). This pin has a hipped shaft and a ring collar. The top of the head is divided into four equal quadrants by an incised line. In the centre of each quadrant a single dot has been punched. As would be expected this decoration was added before the pin was gilded. While these examples of gilding show use of this technique in the eighth century, other examples indicate that the method continued to be used in pin production in the ninth and tenth centuries.

The silver-gilt pin recovered by chance in 1983 at Bredfield (Suffolk) (Martin, et.al. 1984: 321 & fig. 79) (Fig 5.50.b) is not only an example of a gilt pin, but it is also an outstanding example of the use of fine wire and granulation to produce decorative components.[71] The pin is 65 mm long. The diameter of the head is 9 mm and that of the shaft 1.5 mm. The shaft tapers gradually along its entire length. At the upper end, where the shaft enters the spherical head, there is a small suspension loop to allow the pin to be secured to the garment. The hemispherical head is divided into two zones by a medial band of braided wire. Both the upper and the lower zones are decorated by beaded wire circles separated by a single granule of gold.

This pin compares favourably with a find made by a metal detector user at Martlesham (Suffolk). The silver spherical-headed pin (Fig 4.6) consists of two hemispherical sections.[72] The shaft of the pin is not extant. The head is, like the Bredfield pin, decorated with rope wire and granular ornament. In both these pins the decorative wire must have been made by being pulled through a draw-plate and then either worked with a bead file, a special draw-plate or an organium. The maker of the pin used the wire to create the double medial band of rope wire work. In the top zone three large circles are laid out with three small circles. These latter circles are grouped around a small granule of silver – creating a trefoil effect. The large

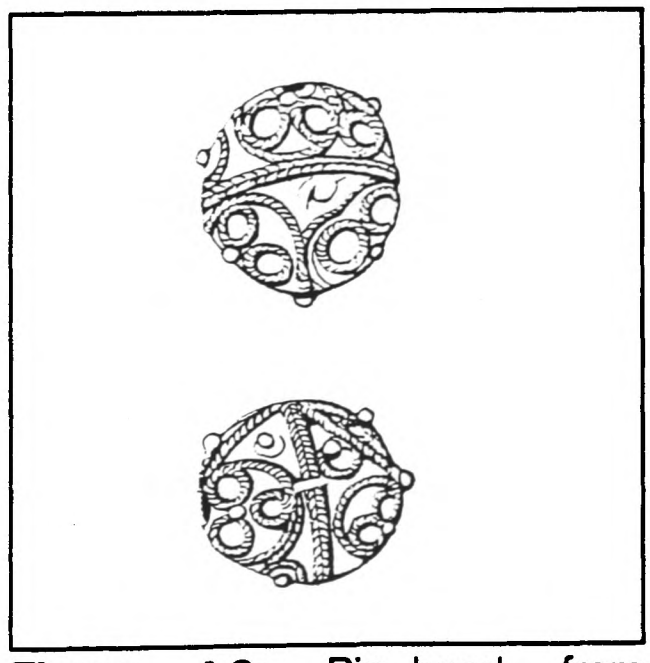

Figure 4.6: Pin-head from Martlesham (Suffolk), (Drawing Ipswich Archaeological Unit).

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[71]Bredfield, Suffolk. Moyses Hall (Bury St Edmunds), acc no: 1983.19.

[72]I examined the Martlesham pin at the Ipswich Archaeological Unit. Following this it was returned to the finder. The bead head only survives to 8 mm long and has a maximum girth of 7 mm.

circles are separated one from the other by a small circle enclosing a granule. There is a large single granule at the top. The decoration below the medial band is similar to that above.

In both the Bredfield and the Martlesham examples we see the artist taking advantage of some fine jewellery methods. These pins belong to a group of globular-headed pins (see Chapter 5 the globular-headed Type **LXXIX**). Although none of the known examples has been recovered from a securely dated context they seem to date mainly to the ninth and tenth century. They were of limited popularity and their use is related to the Anglo-Scandinavian settlements. As explained earlier, the globular heads reflect forms and techniques used in Viking bead making. The distribution of the pins indicates that they were a development in England. While the majority of these globular-headed pins had filigree work added to their hemispherical heads, others were cast imitation.

The production of these pins involved the attaching of spherical drops or granules of metal to the surface of the object to create a decorative pattern (Wolters 1980; 1981; 1983). In the Bredfield and in the Martlesham pin the granulation is in silver. The granules were produced by heating metal fragments to melting point. At the melting point the physical properties of metals result in their being transformed into globules. If these globules are rapidly cooled they retain their spherical form in their now solid state. One of the most popular methods for producing these granules was by heating metal beyond the melting threshold above water and allowing the droplets to fall into the water. This caused the droplets to cool rapidly in spherical form. Before they were used they were sorted by size. Wolters (1983: 45) has suggested that as an alternative, to water the globules might have been dropped into charcoal. This approach, however, has the disadvantage that it tends to result in numerous examples with irregular forms because of the surface pressures imposed by the charcoal. Wolters argued that an alternative method was to place short wire or metal fragments into a crucible and then to place the crucible onto layers of charcoal. The fragments were then covered by an additional layer of charcoal. The crucible was sealed and heated. When it had been removed from the furnace and allowed to cool the charcoal powder was washed away leaving

the granules for sorting. The size of the granules in both methods was predominately dependent upon the dimensions of the metal fragments. The finer the wire, the finer the granules.

The gold granules were attached to the surface with a copper alloy solution or with a chemical solder (Demortier 1984: 31; Touvenin 1973). In chapter 52 of his study of the minor arts Theophilus describes the use of a flour based paste to position the granules for soldering. Wolters' systematic analysis of the soldering alternatives led him to conclude that non-metallic or colloid solders were the most commonly used (1981: 126). Few examples of granulation display evidence of residual solder, and this is certainly the case of the Bredfield or the Sutton pins. According to Wolters, ancient solders

> relied upon the reaction of copper compounds, applied to the areas to be joined in admixture with organic adhesives (which also act as reducing agents), to form copper(II) oxide Cu0, the reaction taking place at 100°C. Carbonization of the adhesive (600°C) causes reduction of the oxide to metallic copper (850°C), which in turn forms a eutectic with silver and a near eutectic with gold alloys of high silver content. The same reaction with gold alloys of high copper content occurs at about 900°C. Bonding is thus achieved by surface alloying (ibid.).

Furthermore he found that continued reheating of the object being gilt produced a 'uniform distribution of the copper in the gold and therefore left no residue' (ibid.).

Besides producing fine granules, craftsmen needed fine wire for filigree decoration. There are numerous ways to produce wire for filigree decoration. Oddy identified four: hammering, block-twisting, strip-drawing and strip twisting (1977: 83 - 86). Close examination of the wire can often provide some indication for the method of production. Methods of rolling and block-twisting appear to have been most common during the earliest part of our period. Filigree could be produced by rolling a rectangular wire piece until it was round and was of an acceptable thickness. An alternative approach to rolling was block-twisting a square rod (Oddy 1977: 83). The variation within the forms of wire was produced by working the wire either by twisting or with a bead file. At the close of our period it appears that drawn wire was the most common. Drawn wires can be identified by the parallel lines which run along the length of the wire. Possibly as early as the ninth century wire drawing was practised but before this date the most common method of manufacture was by rolling thin rods round. We have seen wire produced in this way in the filigree decoration on the globular-headed pins (e.g. Bredfield [Fig 5.50.b]) and it is known on other groups of pins which include the

Evesham pin suite (Fig 5.28.b). This gold set of pins was produced in the seventh century and includes a great deal of rope filigree work. I have looked closely at the wire used to make these pins and have concluded that two types were used. The herringbone or braid rope work appears to be made of four wires of which two strands braided together and then these pairs are laid down next to each other. The central wires and edging wires were produced with a bead file. Similar wire was used to edge the pin and catches. The pin set is unique but the filigree work is not. The wire appears to have been made by rolling. Some of it was subjected to secondary twisting and filing. Manufacturing of many seventh century pins involved the dual processes of filigree and cloisonné goldworking. Both activities can be seen on the Wingham pin (Cl Pl I.d & Fig 5.26.b) with its highly abstracted bird beaks made of gold-foil-backed garnet settings and its adornment with filigree strands. Of these two processes filigree work is the simplest as it involves only the soldering of gold wire to the surface of the pin.

Cloisonné work required the soldering of the edges of thin strips of gold to the surface of the pin-head, or the insertion of thin gold cylinders into the ring head of cast pins (as in the Chartham pin). This created the cells that would hold the garnet in place. The cells were heated which caused them to marginally expand. The garnet or piece of glass was dropped into the cell. As the gold cooled it contracted and if the margin of error is minimal the garnets are held in place by the contraction of the gold around them. In some cases, the garnet or ruby-coloured glass stud was backed by chequered gold foil. Work of this kind can be seen on the Cow Lowe pins, the Roundway Down pins, and the linked pins from Lechlade. The gold foil was produced by pressing thin sheets of gold. The process of production has been discussed at length by Avent & Leigh (1977) and more recently with reference to the Sutton Hoo finds by East (1985).

4.v. Moulds

Analysis of the artefacts shows that for most of the pre-Conquest period pins were cast in clay moulds.[73] The artefacts also indicate that the amount of secondary working required increased over time, but that the quality of that work declined. It appears less post-casting effort was required to complete a cast early Saxon pin, whereas the majority of the production effort in the middle/late Saxon period took place after the primary cast had been completed. One would expect moulds from the earlier period to be more complex than those from the late Saxon/Viking period. However, there is little evidence to support this suggestion especially since we lack surviving moulds which might substantiate this idea. The details of one of the pins cast at Helgö were incorporated into the fabric of the mould (Holmqvist 1972: D69)[74], but, as Waller (1972: 44) explained, this was a rare occurrence. The tell-tale marks left by the production processes involved in making pins like the one from Fishergate (York) (described above) could only have resulted from high amounts of secondary working. This secondary working is indicative of simple moulds including multiple matrices, but incorporating only minimal detail.

Researchers still debate what methods were associated with mould production. Questions such as, 'Were positive models used to directly create the moulds?' or 'Were negative models used to make wax impressions which were set in clay and melted out?' abound in the literature. The evidence from the pins may be informative about the processes of production. In 1975, Vierck argued that a partly decorated model was cast from a primary model ('Hauptmodell'). These were embedded in clay and melted out. This partially decorated model or 'Zwischenmodell' was, in Vierck's opinion, made of lead (1975: 127f). In arguing this case and making other subsequent

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[73]There are alternatives to the use of clay moulds. MacGregor has, for instance, argued that there is an antler brooch mould from Southampton. The mould would have cast a disc with concentric rings of raised dot ornament (1980: 205). He proposed that this type of mould could be reused numerous times. As yet moulds like this for pins are unknown, but there is no reason why they could not have been used. Curle (1974: 301) may have identified another. Following Caple & Vierck (1975) Curle, however, suggested that this might have been used to make a negative model--it strikes us that this would be an incorrect interpretation.

[74]There is no doubt that it is possible to incorporate quite complex motifs in moulds. The strap-end mould from the excavations on Crown and Anchor Lane in Carlisle belonging to the 9th century gives us good evidence about the complexity of decoration which could be included in moulds of the late Saxon period (Taylor & Webster 1984: 179).

claims about the lost lead process Vierck was relying mainly on the work of Christlein at Runde Berg. Christlein discussed two lead models, one of which was for casting a bird fibula and could be dated to the early sixth century (1971: 48). A number of other lead models have been recovered from this and other migration period sites.[75] The models, however, were not confined to the migration period. K. East, for instance, has identified a ninth century lead model from Huntingdon with 'plastic openwork design of Gripping beasts' (1986: 6).

The advantage of the 'Zwischenmodell' was that it could be easily modified and adorned to meet the requirements of a specific client or to include localized motifs. These 'Zwischenmodellen' were in Vierck's opinion transported by either craftsmen or traders. In his view this process explains the spread of primary motifs over a wide area of the migration world. The use of such models explains why, although many of the finished products from different Germanic and Scandinavian regions were not exactly identical, the basic motifs often shared common characteristics. Genrich (1977/8) sought a much simpler explanation. He investigated the difficulties of producing a small brooch like one of those he had excavated from the Liebenau cemetery. He found the production of a positive model in wax, soft wood, or lead fraught with difficulties. The bordering ridges and zig-zag ornament, for example, proved nearly impossible to execute in the positive (ibid. 106). A negative version, was on the other hand, fairly easily made in soft wood. A wax version was then made in the negative wooden model and from this a clay mould could be produced. To avoid damaging the ornamental surface, the inner clay was painted on the wax model and the outer clay pressed on. Finally, the wax was melted out and the copper alloy was poured in.

To use Vierck's argument to explain pin production may be to overcomplicate a simple process of motif transfer and to follow Genrich's suggestion may be to ascribe his inexperienced technical skills in performing this task to migration period craftsmen. By comparison with modern attempts at making palaeolithic axes, the skills developed by continual practice can be shown to

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[75]There are some other lead models known. See for example: Bonnet & Martins 1982; East 1986; Capelle & Vierck 1975 have detailed others. Nessa O'Connor, Assistant Keeper of Antiquities at the National Museum of Ireland has called my attention to the existence of other models at Dooey (Co. Donegal), Clogher (Co. Tyrone) and Hendrum (Co. Down). H.E. Kilbride-Jones 1937, fig 22.65 described a lead model for a brooch pin from Clogher. For a more recent discussion of the dating of the site see Warner 1979: 37, but these conclusions do not alter the information about the model.

result in task performance differences that affect both the time taken in production and the quality of the finished piece. Even the most skilled at the production of stone axes would note the difficulties encountered when using modern levels of task performance to study prehistoric task performance. The same caution must be applied to experimental archaeology studies of migration period jewellery. Many of the ornamental motifs on early Saxon pins could have been executed in the positive. Lamm has argued that the use of wax or lead models could not have occurred without some knowledge of the lost wax process which is not evident at Helgö (1973; 1977: 105–107). As far as pins are concerned there is some evidence to suggest that the production of negative models was unnecessary and positive models could be effective. The late–Pictish and early Norse horizons at Brough of Birsay has provided evidence of the use of bone models in pin production (Curle 1982: 94). While the mould evidence from Birsay is extensive the most intensive metalworking evidence for the period comes from the Scandinavian site at Helgö. Work done at this site can help us to understand the initial processes of manufacturing pins. Quite complex ornamental patterns could be added to the finished cast. For instance, the gilt pin from Brough Hill (Fig 5.8.c)[76], the pin from near Brixworth (Fig 5.7.c)[77], or the pin from Brighthampton (Fig 5.8.d)[78] could all have been adorned after casting, or have had their decorative motifs incorporated into an organic model (wood, bone etc). The use of wax or lead models was probably unnecessary for pin making, since only positive moulds seem to have been necessary for making the moulds.

In 1972 Holmqvist reported that excavations at Helgö had provided archaeological evidence backing the supposition that there was a functional distinction between groups of buildings. Although all the building groups produced metalworking tools, more than 90% came from building groups 2 and 3. The majority of the evidence from building group 3 consisted of crucibles and several thousand moulds. Some of the moulds indicate that the manufacturing of 'one–off' objects was common at Helgö. Craftsmen, however, often produced series of tightly coupled objects. This

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[76]Northampton Museum, acc no: D167/1955–6.

[77]Northampton Museum, acc no: D27/1955–6.

[78]Ashmolean Museum, acc no: 1966.48.

can be seen for instance in some of the groups of brooches (1972: 259), and is unquestionably evident in the sequences of pins. Only fragments and incomplete moulds were recovered and of these 315 were for pins. There can be little doubt that this was an extensive production centre (Lamm & Lundstrom 1976: 20). Curiously, for such an intensive production site, no models were recovered. Lamm has proposed that the models were produced in bone or wood (1977; this is *contra* Arrhenius 1973). Furthermore, as we have seen (*contra* Vierck and others), there is no evidence of the lost wax process having been employed (Lamm 1977: 105). This is important because the Helgö moulds belong to a pan-European type. Lamm found a similarity between the Helgö moulds and provincial Roman moulds, the mould from Mucking and moulds from Celtic sites (i.e. Mote of Mark [Curle 1914], Dunadd [Craw 1929/30], Traprain Law [Burley 1956], Dinas Powys [Alcock 1963]). The moulds from Irish contexts examined by O'Connor (1982) belong to the same group, as do those recovered by Bencard (1984) at Ribe. Lamm's suggestion conforms with the evidence produced at Hartlepool. In a discussion of this material Bailey pointed out that moulds were made by pressing the pattern into a block of clay (Bailey in Daniels 1988: 186). The Hartlepool moulds were dated on the grounds of the typological date of the objects or decorative patterns the moulds would have produced to c. 700 and on radiocarbon analysis to AD 690 ± 70.

The evidence from Helgö demonstrates that moulds often contained the matrices for several pins (e.g. D15, D16)[79]. This is also true of those recovered at Dunadd (Craw 1929-30: 122 & fig 7.3)[80] and Ribe (Bencard 1984: D5929, D6248). The report from Birsay illustrates several moulds of a similar form (Curle 1982).[81] In all cases, the shafts radiate away from a central point, the ingate. There can be little doubt from the form of the Helgö moulds that pins were cast from the base of the shaft. This is also true of moulds found at Dunadd, Birsay, Ribe and sites in Ireland (i.e.

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[79]See Holmqvist 1972 Pl 24. In her study of the Helgö moulds Waller (1972) found that of moulds D1 - D79 which show the head and a portion of the shaft 11 contained 2 matrices, 3 contained 3 matrices, 1 contained 4 matrices. 236 moulds contained only shaft fragments. 50 of these included 2 matrices, 12 contained 3 matrices and 1 contained 4. The predominate characteristic is that pins were cast in pairs.

[80]Although the excavations recovered over 100 clay moulds for making pins, no metal pins were recovered. This Dalriadic site dates from mid-sixth century - mid-ninth century.

[81]See plates, 6.I & 6.II for images of similar unnumbered moulds from Birsay. These are at present in the National Museum (Edinburgh).

Dooey and Lagore Crannog).[82] This multiple-casting method has a major advantage: multiple pins can be produced simultaneously. Lamm has argued that casting pins in this way would have been difficult (1973; 1977). However, the difficulty is imaginary. The problem is that molten metal poured into the ingate of the mould had to flow down the portion of the mould which was to cast the shaft before reaching the head zone. If any metal should cool and block the passage, even partially, an imperfect pin would result. There can be little doubt that Lamm has correctly identified a production bottleneck. However, awareness of the problem would have given the pinmaker the opportunity to avoid it. Although the initial melting point is an absolute value there is a margin between the melt point of a metal alloy and its boiling point. Experience would have taught this lesson. By heating the mould and warming the molten metal enough above the melting point to allow for the partial cooling, which would inevitably occur as the metal filled the mould, the smith or jeweller would have avoided the 'Lamm Bottleneck'.

Most middle Saxon pins were made in two-piece moulds. The forms of these moulds were probably consistent across northern Europe. 'The outer edge of the back portion of the mould was made convex while the edge of the front portion was provided with a corresponding concavity' to allow the moulds to fit snugly together (Lamm 1973: 3). Similar technical devices were used at other sites. The moulds from Helgö, Birsay, Dunadd, etc., do not appear to have been made by layering the clay on wax models. Nor is there evidence from either these sites or the Irish sites producing the 378 moulds studied by O'Connor (1982), to suggest that lead loss processes were used. It seems from the evidence from Birsay, where one bone pin matched a mould that, at least in pin production, positive moulds were used. Madsen, discussing metalworking at Ribe, suggested that,

> 'for simple objects like pins and keys, models of wood or bone may be employed. Wood structure seems to be present in the cavity walls of some key mould fragments.' (Madsen 1984: 94)

A curious characteristic of most excavated smithing tools is that many of them were wood working tools (Werner 1981: 43). One explanation is that these tools were used to make handles for the tools

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[82]Irish sites have produced a great deal of evidence for metalworking. Recently substantial metalworking finds were recovered at Moynagh Lough in Co. Meath (*Medieval Archaeology,* 32[1988]: 298; Bradley 1982-3; 1984; 1985-6). Many of these finds are discussed in Craddock 1989: 170 - 213.

made by the craftsmen. However, they need not only have been used for this. They may also have been employed to make models in wood or bone. Madsen's suggestion, from an analysis of the moulds at Ribe, differed little from the conclusions reached by Tomtlund (1984) and Blidmo following an investigation of Helgö moulds. They all concluded that models were often made of wood.

Lamm proposed that 'the pattern could either be of metal or of organic material such as bone or wood. Before the pattern could be used it had to be carefully sooted, or it would stick onto the clay' (1973: 5). First the back portion was made and then the front by pressing it on to the back. Once this was done the model was removed, the mould sections were clamped together and the ingate cut. After drying, the moulds were heated (to between 700° C or 800° C) so that when the molten bronze was poured in it would flow through the entire mould matrix. The need for two hearths, one to heat the mould and one to heat the metal explains the presence of double hearths at Helgö (ibid. 7);[83] one low temperature hearth for warming the moulds and one high temperature hearth for melting the copper alloy. The mould evidence from elsewhere gives us little reason to doubt that these other moulds all represent a similar set of processes.

From the migration period until the twelfth century moulds changed little. This is true whether we look at moulds from Scandinavia, the Atlantic Provinces or Ireland. In Ireland, for example, O'Connor found that the same techniques that appear to have been used at the fifth to sixth century AD site of Garranes (Cork) were also used at later sites like Dooey, Ballinderry, and Lagore Crannog (1982). Excavations at the site of Moynagh has produced material that belongs to this group (Bradley 1982–3; 1984; 1985–6). Similar conditions prevailed in Scotland where the change in casting technique between Traprain Law and the late–Pictish and Norse contexts at Brough of Birsay was almost minimal. The stability of production methods would appear consistent with the character of the finds which display minimal technical change over time. This can be compared with the finds from Anglo–Saxon contexts where more post–casting work appears to have been done. This is not to suggest that when a pin at Helgö, Birsay or Dooey was removed from its mould it was

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[83]See also Madsen, 1984: 91–95. His description of the process differs slightly.

finished. It was not. Indeed, it needed to have much work done to it. Even before the filing, chasing, graving and polishing of the pin could begin it had to be cut away from the ingate of the mould and possibly from the other pins which may have been cast with it. The cut would either have been made with a chisel or iron shears, both of which are known from hoards and smiths' graves. While these trimmed away ingates are not yet known from England, at Helgö the ingate residues of casting have been recovered.

We face, it is true, a dearth of mould finds from sites in Anglo–Saxon contexts. Similarity can be noted between finished objects and the consistency of the tool marks left during secondary working on both English and Scandinavian material. A combination of this evidence allows us to surmise that the same production processes known from Scandinavia were used in Anglo–Saxon centres. It is worth noting in conclusion that we must concede that the craftsmen were not always successful at casting pins. A 55 mm long pin with a 7 mm diameter hot–air–balloon head is illustrative of this (see Chapter 5, type **LXIX**).[84] The head had partially collapse during casting.

4.vi. Forging

We have noted that pins were either finished or partially finished by filing. Some pins have both file marks and hammer marks on them. My study showed hammer marks tended to be confined to the heads of pins and it appears preferentially linked to particular head forms. Hammer marks were most common on spherical–headed, inverted–pear–headed and biconical–headed pins. These hammer marks resemble the pein of a ball–headed hammer. It seems on the face of the evidence provided by the marks many of these pins were formed by repetitive striking until the head took shape. There is also archaeological evidence for hammers with suitable pein sizes (Tomtlund 1978). Moreover there is no reason why nail bars described by Petersen (1951: 91) or those recorded by Rogerson & Dallas (1984) might not have been used for pin making. In particular these bars may have been used to hold the pin while its head was hammered into shape.

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[84]Southampton Archaeological Unit, SOU 177 629.

At first this shaping of the head by hammering may seem impractical. Pins from Brandon[85], York and Ipswich do occasionally bear undisputable evidence that their heads at least were formed by forging/hammering. Pins were not made entirely by forging, but forging was used to finish blanks. This forging, like filing, then, was a process of finishing rough moulded pins. Some forms, especially spherical and conical shapes, may be more effectively shaped by hammering than by filing. Forged pins belong mainly to the middle Saxon period.

A number of pins from the early Saxon period appear to have been made by cold-working metal. For example, a pin from Kempston was produced from a metal rod.[86] A square rod about 2 mm wide and 2 mm thick was rolled until it had taken on a round section. The end was flattened to form a head and trimmed so that it appeared curved and a hole was punched through the pin. For between 8 or 10 mm below the flattened head the shaft has a square section. It would appear that this was an alternative to rolling sheet metal in the early Saxon period. Ethnographically metalworkers are often seen cold working copper alloy. Certain copper alloys, particularly those high in arsenic/antimony, are well-suited to hammering into shape.

4.vii. Folding and Rolling

Some late fifth and sixth century pins were produced by folding, rolling and hammering sheet metal. In these pins a strip of flat rectangular copper alloy was folded and then rolled on a hard flat surface until it took on a rod shape. The end of the pin was cut to shape and often a hole was punched through. These pins tend to have imperfect shafts with a fracture/fold suture line running the length of the shaft. At least three pins from Leeds' and Harden's excavations at Abingdon (Oxon) were produced this way (1936). B66, B9, and B36 all appear to have been rolled and then finished. B36 has a roll/fold mark running along its length. Clearly the maker took a strip of metal cut to an appropriate length and folded it over, rolled it round, and then flattened the head plate zone; the head fans out from the shaft in a triangular fashion and terminates in a rectangular head.

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[85]Suffolk Archaeological Unit, (Bury St Edmunds) small find no: SF2083; SF3388; SF3172.

[86]BM M&LA, acc no: 91,6-24,151. Another from Kempston [BM M&LA acc no: 91,6-24,152] was made from an elliptical rod that was flattened at one end and had a hole punched through the end.

An awl or a punch was then used to drive a hole through the head of the pin. By comparison Abingdon B61 and Abingdon B113, which were both made the same way, show greater skill and care than the previously mentioned examples. The edges of B113 were decorated with wedge impressions, created by striking the edge of the pin with a chisel set at a slight angle to the medial line of the pin. The 99 mm long copper alloy pin from grave 5 at Filkins (Oxon) with its flat head was produced in a similar manner. Other head forms are known (see below chapter 5)[87]. The folded or rolled pin from Market Overton has a flat diamond shaped head [Fig 5.15.d]. This pin has a section of its shaft missing which affords the opportunity to see the rolled form of the metal. The pin was made from a strip of metal 10 mm wide, this being the maximum distance across the diamond head. Others may have been made from narrower strips as for instance those from graves B60 & B36 at Abingdon which have a maximum head width of 6 mm. There seems no reason to conclude that the head is wider or narrower than the strip which was used to produce the pin. Few of these folded or rolled pins are decorated. We have noted B113 and can also mention a similar pin from grave 3 at Kemble (Akerman 1857a).[88] This pin, which is 148 mm long, has a holed flattened triangular head with lines just below the position where the head and shaft diameter are equal. The folded pins also come from the graves at Butler's Field, Lechlade (Glos). These appear mainly in the Wessex and the Upper Thames valley (e.g. Bassett Down [Goddard 1896: 106 & fig.9],[89] Long Wittenham,[90] Pewsey,[91] and Portway (Andover) [Cook & Dacre 1985: 39 & fig

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[87]Merseyside County Museums, acc no: M7725. A parallel from the same site is in the Ashmolean Museum, acc no: 1909.497e.

[88]Merseyside County Museums, acc no: M7741.

[89]Goddard figured only one pin but at least two are known from Bassett Down, Devizes Museum, S.18 & S.19.

[90]BM M&LA, acc no: 75,3–10,294. This rolled pin has an expanded head broken at the eye in the head of the pin. It is 98 mm long. The pin came from grave 111. Other examples came from Kempston. BM M&LA, acc no: 91,6–24,145 is rolled with a wire ring through a hole in the head. The pin from grave 13 at Kingsworthy with its thin spatulated head has a rolled shaft (Ross forthcoming d in Hawkes forthcoming).

[91]Black Patch, Pewsey. Devizes Museum, Inventory Number: BP SK 44 & BP SK 53.

64.3]). Outliers have been recovered from Market Overton,[92] Duston,[93] and Marston St. Lawrence.[94]

Folding and rolling was rarely used after the middle of the sixth century AD. The one exception is a group of late Saxon spiral-headed pins recovered at Sewer Lane (Hull, Humbs) (Armstrong 1977: 67 & fig 28.114), Comberton (Cambridge) (Walker 1910: 239 & fig 1)[95] and St. Albans (Biddle & Kjølbye-Biddle 1984; Selkirk 1986). These pins were produced from rolled strips of copper alloy. Possibly rolling/folding was not a viable technique for mass producing pins because it produced low quality pins.

4.viii. Strip-drawing

Methods of hammering and casting became less fashionable as strip-drawn pins gained popularity. Strip-drawing offered an alternative method to the casting of metals for the production of needles, pins and wire and because this became the major post-Saxon method of production we conclude the discussion of production by looking at this method. The making of strip drawn pins was predicated on the development of the craft of wire drawing. To make wire a strip of metal was pulled through progressively narrower holes each producing a finer gauge of wire than the last (Oddy 1977).[96] After every two or three passes the wire needed to be heated until it was red-hot and allowed to cool slowly. This process of annealing was essential to keep the wire from becoming brittle. Woolrich reported that Joshua Gilpin

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[92]Oakham County Museum, acc no: 0549.

[93]Northampton Museum, acc no: Y1021.

[94]Dryden 1849: Pl XII.7 & .11 figures only two of the five which he recovered from his excavations. Northampton Museum, acc no: D170/1955-6; Ashmolean Museum, acc no: 1953.73.

[95]University Museum of Archaeology and Anthropology (Cambridge), acc no: 30.1589.

[96]Oddy (1975) sums up much of the earlier research, but Thompson (1935), Carroll (1970, 1972), and Thomsen & Thomsen (1974, 1976) all give other evidence. A more recent discussion is in Tylecote, 1987 (269-271). I might suggest that figure 7.22a shows the drawing of wire being done in the wrong direction. Drawing wire in this way would not take natural advantage of the conical shape of the draw hole. It should be reversed so the wire is pulled from the broadest to the narrowest part of the device.

> in an account of a wire mill in Ireland (September 12, 1796) he mentions that steel wire for wool cards was drawn 26 times and that it was annealed 11 times in the process. (Woolrich 1973)

Much of the problem of wound-wire heads centres on the development and availability of the draw-plate. Draw-plates have been recovered from archaeological excavations and Theophilus included them among the tools he described as present in the twelfth century AD craftsmen's workshop.[97] By the late Middle Ages wire drawing became the dominant method of producing pin shafts throughout western Europe. The wire was drawn to the necessary thickness, cut to length, pointed and graced with a wound wire head. The wire heads had been twisted, cut, and possibly annealed in advance. The examples examined from Whitby[98], Jarrow Slake, Barking, Exeter,[99] York[100], Winchester (Biddle & Barclay 1990: 560-571), Southampton[101], Oxford[102], Northampton,[103] Ipswich[104], and Colchester (Crummy 1988: 7-8) generally have a shaft gauge of one millimetre or less[105], in contrast to middle and late Saxon wrought or cast pins which generally have a shaft diameter of between 1.75 and 3 mm. The production technique not only allowed for mass manufacturing but it also made pin production more economical because each finished object consumed less material. Metal alloying may have played a role in the development of the wire-drawing craft. Wire drawing would have required a copper alloy with a higher zinc content for it

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[97]"Ferri duo latitudine trium digitorum superius et inferius stricti, per ominia tenues, et tribus ordinibus aut quatuor perforati, per quae foramina fila trahantur." Theophilus, *De Diversis Artibus*, [III.VIII].

[98]British Museum, Whitby Bequest, Whitby W231 - W298.

[99]Excavations at Exeter recovered 400 of these pins from contexts dating between the twelfth century and the eighteenth century (Goodall, 1984: 345).

[100]York Archaeological Trust: Fishergate, YAT SF5641; Fishergate, YAT SF603; Fishergate, YAT SF8280; Fishergate, YAT SF5409; Fishergate, YAT SF1793; Fishergate, YAT SF2739; Coppergate, YAT SF11395; Coppergate, YAT SF121; Coppergate, YAT SF2377.

[101]Examples of sixteenth century date come from Cuckoo Lane D (Southampton), Layer 2d, SF1823 - SF1841 (Platt & Coleman-Smith 1975).

[102]Durham 1977: 151 lists the numbers and contexts producing these types of pins from the St. Aldates site in Oxford.

[103]Northampton CU121 - CU251. See the discussion by Oakley & Webster 1979: 261 - 262.

[104]Ipswich Archaeological Unit, from contexts: IAS 4601 0001, IAS 5901 0013 & IAS 5502 0126.

[105]Some pins had a max gauge of 1.75mm and the finest example what a shaft gauge of only 0.75mm.

to be malleable enough to be successfully drawn (Caple & Warren 1983: 276), probably not of the order of a brass (60–80% Cu & 20–40% Zn), although certainly of the order of a bronze (70–90% Cu, 1–25% Zn, & 1–18% Sn). This would have fostered a change in production and in the trading networks--possibly preferential selection of metal sources with naturally occurring zinc. The use of zinc might for instance initially have been more costly. Alloys with lead or tin would have been too brittle to draw. It might have been possible to make up some malleability by including high arsenic or antimony. Therefore, it could be expected that, whereas most cast or wrought pins would have a low zinc content, this would not be the case with strip–drawn pins. This argument was confirmed by P. Wilthew in his study of wound wire pins from Southampton (1984: 9) and Caple's subsequent investigation of pins from York (Caple forthcoming).[106] While Caple & Warren's (1983) and Wilthew's (1984) analyses have pointed to the importance of zinc based copper alloys in their sample, it is not clear that this was the only alloy that was drawn. Certainly Theophilus, writing of practices at the close of the eleventh century or beginning of the twelfth century, indicated that ranges of different metals were drawn for different purposes and that alloying was done by the craftsman. It seems unlikely that wire drawing was done dry, but it is more likely that some kind of wire drawing lubricant was used, such as wire drawing soap.

Strip–drawn pins have only rarely been recovered earlier than the fourteenth century and these contexts may be questionable.[107] The recent publication of examples from Winchester are among the earliest (Biddle & Barclay 1990: 560–571). It seems likely that strip–drawing of pins did not begin until at least the tenth century, though precious metal drawing may have had, as Oddy (1977) explained, a longer history. There are several draw–plates supposedly known from the early Middle Ages and, according to Oddy, Vierck claimed to have known of a sixth–century example. There may be an iron draw–plate from a metalworker's grave at Tattershall Thorpe[108], one from

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[106]In Scandinavia high zinc copper alloys were known to have been used to make objects recovered from Viking contexts (see Oldeberg 1966: 252).

[107]One possibility might be the pins from Whitby all of which have been placed to an early date. Many of these twisted–headed pins probably belong to the medieval use of the site after the post–Conquest refoundation of the monastery.

[108]Lincolnshire Museum Service. Chowne (1982) provides a rough list of the contents of the find.

a site at Southampton (Riddler, pers comm.), and other early draw-plates are known from outside Anglo-Saxon contexts. Müller-Wille (1977) noted one with six holes from a smith's grave and Arwidsson & Berg (1983) have discussed two examples from the Mästermyr tool-set recovered on Gotland. Naumann has described three recovered from Haithabu (1971), and Arrhenius identified a drawbar from the ninth or tenth century at Birka. This bar is quite remarkable 'as the 7 holes in the instrument are markedly conical and are reinforced by a circular revetment of softer iron' (Arrhenius 1968: 293; Oddy 1977: fig 4). These, Arrhenius thought, could indicate that this plate was used in the production of the precious metal wire that appears to have been an important feature of Scandinavian jewellery at Birka (Duczko 1985) and the kind evident on the Bredfield and Martlesham pins. Alternatively it might have been used to draw decorative wires. Such decorative wire appears as filigree decoration on numerous early medieval objects.

There is artefactual evidence to indicate that the equipment existed to draw wire and that precious wire was used to make some jewellery before the tenth century AD. The wire used to make the filigree decoration on the seventh-century Evesham pin-suite[109] might have been produced by drawing, although it could have been equally well-made by rolling and block twisting as I suggested earlier. The draw-plate required to produce this kind of wire must have had a large number of holes to permit the production of very fine filaments. Davidan published a draw-plate from Staraja Ladoga with seventy-eight holes (1980: 212 & fig 1; Uino 1988: 216 & fig 9.17). The draw-plate came from a very early ninth-century deposit. The shape and dimensions of the holes indicate that this was used to make extremely fine wire. The holes begin at 2 mm and progress to a diameter of 0.2 mm. This is the kind of fine wire that Duczko saw on the Birka jewellery (1985). However, little evidence can be found to show that drawn wire was used to make pins. Indeed, many of the supposed strip-drawn examples actually appear to have been folded or rolled and then finished.[110] The use of strip-drawing as a method of pin production would appear to belong to a period outside our study.

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[109]BM M&LA, acc no: 64,12-20,1.

[110]See, for example, the pins from Abingdon (B66, B9, B36, B113) (Leeds & Harden 1936). These are examples of pins which were rolled. Following rolling, the head of the pin was hammered and cut into shape.

Furthermore, it is possible that many of the earlier supposed draw-plates are not draw-plates at all. Indeed, examination of some implements classed as draw-plates would add credence to this suggestion. A number of devices classed as draw-plates were actually bars for making nails. Arwidsson & Berg described a nail-making bar with five holes from the Mästermyr find (1983: 16 & fig 23.86) and they have caused us to re-examine several of the draw-plates. Earlier, in 1951, Jan Petersen had classed heavy-holed-bars, similar to the one recently described by Arwidsson & Berg, as nail-making tools (Petersen 1951: 98-100 & fig 72).[111] There can be little doubt that the bars from Haithabu which Naumann identified as draw-plates were actually intended for making nails. They are structurally similar to the bar described by Arwidsson & Berg and many of those detailed by Petersen. Some other draw-plates may actually have been punching blocks, as Arwidsson & Berg argued those from Mästermyr were (1983: 15). Even the bar from By, Løten, Hed (Petersen 1951: 33 & fig 73) could equally have been intended for nail making. Thus the evidence begins to dwindle. Since we are left with only a very few examples, it seems safe to conclude that with some very minor exceptions, wire drawing was a restricted activity for much of our period. Its use was limited to scarce metals. Jewellery making at Birka relied on the use of drawn wire (e.g. the decoration on the ball-headed pin [Bj 832] [Duczko 1984]) as a decorative element. The drawn wires were exclusively of precious metals (silver or silver-gold alloy). The pin from Birka (Bj 832) has decorative parallels from Insular contexts. These had been almost exclusively adorned with gold or silver filaments.[112] While wire drawing was used to provide decorative materials it was not used to produce pins. Indeed, the pins recovered at Birka had been cast (Waller 1984) and not drawn. Some of the pliers which occur in tool hoards may have be

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[111]The Viking hoard in Lindum Storskov wood in Tjele Manor, Denmark contained two draw-plates 'either for nail-making or wire pulling', Quite probably they were for wire drawing as the hoard also included 'finely drawn and wound bronze wire' (Munksgaard 1984: 88). The two draw-plates which were illustrated in fig 1 must have held insets, similar to those proposed by Arrhenius for the Birka draw-plate. I think they are more likely to have been nail-plates.

[112]Similar use of gold and silver filigree is known from late Saxon contexts. There is the metal detector find from Sutton [IAS Sutton 028] with a gilded globular head. The pin is decorated with rope like fine silver filigree ornament in the shape of S-spirals. The head is bronze, but the drawn metal is precious. There are other parallels from: Wicken Bonhunt (Wade), or the now lost pin from Marlborough (Robinson, 1981). The finest example came from Bredfield and is now in the Moyses Hall Museum (Bury St Edmunds), MH 1983.19 [formerly SAU BFD004], but see Martin, et.al. 1984: 321 (fig. 79).

intended for drawing wire; a proposal most likely to explain the form of the 'long billed pliers' (Munksgaard 1984: fig 1). They could equally have been intended to be used for holding work at a distance from the curved body of the plier head. Work held too close to the plier head would have been difficult to manipulate.

Strip-drawn pins are easily identified by the fine long grooves which run the length of the pin and by the grooved head, although other methods of heading pins were possible. Under magnification the striations of the metal clearly lie along its length and they often appear stretched. In **YAT SF 2739** both these characteristics can be seen.[113] The rise in the popularity of this pin type is most evident from Durham's 'Archaeological Investigations in St. Aldates, Oxford' where in contexts from the fourteenth century onward these pins became a more common find (1977). Similar evidence was recovered from work at Northampton, where this pin type became a common find in fifteenth-century contexts (Oakley & Webster 1979: 260). It was less common from sixteenth/seventeenth century contexts at this site, but this may indicate a change in site use, and not a decline in popularity of this type of pin. Elsewhere it continued to gain in popularity. Coppack (1986) recorded finds of wound wire-headed pins from mid-sixteenth century demolition contexts at the church of St Lawrence Church, Burnham, South Humberside (figs 19.5 -19.7); Crummy (1988) has detailed finds from Colchester. Excavations in Exeter have led to the recovery of more than 400 wound-wire headed pins from contexts dating between the twelfth and the eighteenth centuries. These pins were mainly produced from wire pointed on one end and with a coiled head on the other (Goodall 1984: 345). There is some variety to be seen in the form of these pins: some were made with small coils of wire attached by adhesive (Goodall 1984: figs M.168 & M.169); in other cases the heads were affixed by stamping the coiled end onto the shaft (Goodall 1984: fig M.170).

These production shifts represented a technological change in alloying processes and production methods and a response to a demand for mass production. Since high-zinc wire was known from before the twelfth century the innovation was not the high-zinc alloys (Oldeberg 1966)

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[113]York Archaeological Trust, Fishergate context 2079.

and since strip–drawing was used to make precious wire this could not have been the factor behind the rise in popularity of this pin type. I would suggest that two catalysts fostered the production of strip–drawn pins: the first was the technological solution to mass producing wire heads with an internal diameter of between 0.6 mm and 1 mm. I must add that this did not necessarily mean that the heads were well fixed to the shaft. In Statute 37 Henry VIII.Cap.13 pins were prohibited from sale unless they were 'duble headed, & have the hedde sowdered fast to the shank of the pynne well smothed, the shanke well shaven the poynt well & rounde fyled....'[114] The contrast between these double–headed and single–headed pins can be seen in Coppack (1986: fig 19.5 – 7). Here the single–headed pins, which would have been illegal at the time, was found in association with a double–headed pin. These pins came from a context suggesting deposition in the 1550s. I wonder whether the single wound–wire–headed pin was residual or illegal. The second catalyst was a change in the functional use of pins – the employment of more pins to secure garments.

This method of strip–drawn production was no less labour intensive, although it appears to use less material and more pins could be produced. According to Woolrich, early nineteenth–century 'observers noted that as many as 25 pairs of hands handled each pin during its manufacture' (Woolrich 1973: 179), Tylecote, in an examination of eighteenth– and nineteenth–century brass pins, reported that in 'about 1810 in Birmingham, the wire was twisted by means of a wheel, cut into heads and put on by hand' (1972: 184).[115] The continuity in the process can be seen in a reading of the Diary of Joshua Gilpin for 1796–7. Joshua Gilpin was an American paper–maker who visited

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[114]See also 34 & 35 Henry VIII c.6 [*The Statutes of the Realm*, vol III (1817)].

[115]The making of pins was a major industrial activity from at least the sixteenth century. In 1605 there were 464 pinmakers. In 1626 pin making was introduced into Gloucester by John Tilsley of Bristol (Rudder 1779: 124). Tilsley had procured an advantageous contract with the Mayor of Gloucester. This provided him with cheap industrial space and low cost labour––much like modern industrial incentive schemes. The industry blossomed in Gloucester. By 1802 there were nine factories which employed 1500 workers (ibid.). As Butler pointed out it was the introduction of the solid–headed pin which destroyed the Gloucester industry. During the first decade of the twentieth century, Critchley Bros (Wimberley Mills, Brimscombe) was producing fifteen tons of pins per week with a staff of 300 (Butler 1907: 208). These ranged from kaffir pins (4.5 inches) to minnikins (5/16 of an inch). It seems worthy of note that pin–making employed 'great numbers of women and children' in the seventeenth and eighteenth centuries (Rudder 1779: 63). I have certainly wondered about the gender background of Anglo–Saxon pinners.

Britain on what can only be described as a mission of industrial espionage.[116] There seems every reason, on internal evidence to argue that this process continued with little change from the thirteenth century onwards.[117] Chris Caple's study of the pins from the Sandal Castle excavations (1983) demonstrated this technical continuity in the sample he studied. He identified certain changes in the types of heads and the methods by which they were secured. Caple (1983) confirmed Tylecote's (1972) earlier study which had showed that in the earliest stage the heads were hammered on and later they were secured by stamping. While the ability to make the alloy was available for some time, as well as possibly the method of producing the pins, it seems that there was no immediate market for the finished objects. These smaller pins must have come to be used for something other than the use to which middle and late Saxon pins had been put. This shift in function is difficult to explain. The change between the twelfth and sixteenth centuries in the quantities of these pins recovered from archaeological sources adds confirmation to the suggestion that they were used in a different way from pins in the tenth century AD. Calling on demographic changes would be an inadequate way to explain the increased number of pins. The numbers are better explained by ascribing the increase to a change in fashion.

This fostered a major transformation in working practices. Sheppard (1916) reminded us of the import of 12,000 pins in 1347 for the royal wardrobe for the use of Princess of Joanne at her marriage. This kind of pin was popular throughout Europe. Spatially these pins were distributed

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[116]Woolrich quotes at length from the diary of Gilpin (1973: 171). Gilpin recorded in detail a visit to the manufactory of James Wintle of Gloucester. This provides one of the most detailed descriptions of pin making in print.

[117]See the thirteenth century pin from 49 Bugle St (Southampton), pit 46 (SOU 1730), [Platt & Coleman-Smith 1975: 255, fig 240] and a fourteenth century example (SOU 1760) [ibid. fig 241].

from Otranto (Southern Italy),[118] to Ring in Jutland (Reinholdt 1988: 203 & fig 4),[119] to the North of England.[120]

4.ix. Repairs

There is evidence to substantiate claims that a few pins were repaired after being damaged during the early and middle Saxon periods. Numerous pins lost their points and the most common repairs were those to repoint pins. A good example of this is the biconical-headed pin from grave 35 at Alton (Hants) (Evison 1988: fig 35.4). This pin was repointed after its tip was broken off. Another example is known from the middle Saxon site at Brandon.[121] One pin from Faversham underwent substantial repairs.[122] This silver bird-headed pin is embellished with gilding and garnet inlay (Cl Pl I.c & Fig 4.7). At some point after being made, but before being deposited at Faversham, the pin was damaged and repaired. The original silver shaft was broken away from the head of the pin. The two pieces were given to a craftsmen who cut two holes through the head-plate one above the lower triangular garnet setting and one below it (Fig 4.7). He then attached a new silver shaft. To do this a new shaft may have been cast and then the head end was flattened with a hammer (Cl Pl I.c). Two holes were cut in this to correspond to the two in the bird-head and the pieces were riveted together using silver rivets. The rivets were bent over on top of the shaft-plate and head-plate. Every attempt had been made to fit the repair into the decorative design of

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[118]I examined four pins from Otranto at the British School in Rome. These will appear in the publication of the excavations at Otranto by David Whitehouse.

[119]These pins came from the north wing of the Benedictine Convent. This area produced a full array of needles (201, figure 1) and Reinholdt thought the area may have been used during the period 1430 - 1530 for sewing. The eleven pins range in length from 32 to 49 mm long. Two kinds of wound-wire-headed pins are represented on the site: pressed-ball-wound-wire-headed pins and double-wound-wire-headed pins.

[120]There are a large number from Jarrow Slake (Tyne & Wear).

[121]Suffolk Archaeological Unit, SAU SF 2084.

[122]BM M&LA, acc no: 1130'70. This pin is Frankish and belongs to Möller A.6 [*Nadeln mit flachem Vogelkopf mit Almadinzellenwerk*]. She identified similar pins from Anguilcourt-le-Sait, Grues, Herpes, Nettersheim, St Nicholas-lès-Arras.

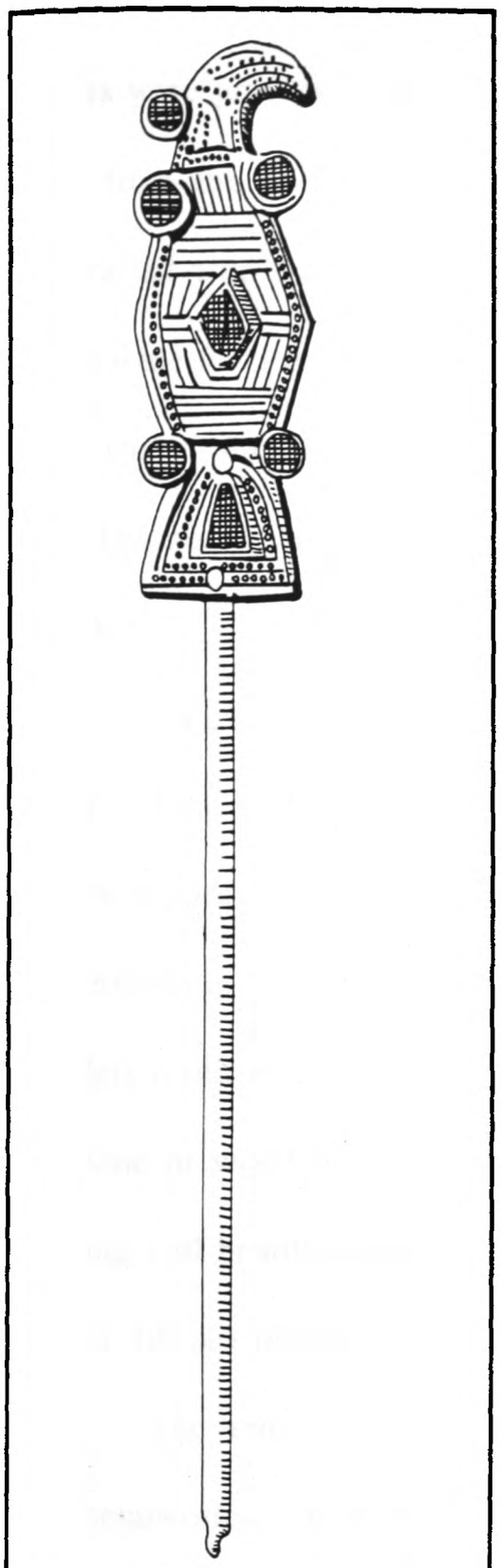

Figure 4.7: Garnet set bird-headed pin from Faversham (Kent).

the pin. After the early Saxon period there is little evidence for the repair and re-use of damaged pins.

Much of the later evidence is confined to the middle Saxon period. The reason for not repairing pins after this date may reflect the abundance of the material. The proliferation of pins becomes particularly marked with the development of strip-drawn forms in the medieval period. These were not repaired. With strip-drawn types pins had achieved a state comparable to today's disposable razors and throw-away watches.[123]

4.x. Conclusion

The processes of manufacturing pins changed during the post-Roman and pre-Norman period. Whereas in the later Middle Ages the technological processes of pin production standardized on a single method - strip-drawing - the Saxon period saw a variety of methods in use - casting, composite working, rolling, and a combination of filing and forging. In the fifth and sixth century most pins were cast in two-piece moulds although a few types were folded and rolled. Casting was not the common practice in the seventh century. During these 100 years

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[123]Some 12,000 pins were used in the marriage outfit of Princess Joanna in 1347 (*Liber Garderobae*, 12 16 Edw.III). Complex one-off pins did not entirely disappear from the corpus of garment fasteners. The horse-headed pin in the Ashmolean Museum is indicative of some later medieval forms (acc no: 1924.776) as also is the king's-headed pin (acc no: 1896-1908 MA.3). During later ages quite elaborate gold and silver pins embellished with precious stones were common. A collection of Elizabethan pins can be seen in the Moyses Hall Museum (Bury St Edmunds). They have continued to be fashionable. In a still later period decorated pins were worn by both men and women. One might consider the nineteenth and twentieth century fashions of wearing hat-pins. Men wore pins in the eighteenth century and many of these pins were adorned with incised zigzag lines not as ornamentation but to keep them from slipping. In still other cases more elaborate methods were favoured: the sureté pins have a clip which slips over the tip of the pin to secure it in place. One example of a later ornate pin is a stick pin now in the Victoria and Albert Museum that was made in the 1860s. This gold and enamel pin was made in the form of a skull and is stamped with 'brêveté' and 'deposé' and bears an as yet unidentified maker's mark. The pin has electric terminals that when connected to a battery cause the eyes to roll back and the jaws to snap. Victoria & Albert Museum, acc no: M.121-1984.

the prevalent method was to fabricate composite pins; some elements of these pins were cast while others were produced by jewellers (e.g. beading of wire, garnet cutting, preparation of gold foils). Pins from the seventh century were also frequently produced in scarce materials. This can be contrasted with the later Saxon centuries during which, if the extant material is a safe indication, there were few pins produced in precious metals. Middle and late Saxon pins were poorly cast and subjected to substantial post-casting modification. Much of this modification effort, although often of a low quality, was intended to compensate for casting multiple partial matrices or the use of pin blanks.

On external evidence it is possible to suggest that a range of tools were used to produce pins. Many of the tools suggested by the marks have been recovered from archaeological excavation. These include hammers, gravers, punches, and files. Much of the preliminary production of pins was undertaken in two-piece moulds. The models for pins were probably made in bone or wood. Such models could be reused, but had small chance of surviving in the archaeological record. The use of bone or wood models seems consistent with the finds of woodworking tools in many of the Viking tool hoards and smiths' graves. Further confirmation comes from Birsay, Ribe and Helgö where fibrous impressions were recorded on the interior of the moulds.

The transformation of pin making would not seem out of place with the shifts taking place in metalworking in general. There is no doubt that the homogeneity of material culture was an increasingly prevalent theme of Anglo-Saxon life the closer we move towards the Conquest. Curiously the majority of late material is in non-precious metals and not ornate. The fact that we are left with few ornate objects has lead to suggestions that the aristocratic segments of Anglo-Saxon society were impoverished. This could not be farther from the truth, as Hinton has shown. He proposed that 'the metal-work may, therefore, reflect not the poverty of the aristocracy in the tenth and the eleventh centuries but their increasing sophistication' (1975: 179). This seems a plausible explanation for the wealthier elements of society, and may reflect general trends in popular material culture. Indeed this change in attitude was examined by Dodwell in his monumental study of *Anglo-Saxon Art*. His work showed that the Anglo-Saxons continued to produce ornate material

culture. Garments of such quality were made in the eleventh century that Chroniclers noted them in our few scant texts (Dodwell 1982: 179–183). Dodwell recalled that:

> In happier days, when her husband had been alive, Queen Edith had sent an Anglo–Saxon vestment to the French monastery of Saint–Riquier. It was to heal a rift with the abbot, Gervin, who was often a visitor to the Anglo–Saxon court. Though preciously embellished, it was a minor element of the liturgical apparel––an amice (a kind of ornate neck–covering)––yet Guido, bishop of Amiens prized it so highly both for its 'extraordinary beauty' and its 'preciousness' that an authenticated account tells us that he gave two churches in exchange (ibid. 182).

Whereas in the earlier centuries investment had been put into objects such as brooches, it seems that in the eleventh century significant wealth went into the production of highly decorated items of clothing. In part this offers some small insight into pins as well. The transition in pins was away from exuberance and towards simple functionality. Pins became popular items of dress after the seventh century and the lack of diversity in pin production would be indicative of mass production in an effort to meet the increased demand. The changes in the demographic base which supported this increasing demand also, in turn, helped to foster changes in the production of the pins themselves. Whereas in the seventh century the pins were used to complement garments, in the later period they came to serve only a secondary functional purpose and had no decorative role.

It is worthy of note that in the production of pins, it was the seventh century which showed the greatest variety of individual creativity. We can see in the Wingham pins, the Evesham pins and the Cow Lowe pins just what this diversity must have been like. In each case the maker tackled a unique problem, and offered an individual solution. Evidence of this nature may fit well with Hodges' arguments about the demand for markers of social differentiation during the seventh century (Hodges 1989: 53–56).

Chapter 5

The Pins from Anglo-Saxon Contexts

In this chapter we will examine the groups of pins that have come from Anglo-Saxon contexts. Much of the basic data on which this discussion is based has been set out in Appendix 1; this appendix is abstracted from a computer-based database of Anglo-Saxon pins that I have been building up in course of my study. The material as presented in the appendix 1 is grouped according to the structure of pin types set out in this chapter.

Each section of this chapter describes the form, the sub-groups, variants (and sub-variants), if any have been identified, as well as the evidence for chronology and the distribution of the pins within the group. Few of these groups of pins remained static during their currency, but some did. The static groups tended to be either those with a narrow chronological and/or spatial distribution or those with forms that were not very complex. In most cases the forms developed over time and in some cases there was a great deal of variation within a particular type. In the case of the linked pins (Group LXIV) it is possible to perceive change in form over time. This can be contrasted with the spiral-headed pins (Group LXV) which vary within a narrow range. The pins belonging to this group can be divided into several sub-groups, but we can define only loosely the period in which these pins were used; we cannot as, yet, see the variance within a chronological framework. This may not support suggestions that such time and space variation was not present, but might indicate the lack of a sufficient number of securely dated examples.

Although in this chapter I investigate the form, chronology and distribution of the groups of pins their function will be examined in chapter 7. Obviously the relationship between form and function was, at least in the case of pins, symbiotic. On the other hand, there are some instances where the form is a reflection of the available resources (e.g. folded pins), or the prevailing fashions in jewellery (e.g. composite pins). The difficulty with discussing function is that many of these pins

have been severed from their context of use (e.g. the pins from settlement sites) or the context of their recovery was inadequately recorded (e.g. the pins from cemetery sites excavated in the nineteenth century, such as the pins from Seamer [N Yorks.] [Wright 1865: 331 & Pl 18.2]). Arriving at an acceptable date for each of these groups is similarly plagued.

At the beginning of many of the types is a reference to a map: these maps can be found at the end of volume II.

I. Organic-headed Type

Sites such as Ipswich, London, Southampton and York (Coppergate) have produced numbers of pin shaft fragments. In most instances these fragments cannot be classified, but among these is a group of shafts which analysis would suggest are not fragments of cast pins, but are all that remains of pins that lost their heads as a result of natural decay. These pins were originally headed with bone, horn or some other organic material. I have as yet been unable to identify any such pin with its head intact and since we lack evidence for the heads I have divided the pins into two groups based on the form of the shaft at the head end.

In a discussion of the 'headless' pins from Shakenoak it was proposed that these pins might have had wooden or bone heads (Brodribb, et.al. 1972: 70–72). This suggestion was not supported by an analysis of the attached debris; this leaves open the possibility for an organic specialist to confirm this hypothesis.

At one end the shafts have a point. Within the sample three shaft forms are known: tapering, swelled, carinated. In all the cases I am aware of the shafts have a round section. The main focus of interest is at the end opposite the point. The two main sub-groups are those with (I.i) a pyramid point at the end opposite to the shaft point, and those with (I.ii) a round or square sectioned end of 2–3 mm in length at the end opposite the point. This zone is not generally greater than the diameter of the shaft. In many cases these pins appear to have residual debris attached to the end of the pin. This residue may represent debris of the pin-head. The second group can be sub-divided into several variants: those with no collars; those with a collar produced by the incision of two lines into

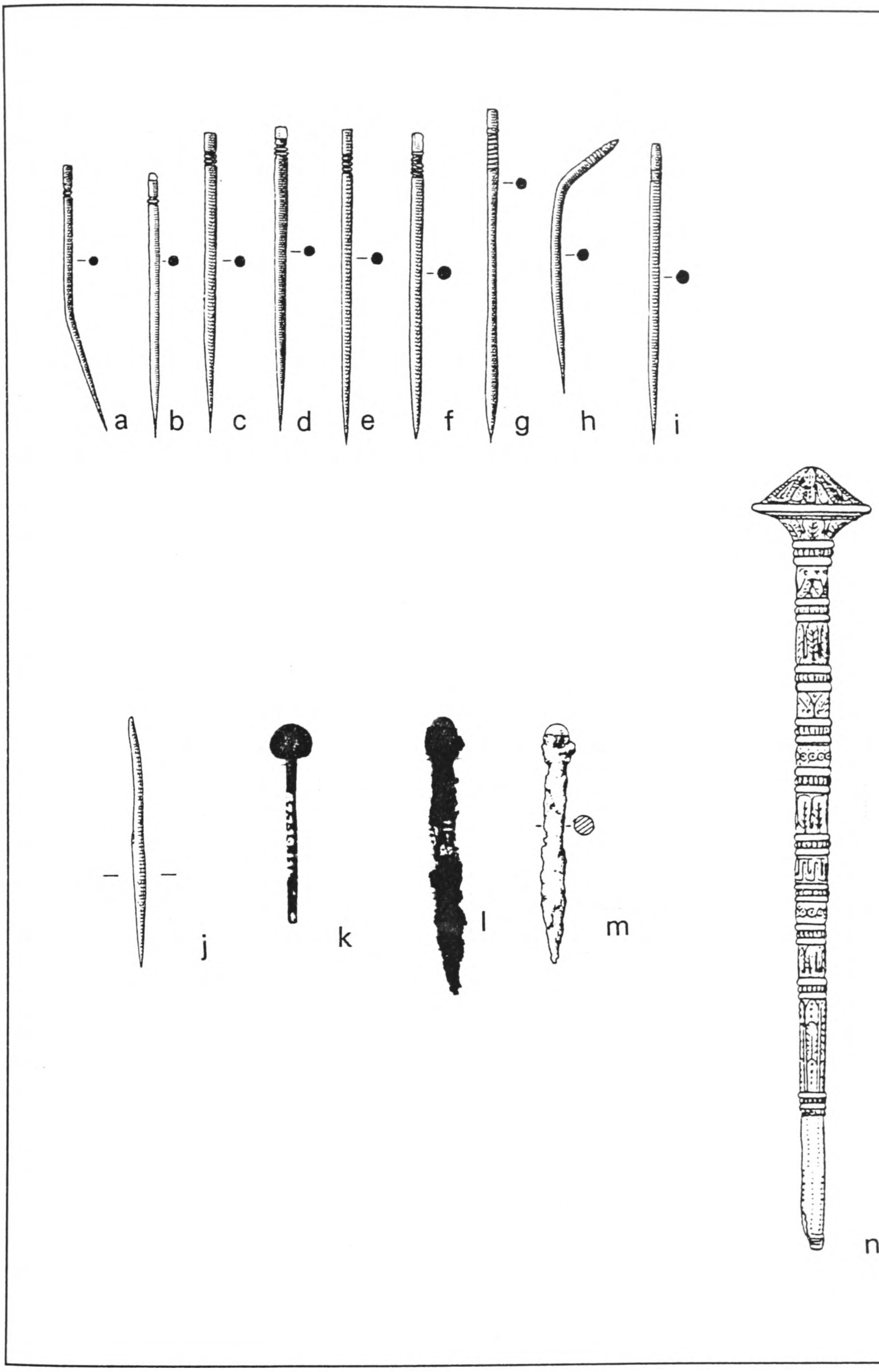

Figure 5.1

the shaft about one millimetre apart; and, those with two or more collars produced by the incision of 3 or more lines separated by about one millimetre between each line.

Pins of these types came from Ipswich, Southampton, York and most recently from Flixborough (Humbs). Those of sub-group I.i have a pointed termination (e.g. Winchester [Hants] [Biddle 1990: 555{item 1429}, fig 150{1429}] [Fig 5.1.j],[1] Shakenoak [Oxon] [Brodribb, et.al. 1972: fig 31.171] [Fig 5.1.h], Southampton and Flixborough),[2] those of variant I.ii.a have no collars,[3] those of variant I.ii.b have a single collar,[4] and those of I.ii.c have multiple collars (e.g. Shakenoak [Brodribb, et.al. 1972: fig 31.164 - fig 31.170]) [Figs 5.1.a-g & .i].[5] Almost all organic-headed pins have come from settlement sites. An exception to this is a pin from Winchester belonging to sub-group I.i. This 42 mm long pin with its swollen shaft and milled top came from the fill of a grave (F733).

These pins have been recovered from sites belonging to the constellation of the middle Saxon period. The distribution is more problematic because I am fairly confident that in the past numerous examples have gone unlisted and undiscussed. There is every reason to assume that these pins are among the material at other sites such as York, Canterbury, etc.

II. Glass-headed Type

These pins have a glass head on a metal shaft. They are quite common from late Roman contexts. Clarke (1979: 316, figs 85.429, 89.332, 93.397) recovered them from his excavations at Lankhills (nr. Winchester, Hants). They were recovered during excavations at Shakenoak (Harden

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[1]Winchester Historical Resource Centre, SF 7188 (published in Biddle 1990 as SF1429).

[2]Flixborough, North Humberside Archaeological Unit, Flixborough SF 5961, SF 5483; Southampton, SOU 5 59 (l. 45 mm); SOU 15 279 (l. 49 mm); SOU 26 158 (l. 61 mm); SOU 24 831 (l. 50 mm); SOU 34 83; SOU 34 85 (l. 51 mm); SOU 99 83 (l. 36 mm); SOU 99 120 (l. 41 mm); SOU 99 134; SOU 99 160 (l. 54 mm); SOU 169 305; SOU 169 874 (l. 52 mm); SOU 169 933; SOU 169 997 (l. 48 mm); SOU 169 1525; SOU 169 1846.

[3]Flixborough, North Humberside Archaeological Unit, Flixborough SF 1401, SF 3460, SF 6035, SF 6243, SF 6286, SF 6459.

[4]Flixborough, North Humberside Archaeological Unit, Flixborough SF 3458, SF 3551, SF 3750, SF 5656.

[5]Flixborough, North Humberside Archaeological Unit, Flixborough SF 632, SF 2311, SF 3729, SF 5352, SF 5493, SF 5657, SF 6301; Southampton, SOU 169 305.

1971: item 152 (p.106) & fig 45.69). They do occasionally come from post-Roman contexts but these instances are rare. There is a green-glass mushroom-headed pin, with a 7 mm diameter and a copper alloy shaft surviving for 30 mm, known from grave 34 at Chessell Down (Isle of Wight) (Hillier 1856: fig 63; Arnold 1982: 24 - 5 & fig 8; White 1988: 105-6 & fig 52.2) [Fig 5.1.k].[6] A copper alloy pin with a green-glass globular head came from an undated context at the palace site at Cheddar (Som) (Rahtz 1979: 280, fig 94.181 [item, C.A. 81]). There are at least two glass-bead-headed pins from West Stow (Suffolk) (West 1985: fig 277, 2 & 3). An example from Jarrow (Tyne & Wear) has a pink-bead head; this is most unusual (Ross forthcoming d). The majority of the bead-headed pins have green-glass heads, although blue-glass is not unknown. A range of Roman bead-headed types are represented in the finds from Silchester (Hants) in the Reading Museum [03337a - 96 mm long 8mm blue-glass bead-head with a shaft diameter between 1.5 millimetre and 1 millimetre; 03337b - blue-glass loaf-head; 03337c - 65 mm long pin with a green-glass loaf-head; 03337d - 65 mm long pin with a 7 mm diameter green-glass mushroom-head and a 1.5 millimetre shaft; 03337e - 53 mm long pin with a 6 mm green-glass mushroom-head and a 1 millimetre shaft].

The function of these pins in Anglo-Saxon contexts is difficult to discern. While all the examples so far noted are of glass-beads on a copper alloy shank, iron shanks are known. There is from grave 157 at Dover (Kent) a pin with an iron shank and a bead head (Evison 1987: 332, fig 61.157.3) [Figs 5.1.l & .m].[7] During excavations on the School Street/Foundation Street site in Ipswich diggers found a green glass-headed pin with an iron shaft.[8] The shaft of this pin was broken - one fragment measures 35 mm and the other 23 mm. The bead had a diameter of 5 mm. This pin came from a context which was rich in Ipswich wares. It also included several fragments of Frankish Blackware (e.g. 2 plain body sherds, 1 rim, 1 spout) (Paul Blickhorn, IAS, pers comm). The pottery evidence would support a suggestion that the context must be post-700. This find can

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[6]BM M&LA, acc no: 67,7-29,134.

[7]BM M&LA, acc no: 1963,11-8,706.

[8]Ipswich Archaeological Unit, from context: IAS 4801 1436.

now be paralleled by a spherical green-glass headed pin with an iron shaft from Flixborough.[9] Other glass-headed pins come from Winchester. These include several from Brook Street (Biddle 1990: 557; fig 150.1439-42).[10]

Excavations at Flaxengate (Lincoln) led to the recovery of a glass-headed pin on a fine wire shaft. The 48 mm long pin has a biconical bead head with an 8 mm diameter.[11] It came from context Y9 thought to date to c.1160-80, this layer represented accumulation and levelling of the site (Mann, LAT, pers comm). It is likely that in this context the pin is residual.

For several reasons we would doubt the attribution of any of the copper alloy shafted series to the Anglo-Saxon period: (1) none of the known copper alloy pins made during the Anglo-Saxon period had shafts less than 1 millimetre and most of the glass-headed shafts have a diameter this small; (2) the stylistic comparisons between the glass-headed pins from Anglo-Saxon contexts is best when made against the Roman examples - method of manufacturing, types of beads and length of the shafts. One possible exception is a pin from the final phase 32 of the New Minster (Winchester) cemetery (c.901-3 to mid-11th century). There can be little doubt that this pin is just marginally different enough to warrant further consideration because the shaft diameter is around 2 mm whereas most of the other glass-headed pins have shaft diameters of less than 1 millimetre. We must await further evidence before drawing a conclusion on this material. The iron shafted pins from Ipswich and Dover might be Anglo-Saxon, but at present we lack the conclusive evidence to prove this suggestion.

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[9]Humberside Archaeological Unit, Flixborough SF5123.

[10]Winchester Historical Resource Centre, SF BS 217 [item 1445], SF BS 1866 [item 1443], SF BS 2016 [item 1444], SF CG 2901 [item 1440], SF BS 5566 [item 1441], SF BS 7580 [item 1441A]. The item number in brackets is the number as published in Biddle 1990.

[11]Lincoln Archaeological Trust, small find no: Fe73Ae197.

III. Type Muids

This is a continental type which includes the Gilton Ash (Kent) pin (Böhme 1974: 35–36, Fundliste 9 [*Typ Muids*, 355] & Karte 9) [Cl Pl I.a & Fig 5.1.n].[12] This biconical–headed pin is unique and it is unfortunate that it does not survive for its full length (Smith 1852: 164, Pl 37.3; Brent 1875: 43 & Pl II.1; van Es 1967: fig 3; White 1985: 106 & fig 52.4; Böhme 1974: Taf 58.8; 1986: Abb 71.5).[13] What is extant is 134 mm of richly decorated pin. The biconical head is decorated both in the upper and lower zone, and both zones are adorned with foliate ornament. At the medial point a smooth undecorated bead moulding runs around the pin–head. The shaft and head are cast copper alloy adorned with silver– and gold–plate. The head of the pin is decorated with acanthus leaves and the shaft is ornamented by bands of foliate decoration separated by bands of bead mouldings. Methods used to decorate this pin can be compared to those used to adorn pins from Xanten/Dodewaard, Asselt and Ommeren (van Es, 1967: Pl XXIV & XXV) and a similar pin now in the Leiden Museum (van Es, 1969: fig 1; Pl XLIII). Van Es argued that these pins were produced at the end of the fourth century and during the first half of the fifth century in workshops of Northern Gaul (1967: 123). He focused his eye on the Entre–Sambre–et–Meuse district. The foliate motifs on the Gilton Ash pin compare with exceptional precision to that seen on the Xanten/Dodewaard pin (ibid. 126). It would be most unusual if they had not been made in the same continental workshop and if they had not been made by the same hand. Van Es considered this pin was related to the Fécamp type on account of the rich character of the facets and ribs (ibid. 123). These pins were broadly distributed from the Seine to the mouth of the Elbe. Beyond this there is no comparison because the majority of the decoration on the type Muids pins owes its character to the 'Mediterranean taste for foliate ornament at the end of the fourth century' (ibid. 124). Placing the Gilton pin to the first half of the fifth century, based upon the evidence that Van Es succeeded

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[12]The Royal Museum (Canterbury), acc no: RM2714.

[13]Böhme has only included less than half–a–dozen examples in this group. With the exception of the Muids pin I see no problem with the group. If the Muids pin can be grouped with the Dodewaard and Asselt pin it must only be as a poor imitation. The decoration on the Muids pin lacks the foliate richness of these others.

in producing from the comparison of the decoration of the Xanten/Dodewaard pin and that on late Roman metalwork, would be safe.

IV. Facet-headed with shafts longer than 90 mm Type

[Map 5.1]

These pins terminate in a faceted knob. The knobs are either cuboid or they are rectangular. The former is our sub-group IV.i and the latter sub-group IV.ii.

The head of cuboid pins (IV.i) measures 4–5 mm wide, by 4–5 mm thick, by 4–5 mm high. The head of each of the two examples from Bifrons (Kent) (i.e. grave 5 and grave 15) measure 4 mm x 4 mm x 4mm. Variation occurs only within a millimetre or two in any one dimension. The known examples were all produced in copper alloy and range in length between 120 mm and 150 mm. **CanAT MI SF 958**, an incomplete cuboid-facet-headed pin from Marlowe I, survives to a length of 125 mm and is typical of pins of this group [Fig 5.2.e].[14] The pin appears to have been constructed of two independent elements, a shaft and a head; the pin-head was slotted onto the shaft. Traces of solder at the lower junction of the head and the shaft would seem to confirm this hypothesis. The point of the pin is now lost. The pin was recovered from layer 455, a context which would appear on independent evidence to belong to the fifth century (Garrard, CanAT, pers comm). Two comparable pins were recovered from the cemetery of Bifrons; these came from graves 5 and 15 (Godfrey-Faussett 1876: 303, fig, & 305) [Figs 5.2.b & .c].[15] The 132 mm long facet-headed copper alloy pin from grave 15 has dot decoration on four faces and one dot on each of its facets [Fig 5.2.b]. Just below the head the shaft was decorated with alternating raised ring and barrel mouldings (2 ring mouldings, a barrel moulding, 3 ring mouldings, a barrel moulding, and 3 ring mouldings). Although the mouldings might have been produced by working after casting, they could also have been incorporated into the mould. Mouldings were common on facet-headed pins. One recovered from Sarre (Kent), measuring 133 mm in length, has a 4 mm x 4 mm x 4 mm cuboid head

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[14]Canterbury Archaeological Trust, small find no: CAT SF958.

[15] Maidstone Museum, acc no: KAS 618 & KAS 619.

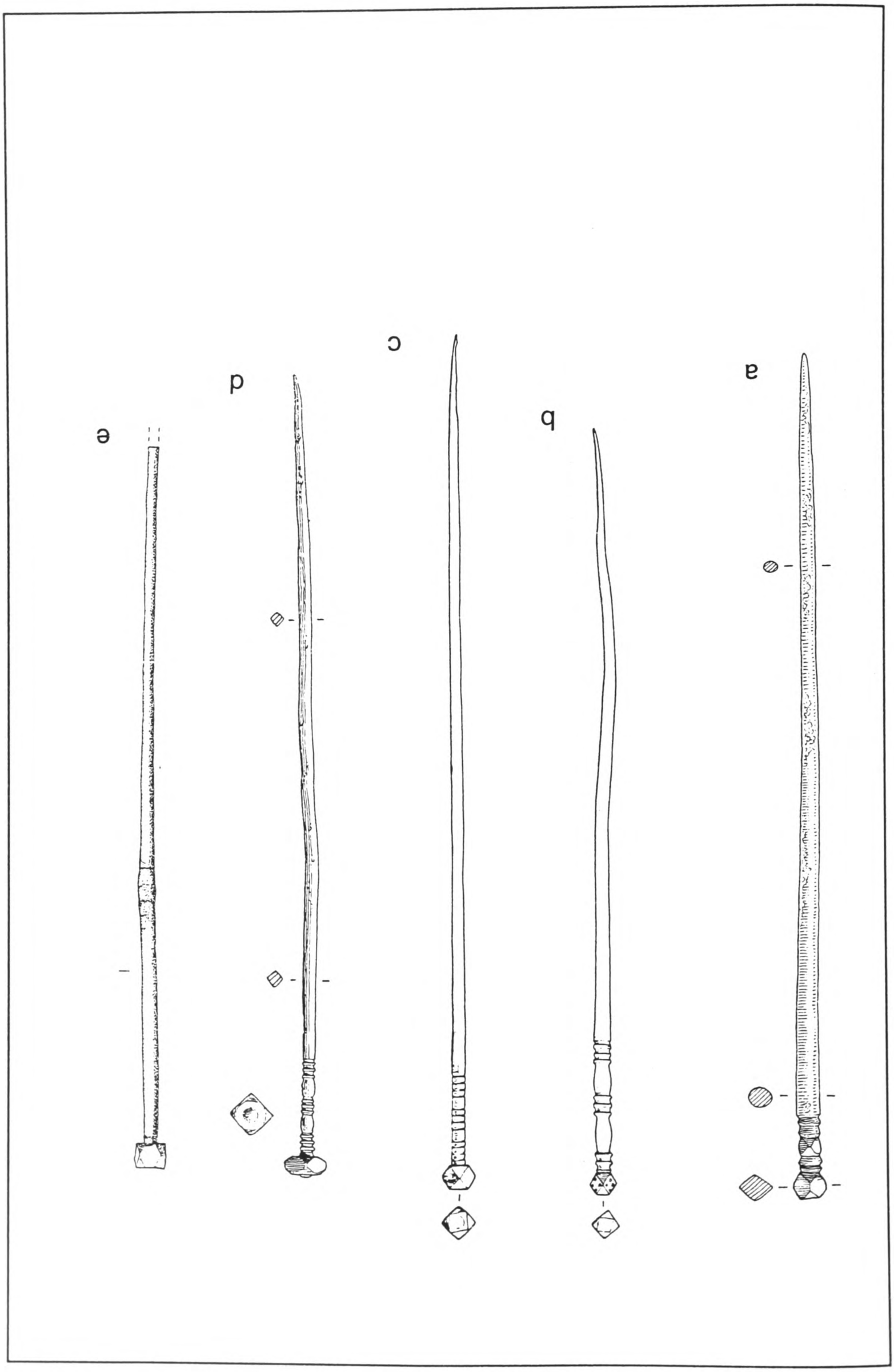

Figure 5.2

and a maximum shaft diameter of 2.25 mm.[16] For 23 mm below the junction of the head and shaft the pin was decorated with raised mouldings (2 ring mouldings, one convex barrel and 11 ring mouldings). These mouldings appear to taper from one to the next: this gives them the appearance of one cone set inside the other.

The pin from Bifrons grave 5 was associated with a pair of button brooches. This pair belongs to Avent and Evison's group Ai which includes brooches with 'realistic representation of the human face' (1982: 78). They argued that only one of this class of brooches could be suggested to come from an arguably fifth-century grave and the preponderance of finds would suggest a sixth-century date. In their view the group belonged to the first half of the sixth century (ibid. 98-9). I have great difficulty placing these pins in the horizon of the first half of the sixth century, or even accepting that the pin from Bifrons 5 could have been between 50 and 75 years old when it was buried. None of these pins show wear consistent with use over so long a period. It is safe to discard Evison's proposed dating since on the basis of the continental parallels it would seem that the dating of the brooches is more likely to be wrong (Welch 1985: 143-144). If this is the case, then it is conceivable that the pair from Bifrons grave 5 belongs in the last quarter of the fifth century. Certainly the comparable pin from grave 15 at Bifrons was associated with two cruciform brooches which are generally considered to belong to the last quarter of the fifth century or at least were until Reichstein argued these brooches fit into his category D3, a group that belonged to the sixth century (1975: 107 -9 & Taf 102 & [item 807]). The majority of the finds of **IV.i** are Kentish.

The distribution extends to Wiltshire with the recovery of a 125 mm long pin with a multiple scored collar zone from grave 57 at Blacknall Field (Pewsey).[17] One cast example surviving for 113 mm of its original length is a stray find from Droxford (Hants) and has five raised and stepped ridges in the collar zone (Aldsworth 1978: fig 31.35) [Fig 5.3.b].[18]

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[16]BM M&LA, acc no: 93,6-1,223.

[17]Devizes Museum.

[18]BM M&LA, acc no: 1902,7-22,35.

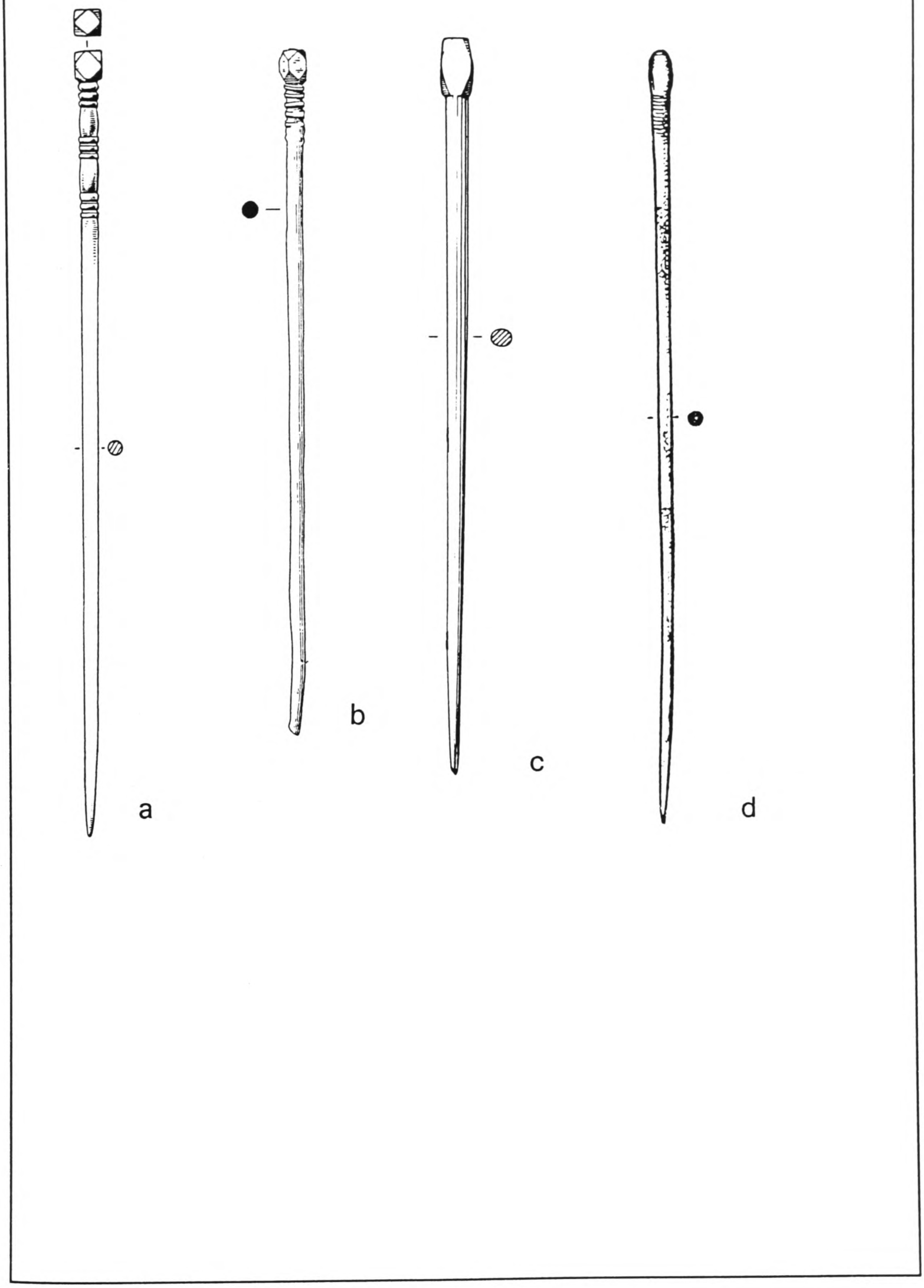

Figure 5.3

Numerous examples of facet-headed pins have been recovered on the Continent. Some appear to have no relationship beyond shared form with the finds from England. An iron pin surviving in two fragments from the Alemannic cemetery at Hemmingen (Kr Ludwigsburg) may be typical of these. This pin-head had a faceted-head 3x3x3mm, a shaft with a diameter of c. 1.8 mm and survived in two pieces one measuring 56 mm and the other 64 mm (Müller 1976: 39-40, Abb 16 & Taf 4.B.1). The light character of the shaft and the head indicate that a different conceptual framework underlay the design of this pin. The pin from Hemmingen is also of a later date (sixth to seventh century) than the finds in our English series. This is not to suggest that the English series lacks a continental background, but that this background should be sought earlier and further north on the Continent. Böhme grouped continental facet-headed pins under his type Cortrat, a group named after the find of a facet-headed pin with a decorated shaft from grave 6 at Cortrat (Böhme 1974: Taf 117.8). The upper zone of the shaft was decorated by a series of bead mouldings created by the incision into the shaft of lines and bands of triangles in alternating directions. This pin was associated with a pair of tutulus brooches and a triangular bone comb. Associations of this kind led Böhme to postulate that these pins belonged to the end of the fourth century and the first half of the fifth century. It is possible that the development of these pins on the continent formed the backdrop for the English series. The decorative motif on the Cortrat pins is commonly seen on continental pins, but I have not noted it on any Anglo-Saxon pins. It was produced by filing down the shaft, turning the pin and filing. The English evidence would tend to support a date in the second half of the fifth century.

It seems to me necessary to differentiate between those pins with true cuboid heads and those with non-cuboid faceted heads (sub-group **IV.ii**). These pins appear to have rectangular heads. In many of these examples the facets have been slightly smoothed. A heavily worn pin from grave 16 at Bekesbourne (Kent) measuring 129 mm long has an elongated facet head (4 mm x 4 mm x 5 mm). The shaft below the head is adorned with incised lines. One might be tempted to include this pin among the cuboid group, but the visual impact of the pin would not support such an assignment. Further parallels can be noted from Mucking (Essex) (Hamerow, pers comm), grave 78 at Wakerley

(Northants) (Adams 1983: 65 & fig 64.3) [Fig 5.3.c] and Highdown (E.Sussex) (Welch 1983: fig 116.e) [Fig 5.3.d]. Pins of sub-group IV.ii date to the sixth century.

V. Biconical-headed with a head diameter greater than 10 mm Type

[Map 5.2]

These pins, have a biconical head, and tend to measure longer than 100 mm. Some are decorated on the top of the knob with incisions which bisect the head and/or by dots. Typical of these are the pins from Brighthampton (Oxon) grave 18 [Fig 5.4.b][19] and Lechlade (Glos) grave 1125/2 [Fig 5.4.a].[20] The latter copper alloy biconical-headed pin has a maximum head diameter of 12 mm and survives in two pieces for a total length of 88 mm (break not evident in the drawing). The diameter of the shaft just below the multiple incised lines is 4 mm and 2.5 mm at the surviving tip. The pin therefore has a rather stocky appearance and was probably originally much longer; the present end of the pin gives the impression that it is a repointing. The head of the pin is decorated by lines forming two crossed bands. Their pattern forms four triangular segments on the head of the pin. A 99 mm biconical-headed pin with ring and barrel mouldings was recovered from grave 35 at Alton (Hants) (Evison 1988: fig 32.35.4) [Fig 5.4.d]. The top of the pin was decorated by dotted lines radiating from the central point of the head and terminating at the point of carination. There are five lines on the head each creating a triangular zone which was graced with a single dot. The pin from Alton was recovered with a pair of button brooches. These brooches have a 'mask with curling eyebrows and a bent leg and claw each side' (ibid. 80). The brooch belongs to Avent and Evison class Ji (1982: 86-87, 98-99). They proposed a date for the grave in the early fifth century. This does not agree with the date we suggest for the pin based on other evidence. Evison argued that the pin was derived from a Wijster type of pin (Evison 1988: 12; Böhme 1974: 35-9). Certainly the examples of the Wijster type on the continent are known from the fifth century, although only a few of the continental parallels appear to date before the mid-fifth century. There

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[19]Ashmolean Museum, acc no: 1966.50.

[20]Corinium Museum & Oxford Archaeological Unit, small find no: LBF85 812.

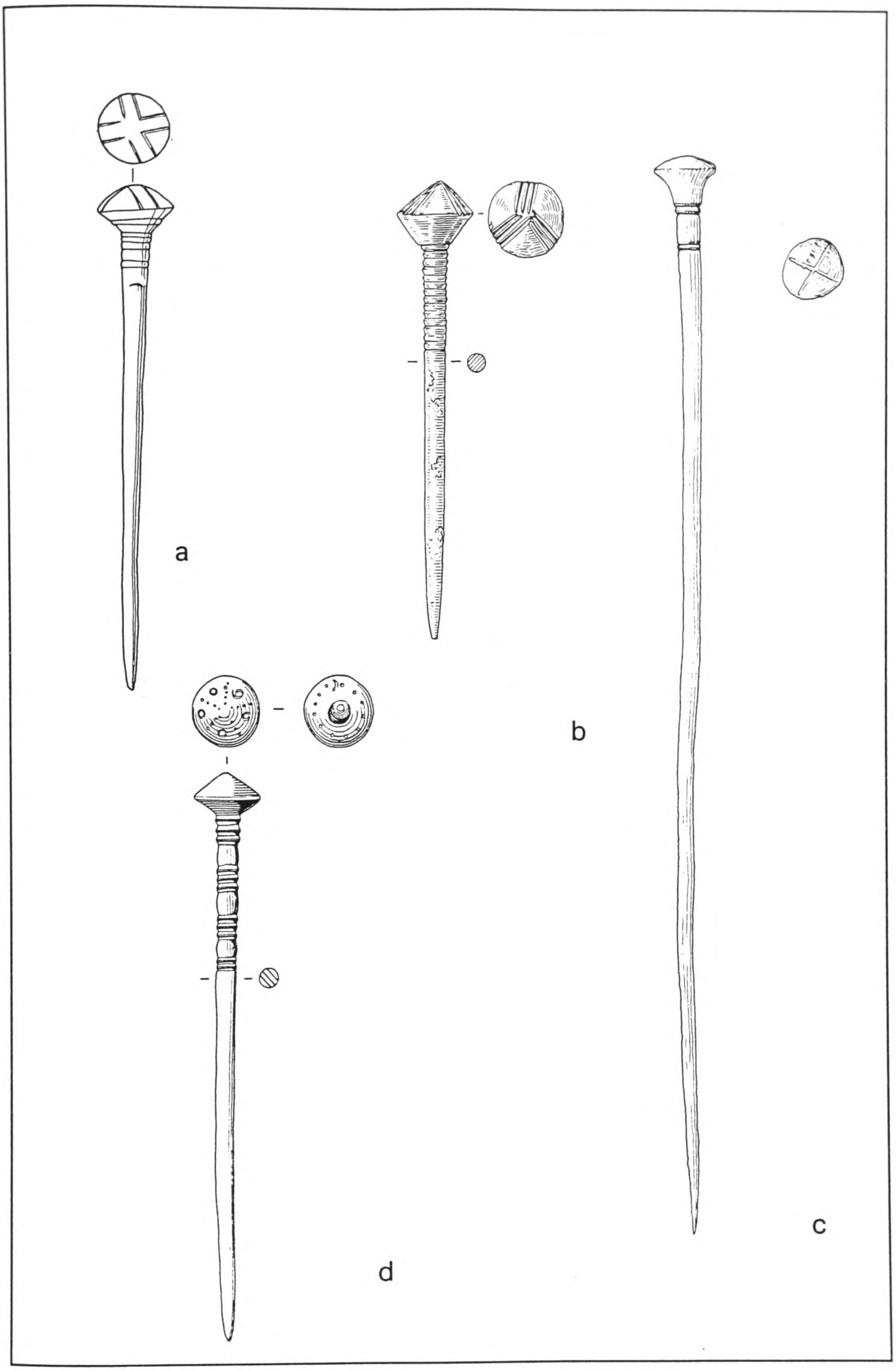

Figure 5.4

seems little reason to date the Alton finds with the earliest examples. Excavations at Alfriston (E. Sussex) recovered from grave 29 a similar pin (Welch 1983 [vol ii], fig 13a) [Fig 5.4.c]. Martin Welch concluded his discussion of the material in this grave stating:

> 'While burial may have taken place as early as the later 5th century, deposition within the first half of the 6th century is more probable (ibid. [vol i] 78).

His suggestion is further supported by the date which must be provided for the saucer brooches from Lechlade grave 1125/2. These must belong in the beginning of the sixth century. The repointing would suggest that it, like the Alton pin, was old when buried, maybe even 50 or 75 years old. It would seem safe to date these biconical headed pins in the last third of the fifth century.

VI. Chessell Down mushroom-headed Type

At first glance it is difficult to see the difference between this type of pin and some grouped in the conical and biconical groups. The heads of these pins are similar to the caps of mushrooms (i.e. closest to the *Agaricus Bisporus*). It has a domed character above with a flat underside; the head appears to sit on top of the pin. The shaft is widest near the junction of the head and shaft and it is decorated with lines which circumnavigate the pin. In Chessell Down grave 81 the type-find was recovered (Hillier 1856: 35 & fig 48) [Fig 5.5.a].[21] This copper alloy pin has a mushroom head with a maximum girth of 8 mm. For its first 20 mm the shaft is decorated by 12 incised lines; below this it is plain. The pin is incomplete, but survives in two pieces, one measuring 104 mm and the other 43 mm. The shaft has a round section with a diameter of 3.25 mm. No continental parallels can be cited and this pin would appear to be a 'one-off' product. As far as a date is concerned, we have little contextual evidence to go on. It could be argued that on the basis of length and 'general form' this pin belongs to the last quarter of the fifth century or the beginning of the sixth century. ***But***, we must concede that such a conclusion is based only on the 'look and feel' of the pin when compared to datable pins of other types and not some more acceptable set of criteria.

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[21]BM M&LA, acc no: 67,7-29,133. This was 'found at the back of the skull of the wearer' (Hillier 1856: 35).

VII. Multiple-knob-headed Type

[Map 5.3]

These pins have one large terminal knob and after a short shaft section they have a secondary knob. In all cases the second knob has slightly smaller dimensions than the terminal knob. This type can be divided into several sub-types. Those pins with two biconical knobs (sub-group **VII.i**), those with two faceted knobs (sub-group **VII.ii**), and those with one polyhedral and one biconical knob (sub-group **VII.iii**). A double biconical knobbed pin from Alfriston grave 62 was associated with amber beads, saucer brooches and button brooches (Welch 1983: 367 & fig 29a) [Fig 5.5.b]. This is typical of the pins of sub-group **VII.i** and can be favourably compared with pin from Highdown (ibid. fig 116.c) [Fig 5.5.c]. A pin with a biconical head 10 mm across and a secondary polyhedral knob 7.5 mm in diameter from Malton (Barrington A, Cambs) is typical of sub-group **VII.iii** [Fig 5.5.d].[22] The pin is 63.5 mm long, but this must be only a fraction of its original length. This claim is supported by an examination of the tip of the pin; this indicates it had been repointed. A close parallel to this pin came from excavations led by K. Annable at Blacknall Field in Pewsey (Wilts).[23] This pin from grave 104, surviving for 110 mm, was produced from a composite of materials. It was iron shafted with a copper alloy head and a silver collar. The biconical bead is 5 mm long and 11 mm wide at its point of maximum width. The secondary faceted knob is a 7 mm cube. Below this a silver decorative collar was attached. The facets of the secondary knob were decorated with dots and the superior biconical knob was adorned with incised lines which divide its upper most surface into four quadrants.

A further multiple knob sub-type (sub-group **VII.i**) came from grave 79 at Bidford-on-Avon (Warks) (Humphreys, et.al. 1922-3: 114) and the pin is seen lying horizontally across the top of Fig I in Plate XVI) [Fig 5.5.e].[24] This pin terminates in a faceted-knob head. Below this the shaft was marked by bead mouldings, these end at a secondary faceted knob. The woman buried

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[22]Ashmolean Museum, acc no: 1909.256h.

[23]Devizes Museum, Annable, pers comm.

[24]New Place Museum.

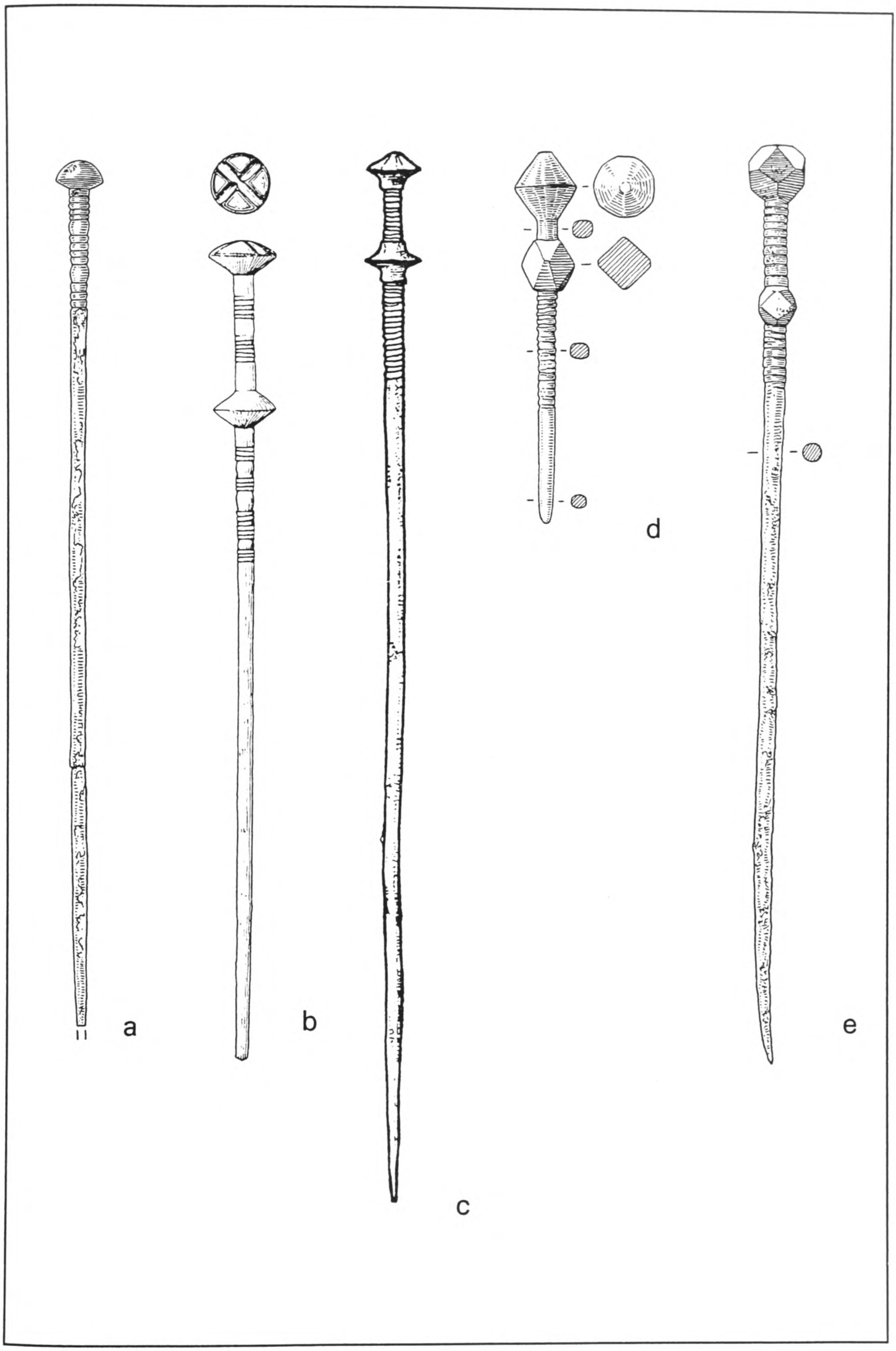

Figure 5.5

in the grave had 2 cast saucer brooches, a necklace of 24 amber beads and a bucket. On the basis of these associations we can have little doubt that this is a grave of the first half of the sixth century. I recommend placing the pin from Pewsey into the same horizon.

It is tempting to turn to the Continental multiple knob pins in search of parallels. Böhme identified one group of multiple knobbed pins, his Tongern type, a type named after the find at Tongern of one of these triple biconical knobbed pins (Böhme 1974: vol i 301 & vol ii Taf 104.6 & 7). One example from Cortrat grave 26 had four knobs (ibid. vol i 313 & vol ii Taf 118.10). I have great difficulty seeing the Anglo-Saxon double knobbed pins as derived from the triple and quadruple knobbed continental varieties. There seems little reason to suppose that these double-knobbed pins are anything other than an indigenous development. The contexts indicate an early sixth-century date and the distribution includes sites in Sussex, Wessex and Cambridgeshire.

VIII. Spangle-headed Type

[Map 5.4]

In this type a wire ring passes through the head-plate or head-ring of the pin and attaches to a variety of spangle arrangements. At least four sub-groups of spangle arrangements or head forms can be identified. In sub-group **VIII.i** an isosceles triangular plate is fixed to the head of the pin by a wire ring. On the longest side of the triangle are three holes, one at either end and one in the centre. Through each of these holes passes a wire ring and on to each of these is attached a triangular spangle. The second sub-group **(VIII.ii)** has attached to the ring, which runs through a spatulate head, one or more triangular spangles without the benefit of a distributor plate. These spangles are made from flat metal sheets and often carry punched decoration. A further third sub-group includes those pins with a ring fixed above the head of the pin **(VIII.iii)**. Through this ring a second loose ring slides and on to this spangles were attached without the advantage of a distributor plate. Pins with multiple knobs below the spangled termination form a fourth sub-group **(VIII.iv)**. Obviously the immediate question is whether sub-groups **VIII.ii-.iv** are derived from sub-group **VIII.i**. Although it seems likely that **VIII.ii** is a simplified version of **VIII.i** there is

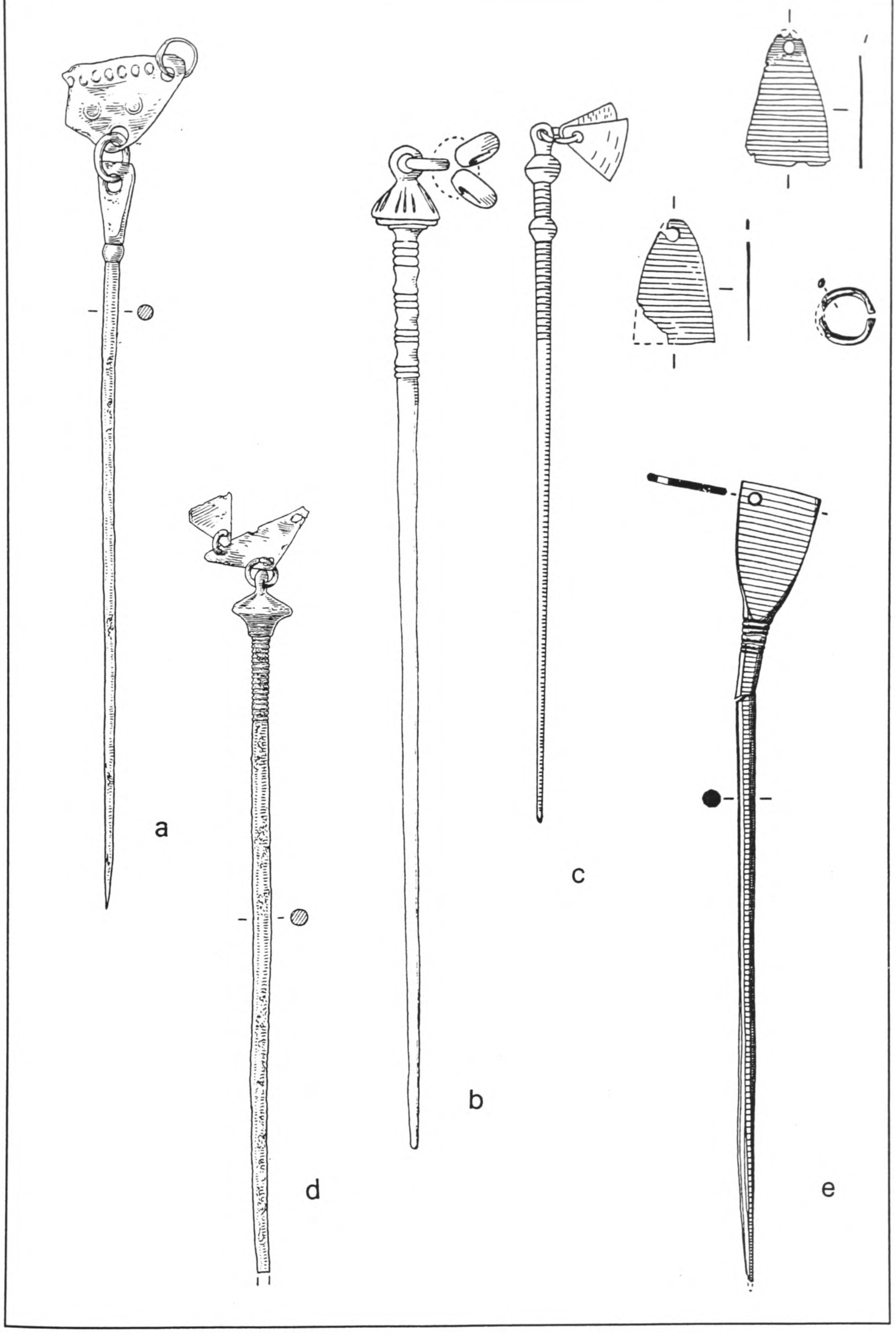

Figure 5.6

nothing in the evidence to support this view besides the simplification of form. A spangle-headed pin from Empingham II (Leics) grave 85b measuring 128 mm in length is typical of sub-group **VIII.i** (Clough, et.al. 1975: fig 7d & 79-80) [Fig 5.6.a]. This pin has a 1 mm thick flat copper alloy triangular plate suspended by a cast wire ring which passes through the hole in the head of the pin. A triangular wedge shaped head is set upon a bulbous expansion (Clough, et.al. fig 7d). Wire rings pass through the three holes in the triangular plate and to these wire rings are attached further spangles.

A 121 mm long pin with a 3 mm diameter shaft from Kempston has a wire ring on top of its 11 mm diameter biconical knob [Fig 5.6.d]. This cast wire ring holds a 1 mm thick flat triangular plate.[25] This plate expands to its widest point of 20 mm where three wire rings have been attached (a ring passes through a hole at either end and in the centre of the furthest triangular end). These rings were originally intended to hold a triangular spangle one of which remains attached. Gilt pins of this type are rare, but one did come from Newnham Croft (Cambs) (Fox 1923: 244; Lethbridge & O'Reilly 1937: 167-168 & Pl V.b) [Fig 5.7.f].[26] Whereas most of the surviving examples have triangular or trapezoidal spangles those attached to this pin are flat diamond shapes.

Sub-group **VIII.ii** has a number of variant types. Variant **VIII.ii.a** includes cast pins with spatulate ends. A gilt copper alloy pin recovered in 1823 from a grave at Brough Hill (nr. Daventry, Northants) measures 167 mm (Smith 1902a: 255; Kennett 1969: 44 & fig 2.c) [Fig 5.8.c].[27] The shaft is 3 mm in diameter and has a round section. The head is spatulate and has a hole through it. Below this 4 evenly spaced lines were incised to create ring collars; these terminate in a faceted section which itself terminates in 12 ring collars each made from incised lines a millimetre apart. This pin is unparalleled among Anglo-Saxon material. Also associated with the pin was a small-long brooch, a buckle, a small bronze boss and beads (Kennett 1969: 44 & fig 2).

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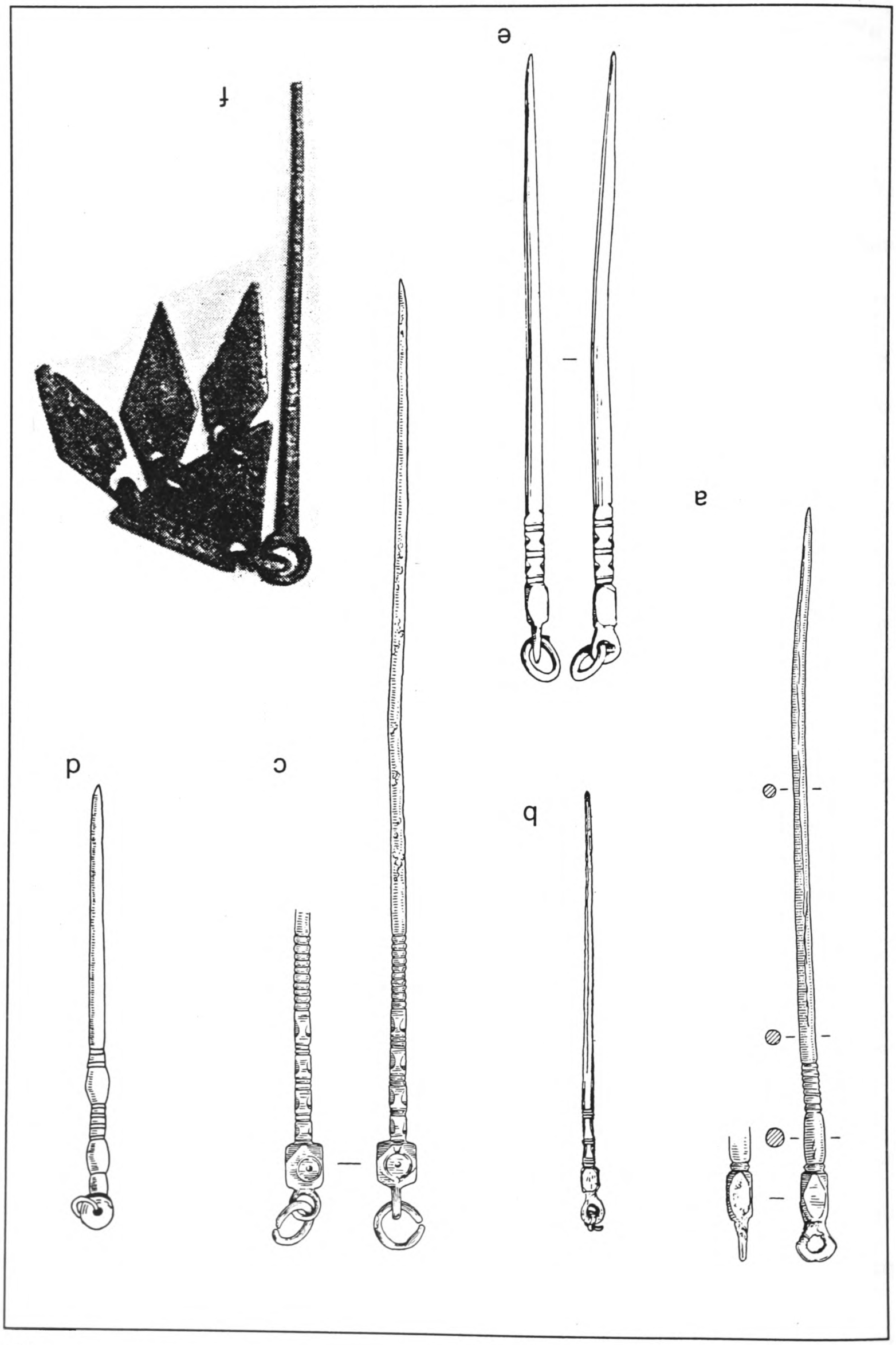
[25]BM M&LA, acc no: 91,6-24,144.

[26]University Museum of Anthropology and Archaeology (Cambridge), acc no: 36.363. Lethbridge & O'Reilly thought it would have been better referred to as Croft Lodge, Newnham.

[27]Northampton Museum Services, acc no: D167/1955-6.

Figure 5.7



A cast 152 mm long pin from Brighthampton (Oxon) grave 17 has a flattened head with a triangular notch cut from the top and a notch on both sides of the pin-head (Akerman 1860a: 85 & Pl III.1) [Fig 5.8.d].[28] A hole was cut through the head, and a ring made from cast wire passes through the hole. The shaft below the head is decorated with 14 evenly spaced lines which give the impression of 12 beaded-rings. The pin came from a grave which included a necklace with residual Roman coins and a number of discoid glass-beads. Another spatulate-headed pin was recovered from grave 378 at Morning Thorpe (Norfolk) (Green, et.al. 1987: 147-148, fig 436.N) [Fig 5.8.a].[29] This iron pin was associated with, among other items, two annular brooches and two pair of Hines' B7 wrist clasps.

In Grave 86 at Morning Thorpe, across the left penannular brooch lay a 135 mm long copper alloy pin with a 15 mm wide wedge head (Green, et.al. 1987: fig 322.Ci, Cii, Ciii, Civ) [Fig 5.6.d].[30] In the upper corner is a hole through which a wire ring had passed and from which several triangular sheet metal pendants had been suspended (ibid. 59 & fig 71). This pin was undecorated, had no collar mouldings, and a tapering round sectioned shaft. This pin is another example sub-group **VIII.ii**

One example with a flat-plate above a faceted knob from Haslingfield (Cambs) survives for a length of 168 mm.[31] The knob is 7 mm long. The ring which passes through the head of the pin was cast. This pin maybe indicative of a sub-group [**VIII.iii**] with a plate or ring above its head. The pins in this sub-group have a rectangular or cuboid head with a flat plate above. The flat plate is either square, rectangular or round in profile. Often a ring passes through the head plate. The shafts of these pins are usually decorated. A find from Saxby (Leics) has a flat sectioned loop above its rectangular faceted knob (4 mm wide x 4 mm thick x 6 mm long) (Cox 1895; Smith 1907: 234

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[28]Ashmolean Museum, acc no: 1966.48.

[29]Norwich Castle Museum, acc no: 1120 MRN 378N.

[30]Norwich Castle Museum, acc no: 1120 MRN 86C.

[31]BM M&LA, acc no: 74,3-26,24.

& fig on 235) [Fig 5.7.b].[32] Below this the shaft has two incised lines, then a faceted section, further incised lines, a short section of undecorated shaft followed by three more incised lines. The lines are positioned about 1 to 1.5 mm apart. This has the effect of forming mouldings. The pin survives for a length of 109 mm, although from the broken end we can be certain that originally it would have been longer. The shaft is round in section and has a diameter of 2.5 mm from below the decorative mouldings.

Similar to this is a copper alloy pin from Barrington (Cambs) that survives, except for its ring, complete for 132 mm in length [Fig 5.7.a].[33] A flat plate for holding a ring surmounts a rectangular knob that had been finished so that it tapers to the head-plate and towards the shaft. Below this, the pin is decorated by a pair of incised lines which form a ring collar; below this is a convex moulding and the shaft is further decorated below this point by incised linear work. There is little doubt that the pin was cast as a single piece and then well finished. Another of these pins is 126 mm long and came from grave 82 at Wakerley (Northants) [Fig 5.7.e]. Below the faceted knob of this pin is a short section of decorated shaft with a square cross section. This square section gives way to a round section. The Wakerley pin was associated with two 'sheet' annular brooches, a knife and a bossed pot (Adams 1983: 69 & fig 69.2 [p.259]). So the pins from Barrington, Haslingfield, Saxby and Wakerley are examples of variant **VIII.iii.a**.

A 165 mm long pin, with a 6mm x 6mm x 6mm cuboid-faceted head was found near Brixworth (Northants) and is typical of variant **VIII.iii.b**. A flat sectioned loop-plate above this knob has a shaft diameter of 3.5mm (Brown 1915(v.3): Pl LXXX,3; Kennett 1969: 44-5 & fig 2.f) [Fig 5.7.c].[34] Below its faceted knob the pin has 33 mm of decorative zones. These zones can be divided into three convex areas, each separated from the next by three incised lines, below the last of which the shaft is decorated by a series of incised lines. The two main faces are decorated with dot ornament. A fine *cast* wire ring slides through the loop in the pin-head. The ends of the wire

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[32]Jewry Wall Museum, I.IL.5.1947.

[33]Ashmolean Museum, acc no: 1909.298f.

[34]Northampton Museum, acc no: D27/155-6.

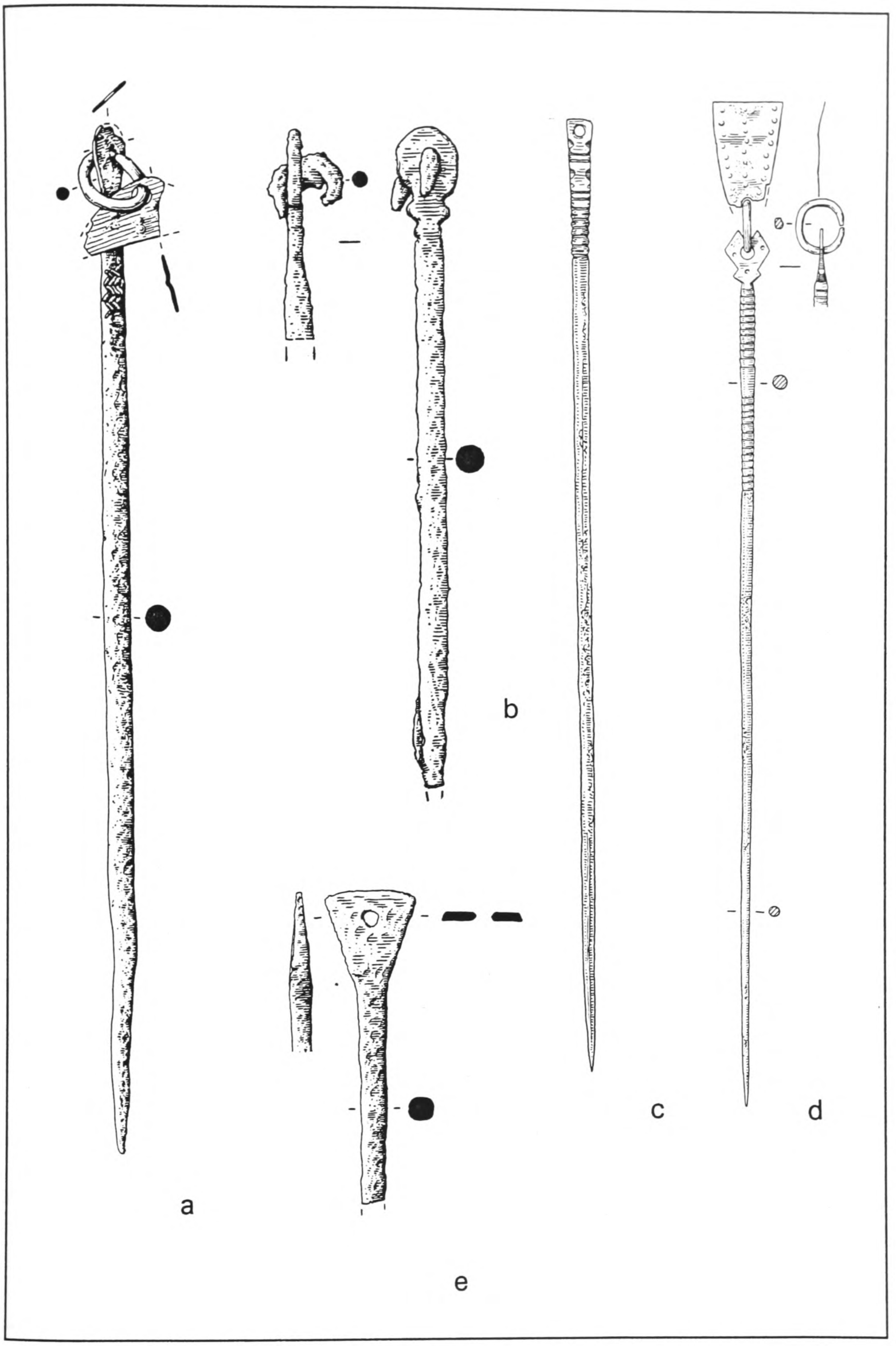

Figure 5.8

ring abut each other.

A pin from grave 229 at Mitcham (Surrey) (Bidder & Morris 1959: 75, 110 & Pl XV.229) has a conical mushroom head above which is a ring that holds a set of double rings [Fig 5.6.*^T The conical head has been incised with lines. The shaft has lines incised into it forming decorative mouldings. This pin serves as the type find of Variant **VIII.iii.c**, although one might argue that it ought to be placed with the pins of sub-group **VIII.i**, but without the spangles it is difficult to make such an assignment. Dickinson has suggested that the material in this grave suggests a late fifth- or early sixth-century date for its deposition (1979: 44 & 47[Table 1]).

A fragment of a spangle-headed pin, extant for 24 mm, came from Searby (Lincs).[35] The pin has a triangular head-plate above a biconical knob. A wire ring holding three triangular tags passes through the hole in the triangular plate. This pin was associated with a copper alloy disc brooch, 2 copper alloy annular brooches, a cruciform brooch, a necklace, and a pair of girdle hangers. The necklace was composed of 46 amber and 21 variegated glass beads. These associations would suggest a date at the close of the fifth century or the very beginning of the sixth century. This pin, with its biconical knob, is classed as variant **VIII.iii.d**.

Excavations at Leagrave (Beds) produced a cast copper alloy pin on the 'left clavicle' of the interred (Read 1906: 59-63 & fig between pages 60 & 61; Smith 1923: 75 & fig 87) [Fig 5.6.c].[36] This 167 mm long pin has a 9 mm diameter biconical knob head with a 6 mm diameter biconical knob below. A flat holed plate hung with spangles surmounts the top knob. This multiple-knobbed head is typical of sub-group **VIII.iv**.

While most of these pins were constructed with a plate above the knob, a 142 mm long pin from Hunstanton (Norfolk)[37] was constructed without one. In this pin the ring runs through a hole cut into the head of the pin. This pin might require a further sub-division of the type.

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[35]BM M&LA, acc no: 93,6-18,20.

[36]BM M&LA, acc no: 1906,2-13,7 on the pin, but it is 1906,2-13,6.

[37]Norwich Castle Museum, acc no: 2.950.

The contexts of these pins are only of limited assistance to their dating. The Wakerley pin, is the only find with secure associations. These would suggest a sixth century date. On the basis of the bossed pot and the annular brooches Adams suggest a date for the context between 550 and 600. If he is correct then the pin was quite old at time of burial.

Once again the question of a Continental origin arises. Böhme has noted a group of pins with attached spangles; a type named after the find, from grave 22 at Vermand III, of a 175 mm long pin with a hole through one end. A wire ring passing through the hole holds a triangular plate to which three equally spaced bangles are attached (Böhme 1974: vol i 332 & Taf 136.3). It is possible that there is a relationship between this Continental type and the pins of sub-group VIII.i, but it is not possible to make a similar claim about the derivation of sub-groups VIII.ii-iv. However, conceptually it is possible that the pins of sub-groups VIII.ii-iv were derived, in part, from sub-group VIII.i and ought to described as a variant of this type. This would then make the variants of VIII.ii sub-variants. Before reallocating the forms I would rather see several more examples.[38]

IX. Kempston Type

A 137 mm long copper alloy pin with a tapering shaft beginning from a distinctive collar-head zone was recovered from Kempston (Fitch 1863-4: 291 & Pl V.fig 2) [Fig 5.9.a].[39] The 'dunce-cap' terminal sits on a 5 mm diameter moulded ring. Below this there is a concave zone which gives way to a bulbous projection with a 6 mm diameter. The shaft has a 3.1 mm diameter tapering evenly to a diameter of 2.8 mm at 10 mm from the tip. It is round in section. The pin was cast and after casting it was cleaned up to a degree that led to the removal of all production detritus and file marks. Although it is possible to argue that over time wear will remove many marks of production, the complete absence of any such marks suggests to me that they where removed with care. Fitch, who recovered the pin on the 26th of December 1863, described it as a hair-pin, but

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[38]To this group we might add the pin from Great Wigston (Leics) found in 1793 but I have not seen this pin (Nichols 1810: 377 & Pl LV.16; Smith 1852: 167 & Pl XLII.14; Smith 1907: fig on 235 [item 14]) [Fig 5.7.d]. This discoidal head sits on top of two barrel-shaped swelling below separated by a moulded shaft zone.

[39]BM M&LA, acc no: 91,6-24,143.

did not record its recovery in any detail. Even his claim that it was a hair-pin ought not to be taken too seriously and the nature of its relationship to other pins found on that day may or may not have been significant. This pin is without parallel and would appear to be a 'one-off'. It certainly belongs to the group of long pins and one might be inclined to claim a late fifth century date for the pin, but this would be based entirely on subjective criteria.

X. Oar-headed Type

These pins have heads that resemble an oar. They were produced either by folding a piece of sheet or cold-working a metal rod. A pin from grave 10 at Kingsworthy (Hants) with an oar-shaped head was produced by folding and rolling a piece of copper alloy sheet metal [Fig 5.9.c]. A comparison could be made with the pin from grave 13 at Droxford (Hants) [Fig 5.9.b]. This pin has a sub-rectangular flat head (Aldsworth 1978: 117-118, 168 & fig 20.3). In contrast to the Kingsworthy pin the Droxford pin was hammered into shape from a copper alloy rod. Folding and rolling, as has been argued above, begins in the second half of the fifth century and continues as a production technique during the sixth century. On technological grounds it would be safe to place the pin from grave 10 at Kingsworthy into the first half of the sixth century. The pin from Droxford was recovered in a grave group that included a pair of gilt saucer brooches. The contents seem to belong to the sixth century. Based on the evidence we would probably be safe placing both the forged and rolled variants into the early sixth century.

The distribution of these pins on the evidence of two finds must be confined to Southern Hampshire, the Itchin and Meon valleys. Of course, to speak of a distribution when the sample has only two members may be misleading.

XI. Morning Thorpe holed-rod Type

These pins have a pierced and flattened-head, and a round sectioned shaft which tapers along its length. The complete pins are longer than 110 mm. The pin from Morning Thorpe grave 108 measures 135 mm and the one from grave 387, which is 128 mm long (Green, et.al. 1987: fig

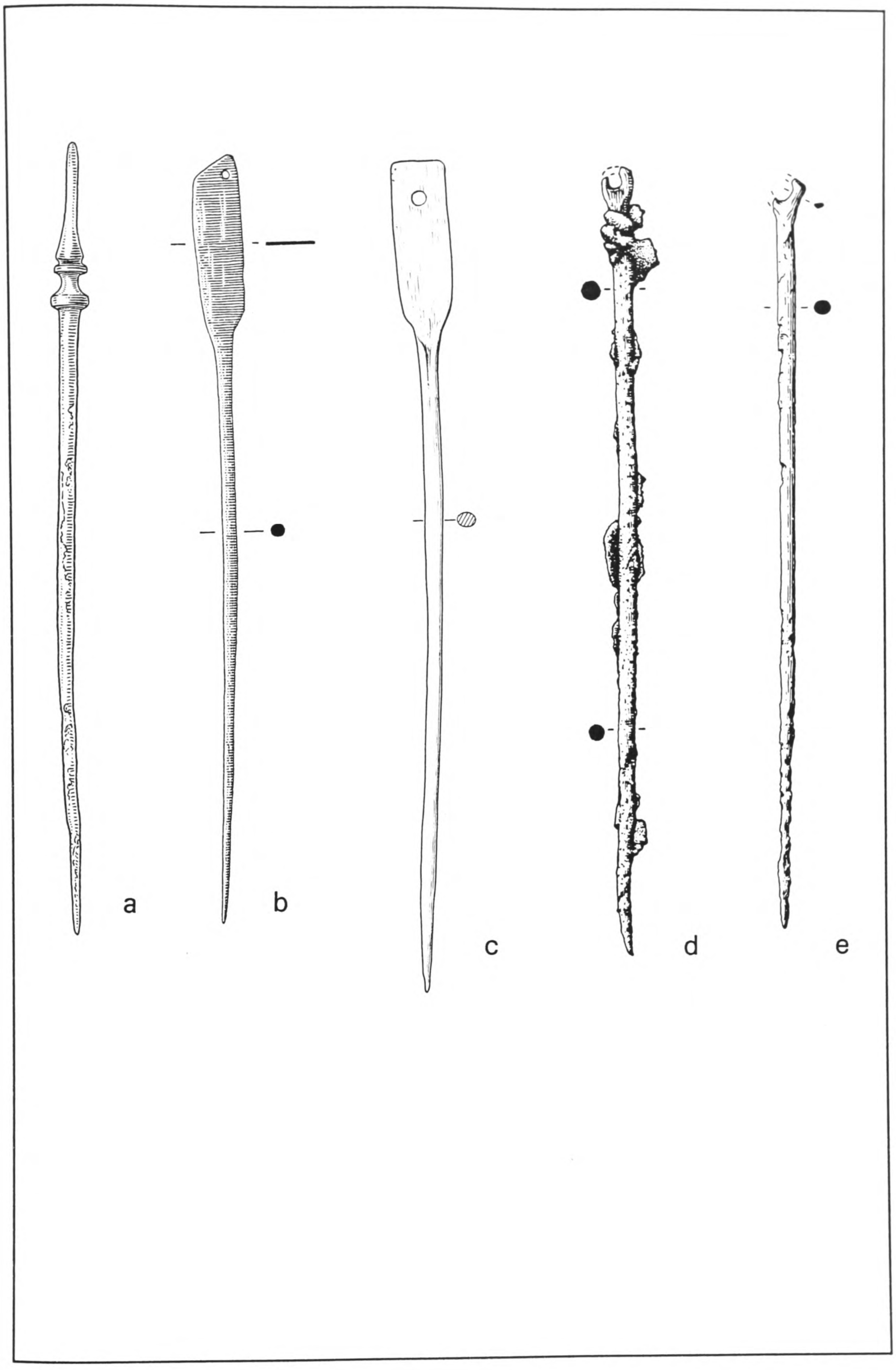

Figure 5.9

332.A/B & fig 441.G), are examples of the type [Figs 5.9.d & .e].[40]

Grave 108 at Morning Thorpe included 56 amber beads, a pair of annular brooches, one pair of Hines B7 wrist clasps and one pair of Hines B13a wrist clasps (ibid. 65–6). These types of clasps, Hines argued, were probably contemporary (1984: 80). The woman buried in grave 387 had an iron annular brooch, a cast copper alloy brooch with traverse linear ornament, beads and a B13a Hines wrist clasp (ibid. 151). The large number of amber beads would cause us to think of a date in the first half of the sixth century, a proposal which may find some support in John Hines' dating of the B13a wrist clasps. Although some were from possible fifth century contexts, he argued that 'more examples are reliably dated into the 6th century' (1984: 80). There are no other known examples of these pins, so it seems safe to conclude that they had a localized usage. They also appear to belong to a closed chronological horizon--the overlap of B7 and B13a wrist clasps. Perhaps these pins are related to those pins of type **VIII**, but at present this relationship has not been demonstrated.

XII. Curled-headed Type

[Map 5.5]

Pins of this group were made from a single round-sectioned rod. This was pointed on one end and curled on the other. The maximum shaft diameter of these pins is about 5 mm as exemplified by finds from graves 140, 249 & 398 at Morning Thorpe [Figs 5.10.h, 5.10.g & 5.10.d].[41] Nearly all known examples were made in iron. We propose two sub-groups: **XII.i** includes those pins of this type where the wire begins its curl directly from the shaft [Figs 5.10.e & 5.10.f] whereas in those of **XII.ii** the wire curves away from the shaft before crossing it again to begin its curl. Sub-group **XII.ii** includes two variants. Variant **XII.ii.a** has a head of round sectioned wire [Figs 5.10.d, 5.10.g & 5.10.h] whereas variant **XII.ii.b** has a head of rectangular sectioned wire [Figs 5.10.a & 5.10.b].

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[40]Norwich Castle Museum.

[41]Norwich Castle Museum, acc nos: 1120 MRN.140C; 1120 MRN.249D; 1120 MRN.398C.

The iron curled-headed pin from Morning Thorpe grave 140 accompanied annular brooches, a knife and two pots, one of the pots was decorated by linear ornament. This is a stratigraphically late grave as it cuts two earlier graves 141 and 154. Grave 141, which itself cut grave 154, included an iron knife and a copper alloy small long brooch of Leeds cross pattée derivative type Dii (Green, et.al. 1987: 75). Grave 154 included a Swanton E2 spearhead and a carinated shield boss (ibid. 78). A 113 mm long curl-headed pin from grave 249 was buried with a woman in this a disturbed grave (cut by three other shallower graves), who was otherwise buried with a pot, four beads, one annular brooch with its pin missing and one in fragmentary condition, a knife, a buckle, and a pair of wrist clasps (ibid. fig 377Di). The 77 mm long iron pin from grave 398 accompanied an E3 spearhead, an iron knife and an iron buckle with a rectangular iron plate (ibid. 155, figs. 281 & 451c) [Fig 5.10.d].

Whereas most of the curled-headed pins curve away from the pin's shaft before crossing it again and beginning the inward curl, two pins from Morning Thorpe do not. In the case of pins from grave 409 [Fig 5.10.f] and grave 414 [Fig 5.10.e] (ibid. figs 454B & 456A) the head curls away from the top of the shaft abruptly. The pin from grave 409 accompanied a Swanton H3 spearhead, and an iron buckle (Green, et.al. 1987: 158).[42] In grave 414 the pin was accompanied by a fragmentary buckle and a small iron strip (Green, et.al. 1987: 159).[43]

Curled-headed pins from graves 96a [Fig 5.10.c] & 96b at Dover offer some helpful parallels (Evison 1987: 239 & figs 45.96a.2 & 46.96b.8).[44] In grave 50 [Fig 5.10.b] and 96a the male was buried with a shield-on-tongue buckle with shoe shaped rivets. The buckle from grave 50 was undecorated and associated with a knife and a spearhead (Evison 1987: 30 & fig 28.50.3).[45] This grave assemblage fits well in the mid-sixth century. Vera Evison placed this pin type within the period of AD 525 - 575 based on it associations. The finds from Morning Thorpe, and in particular

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[42]Norwich Castle Museum, acc no: 1120 MRN 409.

[43]Norwich Castle Museum, acc no: 1120 MRN 414A

[44]BM M&LA, acc nos: 1963,11-8,500; 1963,11-8,507.

[45]BM M&LA, acc no: 1963,11-8,312.

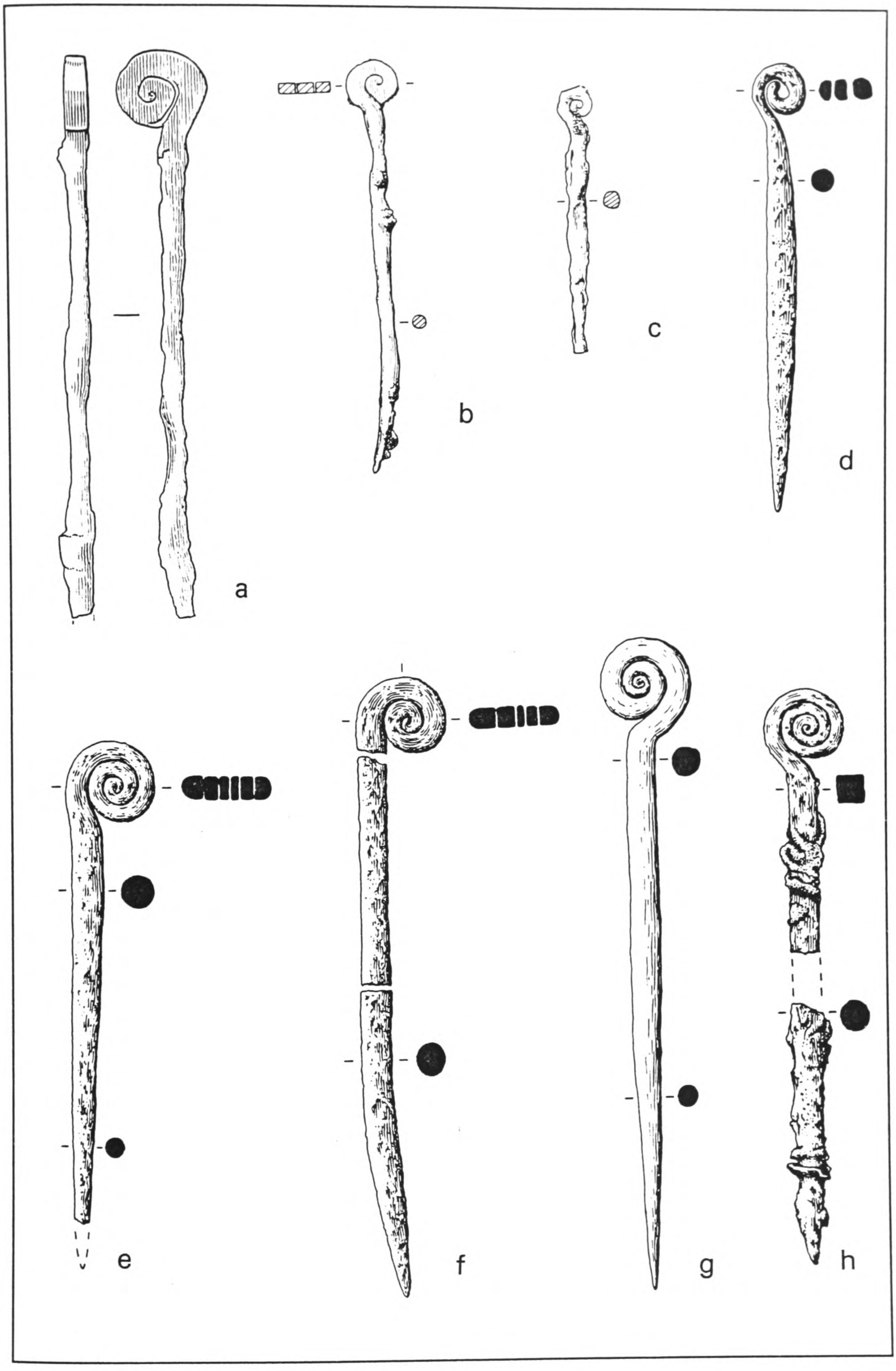

Figure 5.10

the number of finds with Hines B7 wrist clasps, indicates this dating might be too narrow and maybe we should push the dating back to the first quarter of the sixth century for at least the East Anglian examples. A similar pin from grave 6 at Bifrons was associated with a disc brooch, two small-long brooches, a perforated spoon and a penannular brooch (Godfrey-Faussett 1876: 303 & facing page; Savory 1956 Pl V.g; Fowler 1963: fig 6.7) [Fig 5.10.a]. Granted the penannular brooch was quite old, but many of the other items in the grave can be dated to either side of the middle of the sixth century. The spoon is similar to those from say grave 42 in the same cemetery (Godfrey-Faussett 1876: 314-315) and Sarre grave 4 (Brent 1863). The latter spoon came from a complex of material buried perhaps around 540-50 (Hawkes, et.al. 1981: 350; following Leigh 1980).[46]

Unlike most other pins, which come almost exclusively from female graves, these pins come from mostly male burials (e.g. Dover, Great Chesterford, Morning Thorpe). Exceptions are the pin from grave 11.F at Bergh Apton (Norfolk) (Green & Rogerson 1978: 14 & fig 72) and the pin from Bifrons grave 6 (Godfrey-Faussett 1876: 303).

The finds are distributed predominately in Kent and East Anglia--graves 50, 96a and 96b in the Dover cemetery, unknown graves at Faversham,[47] grave 2 at Bekesbourne (Kent),[48] several graves at Great Chesterford (Essex), grave 81 at Barrington B (Cambs) (Foster 1880: 26),[49] grave 11.F at Bergh Apton (Norfolk) (Green & Rogerson 1978: 14 & fig 72) and numerous graves at Morning Thorpe (Norfolk) (Green, et.al. 1987). The furthest west that one of these pins has been found is at Nassington (Northants) where a **XII.ii.a** type came from grave 22 (Leeds & Atkinson 1944: 107 & Pl XXX.22).

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[46]Of course there is the problem of spiral rings, one of which was in Sarre grave 4. On the basis of an early interpretation of Sarre 4 which included one of these bezel rings Hawkes placed them in the late sixth century (1958: 39).

[47]BM M&LA, acc nos: OA 1163'70 & OA 1163A'70.

[48]Royal Canterbury Museum, acc no 7595.

[49]University Museum of Archaeology and Anthropology (Cambridge), acc no: 2.16152. This pin is not mentioned in Foster 1880 as having come from grave 81.

XIII. Spherical-headed Type

Two fragments from grave 18 at Morning Thorpe were from an iron pin with a spherical-knob head and a moulded ring collar (Green, et.al. 1987: fig 299.C).[50] The two fragments measured 50 mm and 27 mm respectively. The pin had a shaft diameter of 4.5 mm. A similar pin, but with a more spherical-head came from grave 221 (ibid. 94 & 369.C) [Fig 5.11.a].[51] The pin from grave 18 was accompanied by two B7 wrist-clasps, girdle-hangers with bird-head terminals and a pair of sheet metal annular brooches (Green, et.al. 1987: 38 – 39). This would seem to place the context of the find in the first quarter of the sixth century.

XIV. Flat-ring-headed, fillet collar Type

These are pins with a flat ringed head and a tapering shaft. An example measuring 120 mm is known to have come from the cemetery at Broadway Hill, Broadway (Heref & Worc) (Cook 1958: 70 & fig 9.12) [Fig 5.11.b]. The pin has a flat sectioned neck. It projects just over 1 mm to the left and 1 mm to the right of the shaft of the pin. The block-neck is decorated with four incised lines. A line of punched circles runs around the flat plate head of the pin. On the shaft beginning just below the neck and continuing for 15 mm is another line of dots. Unfortunately the find of the pin from Broadway Hill was badly recorded and without the associations we are unable to offer a date for the pin. The form of the pin parallels other sixth century types. The sixth century features are: (1) a flat head-plate with a curved edge, (2) a sub-rectangular collar, (3) a length well-inside the 90-160 mm range. None of these features is, in itself, sufficient to support a date for the pin, but the combination of the features in one pin might be safely taken as a guide to the relevant period. Several other pins might be grouped with this pin (e.g. Highdown [Welch 1983: fig 116.d] [Fig 5.11.c] & Collingbourne Ducis [Gingel 1976: fig 20.3] [Fig 5.11.d]).

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[50]Norwich Castle Museum, acc no: 1120 MRN.18C.

[51]Norwich Castle Museum, acc no: 1120 MRN 221C.

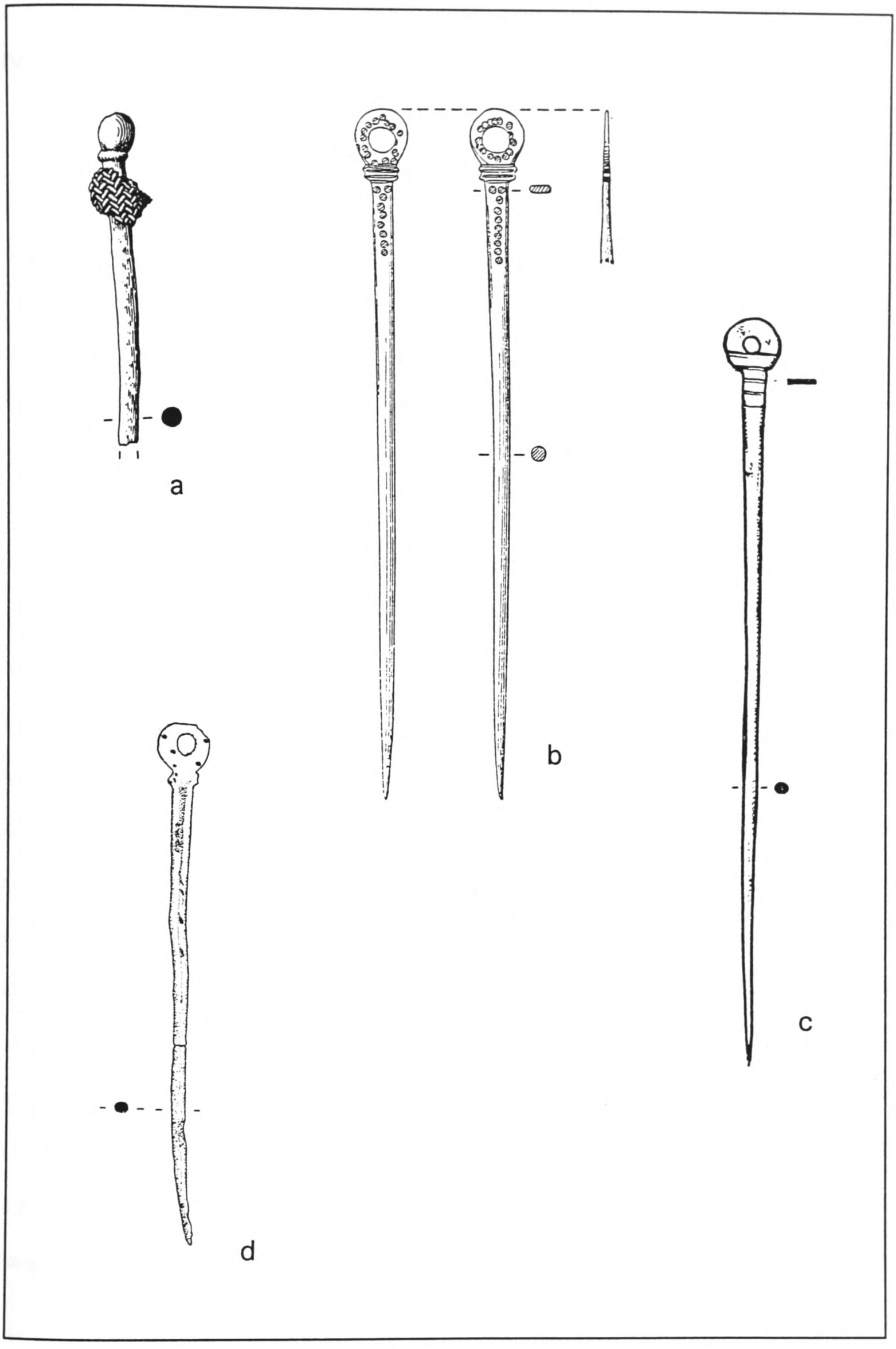

Figure 5.11

XV. Flat-sheet expanded headed Type

[Map 5.6]

This type is divided into two main sub-types. Those pins made by folding and rolling sheet metal **XV.i** and those made either by casting or working rod **XV.ii**. Each sub-group includes a number of variants.

XV.i Spatulate-expanded-headed Type (folded)

XV.i.a. Sub-triangular-head Sub-type

These copper alloy pins were manufactured by folding, rolling and hammering a piece of sheet metal. The rolled shaft fans out to form a flattened sub-triangular head. A wire with twisted-over ends forming a ring passes through the hole punched in the head. In some cases the rings may have held spangles, similar to those seen attached by a wire ring to the pin with a corrugated-edged head from Abingdon B113 (Leeds & Harden 1936: 53 & Pl XVII.113[disc brooches only]), but it need not have done so.[52] The form can be seen on a pin from grave 52 at Portway (Andover, Hants) (Cook & Dacre 1985: 39 & fig 64.52.3) [Fig 5.12.d]. Some small 'nick-like' triangles embellish the Portway pin's shaft. This decoration starts just below where the head begins to fan away from the shaft and continues for the first 13 mm of the shaft. The ring, which would have passed through the hole in the pin's head, is now lost. Two disc brooches decorated by 5 ringed-dot patterns were part of the same grave group. The occurrence of these in other grave groups may provide us with some guidance as to the date of the pin. The grave assemblage is well paralleled in the Upper Thames Valley cemetery at Abingdon. In grave B36 a similar assemblage included a 86 mm long undecorated copper alloy pin that had also lost its wire ring but was recovered with its triangular sheet-metal spangles, and a pair of disc brooches decorated with 5 ringed-dots (Leeds &

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[52]Ashmolean Museum.

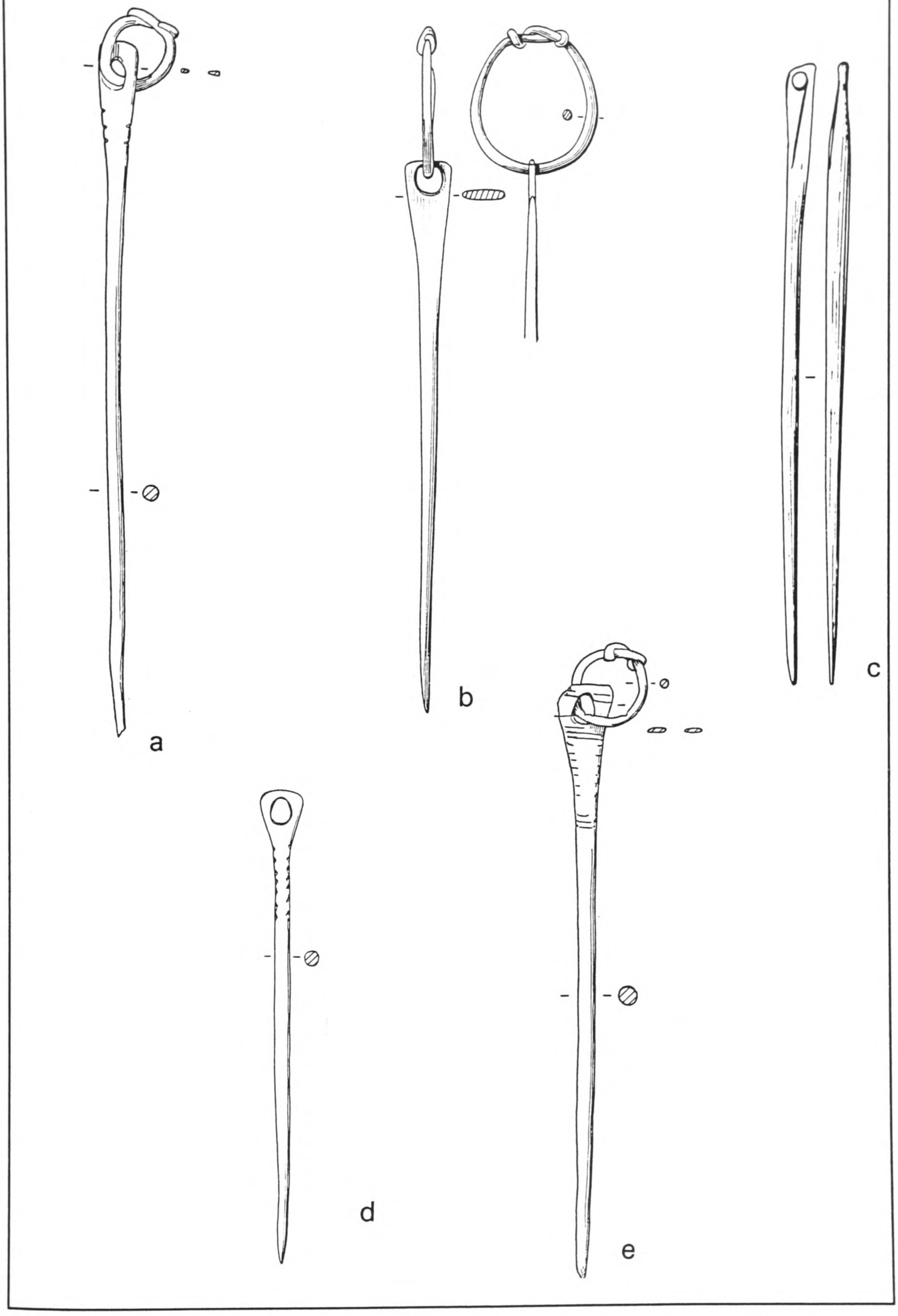

Figure 5.12

Harden 1936: 38 & Pl X.36).[53] The similar pin from grave B113 in the same cemetery has already been mentioned (ibid. 53 & Pl XVII.113). It is worthy of note that the pair of disc brooches from this grave has incisions radiating inwards from their outer-edges. The sub-triangular-headed pin bears similar markings. It seems quite likely that the brooches and pin were intended to be worn as a set; all three pieces may even have been produced in the same workshop. The brooches in grave B113 resemble closely those from Abingdon B14 (Leeds & Harden 1936: 33 & Pl VII.14). In her discussion of disc brooches Dickinson argued that this latter pair of brooches could be dated to the mid-late fifth century (Dickinson 1979: 44). In general, however, as Dickinson makes evident it would be easy to make a case for a later date, say, the early to mid-sixth century, for other similar disc brooches. Martin Welch has suggested that Dickinson starts the brooches too early and he would date them from the second half of the fifth, but not as early as the mid-fifth (Welch 1983: 55-57). Other graves containing similar pins but associated with different grave assemblages may give us further guidance as to their date.

Other parallels come from the Abingdon cemetery. The pin from grave B66 was found in association with two button brooches.[54] These two brooches belong to Avent and Evison Type Iii. Brooches of this class 'all have hair rather than a helmet, angular eyes and a T-shaped nose and eyebrow element' and come from grave 20 at Long Wittenham and grave 44 at Pewsey (Avent & Evison 1982: 86). Avent and Evison argued that this type of button brooch belonged to the fifth century and probably belongs between AD 425 and AD 475. I am not convinced by their arguments. The associated pins would suggest they have placed these brooches too early.

Pins of the type characterized by sub-triangular heads do occur in other grave groups. For instance, in grave B60 at Abingdon the 93 mm long ringed sub-triangular-headed pin was associated with a pair of gilt-bronze saucer brooches decorated with a 'five-linked spiral within a border of

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[53]Ashmolean Museum. An additional parallel both to this pin and to the grave assemblage comes from Filkins (Oxon) (Akerman, 1857b: 142). Akerman recovered from grave 5 a pair of disc brooches accompanying a 99 mm long pin with a flattened head which is 9 mm across (Merseyside County Museums, acc no: M7725).

[54]Ashmolean Museum.

punched concentric semi-circles' (Leeds & Harden 1936: 43 & Pl XII.60).[55] There seems little room for doubt that this brooch type was fashionable in the second half of the fifth century (Böhme 1986: 548), although Böhme's dating is slightly earlier than that put forward by Dickinson (1976) and Welch (1975; 1983). Five spiral saucer brooches were made in the late fifth or early sixth century. The example from B60 looks enough like the saucer brooches from Surrey and Sussex to lead Dickinson to argue that it was an early import into the Upper Thames Valley and may even be one of the archetypes for Upper Thames production (Dickinson 1976: 53-56). The grave may belong to the second half of the fifth century, but its rich amber necklace of 114 amber beads suggests that, if it does, it must be very late. Dickinson noted that the extant brooch was repaired (ibid. 54). The find from grave 18 at Lechlade of a 105 mm long cast/cold worked pin with a maximum head width of 9 mm and decorated above and below the hole in its head by evenly spaced lines provides further dating evidence [Fig 5.12.e].[56] The excavators reported that the assemblage also included a necklace of more than 100 foil-covered beads and a pair of star saucer brooches. This might or might not indicate that the brooch was used for a long period and was quite old when buried. Given the fact that the dates for all items except the button brooches, and even these may have been old when buried, converge in the late fifth century or early sixth century it seems safest to place those graves containing this sub-triangular headed pin type within that horizon.

It is possible that the form of these pins reflects that of the pig's-fibula pins. These pins have on occasion been recovered in Anglo-Saxon graves. A pin measuring 118 mm long came from Lechlade (Glos) grave 42; it was recovered in association with a small flat-bottomed carinated pot and a disc brooch with dots [Fig 5.13.c].[57] Similar pins came from grave 1078 and grave 1086 [Figs 5.13.a & .b].[58] The pin from grave 1086 was found in association with an iron penannular

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[55]Ashmolean Museum.

[56]Corinium Museum, Oxford Archaeological Unit, small find no: LBF85 199.

[57]Corinium Museum, Oxford Archaeological Unit, small find no: LBF85 253.

[58]Corinium Museum, Oxford Archaeological Unit, small finds nos: LBF85 997 (grave 1078), and LBF85 650 (grave 1086). Two came from Barrington (Cambs). One measured 89 mm and the other 79 mm [University Museum of Anthropology and Archaeology, Cambridge].

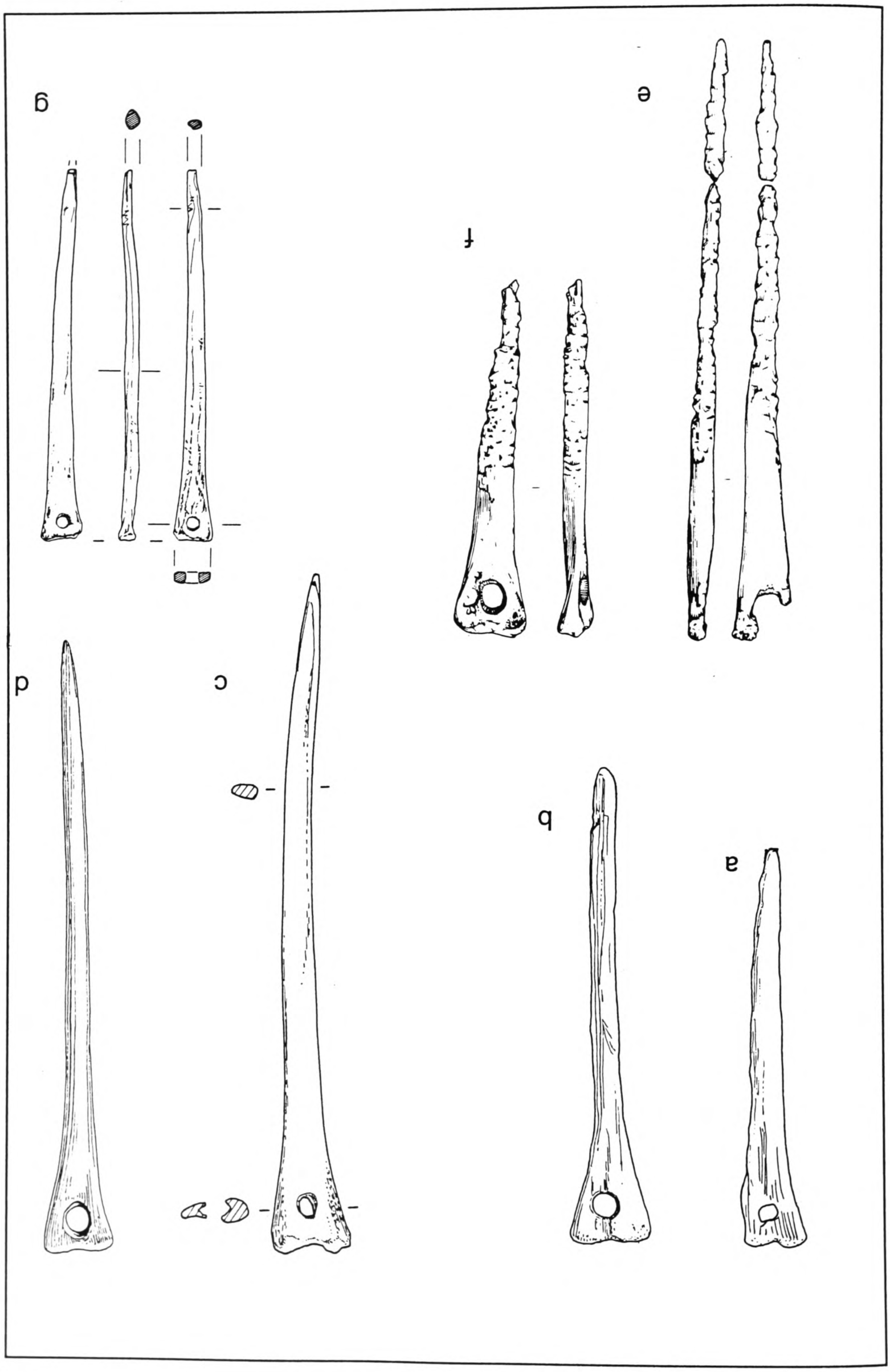

Figure 5.13

brooch with rectangular terminals. It is quite possible that the fragments from grave 1078 are those of a penannular brooch, but it would be impossible to say for sure. Bone fibula pins are rarely recovered in graves, but their recovery was not a phenomenon local to Lechlade.[59] Two such pins were recovered associated with the neck of the occupant of a grave 61 at Wakerley (Adams 1983: 54–55 & figs 55.1 & 55.2) [Figs 5.13.e & .f]. These pins tend to be more common on occupation sites, such as the 98 mm long pin recovered from a settlement at Dartford (Kent) associated with sixth– and seventh–century pottery (Tester 1956: 259 & fig 3),[60] or those from Waterbeach (Cambs) (Lethbridge 1938: Pl Ia.1), Puddlehill (Beds) (Matthews & Hawkes 1985: 100 & fig 19.1), Sutton Courtenay (Leeds 1923/4: Pl XXVIII.2.A, .B, .C, & .D), Northampton (Williams 1979: fig 138.48) [Fig 5.13.g] and numerous finds from West Stow (e.g. West 1985: figs 17.7, 33.6, 45.1, 48.4 & 5, 55.3 & 4, 61.9, 66.4, 85.5) [Fig 5.13.d]. As Crummy has noted, these pins were used throughout the Anglo–Saxon period and have a broad distribution (1988: 6–7). In an examination of 'A Bone Pin from Sconsburgh, Dunrossness' Wilson took up an argument made by Hencken in 1950 (194) and again by MacGregor (1972–4: 71) and gave it further support. Wilson pointed out that in some circumstances there can be little doubt that these holed–pig's fibulae were intended for or used for manufacturing. Wilson notes that this may have been true of a number of pins from Lund (Wilson 1983: 345). But this hardly explains the vast majority. He favoured the suggestion that many of these pins were also used for fastening garments. This suggestion, although made without the benefit of finds such as Lechlade and Wakerley, can be substantiated.[61]

This pin type had a broad spatial distribution and there are numerous other parallels; coming from Oxfordshire, Gloucestershire, Wiltshire and Northamptonshire. These include finds from

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[59]Their occurrence in graves during this period is not confined to England, as a find of one in grave 111 at La Turrage (Gers) makes evident (Larrieu et.al. 1985: 113 & fig on page 3).

[60]See also finds such as from Walton Excavations in Aylesbury (Farley, 1976: fig 14.7).

[61]Although we shall not consider further the pig–fibula pins it is worth noting that these pins were common throughout the Saxon period. Several were recovered during excavations at Northampton (Oakley & Harman in Williams, 1979: 310 & fig 138.47, .48, .49).

Minster Lovell (Oxon),[62] Lechlade (Glos) (Ross, forthcoming e), a 105 mm long find from Bassett Down (Wilts) (Goddard 1896: 106 & fig 9),[63] Blacknall Field (Pewsey, Wilts) grave 53,[64] and Marston St Lawrence (Northants).[65] There were five pins from the cemetery of Marston St Lawrence, but of these three are of little use since they were lost subsequent to excavation (Dryden 1849: 332, pl XII, 7 & 11; 1882: 333). Two complete examples were published.

XV.i.b. Trefoil-headed/clover-leaf-headed Sub-type

A flattened-headed pin with three lobes each with a hole through it was recovered from grave B53 at Abingdon (Leeds & Harden 1936: 41 & Pl XI.53).[66] To the best of my knowledge this pin is unique. It was associated with two disc brooches, 86 amber beads and two flat strip finger rings. It would seem safe to place this pin in the first half of the sixth century based on its association with the amber beads.

XV.i.c. Curved-headed Sub-type

A 132 mm pin with a 3 mm shaft and a maximum head width of 9 mm decorated for the 25 mm below its holed-flat 9 mm wide head-plate by a series of triangular nicks from Newnham (Northants) is typical of the curved-headed type pins [Fig 5.15.b].[67] The fold seam is particularly clear in the illustration of the pin from grave 61 at Abingdon [Fig 5.15.a].[68] Excavations at Long

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[62]Ashmolean Museum, acc no: 1953.598. This 90 mm long pin with its 6 mm wide head came from the site of the Priory. The evidence before us does not allow us to say whether it belongs to the period after the foundation of the priory or came from disturbed early occupation.

[63]Devizes Museum, acc no: S.18; acc no: S.19 is a similar pin from the site.

[64]Devizes Museum, acc no: BP SK 53; Annable, pers comm. This 99 mm pin had a 13 mm wide head and had the shaft covering the first 25 mm below the head twisted.

[65]Northampton Museum Service, acc no: D170/1955-6; Ashmolean Museum, acc no: 1953-73.

[66]Ashmolean Museum.

[67]Northampton Museum Service, acc no: D160/1955-6.

[68]Ashmolean Museum.

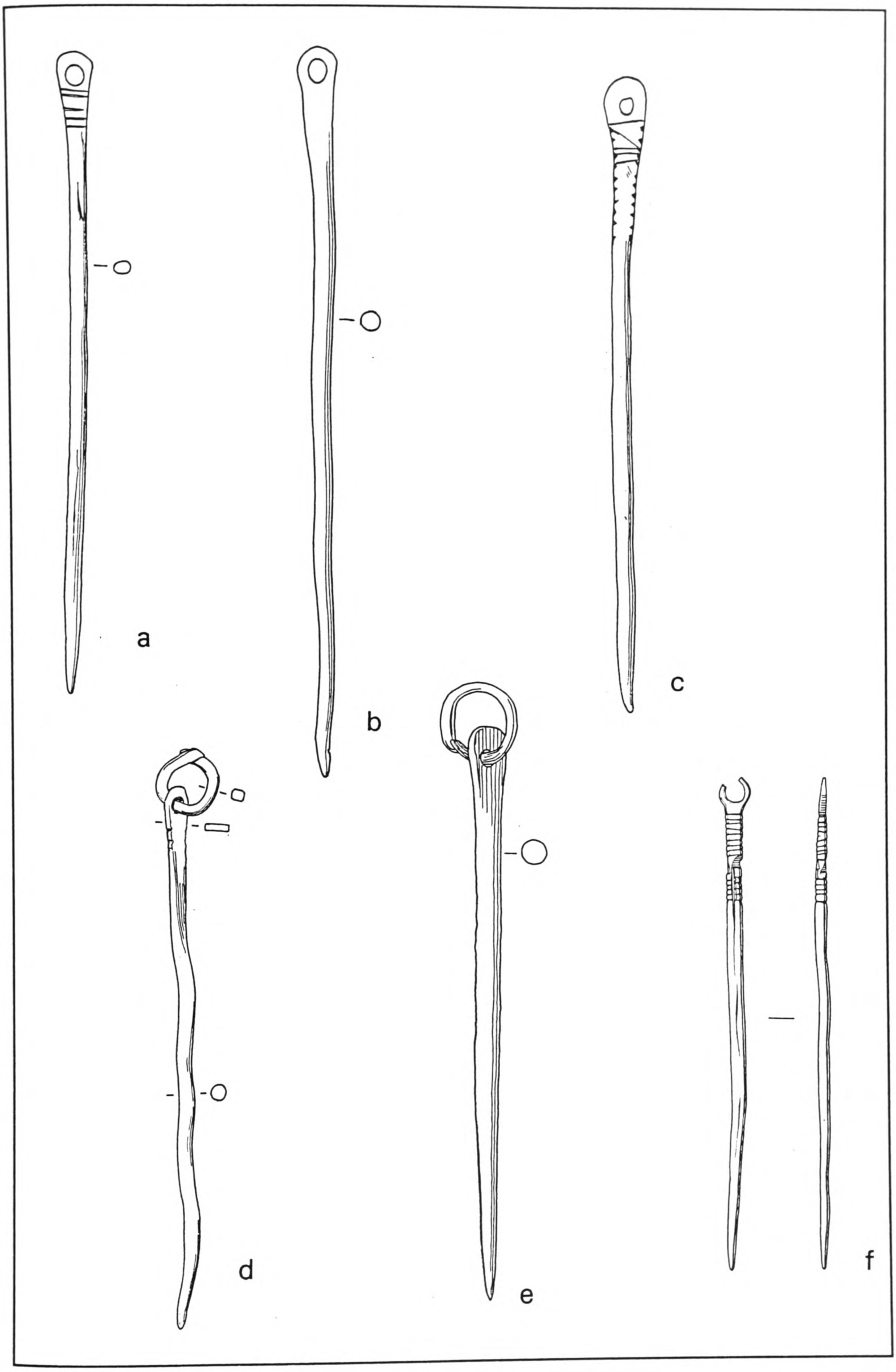

Figure 5.14

Wittenham produced from grave 68 a rolled pin with a flattened head (Akerman 1860b: 343).[69] This 89 mm long pin has a hole through the flat head plate; the hole is slightly off-centre. There is a longer example from grave 33 in the same cemetery (Akerman 1860b: 340).[70] In the case of this 118 mm long pin with a head diameter of 11 mm, the shaft just below the head had been adorned with incised lines which produce the appearance of mouldings. This is to be contrasted with pins where the head of the pin had a more discoid character. The 103 mm long pin from grave 85 at Blacknall Field, Pewsey has lines on the shaft and incised decoration below the hole.[71] Accompanying this are three more lines incised across the head of the pin. These pins should not be confused with pins of group **XXV** with heads terminating in a curved outline with a thin rectangular collar-plate below. Typical of these is a find from Newnham (Northants) [Fig 5.15.c].[72]

A copper alloy 86 mm long pin with a broken ringed-head was recovered from grave 1 at Portway Down in Andover [Fig 5.14.f]. The first 16 mm were decorated with horizontal lines. Associated with the pin were a pair of disc brooches decorated with concentric circles, beads and an iron knife (Cook & Dacre 1985: 23-24 & fig 41.3). The disc brooches must belong to the late fifth or early sixth century on grounds argued above. Several folded-curved-headed pins come from excavations at Abingdon, such as the 91 mm long find from grave B9 (Leeds & Harden 1936: 32 & Pl VII.9), and one from grave B119 (ibid. 54-55 & Pl XVII.119).[73] While the pin from grave B9 had no associated finds the assemblage from B119 included a pair of applied brooches, a cloisonné decorated heart shaped plate and a string of beads. A similar 102 mm long pin from grave 91 at Berinsfield was accompanied by a pair of small long brooches with arc-splayed foot and box heads and a necklace of amber and glass beads (Miles forthcoming).

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[69]BM M&LA, acc no: 75,3-10,192. Another similar pin was recovered from grave 75 (Ashmolean Museum, acc no: 1908:Pr451a) but unlike the pin from grave 68 this one may have been cast, and therefore ought to be grouped differently.

[70]BM M&LA, acc no: 75,3-10,126.

[71]Devizes Museum, acc no: BP SK 85. (Annable, pers comm).

[72]Northampton Museum, acc no: D155/1955-6.

[73]Ashmolean Museum.

The woman buried in grave 68 at Long Wittenham, had besides the pin[74] on her breast, a number of residual Roman coins and a necklace of paste and amber beads. She also was buried wearing two disc brooches also. This assemblage is comparable to that of the woman in grave 33. She had a dozen amber beads, 2 disc brooches and a 'large ornamented glass bead' (Akerman 1860b: 340). Like those of variant **XV.i.a** pins of this sub-group **XV.i.c** would appear to date to the very end of the fifth or the beginning of the sixth century.

XV.iv.d. Diamond-headed Sub-type

These pins are made from a rolled piece of sheet metal with a flattened diamond head through which a hole has been punched, probably for securing a ring. **BM M&LA 91,6-24,145** from Kempston (Beds) is typical. One example with a perforated diamond head, but broken off above the hole in its head is from Market Overton (formerly in Rutland, now Leics) [Fig 5.15.d].[75] This 129 mm long pin tapers along its entire length. The maximum width of the head is 10 mm. There is no evidence that there was a relationship between the width of the head and the length of these pins, although some relationship may have existed between the thickness of the shaft and the width of the head. The 148 mm long copper alloy pin from grave 3 at Kemble is only 7 mm wide at its maximum point.[76] There are seven lines on the shaft of this pin below its head. A copper alloy pin measuring 85 mm from grave 44 at Pewsey was associated with a pair of button brooches of Avent and Evison type Iii.[77] These brooches would suggest a fifth century date, if the Avent and Evison dating is correct then these brooches were probably old when buried. The occurrence of these brooches should not therefore be used to date this context. If we compare the form of **XV.i.d** with that of the other sub-groups a later date for the pin type would be suggested. Pins of this sub-group have been recovered from the Upper Thames and Wiltshire.

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[74]BM M&LA, acc no: 75,3-10,192.

[75]Oakham County Museum, acc no: 0549.

[76]Merseyside County Museums, acc no: M7741.

[77]Devizes Museum, acc no: BP SK44

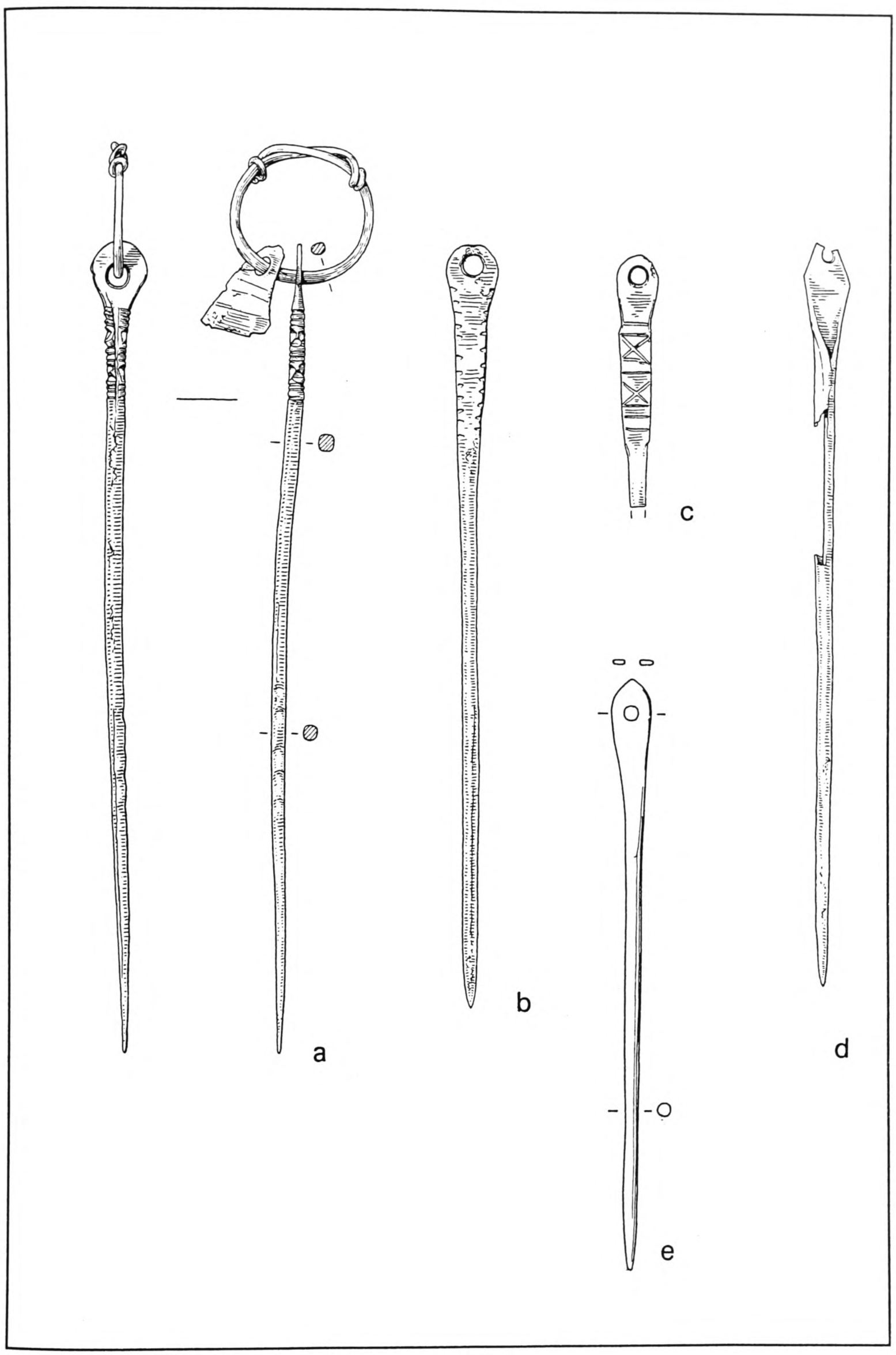

Figure 5.15

XV.ii Spatulate-expanded-headed Type (cold-worked or cast)

Pins of this sub-group were made either by casting or by the cold working of square rods. For example, a 104 mm long pin from grave 18 at Lechlade with its flattened triangular head decorated with horizontal grooves appears to have been cast [Fig 5.12.e].[78] The shaft of the pin is 3 mm in diameter and has a round section. The Lechlade pin was associated with a pair of saucer brooches that belong to the first half of the sixth century. A number of the pins from other graves at Lechlade were also made from square or rectangular rods. These include pins from graves 78 [Fig 5.12.a], 1125/1 [Fig 5.14.c] and 1168 [Fig 5.14.b].[79] Other similar cast pins are known from Long Wittenham. Typical among these is a 98 mm long pin from grave 150 at Long Wittenham (Akerman 1861: 140). In the same grave, excavation recovered a necklace of amber beads, two disc brooches and an ivory bracelet. Dickinson argued that graves with amber beads belonged to the end of the fifth century or the first half of the sixth, with the majority falling into that range (1976: 203–4). One pin from Netheravon (Wilts) has a flat spatulate head with a fillet collar.[80] The head of the pin is decorated by criss-crossed lines. The 60 mm long pin has a 4 mm wide head (VCH, *Wiltshire*, 91; *WAM*, 1939 [43:400 & 46:169]). While many of these were copper alloy and had triangular-spatulate heads, others had diamond shapes. An iron diamond-headed pin was recovered from Blewburton (Berks).[81]

While some of these were cast there also appears to be a small number that were clearly worked from rod. A 49 mm long copper alloy pin from grave 98 at Long Wittenham is yet another example (Akerman 1860b: 346).[82] It measures only 5 mm across its maximum width. The hole in the head may have held a wire ring and at least one metal tag or spangle was recovered from the grave. This pin was rounded from a cuboid rod, flattened diamond. The edges were filed to give

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[78]Corinium Museum, Oxford Archaeological Unit, Lechlade small find no: LBF85 199.

[79]Corinium Museum, Oxford Archaeological Unit, small find nos: LBF85 293 (g.78); LBF85 790 (g.1125/1); LBF 85 880 (g.1168).

[80]Devizes Museum, acc no: DM94.

[81]Reading Museum.

[82]BM M&LA, acc no: 75,3-10,248.

the pin shaft a rounded character. Just as there were examples with curved ends made from sheet pins worked from rod were also given similar form (e.g. Kempston[83], and perhaps Chessell Down [Hillier 1856: 35 & fig 54]). The distribution extends from the Upper Thames Valley to Yorkshire with the find of a 148 mm long round shafted pin from West Heslerton.[84]

The contextual evidence leaves little reason not to see sub-group **XV.ii** as contemporary with sub-group **XV.i**.

XVI. Short-spatulate-headed Type

[Map 5.7]

These pins have a spatulate-head with a hole punched through their flat head-plate. In contrast to the rolled and folded spatulate pins of sub-group **XV.i** these pins were cast and the contrast with the pins of **XV.ii** is visually apparent. They have an average length of 48 mm and a shaft diameter of c.2.5 mm. In all cases the shaft tapers along its length and none of these pins have any shaft swelling. Those from Ruskington (Lincs) (Kendrick 1946: 69 & Pl X.8) [Fig 5.16.d],[85] Cassington (Leeds & Riley 1942: 67 & fig 16e) [Fig 5.16.b],[86] and from grave S.6 at Horndean (Hants) (Knocker 1958: 135 & fig 10.5) [Fig 5.16.e][87] are good examples. The group can be divided into two sub-groups: (**.i**) pins with a circular head-plate, and (**.ii**) those with a sub-triangular or paddle head-plate. This later pin was 54 mm long and the flattened head was 6 mm wide. Some of these pins were decorated with linear ornament. Although the published illustration does not show it, the Horndean pin has incised lines on the flat surface of the head below the ring-hole. A pin from grave 39 at Kingsworthy also has incised linear decoration on its head-plate [Fig 5.16.c].

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[83]BM M&LA, acc no: 91,6-24,151.

[84]West Heslerton, small find no: HP2CB78B0 (Powlesland, pers comm).

[85]Lincoln City and County Museum, acc no: 1942.45.

[86]Ashmolean Museum, acc no: 1942.200. A copper alloy pin measuring 97 mm and having a head width of 90 mm makes it longer than most of the other pins in this group. It is possible that it might be derived from the rolled and flattened-sub-triangular headed pins.

[87]Southsea Castle Museum, acc no: 1947, 66/56.

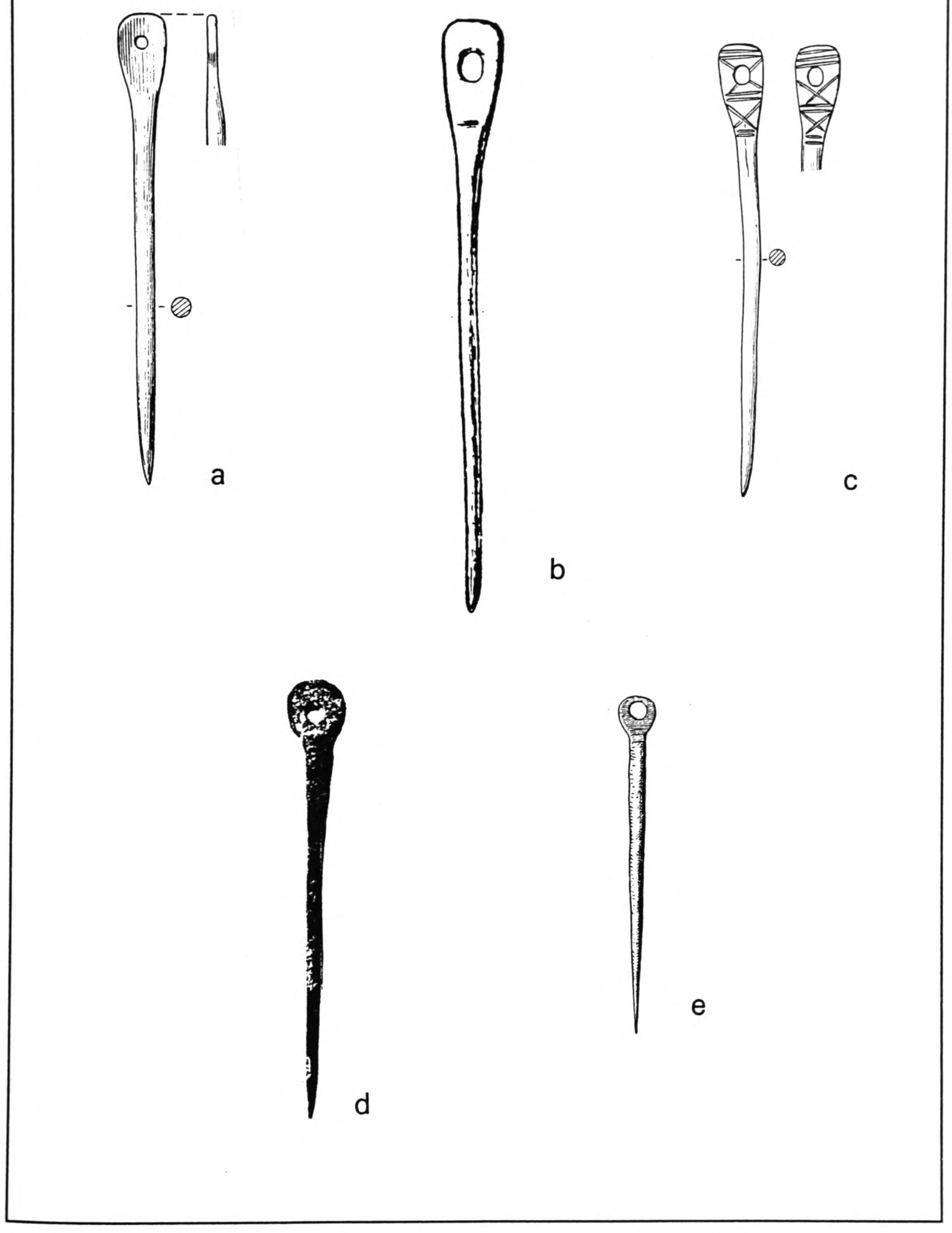

Figure 5.16

The Ruskington pin was associated with an annular brooch. The annular brooch could be sixth century, but it is difficult to be any more specific with the dating of the great majority of these brooches. An undecorated pin from grave 42 at the Dover cemetery (Kent) offers a further and possibly more helpful parallel [Fig 5.16.a].[88] This pin was associated with a necklace of amber and glass beads and a shield-on-tongue buckle with shoe-shaped rivets (Evison 1987: 228-229 & fig 25.42.2). These buckles on the continent are common in Frankish and Alamannic graves belonging in the early sixth century (Böhner 1958: vol i, Abb.1a & Abb.1b & 181-183; vol ii Tafel 36. 2a-d illustrates one from grave 102 at Rittersdorf [see page 128]). On the basis of the context of this pin a mid-sixth century date for the pin-type seems safe. The Cassington pin might suggest that a later dating is in order. This pin was associated with two cast gilt saucer brooches (Leeds & Riley 1942: Pl VI,A). While decoratively these brooches could be quite safely placed in the second half of the sixth century, E.T. Leeds thought that their form made it more likely that they belonged to the early seventh century (ibid. 69). However the grave included amber beads and a silver finger ring. These would make the preponderance of evidence favour the 2nd half of the sixth century

The sample size is too small to define meaningfully the their distribution of these pins, but it may have been broad, since they come from cemetery contexts as widely separated as Hampshire, Kent and Lincolnshire. The two examples from the Wessex region both share the characteristic linear decoration. This is absent on the pins recovered from Kent and from Lincolnshire.

XVII. Hook-headed Type

[Map 5.8]

Hook-headed pins were made by bending a bit of the wire back onto itself. The bend at the head end tends to be sharper and often at a 45 degree angle to the shaft of the pin. A wire hooked at one end resembling a pin was recovered from grave 59 at Abingdon (Leeds & Harden 1936: 42, Pl XII[59]), and another was recovered from grave 164 at Long Wittenham (Akerman 1861: 141),

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[88]BM M&LA, acc no: 1963,11-8,283.

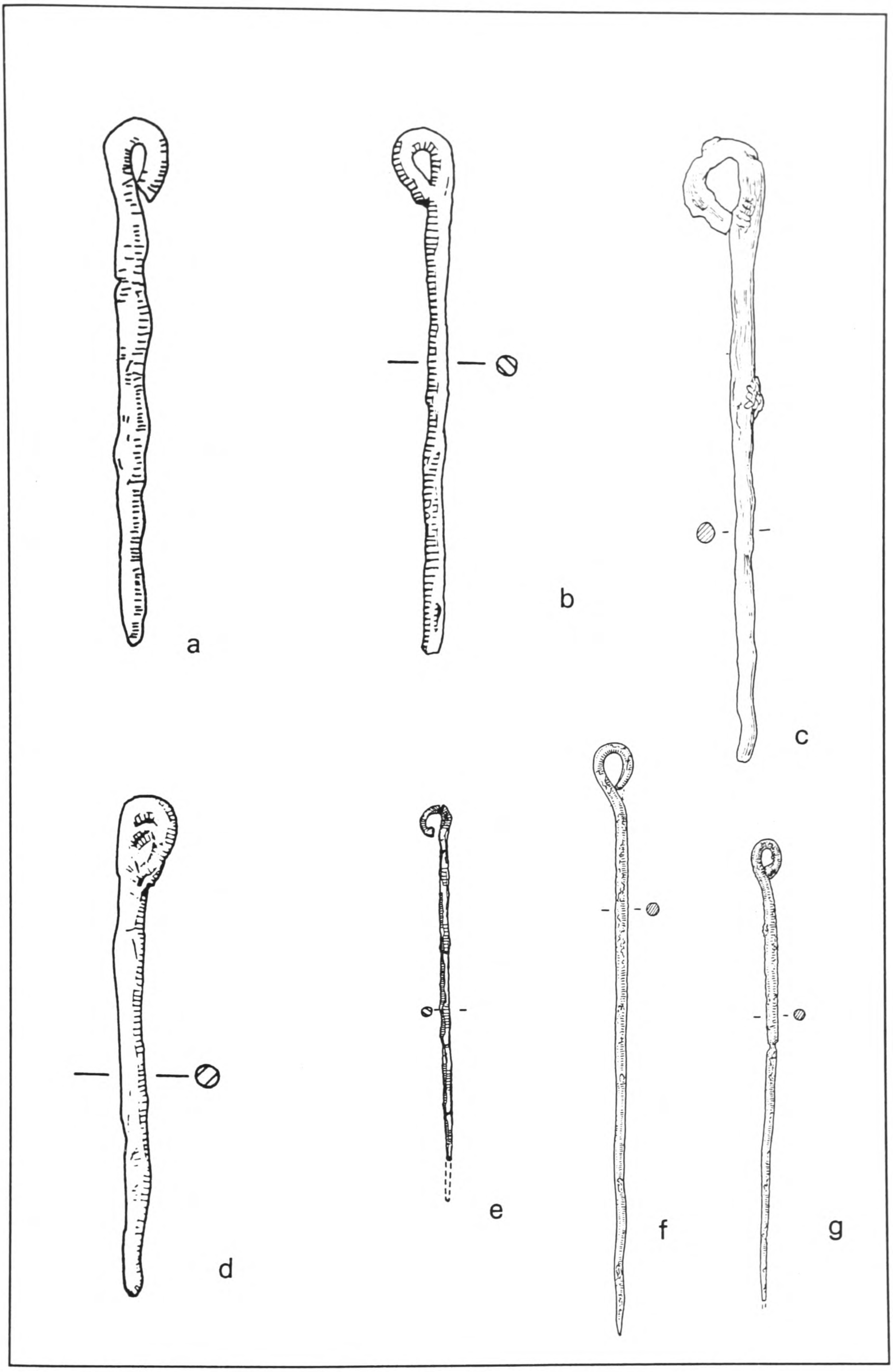

Figure 5.17

and a similar pin came from grave 1035 at Lechlade [Fig 5.17.a].[89] A piece of iron from Kingsworthy grave 63 with a bent-over end and a pointed shaft resembles a hook-headed pin (Ross forthcoming). Mortimer depicted one recovered from grave 28 of barrow C38 at Kellythope Farm (Kirkburn) and forming part of the Driffield Group (Mortimer 1905: Pl CII fig 814).[90] Excavations by E.T. Leeds on the site of Sutton Courtenay led to the recovery of one hook-headed iron pin (Leeds 1922-3: Pl XXVII.N & 182). Leeds suggested in 1922-3 (182) that a fair number of these hook-headed pins might have been used for brooches. The occurrence of these pins in graves producing only disc brooches, saucer brooches or no brooches combined, with their position in these graves (see below), leads me to reject this hypothesis as incompatible with the evidence. Among the difficulties is the fact that, in general, the length of the hook-headed pins exceeds the diameter of the discs. There are iron hook-headed pins from graves 25 (Cook & Dacre 1985: fig 49.4 & 29-30) [Fig 5.17.d], and 38 (ibid. 33 & fig 56.7) [Fig 5.17.b] at Portway (Hants). Grave 38 included two disc brooches and grave 25 had two small long brooches and a quoit derivative brooch. In a discussion of the quoit brooch Ager argued that this 'broad-banded brooch without notch...' ought to be classified as group E1 of type E (Ager in Cook & Dacre 1985: 78). This brooch, like the two small long brooches (Leeds Class V), probably belonged to the very end of the fifth or early in the sixth century. At the nearby cemetery of Alton (Hants) a 99 mm long hook-headed pin from grave 12 was associated with a pair of seven scroll-central-bossed saucer brooches (Evison 1988: 74 & fig 26.12.7). Evison argued these could belong at the end of the fifth century or the beginning of the sixth century. Since these bent hooks were a very simple form of pin to make it is not surprising that they are known from a number of widely distributed sites. While many of these pins were made in iron, others, such as the surviving 26 mm of a hook-headed pin from grave II at Staxton (East Yorkshire) (Sheppard 1938b: 10), were produced in copper alloy.[91] The hook-headed pin from

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[89]Abingdon: Ashmolean Museum; Long Wittenham: BM M&LA, acc no: 62,6-13,70; Lechlade: Oxford Archaeological Unit.

[90]Hull Museums, acc no: 758.1980.

[91]Hull Museum Service, acc no: 1569.42.

Long Wittenham (g 164) was associated with a pair of small long brooches with a splayed foot (Akerman 1861: Pl XI, fig 9). These brooches belong to the sixth century.

XVIII. Loop-headed Type

[Map 5.9]

Loop-headed pins have a well-formed loop at one end. Often the shaft curves a little away from the line of the pin before the loop curves back across the line of the pin shaft. The curves are graceful and well-formed. Both a 103 mm pin from Kempston[92] [Fig 5.17.f] and a 113 mm long copper alloy pin from grave 86 at Apple Down (West Sussex) (Down & Welch 1990: 45-46, 98-99, & fig 2.31[86.1]) [Fig 5.18.a] are good examples of this type. The former pin has a 2.2 mm shaft diameter and was made from a piece of rod. A 122 mm pin from grave 41 at Dover described by Evison as hook-headed is actually, at least according to the illustration a loop-headed pin (Evison 1988: 81-82 & fig 34.41.1) [Fig 5.17.e]. It must be acknowledged that in some instances the differences between the hook-headed and the loop-headed pins are slightly blurred. The case of the broken pin from Kempston is illustrative of this [Fig 5.17.g].[93] This pin has a point at one end and at the other the shaft curves away from the plane of the shaft only to cross it again while the end of the pin curves back to terminate with about a millimetre gap between the end and where the shaft begins to bend away. However, the arc formed by the turning outward of the wire is not as great as is common in loop-headed pins (e.g. the 103 mm Kempston pin), but it is greater than is common in hook-headed examples. This seems sufficient reason to include this Kempston pin among the loop-headed pins. We would concede that the use of such a subjective criterion, to say whether this pin exactly belongs to this group or that, reflects the sort of bias that Beck and Jones (1989) drew to my attention. In this regard it is possible that another researcher might classify this and other pins of this group differently. But we would argue here for the importance of training perception against a control data-set.

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[92]BM M&LA, acc no: 91,6-24,147.

[93]BM M&LA, acc no: 91,6-24,148.

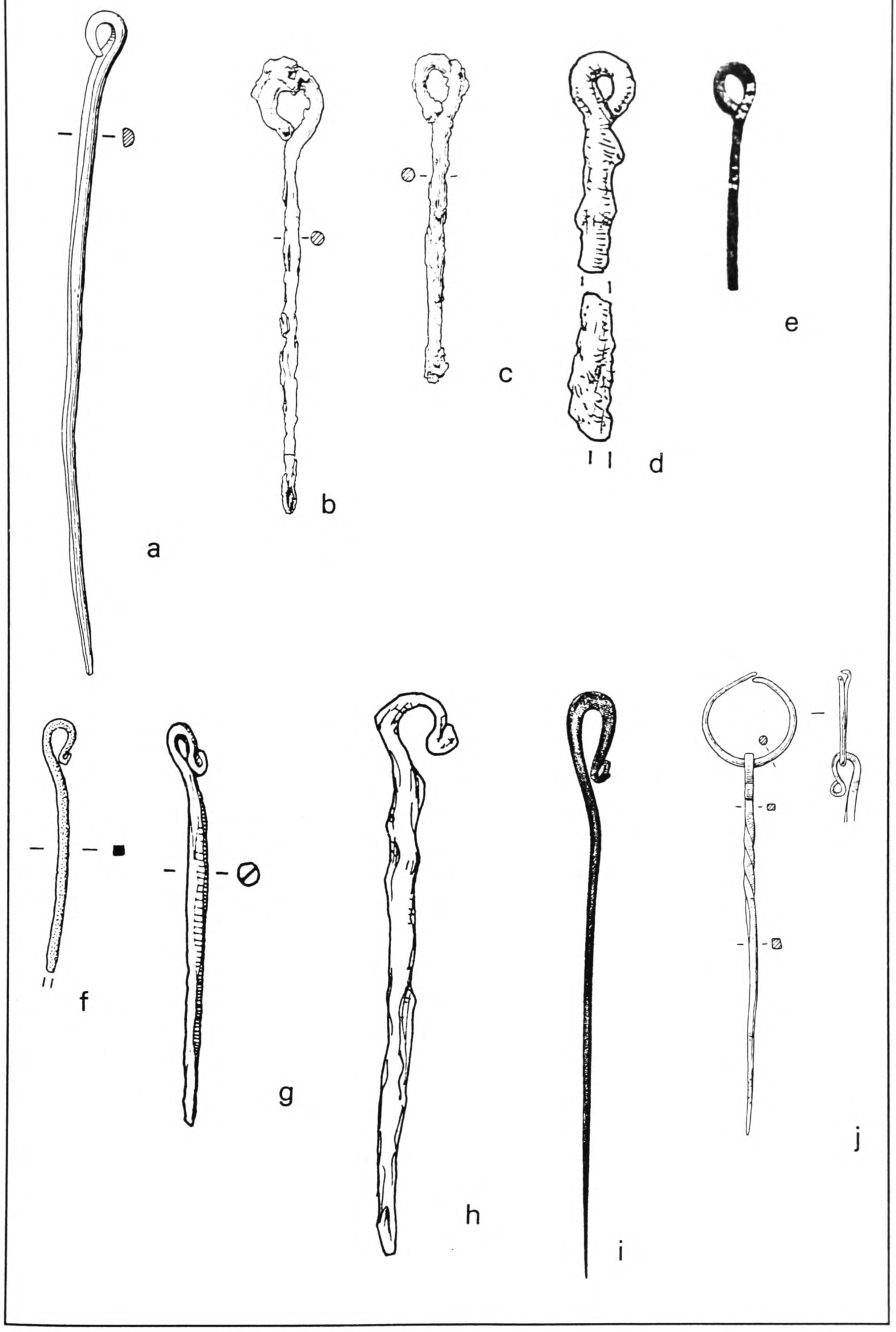

Figure 5.18

A great many of the loop-headed pins are round in section throughout, but this is by no means true of all examples. One 102 mm long pin from grave 102 at Blacknall Field (Pewsey, Wilts) has a round shaft section, but from the position where the pin begins to curve away from the shaft to form the head, the pin-head has a rectangular section.[94] The loop-headed pins have few diagnostic features as is evident when we examine the pins from grave 1000[95] [Fig 5.18.d] at Lechlade and at Kingsworthy (g.12 [Fig 5.18.c], g.33 [Fig 5.18.b]). Those at Kingsworthy were made in iron and copper alloy and both those from Kempston are copper alloy. Making these pins was a simple process. A cast metal rod was cut to length and pointed on one end, while the other end was bent around a curved rod.

A copper alloy loop-headed pin from grave 51 at Abingdon was associated with two button brooches, two pots and a necklace of beads of which four were made of amber (Leeds & Harden 1936: 40-1 & Pl XI.51) [Fig 5.18.e].[96] These button brooches (Class Di) appear to Avent & Evison to belong in the second half of the fifth century (1982: 82-3 & 99). The pot 'with three lateral lugs and a base-ring' (Leeds & Harden 1936: 40) could be safely dated to the sixth century (Dickinson 1976: 148). The date of the pot is probably an apt guide to the period in which the pin was deposited. A loop-headed pin surviving for 45 mm was recovered from grave XXIX at Petersfinger (Leeds & Shortt 1953: 24 & Pl VIII, fig XXIX.103).[97] The pin was associated with a necklace, two applied disc brooches and an inlaid iron buckle. On the basis of the form of the applied disc brooch an early sixth-century date for the assemblage seems acceptable. The iron buckle provides the crucial dating evidence and although it might be placed in the last quarter of the fifth century an early sixth-century date for the grave seems safest. In grave 110 at Long Wittenham a 77 mm long loop-headed copper alloy pin[98] was recovered with a pair of disc brooches, and

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[94]Devizes Museum, acc no: BP SK 102. (Annable, pers comm).

[95]Identification of the form of this pin was dependent upon X-ray no 451. Oxford Archaeological Unit, small find no: 365.

[96]Ashmolean Museum.

[97]Salisbury and South Wiltshire Museum, acc no: 29/103.

[98]BM M&LA, acc no: 75,3-10,278.

amber and glass beads (Akerman 1860: 347). This grave also belongs to the first half of the sixth century. A loop-headed iron pin accompanied by two small long brooches, a string of beads including one large crystal bead, twelve amber beads, and 33 dark blue beads came from grave 11 at Wallingford (Leeds 1938: 97 & Pl III). The preponderance of evidence from this grave would point to a date in the first half of the sixth century.

Although the examples cited here might lead one to assume that this type of pin was confined to the Upper Thames Valley and Wessex this is a misleading interpretation. Like the hook-headed pins, the loop-headed pins were broadly distributed throughout Anglo-Saxon England. An 89 mm long iron loop-headed pin from grave 3 at Bekesbourne (Kent),[99] and the find from Apple Down on the South Downs (Down & Welch 1990: 45-46) shows some of the southern distribution.[100]

XIX. Crook-headed Type

Both the hook-headed and the loop-headed groups differ from the crook-headed pins. In common with the two previous groups crook-headed pins have heads which hook-over at one end. The main difference lies in the fact that where the hook is bent back to the shaft the end is often curled back on itself (e.g. Blacknall Field (Pewsey, Wilts)[101]), Lechlade grave 1104[102] [Fig 5.18.h] or Barrington (Cambs)[103] [Fig 5.18.j]. In most cases these pins have a round-sectioned shaft. A crook-headed pin from Harnham Hill (Wilts) survives to a length of 106 mm (Akerman 1853: Pl XXXV.5) [Fig 5.18.i]. The shaft of this pin has a round section only to the beginning of the head above which it is square in section.[104] This feature can also be seen on the iron pin from

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[99]The Royal Museum (Canterbury), Bekesbourne, acc no: RM 7600.

[100]A further loop-headed pin came from Brook Street, Winchester (Historic Resource Centre, SF229(1436). The context of this 51 mm long pin was 15th - 16th century, but the pin could have been made earlier.

[101] Devizes Museum, acc nos: BK SK 30 & BK SK 93.

[102]Oxford Archaeological Unit.

[103]Ashmolean Museum, acc no: 1909.298i.

[104]BM M&LA, acc no: 54,6-15,8.

Sutton Courtenay (Berks) (Leeds 1922-3: PL XXVII.O), the find from Barrington [Fig 5.18.j], a metal detector find from Shalbourne (Wilts) [Fig 5.18.f] and a more recent find from grave 8 at Darenth (Kent) (Batchelor 1990: 46-50 & fig 6.4).

An iron example from grave 48 at Portway Down (Hants) was associated with two zoomorphic saucer brooches (Cook & Dacre 1985: 79 & fig 61.6) [Fig 5.18.g]. Cook & Dacre suggested that these brooches could be paralleled by a pair from grave 47 at Alton, but I am not convinced by the parallel. Part of this problem might be differential drawings. These brooches belong to the second half of the sixth century. Without more detailed information about associated finds with other crook-headed pins, such as those from Blacknall Field (Pewsey), it is not possible to establish a precise date range for these pins. For the moment we must be satisfied with a sixth century assignment for the type.

XX. Sleaford Type

A copper alloy pin from grave 95 at Sleaford is the type find of this group (Thomas 1887: 394 & Pl XXIV.fig 1) [Fig 5.18a.a[105] & Cl Pl IV].[106] The pin was cast as a single piece and has a spade-like head which is in part decorated on the obverse face in relief and terminates in a curved outlined end. The relief decoration is gilt.

The 153 mm long pin has a tapering shaft. At its widest the head is 47 mm across. The layout of the decoration on the pin gives the impression of a highly stylised helmeted animal's head (?boar?). The tinned copper alloy region of the head has a curved outline above the eyes and a long thin nose piece. This surrounds the lower gilt portion of the head. Here we see the face of animal/warrior. The nostrils and eyebrows are each constructed with two serpent-like creatures with segmented bodies. The head of each animal terminates, open mouth, at the edge of the pin. Below

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[105]G. Speake called my attention to the fact that this illustration is not accurate. Among the difficulties with it are the fact that each of the ends of the tinned-arc-edged surface terminates with an animal-head (just above the gilt-relief open-jawed head). Also between the gilt animal with the open-jawed head and the edge of the pin is a flat surface. This surface actually includes a further animal - the head of a boar. These features are more visible in Cl Pl IV.

[106]BM M&LA, acc no: 83,4-1,1347.

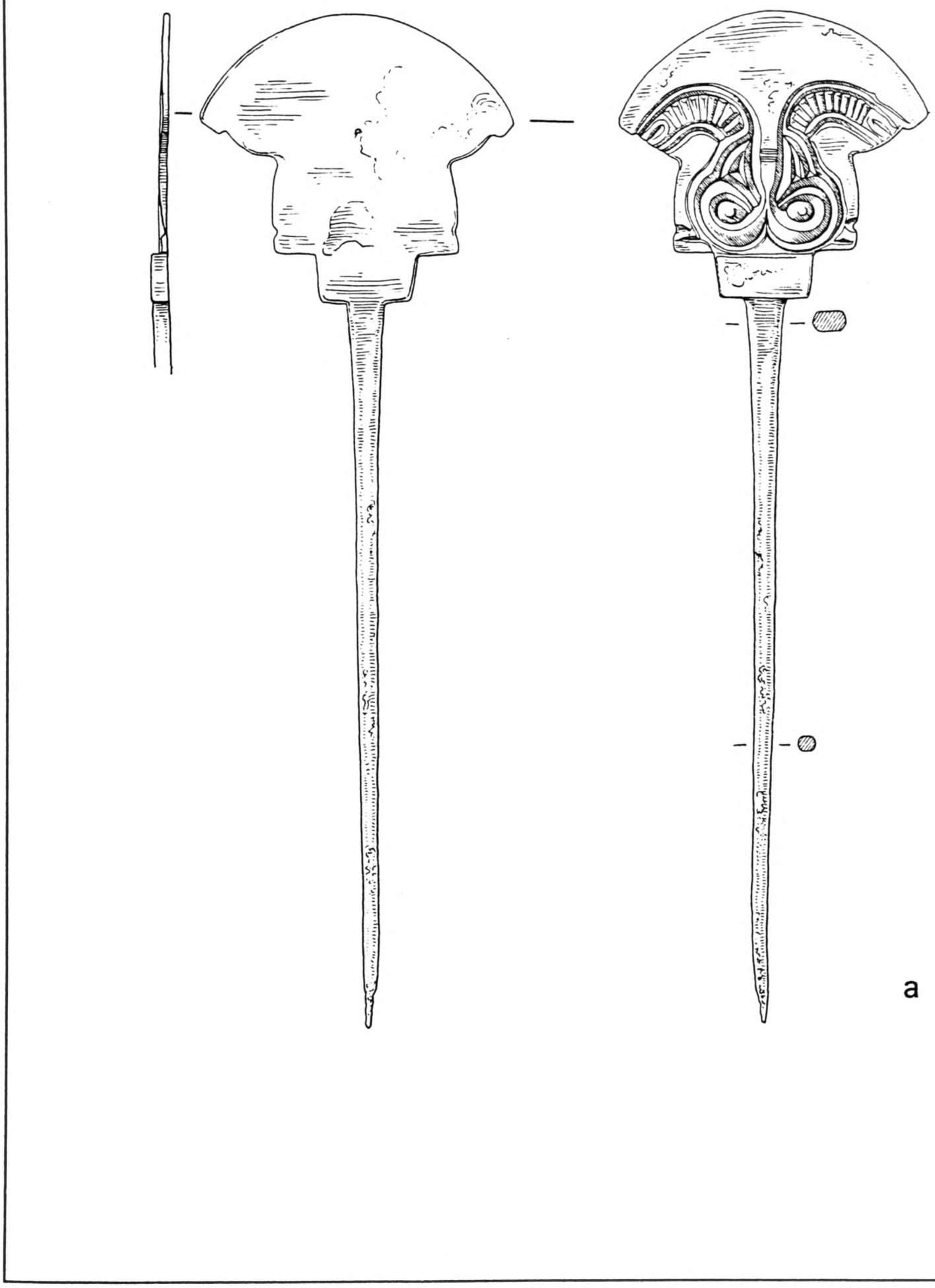

Figure 5.18a

the nose piece are two raised circular ridges each surrounding a convex boss no higher than the ridges. These form the nostrils of the face. While at first the impression is of a full face mask, the mask actually consists of two symmetrical elements. What appears on the left side of the nose piece is mirrored on the right. So although the viewer sees the decoration as a visual unit each component of the mask is itself a complete image. This is yet another example of the rich use of ornament to create visual diversity by the Anglo-Saxons, other examples have been discussed by Leigh (1984a: esp 35) and earlier by Bakka (1958). Indeed the method of construction used to make this pin was discussed by Bakka; the visual image involves a decorative technique or trick in which two profiles were used to create a single face (ibid. 39).

The pin came from a cemetery of at least 242 graves which came into use in the late fifth or early sixth century and continued to be used into the seventh century (Brenan 1985: 126). This pin, from grave 95, was associated with two swastika brooches, wrist clasps, 125 amber and glass beads and two scutiform pendants. The wrist clasps belong to Hines' group B7. Hines has argued that clasps of this group belong to the end of the fifth or beginning of the sixth century. The swastika brooches and the amber beads (following Dickinson on their dating in the Upper Thames Valley) date to the sixth century. Hines' discussion of the scutiform pendants would also indicate that a sixth century date for these would be acceptable. So the context as a whole appears to belong the first half of the sixth century. Taking into consideration the proximal dating of all the material from this context it is probably safe to assign a date in the first third of the sixth century to this pin.

XXI. Forged disc heads of iron

This group includes pins with a disc head with a head diameter greater than 10 mm and made from worked iron. The number of surviving examples is small and therefore the forms described here probably under-represent the real character of the group.

The one pin in this sub-group is iron and has a head diameter of 11 mm and is 2 mm thick. It comes from Morning Thorpe grave 369 and is broken into three pieces measuring a total of 115 mm (Green, et. al. 1987: fig 427.J) [Fig 5.19.b]. This pin was associated with two pairs of Hines

Form B7 wrist clasps, a residual Roman penannular brooch, an annular brooch and a circular scutiform pendant. This grave belongs either to the close of the fifth century or to the very beginning of the sixth (Hines 1984: 227). A similar find came from grave 53 at Wakerley (Northants) [Fig 5.19.c] (Adams 1983).

XXII. Barrel-cylinder-headed Type

The 159 mm pin from grave 35 at Howletts is the type-find of this group [Fig 5.19.a].[107] The diameter of the head is 5 mm and the shaft has a diameter of 2.5 mm, tapering to 2 mm before the point. A certain amount of secondary work was necessary. The pin was cast as a single piece. The Howletts pin was found with an annular brooch,[108] which unfortunately, is now lost. The dimensions of this pin and the bulbous form of the terminal knob suggest comparisons with pins included in groups VI, VII, VIII, and would suggest a similar period of currency.

XXIII. Hourglass-headed Type

In this type the shaft terminates in an hourglass head. It was cast and the ribbed decoration had been incised into the shaft afterwards. The one known example from grave 15 at Wallingford (Berks) is a 110 mm long copper alloy pin (Leeds 1938: 98 & Pl VII) [Fig 5.19.d].[109] Below the hourglass head is a 10 mm ribbed zone. It was recovered in conjunction with two annular brooches, fragments of applied saucer brooches and 132 dark glass beads at the waist of the woman. Among the finds, the applied saucer brooches are of particular interest: there can be little doubt from the fragments that they came from an applied brooch with florid cross decoration. Welch, in a detailed study of this small group demonstrated that they could be dated between the mid-fifth and the end of the fifth century. He proposed that the latter date would probably 'be appropriate for this grave'

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[107]BM M&LA, acc no: 1936,5-11,125.

[108]BM M&LA, acc no: 1936,5-11,124. (But this is no longer in the BM).

[109]Ashmolean Museum, acc no: 1938.1227.

(1975: 92; 1976: 134–6). The grave included a type E broad–band annular brooch (see Ager 1985: 24[Appendix]) and it would seem likely a similar date applies to this brooch.

XXIV. Stowting knob–headed Type[110]

This pin terminates in a small spherical knob below which is a concave depression which runs evenly around the pin just below its head. Below the concave zone the pin expands outward. Then it tapers to the point. The single known example came from Stowting, probably grave 9 (Brent 1867: 411–2). The position of the pin went unrecorded. It was associated with a button brooch of Avent and Evison type Aii (1982: 105 [item 31.1]). Among the other items in the grave were two brooches, an iron knife, girdle hangers and gold thread. Crowfoot & Hawkes discussed the gold thread and argued that the grave belonged to the 'second quarter or the middle of the 6th century' (1967: 71). The find complex as a whole would appear to belong to at the latest the middle of the sixth century. I have been so far been unable to parallel this find from Northern Europe.

XXV. Harnham Hill Type

These pins terminate in a thin (1–2 mm in thickness) head–plate with a curved outline. Below this is a rectangular collar–plate between 1.5 mm and 3 mm thick (Fig 5.15.c). This elongated plate often has linear decoration on it, as is evident on the Harnham Hill pin (Akerman 1853: 263 & Pl XIII.1). A wire ring passed through the hole in the head–plate; in a pin from Ruskington the wire ring can be still seen in place.[111] Similarly, in a pin from Caistor–by–Norwich (Myres & Green 1973: 224–5 & fig 62.GR.16.G) the remains of an iron ring are still fixed in the hole.

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[110]The identification of this pin is rather confusing. According to Avent & Evison the button brooch is in the BM (BM M&LA, reg no: O.A. 276), however Crowfoot & Hawkes assigned the entire grave group to Maidstone Museum. In Maidstone their is a pin assigned to grave 5, but no pin is known from this grave according to published record. So could the pin belong to grave 9.

[111]Lincoln City and County Museum.

There are only four of these pin so far identified, and these are distributed over a large geographic area: Harnham Hill (Wilts),[112] Newnham (Northants),[113] Caistor-by-Norwich (Norfolk) and Ruskington (Lincs).

[numbers **XXVI to XXXI** have not been assigned]

XXXII. Faversham bird-headed Type

Pins of this type are constructed with a flat-plate in the shape of a bird, giving the bird a two dimensional appearance. Usually they are adorned on only one face, often with both incised decoration and glass or garnet settings. The bird appears to sit on its tail and the head terminates with the bird's beak. The find of one such pin from Faversham is the only reported discovery from England (Fig 4.7 & Cl Pl I.c).[114] This silver pin has a gilt head set with garnets backed by decorative gold foil. The body is adorned by dots and lines. At some point the pin was damaged and the shaft which had originally been cast contiguously with the base-plate became separated from the pin head. Subsequently the upper end of the broken shaft was flattened and fixed to the face-plate with rivets to the head of the pin (see above chapter 4.viii). This resulted in the pin being shortened so it now survives for only 133 mm. The parallels are continental and a great deal of variety can be noted among them. In her study of merovingian pins Möller classed these bird-headed pins into a number of sub-groups. The Faversham pin fell into her sub-type A.6; a sub-type that included pins with flat bird-head bodies adorned by glass or garnet settings [*Nadeln mit flachem Vogelkopf mit Almadinzellenwerk*] (1976a). She identified similar pins from Anguilcourt-le-Sait, Grues, Herpes, Nettersheim, and St Nicholas-lès-Arras. It must be conceded that the comparison with the pin from Herpes is rather weak. While there is a similarity between the form of the bird, the Herpes pin is faced entirely by red stones (glass or garnets) (Baye 1892: Pl IV.100).

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[112]BM M&LA, acc no: 53,6-14,71.

[113]Northampton Museums, acc no: D155/1955-6.

[114]BM M&LA, acc no: 1130'70.

XXXIII. Holywell Row Type

A pin from grave 37 at Holywell Row cemetery is unique (Lethbridge 1931: 19 & fig 9.3; Ahrens 1978: 639–640 [item 362]) [Fig 5.19.e].[115] This pin survives only for a small portion (62 mm) of its original length. The pin terminates in a discoid plate with a hole through it. Below this plate are two bead mouldings. An elongated biconical knob below these mouldings terminates in a further two bead mouldings before the shaft begins. Associated finds include a cruciform brooch, two small long brooches and amber and glass beads. The cruciform brooch appears to belong to the mid–sixth century, but they may be later. Although we must await the publication of Mortimer's recent study to confirm this suggestion (D.Phil Thesis, Oxford), Reichstein grouped these in his Type Nassington (1975) and argued they belonged in the sixth if not the seventh century. It would appear that the most promising comparisons with this pin came from Scandinavia: these include finds from Helgö (Holmqvist 1961: item 1503 (p 115), fig 23.6 & Pl 28.2; item 2411 (p 115), fig 23.5 & Pl 28.1). These were considered the latest of the pins known from the site (Holmqvist, et.al. 1961: 123). More ornate forms came from graves at Birka: grave 849 (Arbman 1940: Taf 170.1), grave 551 (ibid. Taf 170.2) [Fig 5.19.f] and grave 485 (ibid. Taf 170.3). Waller in her examination of the pins from Birka grouped these pins as **Group C** (1984) (see above section **2.v**).

XXXIV. Plated–knob headed Type

Pins of this type have a triangular spatulate head–plate seated on a bulbous knob. A perforation cut through the head–plate often holds a wire ring. The surviving wire rings were all made from cast wire. The perforations in the head–plate were made after casting, possibly with a punch and finished by filing. All the known examples are copper alloy and undecorated. Two examples of the type were found in grave 89 at Bifrons (Kent) (Godfrey–Faussett 1880: 556) [Fig

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[115]University Museum of Anthropology and Archaeology (Cambridge), acc no: 2.7121.

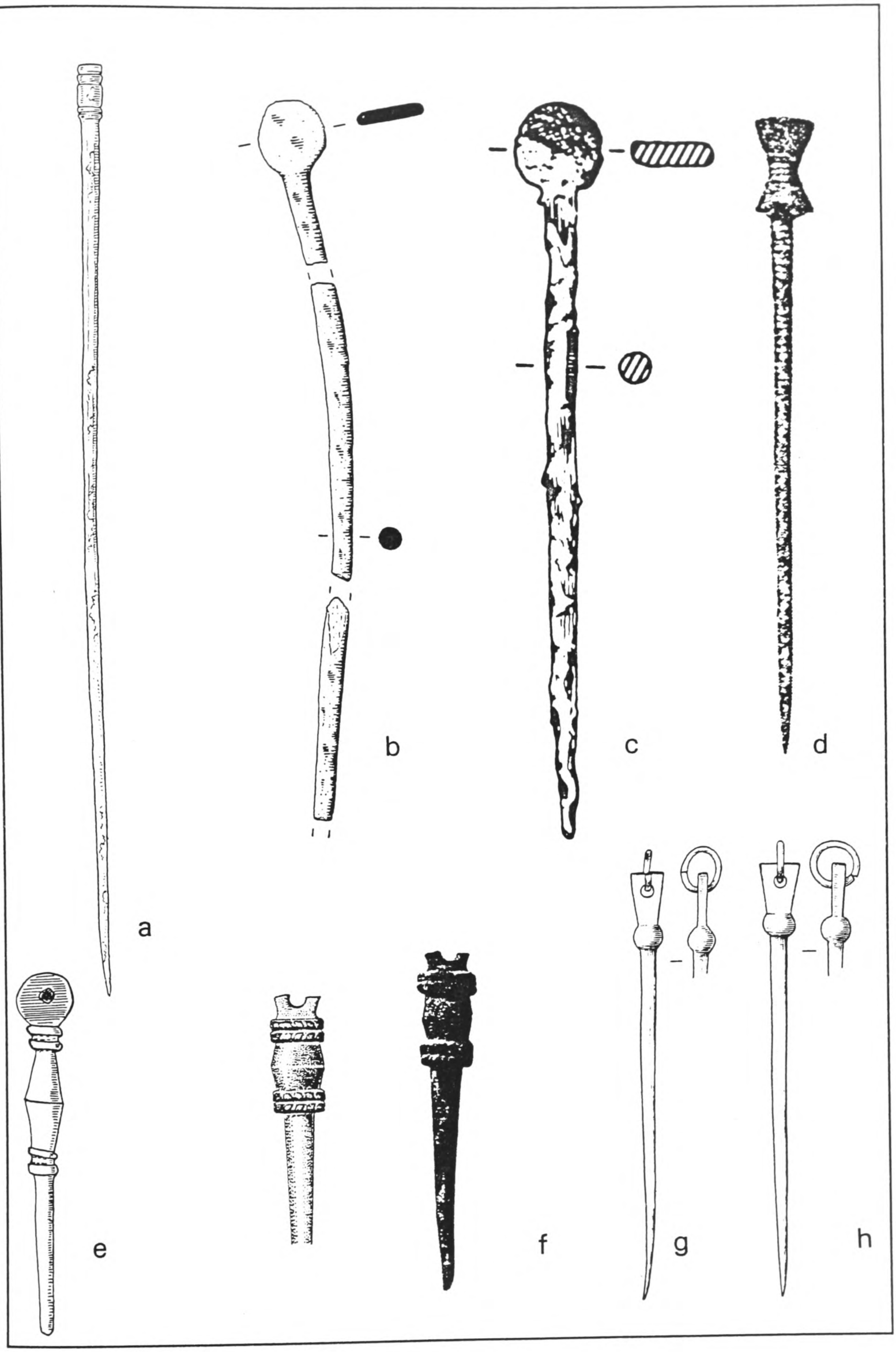

Figure 5.19

5.19.g & h].[116] KAS 377 measures 75 mm in length and KAS 376 survives for 73 mm. In both these pins the spherical bulbous knob measures 5 mm in diameter and the head-plate which is just over one millimetre thick expands from 2.5 mm to 5.5 mm in width. This pair of pins can not be paralleled from within England. The closest parallels come from Scandinavia; these forms can be seen most clearly in the moulds from Helgö.

Jutta Waller published the moulds from Helgö (1972). Among these moulds she was able to identify four main groups of pins produced at the site; only her Group I concerns us for the moment. Pins of the first group had a triangular head-plate above a protuberance. The Bifrons pins with their bulbous protrusions below a triangular head-plate must belong to this group. She subdivided the group I Helgö moulds into 8 variants (variant a through h). Waller compared these finds to those from Scandinavian sites and found that the sets formed by the moulds could be shown to represent adequately the pins recovered in excavations either at Helgö or from other South Scandinavian sites. While those from Bifrons compare favourably with these in basic form (i.e. they have a triangular plate above a protuberance), none of the protuberances Waller listed matched the spherical form of the protuberances seen on the grave 89 pins. So it would seem necessary to add a further variant to the Group. One immediately wonders if this could be justified from the mould finds at Helgö. The answer is yes and if Waller had been aware of the Bifrons material she undoubtedly would have added another variant to her lists.

Among moulds of 'Ad Group I' Waller included fragments without associations to any variant (1972: 37). Without pins to compare these moulds to, it is easy to see how it would be difficult to create detailed descriptions because the moulds are fragmentary. However, looking at the moulds in this group with the Bifrons' pins in mind two mould fragments stand out from the rest. Moulds D64 and D66 have a spherical bulbous protrusion below a triangular head-plate. These moulds can now be removed from the miscellaneous group and established as examples of variant i of Waller Group I. It is to this variant that the Bifrons pins must belong.

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[116]Maidstone Museum, acc nos: KAS 376 & 377.

Besides the moulds Waller cited numerous pins from eastern Sweden and Western Finland constructed with a protuberance below a triangular plate. None of these has a rounded protuberance. The closest parallels are the pins from inhumation grave 14 at Tolleby in Stenkyrka parish, Bohuslän (Waller 1972: 52 & fig 14; Niklasson 1928: 133–135, fig 75 [p 138]). These pins have a spherical protuberance below the triangular head–plate with nicked edges. Now that we have established Variant i of Waller Group I we may dispute the placing of these pins in Variant d. The protuberance on these pins is grooved but its general character is closer to Variant i than to the biconical form of Variant d.

These pins are the only examples of this type I am aware of from Anglo–Saxon contexts. The Scandinavian character of the Bifrons cemetery cannot be denied, and Hawkes noted many other items that can best be paralleled by finds from Jutland (Hawkes & Pollard 1981: 323). These pins can, on the basis of parallels with Helgö material and the finds discussed by Waller, best be placed in the first half of the sixth century. Several graves in Cemetery 150 included pins. Those most closely related to Bifrons pins included a pair of pins with a superior loop, albeit with a cuboid knob, from grave 57 (Holmqvist et.al. 1970: 179 & fig 94.1 & 94.2) and in grave 43 a pin with a triangular plate above a biconical knob (ibid. 165–166 & fig 80.1 & 80.2). Graves 43 and 57 belonged to stages I and II respectively (Lamm 1970: 221–222). The earliest graves of these stages belong to c. 500 AD (ibid. 222–223).

XXXV. Knob–above–eyelet–headed Type

[Map 5.10]

These pins have a ring or open work oval head with a round sectioned stub extending above the ring or oval. The ring is round sectioned. A wire ring may have passed through the ring head, but it need not have done. All the known examples were cast. A pin recovered from Fairford provides an example of such an arrangement.[117] This pin is decorated above and below its eyelet by linear ornament, and a wire ring with folded–ends passes through the eyelet. Many parallels

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[117]BM M & LA, acc no: 1929,7–15,4.

come from Wiltshire, Hampshire and the Upper Thames Valley. The majority of them come from contexts dating to the late sixth century and the first third of the seventh century.

To confirm this dating it might be instructive to examine several other finds from the area. In 1860, May of Marlborough noted for the *Wiltshire Archaeological Magazine* several objects from the J. Stoughton Money Collection. These included 'two large saucer shaped Anglo-Saxon fibulae of copper gilt, amber beads, pin &c. found with a skeleton near Mildenhall, in 1827' (1860: 259) [Fig 5.20.b].[118] Although the positions of the objects in the grave appear to have gone unrecorded the grave group survives intact. The 128 mm copper alloy pin has a knob-projecting above its eyelet (VCH *Wiltshire*: 89).[119] The saucer brooches have a geometrically decorated central roundel ringed by a band of cable motif (*Anon Notes* 1911-12, plate facing page 611). These brooches must belong in, at least, the last third of the sixth century.

A pin with eyelet and knob from Standlake (Oxon) was embellished with dot ornament [Fig 5.20.d].[120] David Brown has argued that this cemetery bears all the hallmarks of a late burial ground--end of the sixth century or beginning of the seventh (Brown 1973: 238). This was a view adopted by Dickinson in both her review of the cemetery and later in her discussion of the saucer brooch from the cemetery (1973; 1976). The pin certainly would not be out of place in this context. It appears to come from grave 19; where the relationship between the various contents are dubious at best. The confusion about the context of the grave goes back to the report of the recovery of a single grave by Percy Manning at the very end of the nineteenth century (Manning 1898: 39-40). He recorded eleven objects supposedly recovered from a single grave, including: a saucer brooch, an annular brooch, a copper alloy disc, three copper alloy pins, twenty-four beads and a spearhead. David Brown suggested a double burial (1973: 238), Dickinson proposed that the female grave was cut by a male grave (1973: 250). There is a third, and so far unexplored, alternative, namely an

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[118]Devizes Museum, acc no: DM46.

[119]Devizes Museum, acc no: S.31.

[120]Ashmolean Museum, acc no: 1921.1113.

earlier male grave was cut by the female grave. I favour this suggestion because the pin seems among the latest of the materials from this context.

Other knob-headed pins include those from Poulton Down (Wilts) and grave 8 at Beckford B[121] (Worcs). The latter pin was recovered with an eleven-scroll saucer brooch and an applied brooch. Dickinson argued that eleven-scroll saucer brooches belonged in the mid-sixth century (1976: 60-61). The former pin was associated with an Anglo-Saxon woman who fell into a Roman well at Poulton Down (Wilts). This pin (length 96 mm) has grooves on its knob and shaft;[122] a decorative sequence best paralleled on the Fairford pin (Meyrick 1950: 221). The woman also had 2 buckles, a number of amber beads and a tanged knife. All the items belong in the second half of the sixth century.

The cast pin from grave 2 at Kingsworthy has a small knob projecting above its eyelet (Ross forthcoming f) [Fig 5.20.e]. Unlike the other examples so far described the knob is not round sectioned. This flattened projecting knob has notched edges and the flat faces are decorated with dot ornament. A now lost wire ring once passed through the eyelet. No items were associated with this find, but, according to Hawkes, on the grounds of the horizontal stratigraphy this grave must belong to the seventh century.

The most ornate example is the gilt pin from Wheatley grave 14 [Fig 5.20.c]. On this silver pin, which survives for a length of 130 mm, the knob above the eyelet has been replaced by a flat disc with a central boss (Leeds 1916-7: 51-52 & fig 4; Ahrens 1978: 592-3 [item 201]).[123] The plane of the disc bisects the medial line of the eyelet. A large ring passes through the eyelet. The face of the disc is adorned with 'a border of punch-marks and curved rays in the same technique radiating from a central boss beaten out from the back" (ibid. 52). This pin was associated with a pair of saucer brooches, and necklace of thirty beads including large amber beads. In addition this woman was buried with a knife, a silver finger ring and an iron triangular buckle plate. This plate

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[121]Pin not examined.

[122]Devizes Museum, acc no: DM74.

[123]Ashmolean Museum, acc no: 1883.251. [The inventory number in Ahrens 1978 does not refer to this pin.]

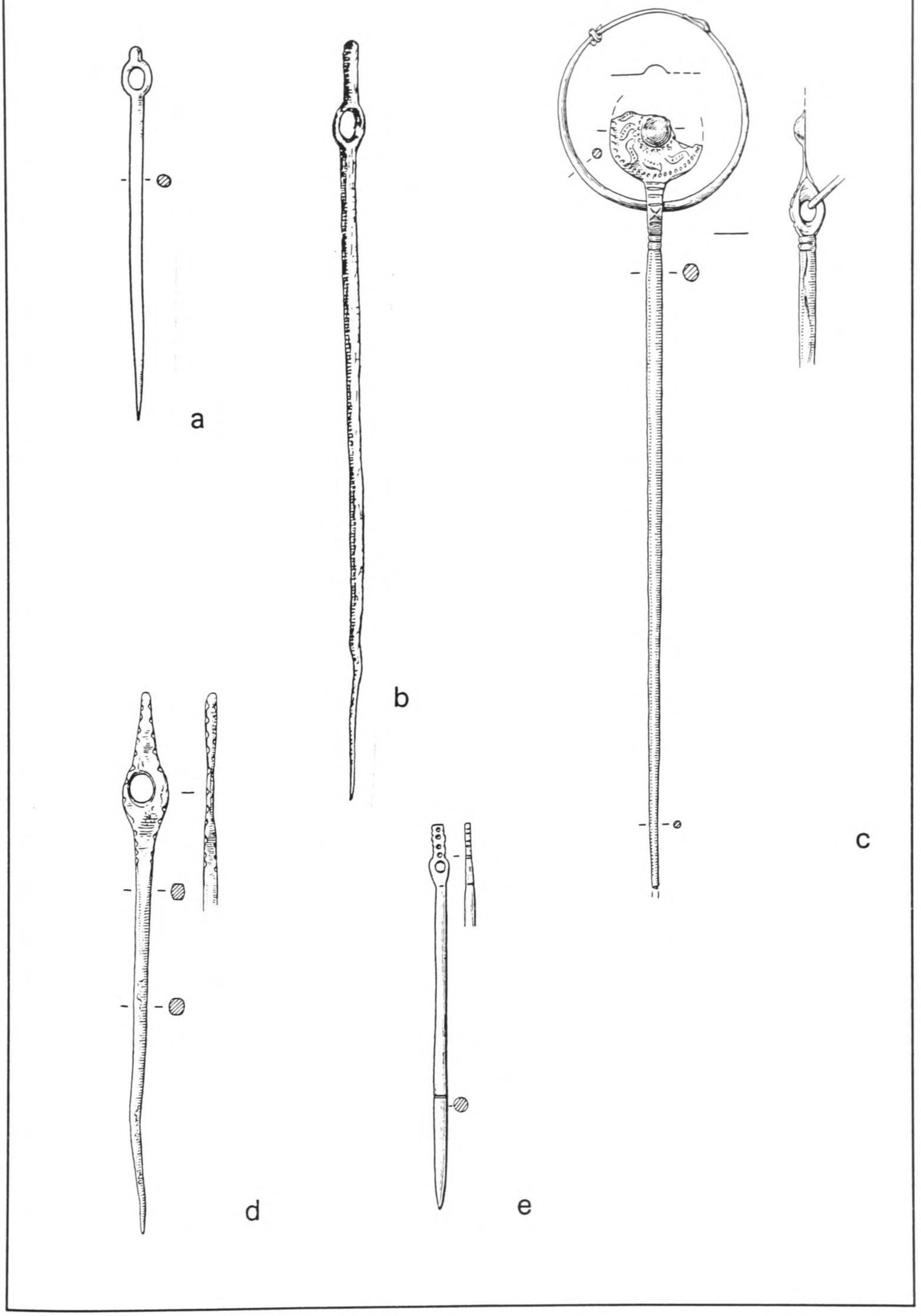

Figure 5.20

alone indicates that this might be a very late sixth- or early seventh-century burial. The necklace with its oversized beads certainly belongs to the late sixth, if not the early seventh century. The saucer brooches with their central insets must come from this period as well (Matthews & Hawkes 1985: 91-97). It would appear safe to date this pin type to the second half of the sixth century and in the Upper Thames Valley to the early seventh century.

A couple of our examples might give us cause to wonder about this dating and these need to be considered. These are the pins from East Shefford (Peake & Horton 1915: 110) and the pin from grave 20 at Dover (Evison 1987: 220 & fig 12.20.3; Ahrens 1978: 665 [item 442]) [Fig 5.20.a]. It is possible that these two pins were the earliest in the sequence. The find from Dover was a silver example of this type. Grave 20 contains several diagnostic objects which might help to date the assemblage. A claw beaker (Evison type 3a), a shield-on-tongue buckle with round rivets, a Class D gold bracteate, two silver gilt square-headed brooches with Style I ornament (Leigh 1980: 85-86),[124] and a spun bowl. Evison has proposed a date in the first quarter of the sixth century for this type of claw beaker. Much of the dating evidence for this is based on a reference to Bakka's 1981 assessment of grave D3 at Finglesham which he suggests probably belongs to the period around AD 525 (Bakka 1981: 24). The study by Hawkes of the bracteate finds from Kent would lead us to a fairly similar conclusion about the date of the deposition of bracteates in Dover 20 (Hawkes & Pollard 1981: 370). *But*, Hawkes allowed for a date after 525 by taking account of the wear on the bracteates; Bakka overlooked this information (ibid.). Indeed if we look at the grave assemblage and allow for wear we could have a later date. There is no real reason why this claw beaker cannot be of a later date. The other grave (Sarre, 60) from which this class of beaker has been recovered need not date to the first quarter of the sixth century. There is no reason why Sarre, grave 60, with its knife, small spear and shield-on-tongue buckle with shoe-shaped rivets could not date as late as 550, especially if we are placing buckles with discoid rivets in the second quarter of the century. So conceivably the pin could be, along with the claw beaker, among the youngest items in the burial. Indeed, there is no fundamental reason, if the pin is the newest object in the burial, why this grave

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[124]These belong to Leigh Series II.

could not be as late as the 550s. The gilt-silver square-headed brooch probably belongs to the mid-sixth. I would not be surprised if this were the case, as the knob of the pin is very small. This would make this Kentish example the earliest in the series. A rod extending above an elliptical open work terminal is a common feature of items in toilet sets. For example, from Dover grave 32 a scoop with a ribbed projection above the eyed elliptical flattened head was associated with a silver gilt disc brooch which Evison, following Richard Avent, argued was late in the sequence (1987:42). Whether the pins are independent of the toilet sets or merely represent lost parts of a toilet set cannot yet be determined. Toilet sets with heads of this form are widely distributed both temporally and spatially. There are two sets from Lechlade, one from grave 113 and another from grave 67. The other early example comes from grave 3 at East Shefford (Peake & Horton 1915: 110).[125]

In essence we have four groups. Group XXXV.i (e.g. pin from Dover, grave 20) represents those pins with a small projection above the ringed head, in group XXXV.ii this projection is more pronounced, in group XXXV.iii the stub is ribbed or notched, in group XXXV.iv the stub has become a ring or disc. The transition from XXXV.i to group XXXV.iv seems to have taken place over a period of seventy-five to 100 years. A period from the first quarter of the sixth century until the seventh century. The majority of the parallels come from Wiltshire, Hampshire and the Upper Thames Valley, although examples can be noted in Kent.

XXXVI. Bifrons' bird-headed Type

A pin from grave 85 at Bifrons has a faceted knob at the top of the shaft above which is the head of a bird (Godfrey-Faussett 1880: 555-6; Åberg 1926: 145 & fig 277; Speake 1980: fig 17m) [Fig 5.21.a].[126] The head of the bird is in outline and decorated in relief. This 75 mm long pin has a plain tapering shaft. The pin, though, is not well paralleled, but does bear the hallmarks of style II decoration. Stylistically the closest ornamented piece, I am aware of, is a belt buckle from Nocera Umbra. The belt-buckle, like the form of the bird, should be dated to the close of the sixth

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[125]BM M&LA, acc no: 1893,7-16,104.

[126]Maidstone Museum, acc no: KAS. 612.

century or the beginning of the seventh century (Paribeni 1919: 180–181 & fig 27). Speake has recorded much other stylistically similar material (1980). It is worthy of note that it seems likely that the form of this pin owes more to its being derived from an attempt to produce a pin in style II and less to the idea that an already common series of bird–headed pins ought to be made in style II.

XXXVII. Moulded bird–headed Type

These pins have a three dimensional bird seated on top of a shaft. Peers and Radford argued that the 'small bird with a long square foot' at Whitby was part of a 'bowl or shrine' (1943: 55 & Pl XXVIII.a) [Fig 5.21.c].[127] However this view might be mistaken. A comparison with the find of a similar pin from Wangford Warren might support this claim.[128] The Wangford Warren pin measures 163 mm in length. Its shaft of copper alloy terminates in a faceted–knob on which *stands* a silver bird with a ring–and–dot eye. We must wonder from where the inspiration came. It seems possible that both the Whitby and the Wangford Warren finds were inspired by Scandinavian examples, although these maybe earlier. In the Scandinavian examples (in contrast to the Continental type) the head is pulled back so that the back of the head touches the top of the bird's back and the beak is bent down so that the tip of the beak touches the lower front of the bird's neck. This creates a hole through the bend at the back of the neck and where the beak touches the lower neck. In several instances there is a second hole through body of the pin. A whole range of Norwegian examples of three dimensional birds–headed pins (Gjessing 1934: fig 1 – 10) and Finnish examples have been identified. Two of the pins from Finland from Palomäki, Isokylä, Uskela had chains composed of rings attached to the head (Gjessing 1934: fig 12 & fig 14). The Finnish examples have fuller bodies, often decorated with incised linear ornament, than their Norwegian counterparts. Gjessing thought that these pins came from contexts dating between the second half of the fourth century and first half of the fifth century. Gjessing also proposed that these pins reached Finland

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[127]BM M&LA, Whitby Loan acc no: W.333.

[128]University Museum of Anthropology and Archaeology (Cambridge), acc no: A.R.1904.249.

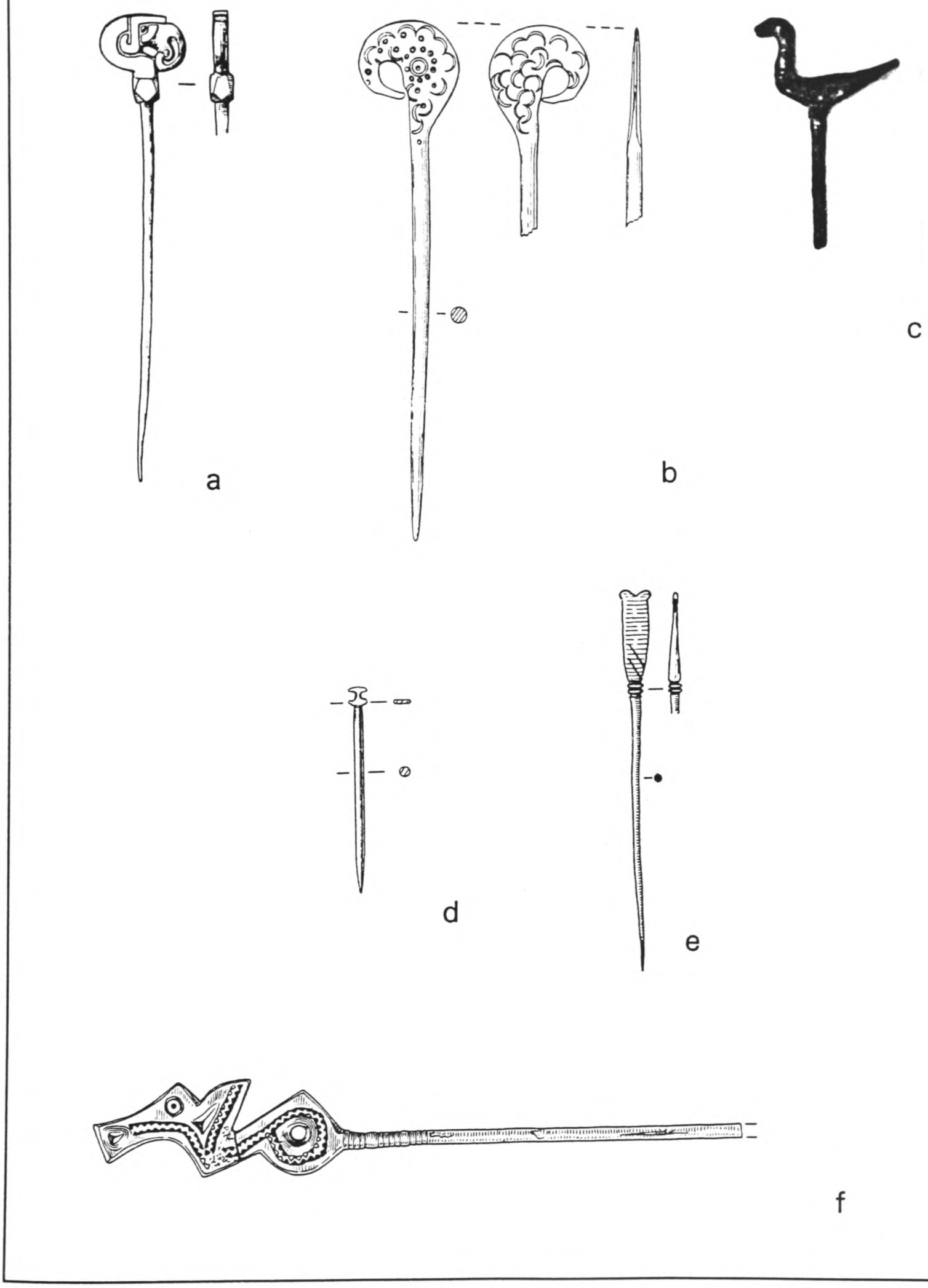
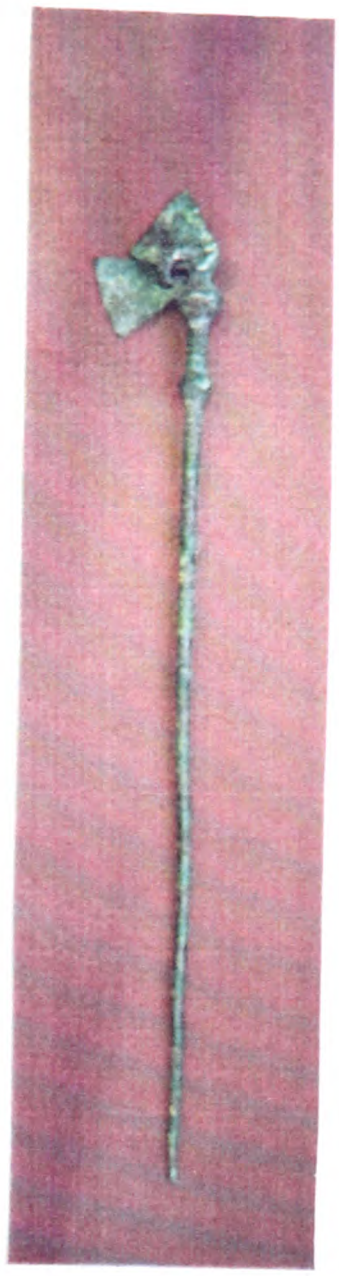


Figure 5.21

a



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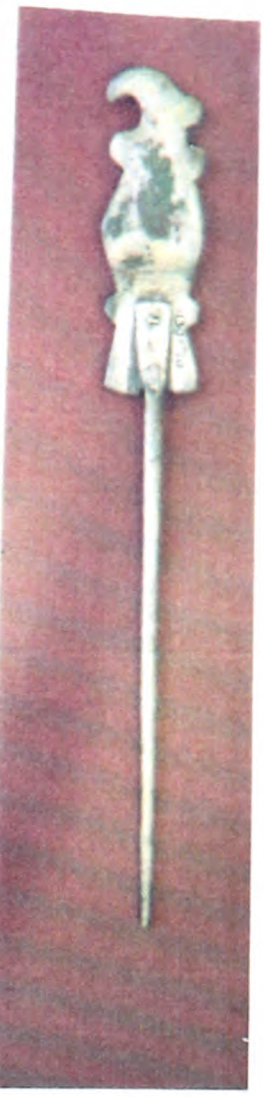

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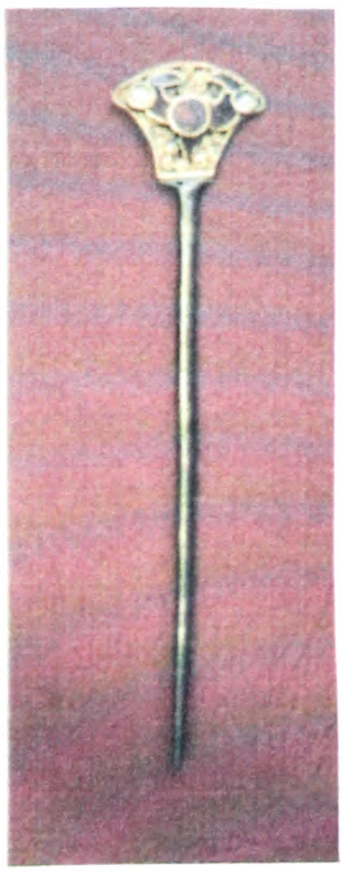
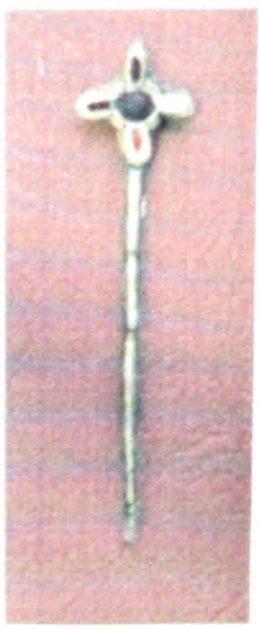


d



e

Colour Plate I

from Norway by sea. Birger Nerman in a subsequent discussion demonstrated that there were reasons to question this hypothesis (1940). Part of this problem though may be that Gjessing and Nerman did not compare like with like. This is also our problem here. In looking for parallels these forms are much too early. Contextually, at least, the pin from Whitby, for example, belongs between the mid-seventh and the mid-ninth centuries. It seems likely therefore that the pin has yet unidentified parallels.

XXXVIII. Thistle-headed Type

A 42 mm long thistle-headed pin from Castle Bytham (Lincs) has a tapering shaft (*Arch Journ* X[1853]: 81).[129] Closely paralleling this is a metal-detector find from Bawsey (Norfolk) measuring 74 mm in length. The Bawsey pin is copper alloy and has a flattened thistle headed-pin with a ring collar and a round-sectioned shaft.[130] A much shorter silver thistle-headed pin from Dover grave 160 was associated with a cabochon garnet pendant and a palm cup (Evison 1987: 250-1 & fig 62.160) [Fig 5.21.d].[131] We would be inclined to see these pins in the seventh century on the basis of the Dover evidence. The pin from Castle Bytham came from a richly furnished grave; among the items in the grave was a D3 Quoit Brooch (Ager 1985: 22 & fig 25d; Speake 1980: Pl 16e). Ager argued for an early seventh century date for the brooch 'by comparison with Kentish composite disc brooches...' (Ager 1985: 22). In recent years metal detector users have scoured the area around the ruins of the late medieval church at Bawsey. The site has produced a number of middle Saxon coins. They have also recovered at least twenty-five pins. Many of the pins can be shown to have middle Saxon parallels. This evidence might help to confirm the dating based on Dover, but the small size of the sample and the few adequately documented associations makes this assignment uncertain. The eastern, almost coastal distribution, cannot though be denied.

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[129]University Museum of Anthropology and Archaeology (Cambridge), acc no: 47.2634.

[130]King's Lynn Museum, acc no: KL 119.985.5.

[131]BM M&LA, acc no: 1963,11-8,720.

XXXIX. Flat plate-animal-headed Type

The only example of this group came from an unrecorded context at Faversham (Kent) (Smith 1923: 43 & fig 41) [Fig 5.21.f].[132] This pin survives in two fragments for 105 mm (82 mm + 23 mm). The round-sectioned shaft has a 2.75 mm diameter. The flat head-plate has an angular outline. It is 2 mm thick. The head resembles a crouching animal (perhaps a dog) with its squared snout pushing forward, its ears pointed back and its body curled. Lines incised into the obverse face of the pin and filled with niello give the impression of motion.

The parallels to this type are all Continental, and would lead us to suggest that this pin was an import. A cast copper alloy flat-plated-animal-headed pin from Monceaux (Boulanger 1908: 340 & Pl XXXIII.21) is similar to the Faversham find. The animal appears to be lying on the ground with its fore-paws stretched out under its snout. The pin is edged with dots, and wavy lines adorn the surface creating features and folds of the animal's body. The haunches of the animal sit on a flat sectioned shaft which gradually tapers and takes on a round section from where it tapers to the point. Cochet illustrated a parallel from Envermeu (1854: 300 & Pl XI.19; 1866: 283 & 305). The animal has a curved edged head which terminates in a pointed snout. The forepaws also have a pointed form. Whereas the animal from Monceaux appears to be lying on the ground this animal appears to be sitting on its haunches with its paws outstretched.

Since we are able to turn for our secure parallels to the continent we suggest this was a Frankish piece imported into England in the late sixth or seventh century.

XL. Lyre-headed Type

There is a 47 mm long gilt copper alloy lyre-headed pin from Shakenoak (Brodribb, et. al. 1972: fig 31.155) [Fig 5.21.e].[133] This pin has a flat head plate with two curved corners on the top which resemble the curved top of a lyre. I am aware of no other insular parallels to this pin.

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[132]BM M&LA, acc no: 1131'70 A.

[133]Ashmolean Museum, acc no: 1971.737.

XLI. Dover bird-headed Type

This type demarcates a one-off item from grave 30 at Dover [Fig 5.21.b]. This 84 mm long silver pin has a round sectioned shaft which terminates in a spatulate head (Evison 1987: fig 18.30.3). In abstract the pin appears to resemble a bird. The beak is represented by a pointing of the end wire back to the body of the head of the pin. The body is punched with half-arcs on the reverse face. On the obverse face besides punched half-arcs a single circular ring surrounded by dots represents the eye of the bird.

Grave 30 was a rich burial and the pin was associated with among other items a composite bone comb, a silver-gilt disc brooch, glass and amber beads, and silver pendant (ibid. 224-225). The silver-gilt brooch belongs to Avent class 2.1. Evison argued that the context of the grave group belonged to the end of the sixth century or the beginning of the seventh century.

[numbers **XLII**[134] **to XLIX** have not been assigned]

L. Kingston disc-headed Type

[Map 5.11]

All the extant pins that belong to this group were cast. These pins range in length from 35 mm to 60 mm,[135] and have a discoid head with a diameter between 3 mm[136] and 6 mm[137]. The disc usually has a thickness of less than 3 mm.[138] The form of the head of these pins is quite

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[134]**XLII** has been used to present information about a small group of pin-like objects from Monkwearmouth (Monkwearmouth Rivet-like type, XLII). These pins have been excluded from the discussion here for reasons outlined in Footnote 8 in Chapter 1 and in Ross forthcoming d. I have however presented them in the catalogue at the end of this discussion.

[135]Very much outside of this canonical range is a find from Little Wilbraham (University Museum of Archaeology and Anthropology (Cambridge), acc no: 1631B). This pin survives for a length of 89 mm.

[136]Lakenheath (Cambs), University Museum of Archaeology and Anthropology (Cambridge), acc no: 97.45.

[137]Bampton (Oxon), Pitt-Rivers Museum.

[138]Canterbury Archaeological Trust, Pins such as Cakebread Robey, small find no: SF531 from layer 422 with a head diameter of 5 mm and a thickness of 2 mm, and Marlowe IV (small find no: SF54) with a head diameter of 3 mm and a thickness of 2 mm are typical of the dimensions.

consistent and in all cases the bead lacked decoration, although a number had lines incised into the shaft. A great deal of variation occurs in the types of shaft and in the form of the collar zone. The variation in these two features indicates that it is useful to divide this group into sub-groups and variants.

The variation in collars:

In many cases the shaft of the pin joins the head without any mouldings (e.g. Evison 1987: 4.F.2)[139] [Fig 5.22.d], but this is not true in all examples. The mouldings vary from single to multiple bead mouldings. A good example of such a pin is the one from Coddenham (Suffolk).[140] This copper alloy pin measuring 46 mm in length, with a head diameter of 6 mm, has a double-moulded collar. These mouldings do not have a greater diameter than the shaft of the pin. The impression is that each moulding was created by the incision of two lines into the shaft and the slight bevelling of the shaft on either side of the incision. The first line was incised about 1.25 mm below the junction of the head and shaft and the second line about 1.25 mm further down the shaft. This pin is paralleled by others such as the 39 mm long pin from grave 10 at Dover which has a triple ring collar and a tapering shaft (Evison 1987: fig 8.10.1).[141] The pin has a plain tapering shaft throughout the rest of its length. A similar pin was recovered from Sarre 154/155 (Brent 1864-5: 179 & illustration in the text).[142] A consistent feature of the mouldings is the character of their production. In almost all cases they were engraved into the shaft after casting.

The variation in shafts:

Numerous examples have undecorated shafts which taper along their length. But other types are known. In all cases the upper two-thirds of the shaft has a round section and in most cases the same could be said to be true of the lower two-thirds. The shaft of the pin from grave F at Dover

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[139]BM M&LA, acc no: 1963,11-8,760. A similar pin from grave 132 (Evison, 1987: fig 54 (132.1) [BM M&LA, acc no: 1963,11-8,609].

[140]Ipswich Archaeological Unit, find registered as: 022-2361; The pin is a metal detector find.

[141]BM M&LA, 1963,11-8,47.

[142]While it was possible to assign most of the pins in the Maidstone Museum from graves at Sarre to graves recorded by Brent, some pins were left unassigned. It was also not possible to link with any certainty pins with every grave Brent recorded as producing pins.

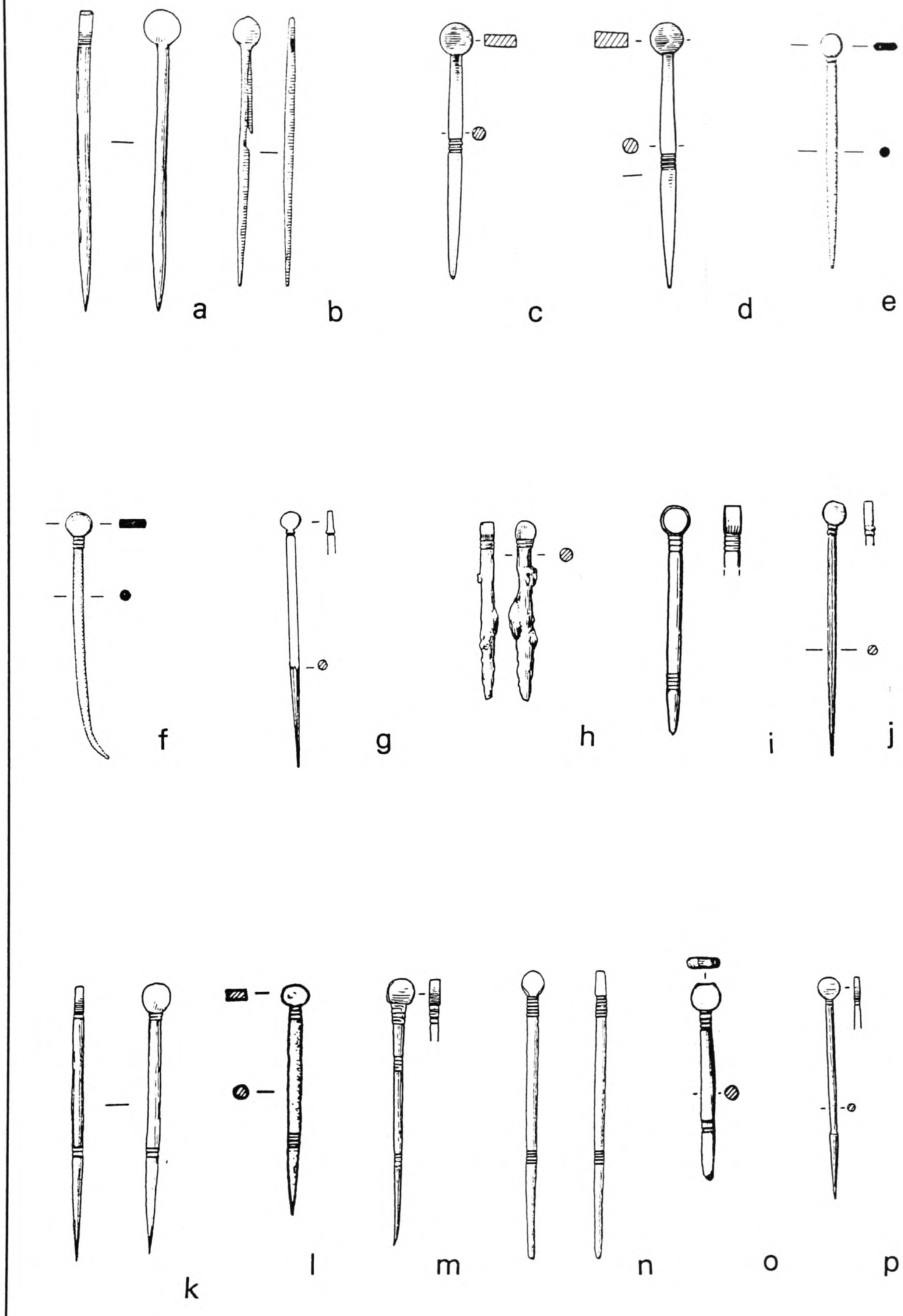

Figure 5.22

swells from just below the head until it passes a zone of 4 equidistance incisions below which it contracts to the point. It has a round section throughout. Marlowe Car Park small find **CanAT MCP SF783** has a faceted shaft below the point of maximum girth [Fig 5.22.g].[143] While some examples were faceted below the point of hipping, others were squared. A 42 mm long disc-headed pin from grave 103 at Sarre (Kent) has a round sectioned shaft above the hipping and a square sectioned shaft below (Brent, 1864-5: 175).[144] Besides faceting and squaring of the shafts other types of swelling and shouldering are known.

A pin from Marlowe Car Park (Canterbury) surviving for a length of 38 mm has a head 5 mm in diameter and 3 mm thick [Fig 5.22.i]. The shaft reaches a transitional hip-point.[145] The shouldering begins 8 mm from the tip. Below this the shaft has a square section and above it, it is round. At the junction of the head and the shaft, and just above the hipping parallel lines have been engraved into the shaft. In other examples, such as **CanAT MI SF1064**, the pin is round in section above and below the shouldering.[146]

Based on the form of the collar and the shaft I have divided this group of pins into the following sub-groups:

L.i. No collars
- **L.i.a.** plain tapering
  - **L.i.a.1.** no lines on shaft [e.g. Figs 5.22.a & .b]
  - **L.i.a.2.** lines on the shaft [e.g. Figs 5.22.c & .d];
- **L.i.b.** swollen shaft;
- **L.i.c.** round sectioned above the 'hip point', but polygonal below--as seen on the pin from Bampton (Oxon) or **CanAT MIV SF542** [e.g. Fig 5.22.g];
- **L.i.d.** round sectioned above 'hip point', but square below--as seen on the small find **SF542** from Marlowe IV (Canterbury), although this pin is of variant **L.iv.d**;[147]
- **L.i.e.** shouldered shaft
  - **L.i.e.1.** round section above and below shouldering [e.g. Fig 5.22.p],
  - **L.i.e.2.** round section above and a squared section below shouldering [as seen on the pin from Sarre grave 103 [Brent 1864: 175]
  - **L.i.e.3.** round section above and polygonal shaft below shouldering.

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[143]Canterbury Archaeological Unit.

[144]Maidstone Museum. The head has a diameter of 3 mm and a similar thickness.

[145]Canterbury Archaeological Trust, SF Marlowe Car Park IV, small find no: SF542.

[146]Canterbury Archaeological Trust.

[147]Canterbury Archaeological Trust.

A further sub-group with a comparable set of variants and sub-variants exists for the pins with single, double and triple incised collars. These are labelled **L.ii.a** through **L.ii.e** and **L.iii** and **L.iv** respectively. This type of pin has come from excavation campaigns at West Stow and Colchester. The two examples from the sites on Culver Street in Colchester both have cordons at the junction of the head and the shaft, and both are unhipped (Crummy 1988: 6, fig 1 & 2) [Figs 5.22.e & .f]. In other cases the pins have been given multiple cordons. **CanAT CBR SF531** from Cakebread Robey has such a collar, which actually appears to be a thread because of the multiple character of the incisions. 10 mm from the tip there are two incised lines 2 mm apart and this creates a lower shaft moulding.[148]

Many of these pins came from graves at Kingston Down, Sibertswold, Sarre, Dover, and Ozingell. A 34 mm long pin with a swollen shaft and a disc head measuring 4 mm came from a site in Lincolnshire.[149] Excavation at the Dover cemetery led to the recovery of disc-headed pins from graves F, 10, and 132 to mention only three (see Evison 1987: 82-85).[150] During excavations at the seventh century cemetery of Kingston Down, Bryan Faussett recovered several pins including a silver one from grave 6 (1856: 43 & illustration in text).[151] At the late early Saxon cemetery of Sibertswold Down he recorded a similar pin from grave 24 (ibid. 106) [Fig 5.22.p].[152] Brent unearthed small disc-headed pins from the sixth-seventh century at Sarre (Brent 1863, 1864-5, 1866). Sarre grave 154/155 contained a fragment of a disc-headed pin with a collar comprised of incised lines (Brent 1864-5: 179). From grave 103 at Sarre there is another example with a triple

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[148]Canterbury Archaeological Trust, Cakebread Robey, small find no: SF531. The copper alloy pin is 42 mm long, has a head diameter of 5 mm and a thickness of 2 mm.

[149]Scunthorpe Museum, Leahy, pers comm.

[150]Grave F (BM M&LA, acc no: 1963,11-8,760), grave 132 (BM M&LA, acc no: 1963,11-8,609) and grave 10 (BM M&LA, acc no: 1963,11-8,47). It is worth taking this opportunity to correct a misconception in Evison, 1988. In her discussion of the disc-headed pins from her excavations at the Dover she wrote: "A disc-headed pin in grave 10 at Winnall, Hampshire had a loop at the back of the head" (p. 83). This pin is not a disc-headed pin, it is a LXIV.i.e linked pin (see below discussion of linked pins). It would have originally been set with a garnet on one face and was part of a pair of pins.

[151]Merseyside County Museums, acc no: M6089. Associated with the pin were a crystal ball, two slender knot wire rings, beads and a small amethyst.

[152]Merseyside County Museums, acc no: M6450.

moulded ring two-thirds of the way along the shaft (ibid. 175). Below this point the shaft is hipped. Other examples, such as the pin from grave 28 at Ozingell has incised lines forming both the collar and a shaft moulding, the shaft tapers throughout [Fig 5.22.l]. All these cemetery contexts would suggest a dating at the very end of the sixth century or in the early part of the first half of the seventh century, with the hipped examples falling toward the end of the second quarter of the century. The contexts of three pins from Sarre are of particular interest to the dating of the type. The pins from grave 20 and 103 were both associated with black ware vessels (Brent 1864: 160 & 175). The slender silver pin from grave 123 was found with drop pendants (ibid. 176)

The excavations at West Stow produced a number of these pins which have been dated by the excavator to the early seventh century (West 1985: fig 36.1, 246.3 & 246.4) [Figs 5.22.a & .b].[153] His early dating seems secure since the pins do not have moulded collars and have tapering shafts. Urban excavations at both the Marlowe Car Park and the Cakebread Robey sites in Canterbury have resulted in the recovery of a number of disc-headed pins.[154] **CanAT MI SF1064** came from a context which the excavators argued could be placed between 650-700 AD (Garrard, CanAT, pers comm). It is, however, very unlikely that this type of pin continued to be used long into the third quarter of the century and they certainly were not used beyond the end of the century. Although negative distribution evidence can be a dangerous foundation for any conclusions, the fact that this type has been found at neither Ipswich nor Southampton offers some useful indications about its chronological horizon. A rich variety of pins have been recovered from both these sites. This includes many types we shall argue below belonged to the late seventh century, such as the linked pins and the spiral-headed pins. Those settlement sites which do produce disc-headed pins, such as West Stow, Canterbury and Colchester, tend to be those which show evidence of early seventh century occupation. This, combined with the cemetery evidence, would seem to place these pins in the first half of the seventh century. That some, especially those showing shaft faceting, such as variant **L.i.c** (e.g. the Bampton pin), should be dated close to the middle of the seventh century seems secure. There are two copper alloy examples from the Upper Thames Valley. One comes

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[153]Most of these finds are in the Moyse's Hall (Bury St Edmunds).

[154]Canterbury Archaeological Trust, small finds nos: CanAT SF783; CanAT SF542; CanAT SF54.

from excavations led by Canham at the Market Square in the High Street of the Old Town of Swindon. In 'House 3' they uncovered an undecorated copper alloy pin with a disc head and a moulded multi-ring collar.[155] Unfortunately the form of the shaft cannot be determined because the pin survives only for a length of 15 mm. The pin was excavated in a layer of ash (x15) in association with whetstones, loomweights (100+), a large number of hipped bone pins, a pair of iron shears, a tanged iron knife, some fragments of amber glass, twisted iron wire, a thin iron pin shank, and pottery. Among these other bone pins was a disc-headed pin with a hipped shaft. The excavators thought that a seventh century date for the structure was justified (R. Canham & B. Phillips, n.d., Museum mss copy of the finds report). In an adjacent house, they found several other bone disc-headed pins with hipped shafts. The other copper alloy pin was from Bampton (Ellis 1891: 156; Blair 1990: 6 & fig 7.a; Ross forthcoming b); it belongs to our variant L.i.d. This 50 mm long pin with 1 mm thick head has a head diameter of 6 mm. The shaft is 2 mm in diameter and round in section until 20 mm from the tip from where it has been squared.

The difficulty of assigning a date range to this type of pin might be made apparent by a discussion of a disc-headed pin from Canterbury which survives for a length of 22 mm.[156] The diameter of the head is 3.5 mm and it is 2 mm thick. Because we cannot identify the type of shaft the pin has it is impossible to say for certain to which sub-group it belongs. This pin was found in the same layer as a pair of cast spiral-headed pins with shouldered-hipping. The context from which they came also included *sceattas* and other late seventh or early eighth century material. So we might be inclined to suggest a date at least in the second half of the seventh century. The association of the pin from Kingston grave 6 (Faussett 1856: 43) with amethyst beads would indicate a late sixth or early seventh century date as do the contexts of the pins from Sarre graves 20, 103 & 123. However, there may be some confusion over the knotted rings with beads. Hyslop (1963) and Meaney & Hawkes (1970) have argued that these were late. So it would seem likely the pin was in use during this period. However numerous other examples could be placed in the late sixth or early seventh century. For instance, the disc-headed pin from grave 75 at Sarre (Kent) was

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[155]Swindon Museum, acc no: Sw75.A25.16.

[156]Canterbury Archaeological Trust, Cakebread Robey, small find no: SF411.

associated with 2 amethysts beads, 2 buckles and a broken knife (Brent 1864: 170). The amethysts could belong to the very end of the sixth or beginning of the seventh century.

The majority of 'small' disc-headed pins come from Kent, but other examples have been recovered from Southern East Anglia and the Upper Thames Valley. We can also point to a stray find from Lincolnshire. In Kent pins of this group came from both graves (i.e. grave 6 at Kingston Down [Faussett, 1856: 43]), grave 24 at Sibertswold [ibid. 106]) and settlement sites (i.e. Canterbury). The two known examples from the Upper Thames Valley were similarly distributed across the range of sites. In East Anglia no such diversity of find context exits--all known examples were recovered from settlement sites (e.g. Colchester, West Stow). It makes sense to divide the pins into groups by form, but the meaning of the variation has not yet been identified. Conceivably some meaning must be attached to the variety of shaft types seen here. They could reflect differences in function, represent different chronological periods or different makers. The great majority of these pins were associated with the burials of females. There are however exceptions, such as Dover grave 10 (Evison 1987: 217 & fig 8.10.1), and Sarre graves 81, 103, & 191 (Brent 1864-5: 170 & 175; 1866: 310-311).[157]

LI. Pierced-disc-headed Type

[Map 5.12]

These pins have a disc head with a hole in its centre. The pins have an average head diameter of 6 mm, a shaft diameter of 2 mm, and an average length of 60 mm. The pins with the greatest diameter, 8 mm, came from grave 26 at Melbourn (Wilson 1956: 37)[158] and grave 39 at Sibertswold (Kent)[159] [Fig 5.23.k]. A wire ring with folded over ends passed through the hole in the disc head. In several cases the pin and its attached ring survive. There is some variety in the form of these pins, but not enough for us to claim sub-groups existed beyond those that manual production can cause.

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[157]The pins that would belong to graves 81 and 191 were not identified.

[158]University Museum of Archaeology and Anthropology (Cambridge), acc no: 253.185.

[159]Merseyside County Museums, acc no: M6461.

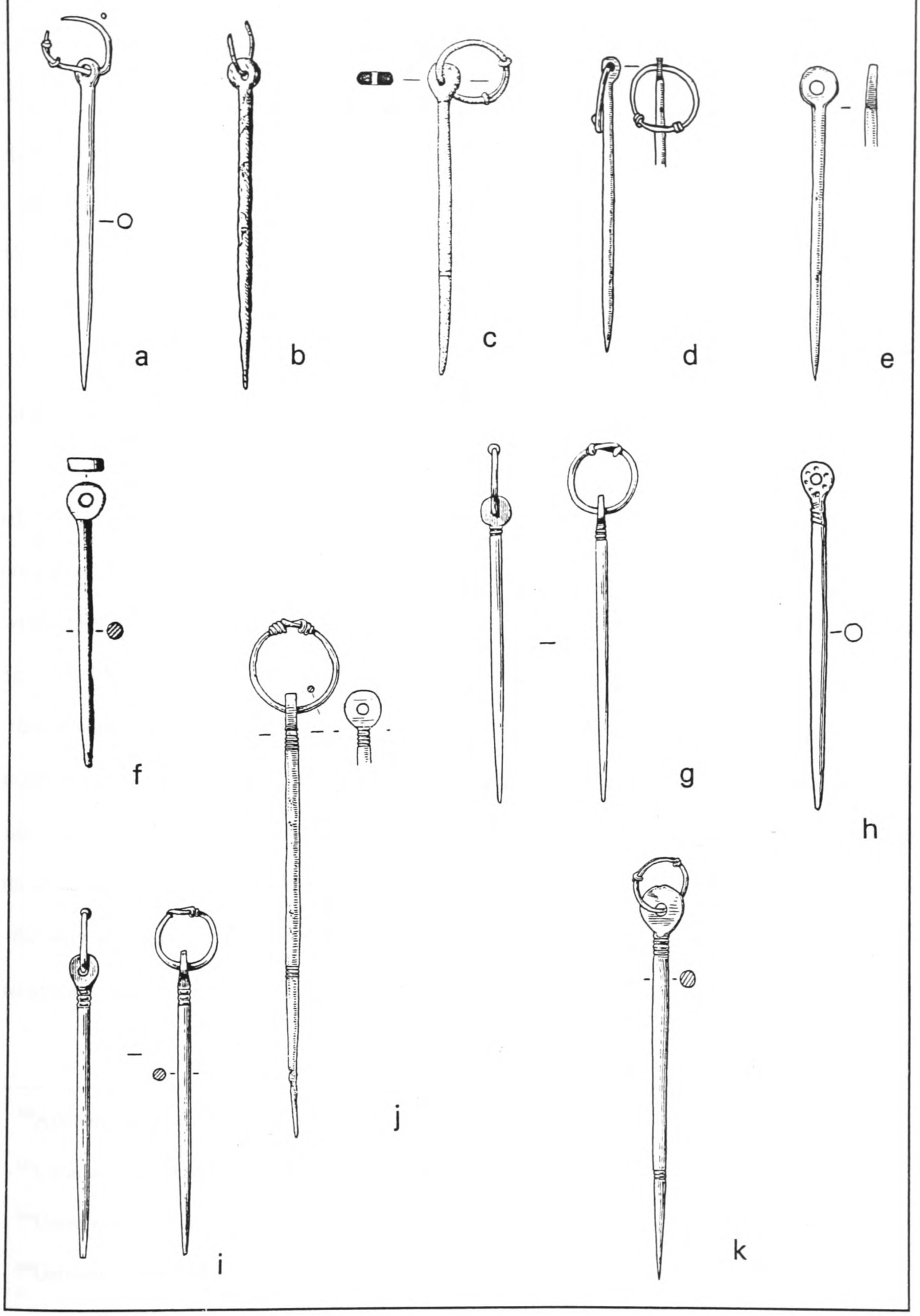

Figure 5.23

A 52.5 mm long example (excluding the ring), with its very tip lost, survives from Colchester (Crummy 1988: 6, fig 2) [Fig 5.23.c]. 'The junction of head and shaft is marked by a cordon formed by a slight groove cut around the shaft' (ibid.). There are also two small incised lines which run around the shaft at the point of its maximum girth, about two-thirds of the way down the shaft. The ring, attached through a hole in the disc-head, has its ends bent over to form a ring from a strand of wire. This pin is paralleled by a find from grave 2 at Stanton Harcourt (Harden and Treweeks 1945: 34-35 & fig 10.2[p 37]) [Fig 5.23.b],[160] grave 144 at Lechlade (Miles, OAU, pers comm) [Fig 5.23.a][161] and another from Holywell Row grave 70 (Lethbridge 1931: 34 & fig 18A[2]) [Fig 5.23.d].[162] The Stanton Harcourt find has a plain tapering shaft and was produced in copper alloy. While shaft mouldings are common, hipping of any kind is quite rare.

The majority of the mouldings on these pins were created by the incision of lines into the shaft. Typical among these is a 64 mm long pin with the remains of an iron ring in the perforation from grave 7 at Melbourn (Wilson 1956: 31-32 & Pl IV.O),[163] a pin from Dover grave 101 (Evison 1987: fig 48.101.1) [Fig 5.23.g], and one from Finglesham grave 164 (Hawkes pers comm) [Fig 2.23.e].[164] This type of moulding can be differentiated from that on the pin from grave 147 in the Dover cemetery (ibid. fig 59.147.1)[165] The latter mouldings were created by smoothing the outside edges of the rings made by the incisions; this produced bead mouldings , instead of incised rings. Decoration is quite rare on the heads of these pins. A silver pin from grave 44 is decorated with three dots, has double collar mouldings and three incised lines on the shaft about two-thirds of the way along the shaft (Evison 1987: fig 26.44.1) [Fig 5.24.g].[166] This pin is slightly larger than average with a length of 59 mm and having a 6 mm head diameter. The head of the pins from

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[160]Ashmolean Museum, acc no: 1940.184.

[161]Corinium Museum and Oxford Archaeological Unit, small find no: LBF85 266.

[162]University Museum of Anthropology and Archaeology (Cambridge), acc no: 2.7143.

[163]University Museum of Archaeology and Anthropology (Cambridge), acc no: 53.185.

[164]BM M&LA, acc no: 1963,11-8,520.

[165]BM M&LA, acc no: 1963,11-8,673.

[166]BM M&LA, acc no: 1963,11-8,289.

grave 61 Burwell probably belongs to this group, although it is less than discoid (Lethbridge 1931: fig 29.2) [Fig 5.24.h].

Dating evidence comes in the form of associated finds and pottery. SF 1.81.542(C) from Colchester was recovered in association with late sixth or seventh century pottery (Crummy 1988: 6). Two pins, one with collar mouldings and one without, came from West Stow (Suf) (West 1985: fig 226.5 & fig 266.6) [Figs 5.24.b & 5.23.f]. A comparable pin with a pierced head, multiple bead mouldings beneath its head and a tapering shaft came from Sibertswold grave 39 (Faussett 1856: Pl 12, fig 21) [Fig 5.23.k].[167] The head of this 66 mm long pin is 8 mm in diameter, 1 mm thick and holds a slip-knot wire ring 10 mm in diameter. 1.7 mm from the tip two lines were incised into the shaft. The Sibertswold grave 39 pin came from a burial that had been covered by a 'pretty large tumulus' (ibid. 109). The context of this find might be compared to that of the pin from Kingston grave 161 (ibid. Pl 12 fig 23) [Fig 5.24.a].[168] The copper alloy pin from Kingston Down was 47 mm long, had a head diameter of 6 mm, a width of 2 mm, and a shaft diameter tapering from 2 mm to 1.5 mm. Two lines on the shaft form a shaft moulding 19 mm from the tip. There were two pronounced ring collars at the junction of the head and the shaft. The pin was recovered with slip-knot rings, three Style II bird head decorated pendants, five amethysts, 10 beads and a disc brooch (Avent 1975: Corpus no 81). Avent examined the disc brooch and placed it in Class 3.1 of the keystone garnet disc brooches and argued that it belonged to the late sixth century although the degree of wear on the brooch and its association with the amethysts would indicate that it was buried in the seventh century. Another, however, came from grave 84 at Finglesham (Kent) [Fig 5.24.f]. Here a pin with its slightly hipped shaft was associated with a scutiform pendant.

These pins, like the Kingston disc-headed pins, were most common on cemetery sites (e.g. Stanton Harcourt, Melbourn, Sibertswold and Faversham[169]). Those from settlement sites such as the one from the backfill of Hut 3 at Colchester (Crummy 1988: 6) are rare. Closely related to this group, but possibly derived from different prototypes is a group of pins with a perpendicularly

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[167]Merseyside County Museums, acc no: M6461.

[168]Merseyside County Museums, acc no: M6348.

[169]BM M&LA, acc no: 1135 D'70. The diameter of the disc at 11 mm seems somewhat outside of the allowable variance and it is therefore possible that we ought not to include this in within this group.

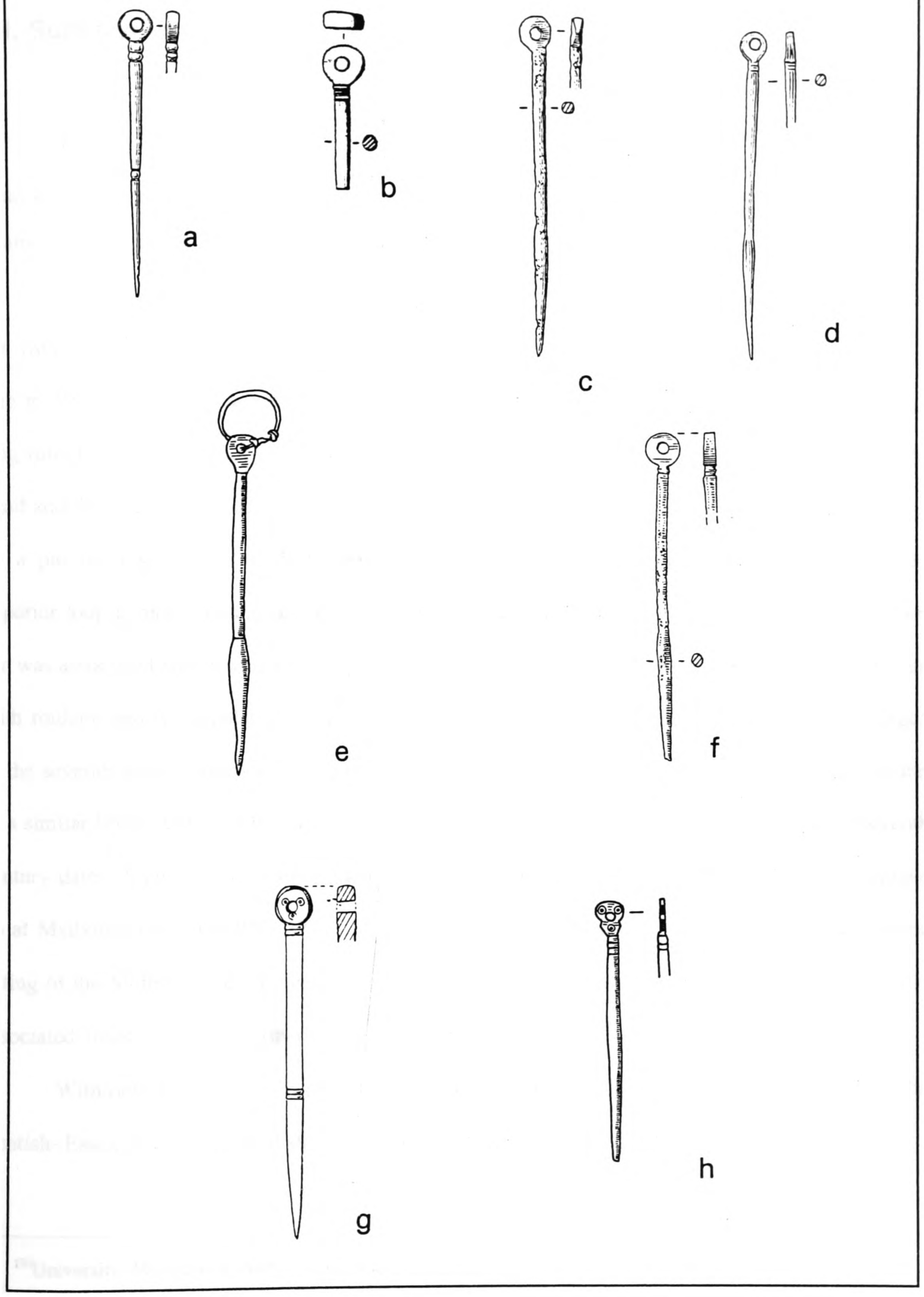

Figure 5.24

positioned loop surmounting a flat oval head (e.g. Lethbridge 1931: fig 22.7) [Fig 5.25.d].[170]

LIi. Superior-looped-disc-headed Type

[Map 5.13]

These pins have a discoid head ranging in diameter between 5 mm and 7 mm. Above this head is a small loop; in most cases this loop is set at 90° to the plane of the head. In some of our examples this loop still secures a wire ring.

From grave 31 at Caistor-by-Norwich excavators recovered a 63 mm long discoid-headed pin (Myres and Green 1973: 228-229, fig 62[g.31.c]) [Fig 5.25.a].[171] The 3 mm thick disc is 7 mm in diameter. A loop set above the disc and at right angles to it holds a wire ring. The slip-knot ring runs freely through the hole. The shaft has a slight swelling. Just below the junction of the head and the shaft are a series of bead collars formed by incised lines. The Caistor pin is paralleled by a pin from grave 183 at Kingston (Faussett 1856: 75, Pl 12[fig 17]) [Fig 5.25.b].[172] The superior loop is more angular in this latter pin and there are two lines low down on the shaft. This pin was associated with a wheel-thrown-narrow-necked bottle of supposedly blue/grey clay adorned with roulette and rectangular impressions in cable pattern. Evison argued that this bottle belonged to the seventh century (Evison 1979: 10, 68 & Pl 1.2). Her argument was based on the association of a similar bottle with amethyst beads in grave 20 at Sarre. Such an association indicates a seventh century date. A pin with a superior loop came from under the chin of the occupant buried in grave 26 at Melbourn (Wilson 1956: 37).[173] While nothing about its immediate associations support the dating of the Melbourn pin, the cemetery itself, on the evidence of most of the graves with datable associated finds, can be described as belonging to the seventh century.

With only a handful of examples it is difficult to talk conclusively about distribution, but the Kentish-Essex-East Anglian distribution of the known finds is unquestionable.

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[170]University Museum of Archaeology and Anthropology (Cambridge), acc no: 26.257.

[171]Norwich Castle Museum, acc no: CbyN ASC.

[172]Merseyside Museum Service, acc no: M6236.

[173]University Museum of Anthropology and Archaeology (Cambridge), acc no: 253.201.

LIII. Superior-looped-elliptical-headed Type

[Map 5.13]

Pins of this group are similar to those of the *Superior-Looped-disc-headed* type, but rather than having a discoidal head they have an elliptical head. One in silver from grave 12 at Stanton Harcourt has a flattened elliptical head with a superior loop for a ring standing perpendicular to the flat plane of the head of the pin (Harden & Treweeks 1945: 36, fig 10.12 & Pl VIII.D) [Fig 5.25.c].[174] A slip-knot wire ring is fixed through the pin's loop. The two main faces are decorated with ring-and-dot ornament. A similar but undecorated pin came from the left breast of the woman buried in grave 6 at Burwell (Cambs) (Lethbridge 1931: 49 & fig 22.7) [Fig 5.25.d].[175] This 66 mm long pin with its 3 mm wide elliptical head was undecorated and has a plane junction between its shaft and its head. We can provide no secure dating evidence for this pin although we can note the seventh century character of the Burwell Cemetery.

LIV. Applied disc-headed Type

Two pins from Six Dials (Southampton) have a 9 mm diameter discoid head [Fig 5.25.e].[176] The complete pin measures 56 mm and the pin with the broken tip is 53 mm long. Applied to the obverse face of these cast copper alloy pins is a thin copper alloy sheet. The decoration, if any had been on these pins, has long since been destroyed by natural processes of decay. The disc has a convex boss with a narrow bead around the edge. Three lines decorate the shafts of both these pins. They were obviously intended as a pair, but they are as yet unparalleled.

Another similar, but hardly parallel, pin came from grave 155 at Dover (Kent) [Fig 5.25.f].[177] The silver disc-headed pin has a gold collar surrounding a composite material which

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[174]Ashmolean Museum, acc no: AM1940.187.

[175]University Museum of Anthropology and Archaeology (Cambridge) acc no: 26.257.

[176]Southampton Archaeological Unit (Six Dials), small finds: SOU 169 634 & SOU 169 568. Both pins came from context T_3 10383. Parsons in her undergraduate thesis on the pins from Southampton placed these into two separate groups: SOU 169 634 in E(a)Ii and SOU 169 586 in E(d) (1985). These pins were a pair. The differential in the head diameter between both pins is under a millimetre, the decorative motifs are identical and the qualitative analyses show close links between the two (Wilthew 1984: Group 5).

[177]BM M&LA, acc no: 1963,11-8,689.

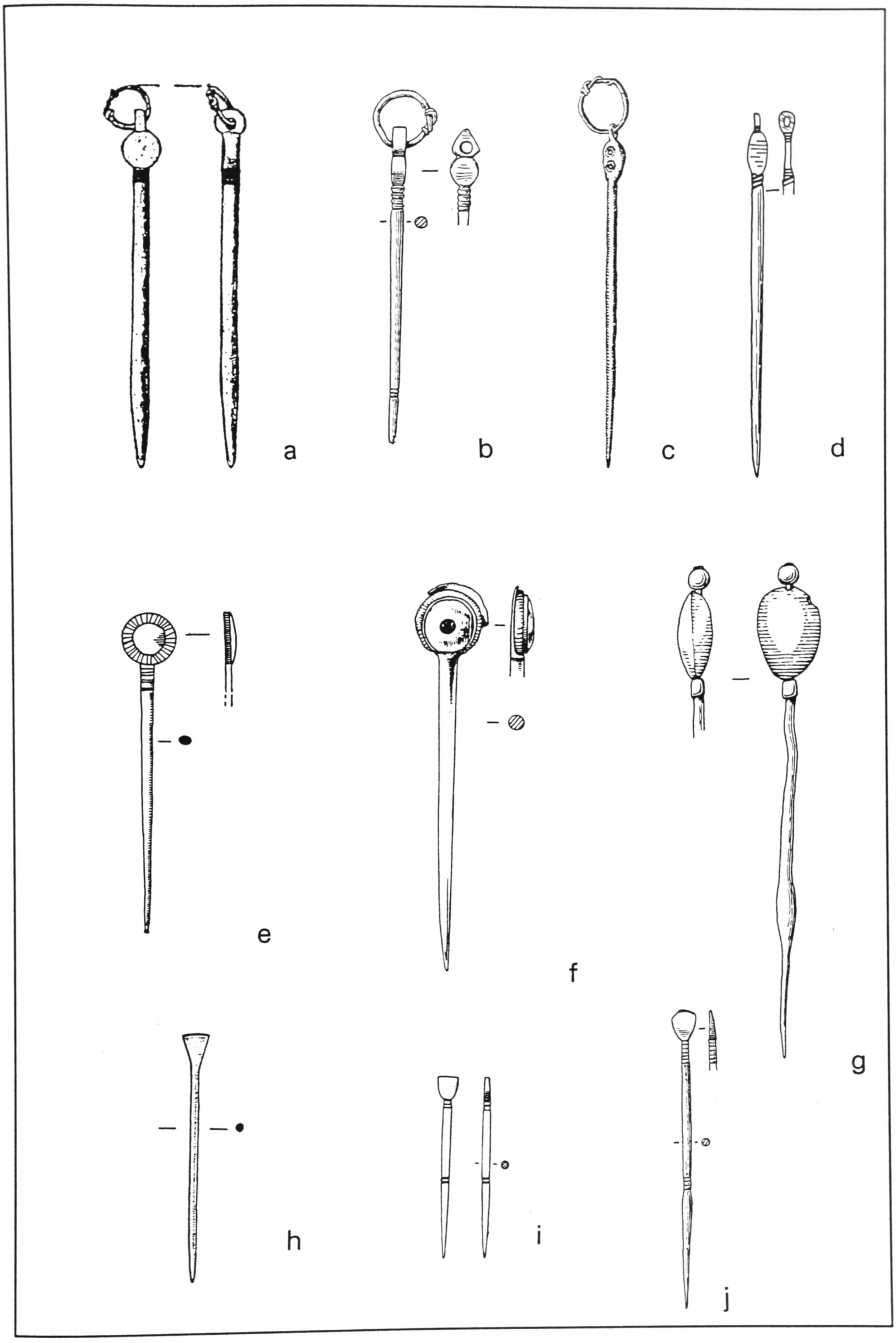

Figure 5.25

secures a garnet (Evison 1987: 250 & fig 60.155.1). Whether this pin should be grouped here or with our garnet-set pins is an open question. An additional parallel with the Dover pin is a find from Hawnby (Smith 1912: 96). Examination of this pin in the British Museum[178] suggests that it was originally intended to hold a setting on one face which was secured by a rivet through the centre of the setting. The pin came from a barrow where it was associated with a bronze bowl, two buckles, and a bronze penannular brooch; a group which may be indicative of the seventh century.

LV. Amethyst-bead-headed Type.

Only one example of this type is known, which comes from Cirencester (Glos) (Jessup 1950: Pl 1 [.2]; Brown 1976: 24 & fig 3.1.7) [Fig 5.25.g].[179] In this pin a 90 mm long silver shaft has been passed through a 'tear-shaped' amethyst bead. A small silver ball has been fixed to one end to keep the bead from slipping off the shaft. It seems likely that based on the presence of the amethyst and its form, this pin could be placed at the end of the sixth century or into the seventh century, but there is no confirmatory evidence. The use of the bead on the pin is suggestive alone of the latter date. It is just as likely that this was a stray bead found later and turned into a pin.

LVI. Castle Dyke wedge-headed Type

These pins have flat spatulate heads. The wedge-head was created either by casting a pin with a flat head or by flattening a piece of cast wire at one end and pointing it at the other. All known examples have a tapering shaft and lack collars or any type of shaft ornament. A 44 mm long copper alloy wedge-headed pin was recovered (during sieving) from grave 17a at Castle Dyke, Humberside [Fig 5.25.h].[180] The pin had a shaft diameter tapering from 2.0 mm just below the head to 1.8 mm before the tip. A similar pin came from grave 100 at Dover (Evison 1987: 240 &

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[178]BM M&LA, acc no: 82,3-23,32.

[179]British Museum, Sloane Collection 523.

[180]Guy Grainger kindly showed me this pin.

fig 48.100.1) [Fig 5.25.i].[181] Excavations at Barking produced a wedge-headed pin with a tapering shaft.[182] This copper alloy pin was 36 mm long, and had a shaft diameter of 1.2 mm, much smaller than our other examples. The wedge was 2.5 mm wide, but less than 0.5 mm thick and has a slightly curved-end edge.

Few of these pins are so far known and discussing distribution, as was already explained in the case of other restricted types, can be misleading when the numbers of pins are small, although I should just note the Kent-Humberside link. Similar problems plague efforts to firm up the chronology. The pins from Castle Dyke and Dover both suggest a late seventh century date. The evidence from the area of Barking, where the pins were found, included a range of *sceattas*, but no broad pennies. This might support the suggestion that these pins went out of use before the end of the eighth century. Beyond this, present finds do not allow me to be more specific about either date or distribution.

LVII. Sibertswold bird-headed Type

A copper alloy pin which terminates in a double-flat-plate decorated only on the obverse face to resemble two opposed bird-heads came from grave 18 at Sibertswold (Wright 1855: fig on 14; Faussett 1856: 105 & Pl 12.fig 19) [Fig 5.26.a].[183] The beaks of the birds just touch each other.[184] This extremely worn pin has, below the terminal, a ringed zone 7 mm in diameter. This ring quite possibly was intended to hold a garnet setting. At the junction of the head and the shaft are two ring collars and below this the shaft has a round section and tapers for its entire length of 42 mm. This pin was recovered with fourteen amethyst beads. The association with the amethyst beads and the style of the piece indicate that it belongs in the first quarter of the seventh century.

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[181]BM M&LA, acc no: 1963,11-8,519.

[182]Passmore Edwards Museum, Barking Abbey, small find no: SF1899.

[183]Merseyside County Museum Service, acc no: 6451. Total length is 60 mm.

[184]It is hard to resist mentioning Faussett's description of these pins. It 'seems to have been intended to represent two small animals, like monkeys, sitting on their posteriors, taking hold of each other's fore paws and kissing each other' (Faussett 1856: 106).

LVIII. Cross-headed Type

Two groups have been identified. Sub-group **LVIII.i** includes maltese cross-headed pins and sub-group **LVIII.ii** covers the set of pins with a clover cruciform head. During diggings at Breach Down in the 1840s, J.P. Bartlett found a copper alloy maltese-type cross-headed pin (107 mm) by the left side of the skeleton [Fig 5.26.c]. The grave also included fragments of an iron pin and 2 amethyst and 3 paste beads near the skull (Bartlett 1845: 316 - 317 & fig unnumbered; Wright 1845: 206 & Pl 3.7; Akerman 1855: Pl XL.2; Smith 1908: 348-9 & fig 5). The pin is flat in section and has a flat cross-head with curved ends. The main body of the pin is a flat-plate terminating in a round shaft. Each of the arms of the cross are decorated with a single ring-and-dot ornament and at the junction of the arms a ring-and-dot has been punched. The shaft of the pin is decorated with ring-and-dot ornament. Smith noted that *sceattas* were recovered at the site and these (although undated) suggested to Smith that the grave should be assigned a late seventh century date (1908: 349). The association between the pin and the *sceattas* is unclear and it is not likely they can be used to establish a secure date for the pin. The pin's relationship with the amethyst beads is better established. This latter association would support an argument for a date sometime after the end of the sixth century for the context in which the pin occurred, although a date in the second half of the seventh century is extremely unlikely. However, the form of the arms of the cross are reminiscent of the arms on the pendant cross from Wilton (Norfolk) [**BM M&LA 1859,5-12,1**] and the Ixworth cross [Ashmolean Museum, **acc no: 1909-453**]. These crosses would appear to indicate a date after the mid-seventh century for this form. On the grounds of these two comparisons it would appear possible to place the Breach Down pin into this horizon. This would of course lead us to wonder about the presence of the amethyst beads. Two explanations present themselves: (1) the beads were quite old when buried; (2) since the associations from Breach Down are not precisely established it is possible that there was no relationship between the cross-headed pins and the amethyst beads.

A 179 mm long clover-cruciform-headed pin was recovered from grave 1A31 at West Heslerton.[185] The pin is in one piece and survives in a nearly complete state. On the obverse face it is edged by dot ornament and the reverse is adorned by an unmistakable cross made from punched dots following the medial vertical and horizontal lines of the cross head. This pin was associated with beads, a knife, a latch-lifter and a brush. It could belong to the late sixth or early seventh century. Other evidence form the site in general would not be incompatible with this date (Powlesland 1981; Powlesland, et.al. 1986: 163-170).

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[185]West Heslerton Excavations, small find no: HP1A3ICS.

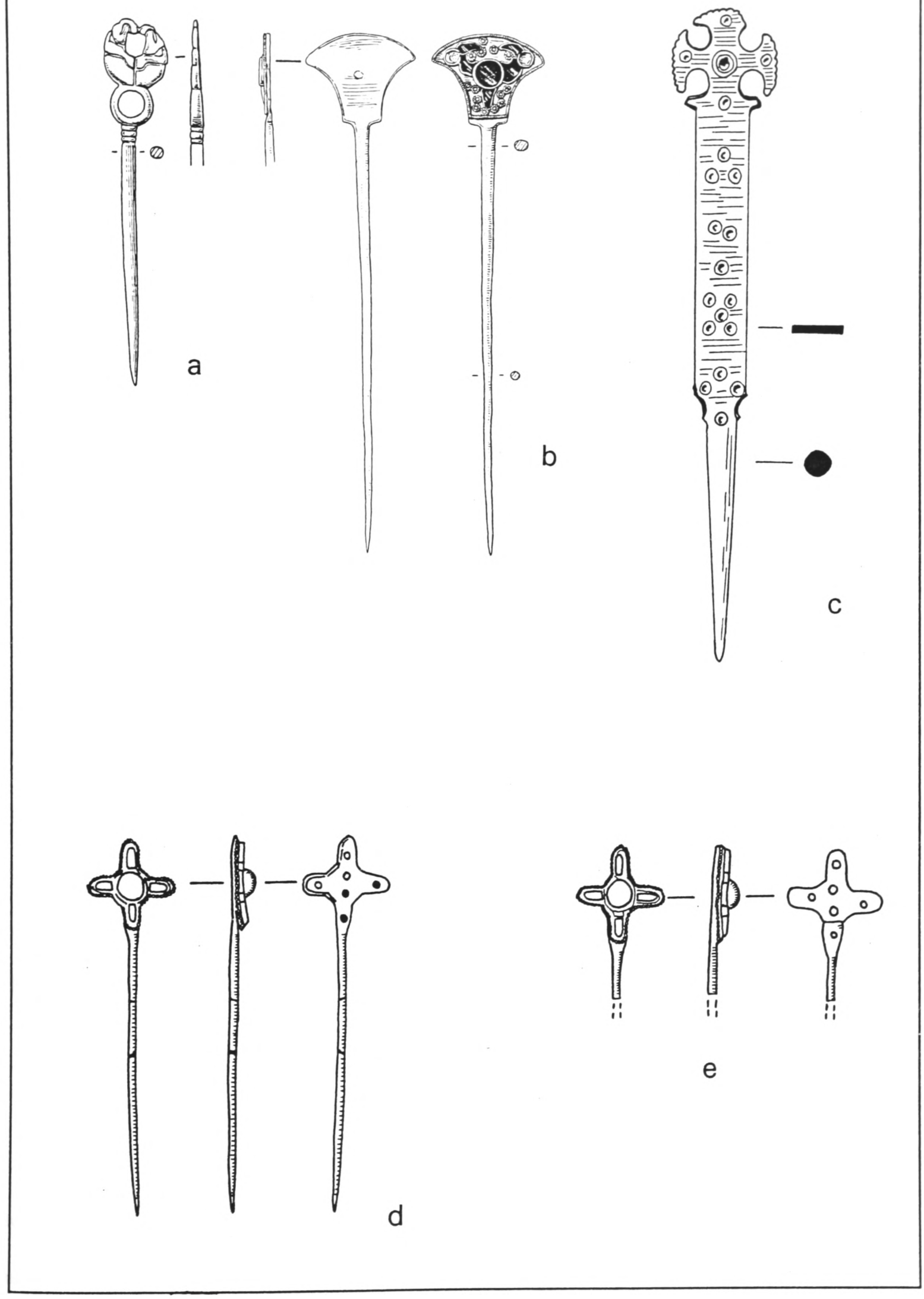

Figure 5.26

LIX. Composite-cruciform Type

This group is represented by a set of pins from the barrow burial at Wigber Low.[186] These are cruciform-headed pins with silver shafts (Ager (in Collis) 1983: 73 - 76 & fig 40). They were constructed from cast cross-headed pins on to which was fixed a gold plate held in place by rivets. A garnet setting (except in one case where the garnet has been replaced by glass) graces each arm of the cross and there is a single circular convex garnet in the centre setting. Gold capsules constructed from strips of gold surrounded by beaded wire secure the garnets in place. These are soldered to the gold plate. One pin measures 61 mm in length, the head measures 14.8 mm across the arms [Cl Pl I.e & Fig 5.26.d]. The other one is extant only to a length of 23.8 mm with its head measuring 15.3 mm across its arms [Fig 5.26.e]. In his discussion of these pins for John Collis' publication of the barrow, Barry Ager argued that a useful parallel could be drawn between them and

> two very similar, cross-shaped pendants from the grave of a wealthy lady buried at Cologne early in the seventh century (Fremersdorf 1941-2: 130, Taf 51B) which also have central round cells (both now empty), U-shaped arms inlaid with garnets on gold foil backings (though the arms are expanding) and a frame of beaded wire (information from Mrs. L. Webster). (Ager 1983: 76).

This comparison led him to suggest that these pins belonged near the middle of the seventh century rather than later. Examination of the other finds from the grave might indicate this date to be just a little early. Further study of the pins can only remind us that it had been damaged and repaired before burial. While this need not indicate age, it cannot be ignored as a possible sign of age.

LX. Wingham Type[187]

This pin is composed of two independent elements, the head and the shaft (Wright 1845: 206 & Pl 3.6; Akerman 1855: Pl XL.3) [Cl Pl I.d & Fig 5.26.b]. The pin is 86 mm long, has a plain tapering shaft with a diameter of 2 mm and a splayed spade-type head. At the junction of the head and the shaft the head is 7 mm wide. The sides of the head curve gently away from the junction and reach a maximum girth of 18 mm. The end of the pin is formed by an arc which stretches from

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[186]BM M&LA, acc nos: 73,6-2,96 & 73,6-2,97.

[187]BM M&LA, acc no: 79,5-24,35.

the two points of maximum girth. The pin is formed from a silver shaft and base-plate cast as a single piece onto which was fixed a gold face-plate. At the junction of the head and shaft a small lip of silver was raised so that the gold face-plate could be fitted against it. This mechanism kept the face plate from slipping or turning on its back-plate. This was essential as the craftsman used a single rivet from the back of the head to secure the face-plate in position. The face-plate is decorated with cloisonné and filigree work.

The head has been edged with a beaded wire. In the centre of the head was set a circular garnet held in a cloisonné cell, the edges of which were bent over the face. On the right and left side of this central garnet two horn-shaped garnets curve away toward the top edge of the pin and then back toward the line of the central line of the pin. Two small filigree circles set at the corners of the head break the line of the garnets; these themselves originally held garnets.[188] A small triangular garnet drops from the bottom of the central garnet. The layout of the garnets is rather reminiscent of an abstract representation of the head of a bull. The face of the pin is further embellished with small filigree circles.

At present there is only one example of this type of pin known and it comes from a woman's grave at Wingham in Kent (Conyngham 1844b: 550-1). None of the other items in the grave are suggestive of a date for this pin. The decoration on the head of this pin compares most favourably with the pendant in the Wieuwerd Hoard (Janssen 1867: Taf VII.7; Karras 1985 fig 4.3). The hoard belongs to the period between AD 625 and 630. Since this pin is either derived from the same style of production which resulted in many of the pieces in Wieuwerd Hoard or a product of the same workshop, it would be safe to place it into that horizon. Whether it was an indigenous development or an import is at present unclear. Nothing about the character of the pin would indicate that it is representative of purely Kentish metalwork, but it might be equally difficult to make a counter argument.

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[188]The loss of these settings must have been modern because Wright certainly noted their existence in 1845: 'with a gold head, ornament with red and blue stones' (206). His figure presents the differences in the settings by varying the densities of the lines (Pl 3.6).

LXI. Garnet-set disc-headed Type

[Map 5.14]

These pins have a discoid, or, in rare cases, a sub-spherical shaped head. These were constructed with settings holding garnets or red glass studs. The shafts tend either to be hipped or decorated by linear incisions which run round the shaft. I have divided the group into two sub-groups. **LXI.i** includes those with discoid heads and **LXI.ii** includes the examples with sub-spherical heads and more than two garnets. Sub-group **LXI.i** can be further divided between those pins without beaded wire work surrounding the setting on the pin-head (variant **LXI.i.a**) and those with beaded wire work surrounding the garnet (or glass) setting (variant **LXI.i.b**). There can be little doubt that these pins reflect common seventh century production techniques as I argued in chapter 4. While many of these pins were made in silver we can note a number of gold examples.

Variant **LXI.i.a** is represented by finds from graves 20 and 57 at Finglesham [Figs 5.27.a & .c] and grave 172 at Sibertswold [Fig 5.27.b].[189] In these the garnets are not surrounded by beaded collars, a fact plainly evident in the illustrations. Typical of variant **LXI.i.b** is an unhipped silver pin from an unidentified grave at Faversham with a disc head originally set on the obverse and reverse faces by garnets and adorned by lines below encircling the round-sectioned shaft.[190] The garnet on the obverse face has become lost. Other close parallels came from a barrow at Seamer [Figs 5.27.e & .f], grave 44 at Chartham [Fig 5.27.g] and grave 180 at Sibertswold [Fig 5.27.h]. Both variants of sub-group **LXI.i** include a range of shaft forms: the gold pins from Seamer have tapering shafts, those from Chartham (g.44) and Finglesham (g.20) have shouldered shafts.Variant

A 39 mm long gold pin with a ring head and a tapering shaft was recovered during excavations in Canterbury (Frere, et.al. 1987: 183, & Pl XXVII.F, .G, .H) (Variant **LXI.i.b**). This pin is typical of pins of this group constructed with an inserted cylinder setting. A sheet of gold was

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[189]Finglesham (Kent): Hawkes pers comm; Sibertswold (Kent), grave 172: Merseyside County Museums, acc no: M6553C.

[190]BM M&LA, acc no: 84,12-21,13. Diggings at Faversham produced a number of these garnet set pins. One now 29 mm long in the Ashmolean Museum (acc no: 1909:164a) terminates in a head with two main faces originally intended to hold a garnet on each face [Fig 5.27.h]. See also BM M&LA, 1131'70 a 38 mm long pin recovered from Faversham. This gilt-silver pin had a 5 mm diameter head also set with garnets.

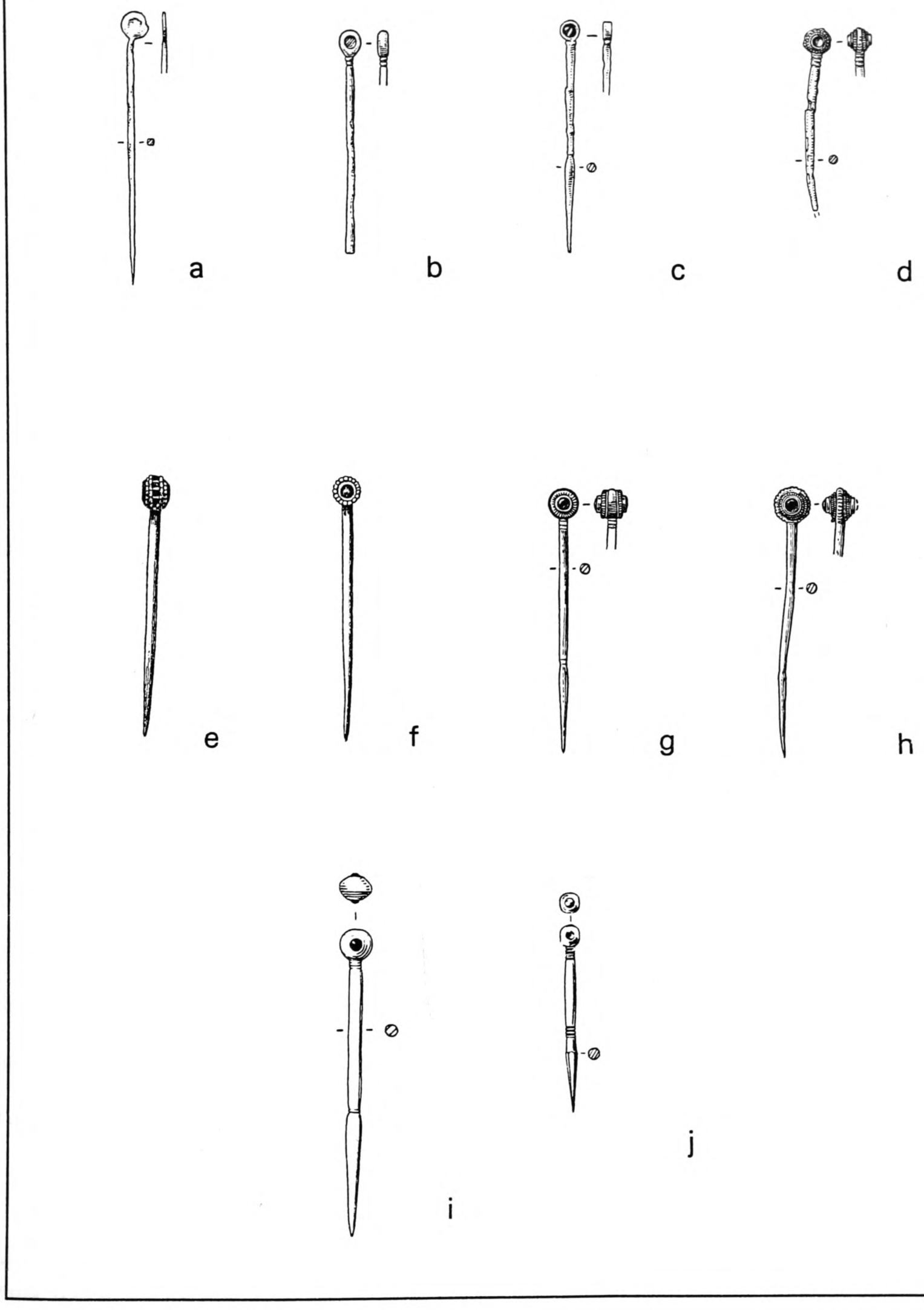

Figure 5.27

formed into a cylinder and this was placed into the ring head. On both sides of the head the segments of the cylinder, which extend beyond the ring-head, has been banded by beaded gold wire. Into the cylinder was set a garnet (possibly just a red glass stone). The cylinder was bent over the stone's face to hold it in place. The pin has a head diameter of 4 mm and a shaft diameter of about 1.5 mm. The shaft is round in section throughout its length. Nearly all our examples are set with only two garnets and belong to either Variant LXI.i.a or LXI.i.b. Two exceptions came from Dover.

Variant **LXI.ii.a** is represented by the pin from grave 161 at Dover which has two convex faces set with garnets, linear incisions on the shaft at the junction of the head and the shaft and shouldered hipping [Fig 5.27.i].[191] The section of the shaft was round throughout (Evison 1987: fig 63.161.1). Variant **LXI.ii.b** includes the pin from grave 134 at Dover (Evison 1987: fig 55.134.1) [Fig 5.27.j].[192] This 31 mm long silver pin has a sub-spherical head set with garnets in the four main faces and one on the top of the pin. Three lines were engraved below the head and about two-thirds of the way along the shaft. Below the second set the shaft is shouldered and has a facetted section. These pins come mainly from cemeteries. Only a few rare examples are known from settlement sites. Two examples come from Canterbury, one from Chalk Lane[193] and one from Burgate. The latter pin was recovered from a layer incorporating 12th century material, in this context this pin must be residual (Frere, et.al. 1987: 185). The find of two from Canterbury ought not to surprise us, especially when we consider the strong Kentish distribution. Only a few outliers can be noted. Another garnet-headed pin came from Mucking. It was recovered in GH42 where it was associated with a safety-pin brooch and grass-tempered pottery (Hamerow 1987: 25 & fig 3.2.i).[194] These associations are of interest because the safety-pin brooches belong to a type used during the seventh century (Speake 1989: 47-49, fig 43.6-10 & 44) and are distributed in Kent with a few examples were recovered in East Anglia.

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[191]BM M&LA, acc no: 1963,11-8,729.

[192]BM M&LA, acc no: 1963,11-8,621.

[193]On display at the Heritage Centre. I have not had the opportunity to study this in detail.

[194]Hamerow, pers comm (29.12.85); Hamerow 1987: Table 3.1.

The find from Dover grave 134 was associated with a gold disc pendant and 2 oval garnet pendants. The 43 mm long garnet-set silver pin from grave 44 at Chartham had a moulding created by two incised lines, the lowest line of which is 15 mm from the tip (Faussett 1856: 173-4, Pl 12, fig 18) [Fig 5.27.g].[195] Below this the shaft of the pin is shouldered and tapers to a point. This pin was associated with a blue bead on a gold wire and fittings for a small wooden box. Along with the 44 mm long garnet-set silver pin from grave 180 at Sibertswold, Faussett found a silver twisted ring, beads, a comb with case and a lock from a wooden box (Wright 1855: fig on p 14; Faussett 1856: 133-4 & Pl 12,fig 20) [Fig 5.27.h].[196] This hipped pin holds its garnet in a circular cylinder which is surrounded by beaded wire. Both the Chartham and Sibertswold contexts are suggestive of seventh century dates, possibly between the beginning of the second quarter and the close of the third quarter.[197] This dating is quite general, and we cannot offer sub-dates for variants. We can say of the distribution of these pins only that they come from Kent and in several cases from East Anglia. In both time and space their distribution was narrow.

The majority of the garnet-set group do not have an attachment device on the head of the pin. Those garnet set pins that do fall outside this group. For instance, a 55 mm long pin from Faversham has a ring head set with garnets.[198] Above the head is a small attachment loop set perpendicular to the plane of the pin's head. At the junction of the head and the shaft 3 lines about 1 mm apart have been incised into the shaft. 25 mm below this junction three more lines spaced 1 mm apart are incised into the shaft. Below the lowest line the shaft of the pin expands by one millimetre. The shaft section is round throughout. Much of the form of this pin would indicate that it was intended to be joined to another pin. Although it is known only as a single find it seems

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[195]Merseyside County Museums, acc no: M6734.

[196]Merseyside County Museums, acc no: M6539.

[197]Two further examples came from a barrow at Seamer (N. Yorks) [Fig 5.27.e & Fig 5.27.f]. The pair of gold pins with garnet set heads were recovered in association with a rich assemblage (Wright 1865: 331 & Pl 18.2,2). Associated with the pins were two drop pendants, two biconical beads, a diamond shaped plate set with garnets and adorned with filigree work, three strap-ends, and two bezel rings (one gold and another in silver).

[198]Salisbury and South Wiltshire Museum, acc no: 3D 2A13.

likely that a lost pin made it part of a suite. Indeed there may be a close relationship between the single garnet pins and the pin suites.

LXII. Wicken Bonhunt triangular-headed Type

A single example of this type of pin is known from Wicken Bonhunt [Fig 5.28.a] (Wade pers comm).[199] The pin has a flat-triangular head above a bulbous collar zone. The pin measures 86 mm in length and its shaft has a 2 mm diameter above its swelling and 2.5 mm diameter at the swelling. The triangular head expands from the knob to a width of 21 mm at the top end. The face of the pin is decorated in relief. The outer edge is decorated by dots and the centre of the head is decorated by knot interlace. The ribbon forming the knot is adorned by dots. The pin was cast. At present it is the only example of this type so far recognized. Stylistically it would be safe to argue that this pin belongs to the ninth century.

LXIII. Evesham Type

Besides the one-off-pins from Wingham and Wigber Low there is an unique pin triplet from near Little Hampton south of Evesham (Franks 1864: 27; Smith 1901b: 229 & fig 2; Brown 1915 (v.3): Pl LXXXI.1) (Fig 5.28.b).[200] Only one of the original pins survives and this has become detached from its catch. The pin was made from gold strips and filigree. At the centre of the suite is a circular gold pendant with a diameter of 15 mm. In the centre of the pendant is a convex garnet seated on gold foil surrounded by beaded wire. The disc has been edged by beaded gold wire and just inside are two rows of gold wire. Single strands of filigree run from the inner circle to the outer edge and have been placed every 45° beginning from 0°. The strand at 90° has become detached and lost. Those inside the 90° arc only extend to the gold braid, but those lying at right angles

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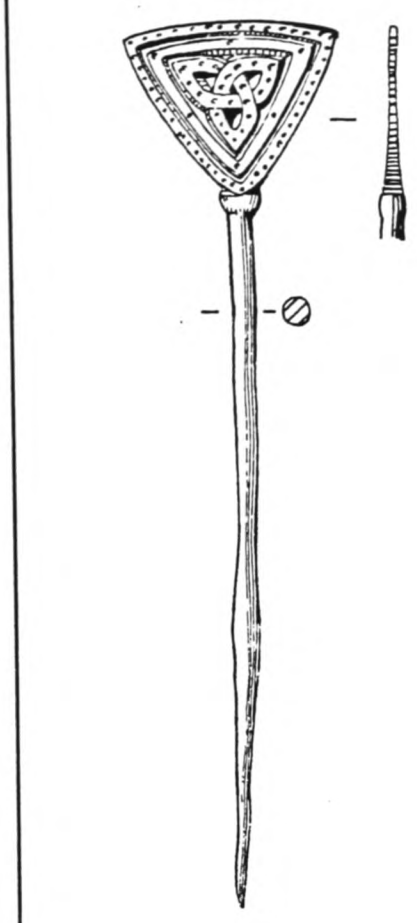
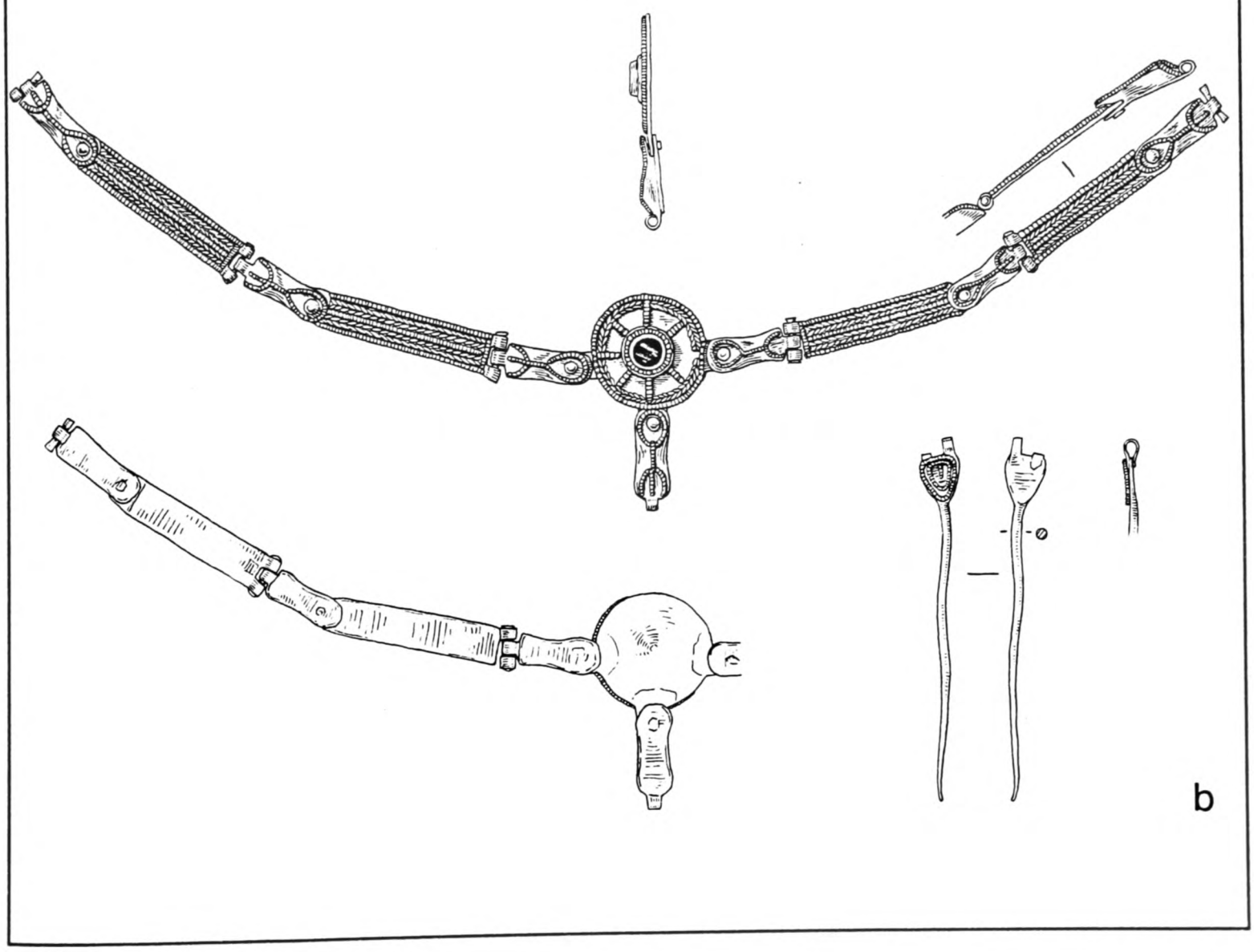
[199]Wicken Bonhunt, small find no: 240.

[200]BM M&LA, acc no: 64,12-20,1. The pin was supposedly found with a sword. C. Knight Watson exhibited the sword recovered by C.F. Brugman (see *Proceedings of the Society of Antiquaries* ser 2, ii(1862): 163-164).



a



b

Figure 5.28

terminate at the outer beaded wire.

Small flat tongues are attached to the disc and extend from it at points to be loosely described as 90°, 180°, & 270°. These are secondary to the original disc. Catches have been fixed onto these plates. They were produced from strips of gold wire that were soldered together. On one end the catch has an upper and lower lip. These slip over the top and bottom of the tongue extending from the disc. A single gold rivet holds the catch in place. At the other end the catch has a curled strip of gold which covers the central third of the end face of the catch. The two side catches attach the disc to decorated oblong strips and the lower catch was probably originally secured by a pin. The first strip is 5 mm wide, 25 mm long, and is decorated with strips of beaded wire. On the end nearest the disc the band has two curled strips--each covers an outer third of the edge of the strip. The curled strip on the end of the catch fits just in between these curls and a gold rivet has been placed through to hold these fast. At the other end of the strip it terminates in a flat tongue grabbed fast by the lips of a 12 mm long catch similar to the one described above. The arrangement is repeated twice on both sides of the pendant. The second strip terminates in a catch with a single curl on the end of it. This was originally attached to a gold pin with a flat triangular head. The head was decorated on its obverse face by small beaded wire triangles. A small strip of gold was attached to either side of the top edge of the pin to form loops. The pin has a plain tapering shaft with a diameter of about 1 mm. The surviving pin in the set measures 45 mm in length. According to Franks, when the pin was found two gold pins were attached, one is now lost. The catch from the central pendant probably also grasped a pin as did the clasp hanging off the similar arrangement on the right side of the pin.

It might be possible to make a case to include this pin suite with the linked pins because they probably shared more than form with them. This pin is so unique that it is either a one–off or it is part of an as yet unrecognised type. Although we know that the pin was recovered in the nineteenth century from a grave near Evesham we have no associated finds to help us date the piece. The only indication of a date, besides the form of the object, might be derived from the central pendant.

LXIV. Linked Type

[Map 5.15]

This group is composed of linked pins or pin suites. They are pairs of pins linked together by a chain.[201] Some examples were cast while others were constructed from a composite of

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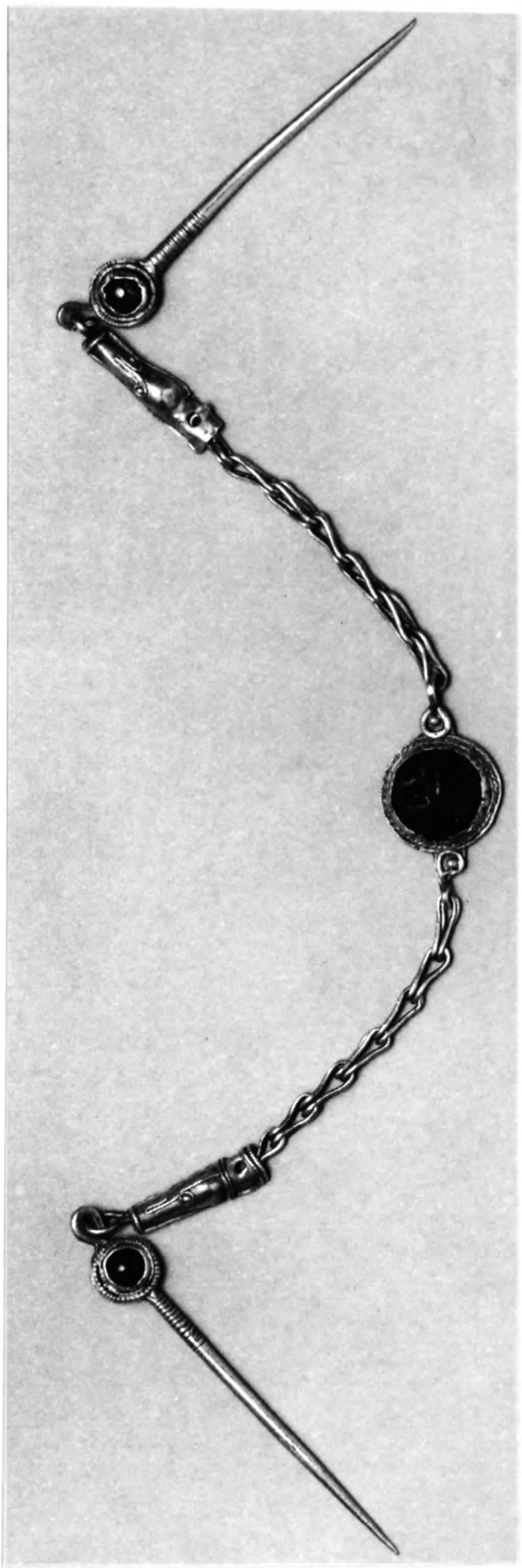
[201]In a discussion of Anglo-Saxon remains in volume 1 of the Victoria County History for Worcestershire, Smith argued, in an analysis of the Evesham pins, that the linked pins were derived from Continental models (Smith 1901b: 230). Although the Evesham pins may bear a close functional relationship with the linked pins I have placed them in a separate group (LXIII). In principle Smith is correct about the relationship between English linked pins and Continental linked pins. But the Continental parallels cited by Smith in support of his claim do not appear similar to those from England. I might suggest that the form of these linked pins may have been derived from Italian models, but the evidence for this is still tenuous. Early prototypes are possibly seen in the pin suite from the Piazza della Consolazione Hoard (Ross 1965: Pl I & II). This set was recovered with a hoard of other jewellery at Rome in 1910 during 'restorations in the Piazza della Consolazione' (Ross 1965: 2). At the time of its discovery the hoard was not recorded in detail and subsequent attempts to trace and identify its content have proved unsuccessful. The last such attempt was made by Marvin Ross in the early 1960s when he was writing up the hoard as part of his catalogue of jewellery in the Dumbarton Oaks Collection in Washington, D.C. The jewellery known to have come from the hoard is almost all entirely of gold and the items in the Dumbarton Oaks collection included 3 necklaces, 7 pairs of earrings and one set of pins. Dr Hirsch, who 'once owned part of the collection' told Marvin Ross that the hoard contained a bracelet (now lost), other necklaces and a large number of rings (Ross 1965:2). A few of these items are recorded in the sale catalogues and several are extant in private collections. The jewellery in the hoard is of a consistent style and Marvin Ross and D. Mobius (1941), who had earlier written up a now lost necklace, suggest that the jewellery certainly belonged to a single individual and all probably date to the same period. The treasure probably dates to the fifth century and it is generally agreed that it belongs to earlier part of the century. This set is composed of two incomplete pins linked by a chain with a central clasp. The chain is 177 mm long and the left pin survives for a length of 40 mm and the right one is extant for 34 mm. The chain consists of two nearly identical segments which are joined in the centre by a clasp made from 'two dart-shaped pieces of flat gold with a wire at the back twisted at the ends' (Ross 1965:1). The segments of the chain between the clasp and the point where they attach to the pin just below the head are made up of two distinct kinds of links made of folded loops and crystal beads. Below the point of the attachment the surviving section of the gold shaft is incised with fine lines before joining a shaft which consisted of some as yet unidentified metal. Above the attachment loop the pin passes through a upwardly curving plate which supports the exterior of a basket like frame. This frame has four garnets just above the support and terminates in one pin supported by a pearl. The right pin also probably had a pearl above but it is no longer extant. The number of other Continental parallels are few. A further parallel may come from Domangano (Bierbrauer 1973: 505-6 & Taf 38.3; 1975: Taf XXI.3; Arrhenius 1985: 151 & fig 191), but there are a number of reasons to doubt the validity of this comparison. This pin is ornamented by a cloisonné decorated gold disc-headed pin with a 99mm long folded chain attached to a loop on the middle of the side of the pin-head. The diameter of the head of the pin is 35 mm and it is 141 mm long [BM M&LA, acc no: 1933,4-5,10]. This pin has a disc set in the centre with a convex garnet and with an border of spaced garnets. Between the central setting and the outer border is a zone of filigree work set within spokes that radiate from the centre every 60 degrees. The pin has two loops on one side and one loop on the other. Through this latter loop a folded-link chain is fixed. Arrhenius suggested that there was a similarity between this pin and the pin from barrow A at Chartham Down illustrated by Leeds (1936: Pl XXVII.31). This is possibly, the now lost linked pin published by Douglas (1793: fig 5[21]). On account of the size of the pin I am inclined to discount the relationship between the Domangano find and the more delicate linked pins as seen in the Barrow A pin. Other possible parallels for the type exist on the Continent. Possibly one may be known from grave 22 at Auménancourt-le-Petit (Marne) (Poulain, 1980: 66, fig 5, no 4348). The buckle is certainly a sixth century type. It is difficult to relate the form of this particular pin with the development of the seventh century type, although its simple ring head is most favourably paralleled by some of our pins of variant **LXIV.ii.d** (e.g. Sittingbourne [Kent] [BM M&LA, acc nos: 83,12-13,586 & 83,12-13,587]) . A silver pin found at Dunshaughlin Crannog in 1867 (Walter's Collection [Baltimore], acc no: 57.1831) has numerous characteristics of the linked pins. The pin has a polygonal head and tapers along its entire length. A wire ring with twisted over ends passes through the head of the pin. Attached to this ring is a chain composed of links with wire twisted around them.

(continued...)



material. Two types of chains were used to link the pins. One type was composed of elliptical rings folded one over the other. The other type has an S-type link. The linked pins can be divided into a number of sub-groups and these sub-groups encompass a set of variants. The two main sub-groups are derived from the different technological processes involved in making pins: composite linked pins (sub-group **LXIV.i**) and the cast linked pins (sub-group **LXIV.ii**). Previous discussions by Hawkes (Meaney & Hawkes 1970: 36-37) and (Hyslop 1963: 198) have succeeded in establishing the chronological position of the garnet decorated variants. It is only now that we can detail the typological development of these pins, and that we have sufficient information to establish the chronology of the cast examples. In the past discussion has dealt only in a cursory way with the latter group.

LXIV.i. Composite-linked Sub-type[202]

The sub-group of composite-linked pins can be divided into three variants. The critical characteristic to the definition of sub-groups is how the head of the pin is constructed.

The find in the fourth decade of the 19th century of a linked set during the opening of the barrow at Roundway Down (near Devizes) (Akerman 1843: 12-13; 1855: Pl I.1; Merewether 1849: 111-112 & fig 36; Brown 1915(v.3): Pl LXXXI.2; Meaney & Hawkes 1970; Youngs 1989: fig 40) provides us with the prime example of the first of these variants (Cl Pl II.b & Plate 5.I).[203] Near

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[201](...continued)
M.C. Ross, in his discussion of *Arts of the Migration Period*, argued that this pin belonged to the sixth century (1961); I have little evidence to support this hypothesis. A further possible parallel is a 71 mm long cast pin with a double ring collar and a pierced head from Athlone (Paor 1962: 187 & fig 1[a]); [BM M&LA, acc no: 1868,7-9,44]). Paor compared this pin to two from Haithabu (1962: fig 1[b] & 1[c]).

[202]Over 250 years ago, in December 1730, the Secretary of the Society of Antiquaries recorded in the Minute Books finds collected by Charles Fagg at Chartham the previous June. 'On opening a small barrow being one of those Hillocks commonly called Danes Bank upon Swerdling Down four miles from Canterbury in the parish of Chartham' Charles Fagg made the earliest recorded discovery of a linked pin. Sadly the present location of the pin remains unknown, but a record of it survives in one of the classics of Anglo-Saxon Archaeology, Douglas' Nenia Britannica (Douglas, 1793). The pin was of gold and had a chain 'an inch long' attached to it and Douglas thought this was 'fastened to the gold pendant' (ibid. fig 5(21); Faussett 1856: 163-168). Besides the linked pin the barrow included a plated disc brooch, the gold filigree decorated pendant, a spherical crystal ball, 2 drop type pendants, a small round 'tourquoise stone', and several squat jars. Avent made a strong case for dating the plated disc brooch between the opening of the 7th century AD and the close of the third decade of that century (1975). Of course, the brooch might have been buried considerably later. The drawing of the pin is difficult to interpret and it might be dangerous to draw any conclusion on the basis of it. Without having seen this pin I have been cautious about including it in the discussion.

[203]Devizes Museum, acc no: SF6. Figure 36 in Merewether (1849) ought to be discounted because of the poor quality of the illustration.

a

b

Figure 5.29

the neck of the individual buried in a wooden coffin was a necklace of 'drop' pendants and hollow biconical gold beads decorated in filigree, and two pins linked by a 140 mm long chain and pendant. The linked pins were of gold each measuring 43 mm. Each pin was cast as a single piece with a ringed head and a suspension loop above. A series of lines were engraved into the shaft below the head. A hollow gold cylinder was inserted through the hole in the gold ring head. This cylinder was then heated and a garnet dropped in to create the face. Each garnet was backed by a gold foil. The cylinder-set-garnets were encircled by a gold beaded wire ring. This beaded wire would have been made up in advance using a bead-file, although blocktwisting is not out of the question.[204] Attached to the suspension loop above the garnet setting is a catch mechanism which joins the pin to the chain of folded links. The chain is made of two segments both of which terminate at the central roundel that is decorated with a moulded glass cross. Hawkes has argued that the glass stud represents Irish manufacture (Meaney & Hawkes 1970: 48-49; Youngs 1989: 153-154). Similar glass studs and moulds for making them have come from Lagore Crannog (Co. Meath) (Hencken 1950: 129-30 & fig 62; O'Floinn in Youngs 1989: item 209). The detail of the construction of this pin set is paralleled by that of the jewellery recovered with it. These pins have been grouped as variant **LXIV.i.a**.

A fairly close parallel came from Bateman's excavations at Cow Lowe in Derbyshire (1848: 91-95) [Cl Pl II.c & Fig 5.29.b].[205] In the Cow Lowe pins the chain is joined to the attachment loop above the head of each pin by a piece of gold wire closed to form a ring with ends crudely twisted together. The head end of the pin was flattened to form a discoid surface; above this was an attachment loop. A capsule made from gold foil was fixed on to the discoid zone. This was set with ruby glass backed by chequered gold foil. The edges of the gold capsule were bent across the

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[204]The beaded wire need not have been produced by the craftsman who made the pins, but might have been purchased independently. XRF of the components of the jewellery might go some way to sorting this question out by allowing us to see which segments of the pin were made from metal of the same source.

[205] Sheffield Museum, Bateman Collection, acc no: J.93.703. See also the *Journal of the British Archaeological Association*, II (1847): 237, fig no. 4. Bateman reported that he thought the pins had been in the region about the neck of the individual. This was a wealthy barrow burial in Derbyshire and contained a palm cup (Bateman 1847: fig 5), an ivory comb, fragments of a box and a necklace of beads. The illustration following page 270 in the *Victoria County History for Derbyshire* shows the pin separated but gives good record of colour.

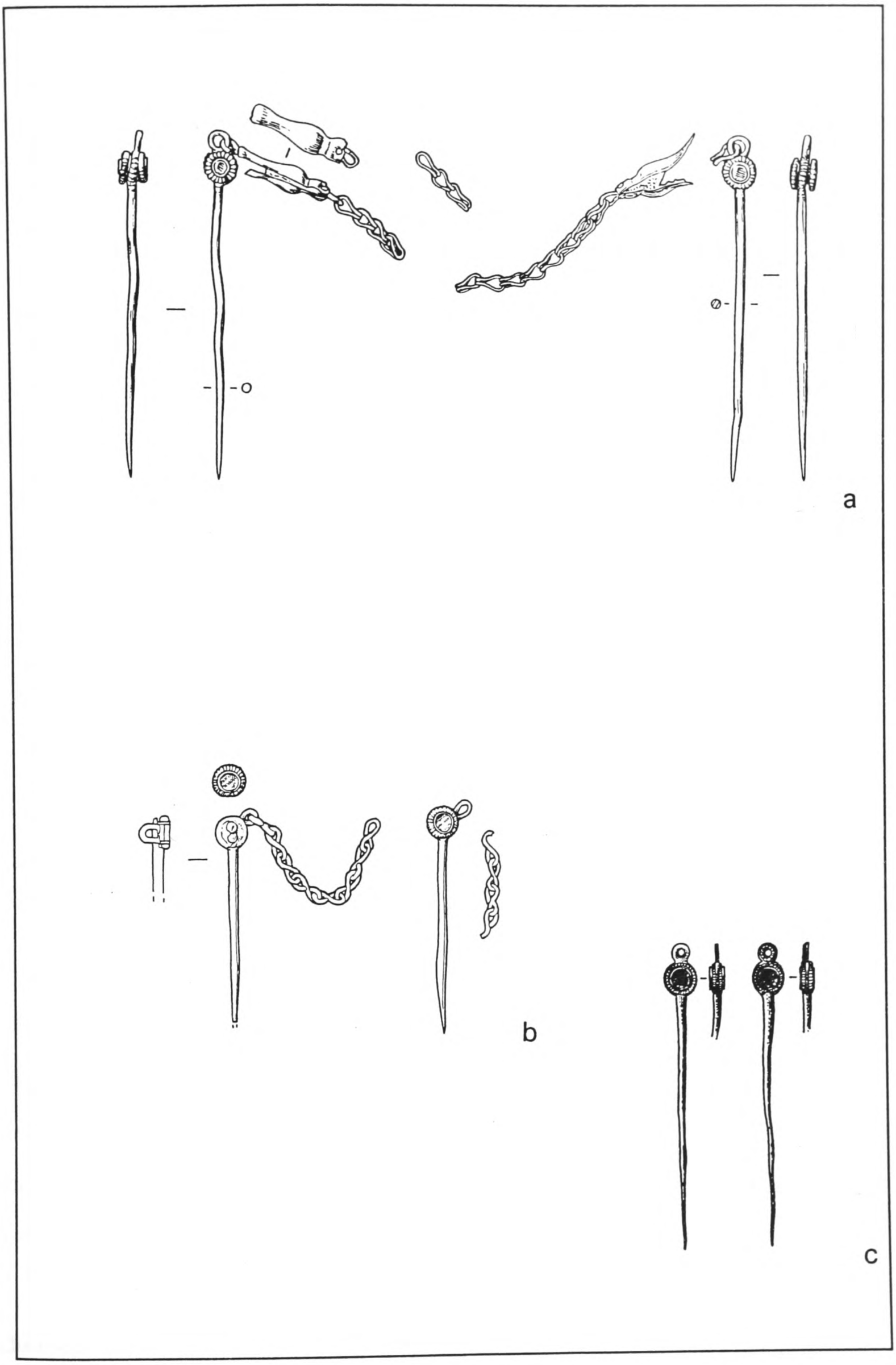

Figure 5.30

face of the garnets. This is in sharp contrast to the Roundway Down pins where the garnets were secured by the contraction of the gold cylinder around the garnets. The central setting was surrounded by gold beaded wire and the attachment loop was set with beaded wire. Both pins measured 50 mm in length and were connected by an 88 mm long chain composed of 20 folded links. The disc heads are 6 mm in diameter and the pins have plain tapering shafts. It might be possible that the settings were replacements of lost originals or that the production was the work of craftsmen of less skill than the Roundway Down pinner. There can be little doubt that the construction of this pin, like that of the Roundway Down pin reflected the properties of the materials the craftsman was using. The method by which the chain is attached to the head of the pins suggests that the chain was not a product of the same workshop as the pin or else that one of the catches was lost and it was repaired with gold wire. Since the method of construction is different from that used to make the Roundway Down pins we have grouped this pin into **LXIV.i.b**. The construction of these pins shows similarities to the Wigber Low pins (Group **LIX**). In both cases the craftsman used capsules to hold the garnets in place. These are the only two examples of which I am aware.

The third variant of this sub-group (**LXIV.i.c**) of linked pins were made in silver, or even copper alloy. A pin typical of this variant came from Butler's Field, Lechlade, grave 50 [Fig 5.30.a]. It is silver and lacks the central pendant.[206] Each of the pins was cast as a single piece. A cylinder was set through the central hole in the head of the pins (as in the Roundway Down and Cow Lowe pins) and the garnets backed by gold foil were set into this. On the front and back the settings were surrounded by beaded silver wire. The right pin is 59 mm long and the left one is 60 mm long. Both pins have a head diameter of 5.5 mm and a shaft diameter of 1.5 mm. The chain does not survive intact; fifteen links survive, as do the Roundway Down type catches which join the chain to the pins. The chain is made of folded links each 4 mm long. The right catch measures 20 mm and the left one 19.5 mm.

A fourth variant of this sub-group (**LXIV.i.d**) includes a pin suite from Lechlade and Chamberlains Barn. The pin-suite recovered in Lechlade grave 1092 has a garnet-set head, but

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[206] Corinium Museum, Oxford Archaeological Unit, small find nos: LBF85 226 & LBF85 227.

a

b

c

Colour Plate II

unlike the earlier examples the pin consisted of a shaft with a flattened disc head onto which the garnets surrounded by beaded wire were fixed [Fig 5.30.b].[207] The pins from grave 1092 measured 36 mm and the incomplete pin is 40 mm long. They both had a head diameter of 5.5 mm. The base form of the pin was cast as a shaft with a discoidal plate above. The pin, like the grave-group as a whole, is closely paralleled by grave 39 at Chamberlains Barn (Beds) (Hyslop 1963: 181 & fig 13).[208] These pins were ornamented on both sides by garnets surrounded by silver wire. The one difference is that the suspension loop on the Chamberlains Barn example is above the head of the pin whereas on the Lechlade grave 1092 example it is on the side of the pin and was made by the passing of the ends of a piece of silver wire through two holes in the head of the pin. The flat plate of the suspension loop was surrounded by beaded wire. A pair of silver pins from grave 55 each measured 6 mm across their head (Hyslop 1963: 185 & fig 16.55) [Fig 5.30.c]. The right pin was 54 mm and the left 53 mm long. Also probably belonging to this variant is a garnet set pin from Bidford-on-Avon (Humphrey's, et.al. 1922-3: 104 & fig 7b). Possibly this pin came from grave 96 where it was under the skull of the female child. There is, of course, the alternative possibility that this was the pin from grave 100 described as 'fragments of a silver pin ornamented with sapphire(?)'(ibid. 115). The quality of the published record tends to confuse this issue and the museum records are no help.

A copper alloy pin from Faversham may have been part of a linked set [Fig 5.31.a].[209] The 54 mm long pin was cast as a single piece. The shaft above the shouldering measures 2 mm, and just at the point of maximum shouldering it expands to 3 mm. Before the shouldering three lines have been incised into the shaft of the pin and these create a double moulding. The double moulding at this point in the shaft is balanced by four lines incised into the shaft just below the head creating a triple moulding affect. Above the head of this pin is a loop perpendicular to the plane of the head.

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[207] Corinium Museum, Oxford Archaeological Unit, small find nos: LBF85 698 & LBF85 699.

[208] Grave 55 also included a pair of pins (ibid., 185 & fig 16.55). Only fragments of the chain survive. These pins are similar in form to those from grave 39. Luton Museum, acc no: 14/57.

[209]Salisbury Museum (Pitt Rivers Collection), acc no: 3D 2A 13.

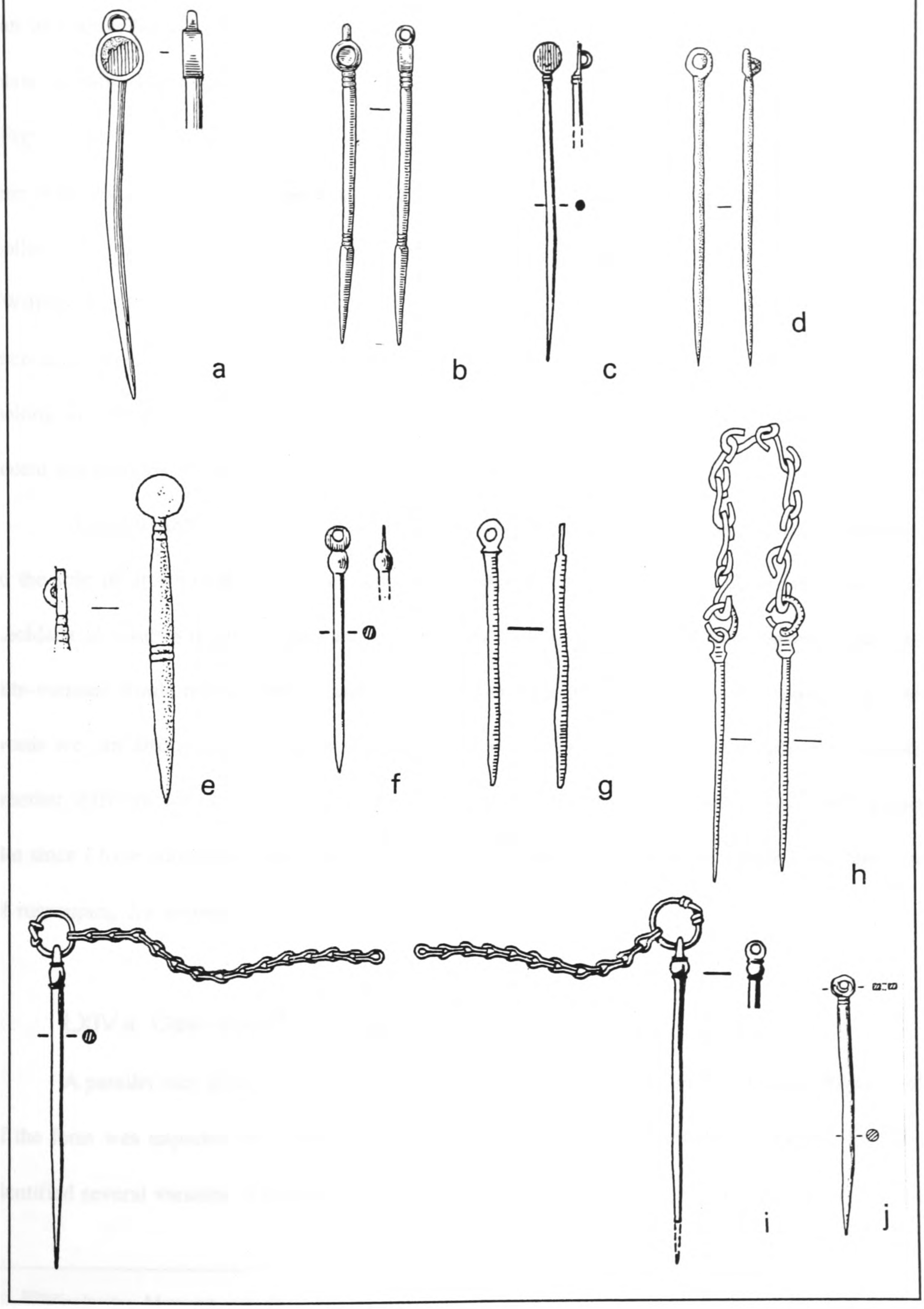

Figure 5.31

A fifth variant of the composite sub-group can be identified (**LXIV.i.e**). It is easy to see that the pin from grave 10 at Winnall II was originally intended to be part of a complete pin suite, but its partner has been lost. This 50 mm long pin with a suspension loop at the back of the head-plate probably had a garnet setting glued on its one face (Meaney & Hawkes 1970: 24: fig 9.10.1) [Fig 5.31.c].[210] The discoid head is slightly recessed from the round-sectioned shaft and the 1.75 mm wide shaft has an arc termination. Below the head three lines formed a double incised ring collar. An excavation in a garden in Kemble (Glos) produced a parallel for this pin grave 1 (Wilkinson 1988: 200, fig 12.1 & 13.1) [Fig 5.31.d]. The 53 mm pin with a small garnet set on its face and a loop behind was recovered near the left clavicle of the interred. A pin which may also belong to this group comes from grave 79 at Ozingell (Kent) [Fig 5.31.e],[211] and another from recent excavations at Bidford-on-Avon (Warks).[212]

A slightly different arrangement of variants might be achieved if we gave special significance to the role of attachment type. This would place the pin from Roundway Down and those from Lechlade in a sub-variant together and the pin from Cow Lowe in its own sub-variant. The other sub-variants would remain substantially unchanged as their attachment forms are similar. In other words we can discriminate using an alternative set of criteria; in order to investigate, for example, whether different sub-divisions might give us the opportunity to identify workshops making pins. But since I have adopted a categorization based predominately on head form, I shall leave this issue of regrouping for another study.

LXIV.ii. Cast-linked Sub-type

A parallel sub-group to the composite pins includes suites produced by casting. While much of the form was imparted by casting, some elements were added by secondary working. We have identified several variants. The first variant has knobs below the catch (LXIV.ii.a). Typical of these

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[210]Winchester Museum, acc no: 1416.20.

[211]I have only seen illustrations of this material.

[212]Warwickshire Museum, acc no: A7331 (Wise, pers comm).

is a find from the Winnall II cemetery. The 42 mm long pin from grave 7 has a plain shaft that terminates in a round knob above which is a flat disc that has been pierced to allow a suspension ring to pass through (Meaney & Hawkes 1970: 11 & fig 9.7.1) [Fig 5.31.f].[213] Only one of what must originally have been a pair survives. In the same cemetery a complete cast pin suite came from grave 8 (Meaney & Hawkes 1970: 11 & fig 9.8.1) [Fig 5.31.i].[214] This suite of silver pins was linked by a silver chain. The pins have round-sectioned shafts terminating in a round knob above which is a flat discoid head-plate with a hole punched through it. Two annular brooches were associated with this pin. Other knobbed pins are known. Some of these are arranged slightly differently.

A further variant includes pins with spatulate heads and a pointed collar [**LXIV.ii.b**]. A pin suite from Long Wittenham II was recovered from grave 3 in association with a young woman. At her neck were found three blue glass beads, two silver slip-knot rings and the pins from a pin suite. These were silver and each has a 3.5 mm diameter discoid head, through which a hole was punched (Akerman 1862: 134).[215] One pin survives for 41 mm, and only 23 mm of the other pin is extant. The longer of the two pins has a shouldered shaft with a round section above the shouldering and a square section below. From the linked pin suite **SOU 30 266** one pin survives for a length of 43 mm and the other for a length of 11 mm. The former pin has a plain tapering shaft. Thirty-two lengths of the chain are extant in 4 sections for a total length of 60 mm. The head of both pins is flattened with a curved outline with a pointed flat collar. This pin is paralleled by finds from Castle Dyke (g.15 [Fig 5.31.g] & g.46 [Fig 5.31.h]),[216] Flixborough, and London (Blackmore, DUA, pers comm). Another suite came from Long Wittenham II. The pin from grave 7 has seventeen links of its chain connected to a slip knot wire ring running through a 3 mm diameter ring-headed pin

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[213]Winchester Museum, acc no: 1416.11.

[214]Winchester Museum.

[215]BM M&LA, acc no: 62,11-18,4 & 5. The record of the grave at the BM assigns a further 30 mm long pin (BM M&LA, acc no: 62,11-18,8) with a 4 mm diameter ball-head to the grave. Akerman (1862: 134) does not record this pin as having come from the grave.

[216]In possession of the excavator (Dr Whitwell), although the complete set is registered as BABDM 105.1 in the Baysgarth Museum (Barton-on-Humber).

(Akerman 1862: 135).[217] The pin measures 32 mm in length and has a shaft diameter of 1 mm.

There are a number of other linked pins which may form other variants. These included a single cast silver pin with a head imitating an animal came from Faversham.[218] The pin has a shaft diameter of 2 mm and survives for a length of 46 mm. The loop is attached under the chin of the boar's head (**LXIV.ii.c**).

A 37 mm long copper alloy pin came from Lympne in Kent and had a 9 mm diameter ring passing through a 3 mm diameter head.[219] Wright reported the discovery of a pair of pins from Breach Down (Kent) with a double moulded collar below a cast eye (1845: 207 & Pl 3.13). The pins were connected by an 'S' link chain. A wire with twisted ends caught the chain to the head of one pin. Closely paralleling these are two pins from Sittingbourne (Kent) (Payne 1893: 109).[220] These pins are plain and only have a superior loop. This has led Payne to the suggest that they were needles. It is possible that they were either linked pins or used to secure the ends of the necklace. These 'eyelet linked pins' form variant **LXIV.ii.d** [Fig 5.31.j].

There is also an example from a late seventh– or early eighth–century context at Southampton,[221] and an eighth–century example from Ipswich.[222] The gilt copper alloy pin from Ipswich has five mouldings above the 6 mm ball and four below. This pin could belong to a different group, but it is the only example. It would appear to be typologically similar to the linked pins.

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[217]BM M&LA, acc no: 62,11–18,10.

[218]BM M&LA, acc no: 1134'70.

[219]BM M&LA, acc no: 56,7–1,5035.

[220]BM M&LA, acc nos: 83,12–13,586 & 83,12–13,587.

[221] Southampton Archaeological Unit, small find no: SOU 30 266.

[222] Ipswich Archaeological Unit, small find no: IAS 001 5502Cu (from context: IAS 5502 0022). This pin from 15–17 Lower Brook Street is cast in copper alloy and has lost its very tip. There is a slight swelling on the shaft. The pin is 77mm long and has a shaft diameter of 2 mm. Passing through the head is a heavily filed slip knot wire ring.

The Chronology of the linked pins

The Roundway Down pin suite was recovered with a necklace of drop-pendants.[223] The crucial material for dating this burial would appear to be the gold `bullae' pendants. These have been discussed at length by Hawkes (1990: 624-627; Hawkes, Merrick & Metcalf 1966: 115-116). 'Bullae' pendants have come from a number of well-furnished burials Galley Lowe, Desborough and Roundway Down. Their recovery from grave 7 at Finglesham in conjunction with a solidus of Sigebert II/III (634-656) and a very worn Kentish runic PADA thrymsa led Hawkes to conclude that this grave must have dated around 675. The burial was also furnished with a necklace of 'drop' pendants, and conical beads. Based on this we could probably place the Roundway Down pins in the 660s or 670s. The find from Cow Lowe (Derby) was associated with, among other items, a palm cup. This pin suite may belong around the 660s or 670s (Speake 1989: 80-83 & 124-126). The Lechlade grave 50 pin suite was derived from the Roundway Down pin type. In addition to this pin suite the occupant of grave 50 was furnished with a necklace of beads suspended within silver rings, a cowrie shell, an iron chatelaine, a beaver tooth, and fittings for a small wooden box with a central iron lock-plate. The necklace is a ring and bead type. This type of necklace dates the grave group to the late seventh century. Both the finds of Lechlade of 1092 and Chamberlains Barn 39 graves contained necklaces of silver rings and paste beads. From an analysis of the contents of Lechlade 1092 and those of Chamberlains Barn grave 39 there seems little reason to date these pins before the last two decades of the seventh century. Another unpublished silver parallel is known from the context of the excavations at the royally inspired double-house at Repton, but unfortunately little information is at present available about these.[224] Grave 1 at Kemble also contained a turquoise-coloured glass bead and a small silver ring. In the chronologically earliest examples (phase I) from

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[223] Merewether (1849) points out that there were other items recovered from the grave that were neither collected nor reported when the barrow was opened. Among these seems to have been a merovingian tremissis (Robinson 1977/8: 192). Robinson has argued that the now lost coin was struck at Sedunum by Gratus and was the coin found in the grave but not precisely reported at the time. The coin dates to the early seventh century (see Rigold in *Sutton Hoo*, vol 1: 673). It is difficult to say how long it took for the coin to travel across the Continent to Wiltshire, although it is quite possible it remained in circulation long after its was minted. As Robinson has pointed out 'The coin then does not necessarily affect the recent dating of the burial either between 650-675 or possibly as late as 700' (1977/8: 195).

[224] Martin Biddle showed me this at the 1987 Weapons and Warfare Conference in Oxford organized by Mrs Hawkes.

Roundway Down and Swerdling Down (near Chartham) the pins were produced in gold and had garnet-set heads surrounded by beaded gold wire. These pins were also recovered in grave groups that can be dated after AD 650. The next phase (II) is typified by the pins from Chamberlains Barn grave 55 and grave 39 and by those from graves 1092 and 50 at Lechlade. These pins were made of silver and came from grave groups which included ring and bead necklaces.[225] They belong to the period after the 670s and probably post-date the 680s. Coming from closely related but less well-furnished grave groups are the pins from grave 10 at Winnall II and grave 1 at Kemble. These silver pins (phase III) [Variant **LXIV.i.e**] set with a garnet on only one face with a suspension loop behind are less complex and required access to fewer scarce resources. Whether these grave groups, which include only a silver ring and a bead or two, are merely poorer than those including phase II linked pins simply because they represent a poorer individual or because they are chronologically later cannot be decided. Typologically there is no reason to suggest the Winnall II grave 10 pin and the Kemble grave 1 pin are contemporary with those from Chamberlains Barn and Lechlade. They appear typologically later. They represent a degeneration of form. Debate surrounds the question of whether the pins that appear typologically later are chronologically later. It would be possible to argue that these pins came form a similar period, but were worn by less 'high status' individuals. On the limited available contextual evidence it is possible to report that the cast pins of variant **LVIV.ii.b** from Southampton[226] and London[227] all probably belong to the late seventh century, if not the early eighth century. A similar claim could be made for the similar pins from Castle Dyke (Humbs) and Long Wittenham (grave 3).

Some further general comments can be noted. **SOU 30 328** from Southampton resembles pins from Winnall II graves 7 and 8. Whereas **SOU 30 266** is most similar to the pins from Castle Dyke grave 15 and 46, and from Breach Down. Both variants belong to our Phase IV. The grave groups could be contemporary with those including the phase **LXIV.i.d** or phase **LXIV.i.e** linked

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[225]Grave 55 at Chamberlain's Barn was an exception because it included nothing besides the pin.

[226]Southampton Archaeological Unit, small find no: SOU 30 266.

[227]Maiden Lane: Museum of London, small find no: MAI'86 SF55.

pins and indeed there is probably an overlap in the period of use. The cast linked pins continued in use for possibly fifty years after the composite groups ceased being made and worn. Those from Southampton come from eighth-century contexts.[228] It is obvious, now, that over time these pins were constructed from fewer and fewer precious commodities (e.g. gold and garnets) and eventually ceased to be composite objects at all (i.e. they are cast in copper alloy).

While the number of composite pins, such as the Roundway Down and Lechlade pins, decreases over time the popularity of pins increases. Copper alloy and bone pins are recovered in extremely large numbers from urban sites dating later than AD 700. This trend continues throughout the Middle Ages. It is critical to ask whether the degeneration in pin form reflects differential access to resources and the status enjoyed by different wearers at any one time, or whether this degeneration reflects change over time solely in the status of the individuals wearing pins. The answer to this question is not simple. In some cases the increased popularity resulted in the development of simpler forms of objects. In the case of linked pins the change over time in the grave groups shows that the typological shift in pin form is chronologically consistent with their increased popularity. The pins, found in greater numbers, become poorer in quality and are recovered with relatively poorer groups of grave goods.

As I completed my thoughts on the pins from Anglo-Saxon England, excavations at Flixborough led to the recovery of a number of pin suites. When I was invited to view the finds in October of 1990 they had recorded seven suites or suite fragments, by far the largest group from any middle Saxon site.[229] I was struck by this group because while most of the shafts were cast, the head forms were for the most part spatulate. This type of end was produced by hammering flat the end of the shaft and cutting a hole through the head. The majority of the chins had folded links. Although in this discussion of the linked pins I have focused on the possible ways to group the pins

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[228]We can now add a further example. During excavations of graves at Cook Street in Southampton (SOU 254) (SU 424 116) 'one grave contained two grave goods: an iron object, possibly a knife blade, and silver-and-bronze linked pins' (Gaimster, D.R.M., Margerson, S. & Barry, T. 1989. 'Medieval Britain and Ireland in 1988' in *Medieval Archaeology*, p 191). The excavators thought that the graves dated to about 700.

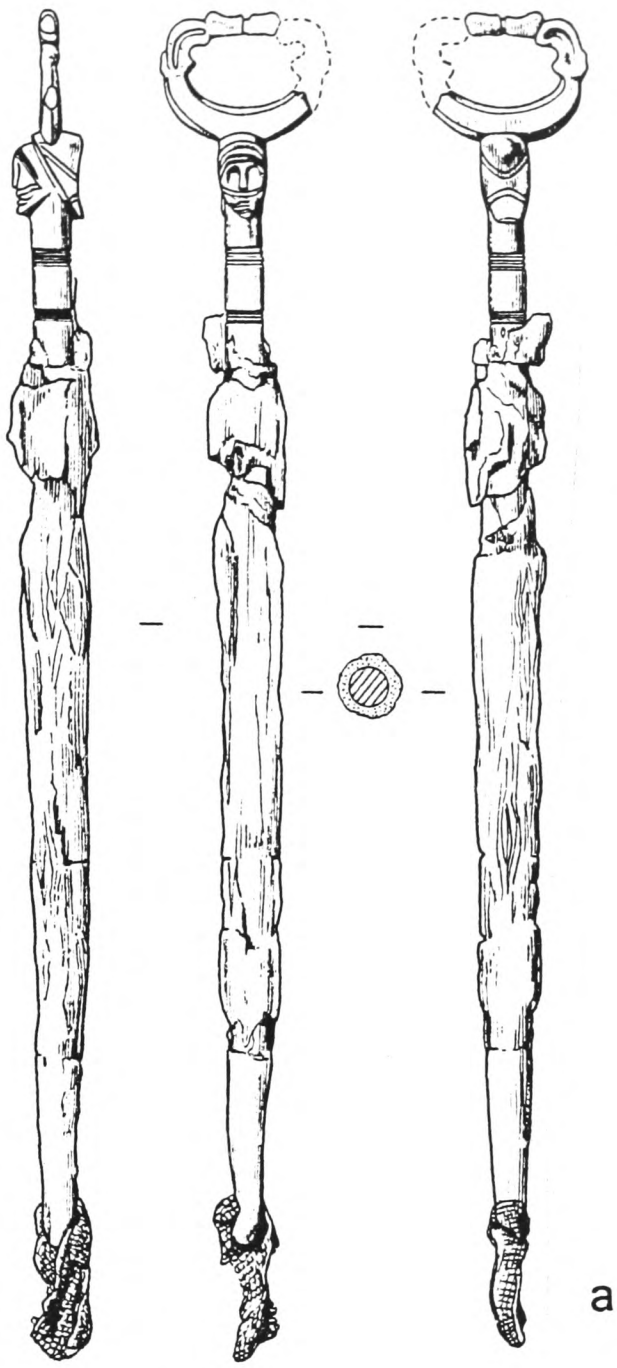
[229]Humberside Archaeological Unit, Flixborough, small find nos: SF 1815; SF 3454; SF 3675; SF 4157; SF 5213; SF 5750; SF 6076.

into homogenous groups, a single find from Flixborough betrays the unique quality of production in some instances. **SF 4157**, with the remains of a 140 mm long folded 'closed S-type' chain attached, was part of a suite (the left pin on the wearer and the right pin to the observer), has a 0.8 mm thick discoid head with a diameter of 15 mm and survives for a length of 68 mm. This discoid head has been decorated by four tear-drop incisions set 90 degrees apart with the first one at 45 degrees. The attachment is placed at 270 degrees. While the obverse face is decorated the reverse is not; one of the tear-drops pierces through the head--obviously an accident. This pin is quite unique--its chain is for instance considerably longer than that of most of the other Flixborough pins which have an average length of 84.25 mm (sample size of 5 with a range from 77 mm to 95 mm). As such it must have been seen as an unusual form. The relationship between this and the other linked pins must be considered. There can be little doubt that the linked form is related to these pins, but the large discoid head owes little to this type.

LXV. Anthropomorphic-Headed, Bird-Terminaled Type.

Pins of this type have a helmeted human head with flat birds' terminals above--appearing much like a horned helmet. One example of this type of pin is known from Anglo-Saxon contexts (Evison 1965; 1987: 251, 334 & fig 63.161.3) [Fig 5.32.a]. It came from grave 161 at Dover and has been discussed at length (ibid. 84 - 85). The find from a grave at Dover was associated with a pin of our type **LXII.ii.a.**, a variant I have argued belongs at least to the mid-seventh century.

When Evison published this pin she had looked to Scandinavia for parallels to the helmeted head 'surmounted by a pair of inward-curving horns with birds' head terminals' (Evison 1987: 84-85 & 251). She found several similar head forms in the Birka graves, but what she did not find were parallels that included the birds' head terminals. There is one strong parallel. This is a bronze figurine from the settlement of Staraja Ladoga on the Baltic (Uino 1988: fig 10) [Fig 5.32.b]. Here it came from layer E_3 which proved to be a mid-eighth century context (ibid. 217); the figurine is generally considered to be in Vendel Style and is much older than the workshop in which it was found. Reflection on the form of the Staraja Ladoga comparison, the position in the grave of the



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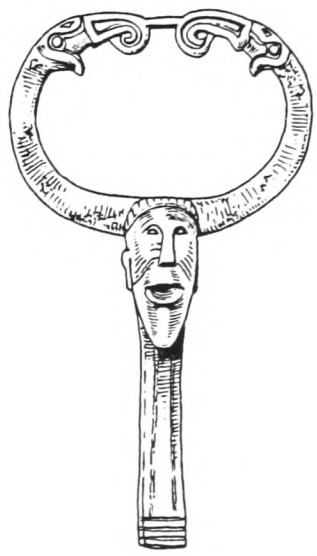

b

Figure 5.32

Dover example, and the fact the shaft of the Dover example is encased in wood, suggests to me, at least, that its use as a pin is doubtful.

LXVI. Spiral-headed Type[230]

[Map 5.16]

The known corpus of inward-curl-headed (hereafter spiral-headed) pins can be divided into three groups: those made from wire split at one end (**LXVI.i**), those made by casting (**LXVI.ii**), and those produced by rolling a sheet of metal (**LXVI.iii**).[231] The first method has long been considered the primary one. In this approach a craftsman took a strip of cast wire, cut it to a length slightly longer than he intended the final pin to be. One end of the wire was pointed and the other was split. The splitting created two filaments resulting in an object resembling a Y. The terminals of the Y were then curled inwards producing the spirals or, more accurately, the curls. In some cases the split wires were flattened before being curled [variant **LXVI.i.a**] [Fig 5.33.a], whereas in others they retain their original D-section [variant **LXVI.i.b**] [Fig 5.33.c]. This description adequately details the processes involved in the production of many of the 68 known inward-turned-spiral-headed pins (e.g. Girton [Hollingworth & O'Reilly 1925: 10 & Pl IV.Ib],[232] Ipswich [Suffolk] [Fig 5.33.b],[233] Kingsworthy [Hants] [Figs 5.33.c & .d], Lakenheath [Cambs],[234] Shakenoak [Brodribb, et.al. 1972: fig 31.156 & fig 31.157] [Figs 5.33.h & .i], Wicken Bonhunt [Essex] [Bradley

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[230]The name of this type is a misnomer, but it has become so entrenched in the literature that it would be impossible to replace it.

[231]These must be differentiated from the post-conquest pins with outward-turned spiral heads (e.g. Sherlock & Woods 1988: 220 & fig 70.86; Bryant & Steane 1971: 50, 53 & fig 12.t). An unpublished example from Milton Field (Oxon) (BM M&LA, acc no: 52,2-14,2) is made of silver and the terminals scroll outwards. This pin is 45 mm long and measures 8 mm across its spirals. A 64 mm long pin from Aldbourne with out-turned spirals is a further example (Ashmolean Museum, acc no: 1955.338). This pin measures 13 mm across its terminals.

[232]University of Archaeology and Anthropology (Cambridge), acc no: 216257.

[233]e.g. Ipswich Archaeological Unit, small find no: IAS 82 5203Cu; and an as yet unnumbered pin from context IAS 5701 0049.

[234]University Museum of Archaeology and Anthropology (Cambridge), acc no: 216262.

& Hooper 1974: 50–51 & fig 8.2] [Fig 5.33.a], Winklebury grave II [Pitt–Rivers 1888: CL.30],[235] and now more recently many of those from Flixborough [Humbs]).[236] These pins belong to sub–group **LXVI.i**.

In other instances the diameter of the curled–wire terminals gradually narrow over their length (e.g. in the pair from Cakebread Robey [Canterbury][237] [Figs 5.33.m & .n], Coppergate [York] [Fig 5.33.k],[238] Fishergate [York],[239]). This deliberate narrowing of the diameter of the terminals would have been easiest to produce by casting the pin. The resulting cast would resemble a Y. As in the first group, the terminals of these pins were curled inward to form the spirals. If all the terminals had been made from the split ends of a pin shaft then they would all be half–round in section and not round. Many of the known terminals have a round section (e.g. Bourton–on–the–Water [O'Neil 1960–1: 167–8 & fig 1],[240] Eccles [Detsicas & Hawkes 1973: 283–285; fig 4.12.1 & fig 4.12.2] [Figs 5.33.m & .n], Flixborough,[241] Hartlepool [Daniels 1988: 182–183 & fig 33.8], Southampton [e.g. Six Dials and Downer Baker] [Figs 5.33.l & .j],[242] Fishergate [York][243]). Since the combined diameter of the two terminals is often greater than the diameter of the shaft it would seem unlikely that the round section was produced by filing the split ends round. Casting, the second method of production, offers the most suitable way to produce these features, and therefore offers us the most acceptable way of explaining their existence. This cast set forms sub–

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[235]Salisbury Museum, acc no: 3E24.

[236]Humberside Archaeological Unit, Flixborough small find nos: SF 1242; SF 255; SF 3691; SF 3732, SF 4510; SF 5218. Whitwell & Leahy, pers comm October 1990 – not included in the handlist.

[237]Canterbury Archaeological Trust, Cakebread Robey, small find nos: SF 406 & SF 423.

[238]e.g. York Archaeological Trust, Coppergate small find nos: SF 1600; SF 6635; SF 8890; SF 11367.

[239]York Archaeological Trust, Fishergate small find no: SF5357.

[240]City Museum & Art Gallery (Gloucester), acc no: GLRCM 104.1962.

[241]Humberside Archaeological Unit, Flixborough, small find nos: SF 3475; SF 4729. Whitwell and Leahy pers comm.

[242]e.g. Southampton Archaeological Unit, small find no: SOU 31 1644; another comes from Downer Baker, small find no: SOU 177 652.

[243]York Archaeological Trust, small find no: 1986.9 II 6988. A 53 mm long pin with a 2 mm shaft diameter.

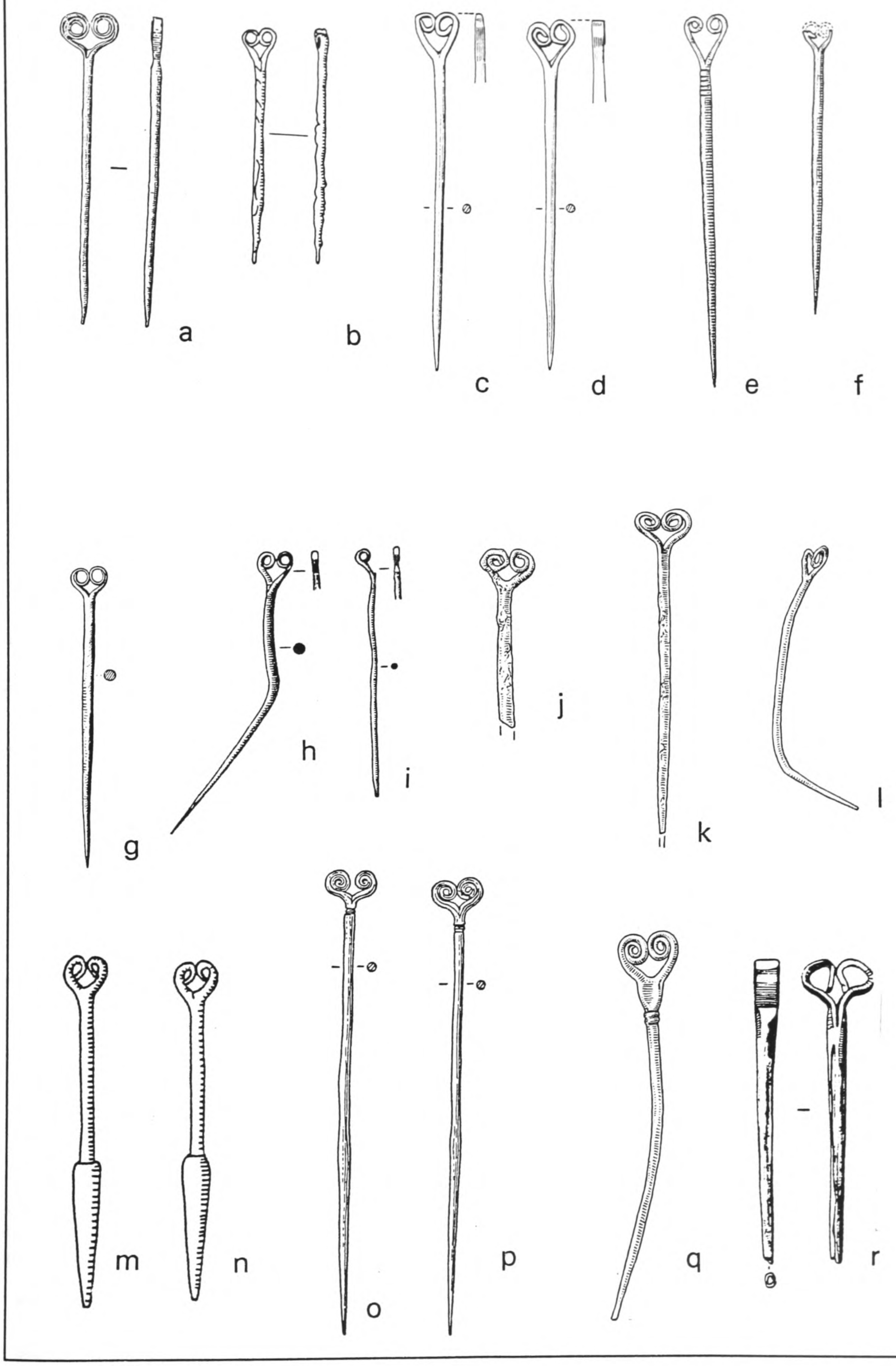

Figure 5.33

group **LXVI.ii**, but includes a further variant. These are the spiral-headed pins with shafts that terminate in a flat triangular collar-plate (Bidford-on-Avon [Humphreys, et.al. 1922-3: 104 & fig 7a],[244] Brandon [Fig 5.33.q],[245] and Ellingham[246]).[247] As in the case of the pins from sub-group LXVI.ii these pins have round-sectioned terminals. These pins are, therefore, sub-group **LXVI.ii**, Variant **b**.

The third method of manufacturing involved the rolling of a strip of sheet metal. Eighty years ago Rev. Walker described this process in a discussion of the pin from Comberton (Cambs) (1910: 239 & fig 2 & 3). A strip of sheet metal was cut at one end along the medial line for a short distance of its length and then rolled. This produced a cylinder with two strips pointing from one end like two antenna. These were curled inwards and the other end was pointed (e.g. Comberton [Cambs] [ibid. 1910: 239 & fig 1],[248] Felixstowe,[249] King's Lynn [Norfolk],[250] Market Hill [Cambridge],[251] St Albans [Biddle & Kjølbye-Biddle 1984; Selkirk 1986: 183 {fig in upper right hand corner of page}], Sewer Lane [Hull, Humbs.] [Armstrong 1977: 67 & fig 28.114], West Stow [West 1985: vol i, 67 & vol ii, fig 266.4] [Fig 5.33.r][252]). These pins have been placed into sub-group LXVI.iii. An alternative to this method can be seen on a pin from Castlemartin (Pembs)

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[244]I have examined this pin in the New Place Museum. It is indeed broken into three pieces (11 mm + 30 mm + 29 mm). This is the pin shown on page 104 in figure 7a (Humphreys et.al. 1922-3). The drawing must be a reconstruction. Although I have seen the pin and material from the cemetery I still cannot determine to which grave it belongs.

[245]Suffolk Archaeological Unit (Bury St. Edmunds).

[246]BM M&LA, acc no: 1921,10-19,1. 72 mm long (2 fragments [28 mm & 44 mm]) and 15 mm across the head.

[247]To this group we can also add a strip spiralled pin among the Brent Bequest to The Royal Museum and Art Gallery (Canterbury).

[248]University Museum of Archaeology and Anthropology, Cambridge. This pin was 105 mm long, 17 mm across its spirals and had a shaft diameter of 3 mm. According to Walker it was made from a sheet of copper alloy 8 mm wide. A slit was cut in one end and the sheet was rolled. The strips were coiled inwards and the point was sharpened.

[249]BM M&LA, acc no: 56,6-27,76.

[250]King's Lynn Museum, acc no: KL 196.978.

[251]University Museum of Archaeology and Anthropology, Cambridge, acc no: 30.1589.

[252]BM M&LA, acc no: 1921,12-7,2. 51 mm long and 12 mm wide across its head.

(Mathias 1927: 192 & fig 4).[253] A strip of metal was rolled and pointed on one end while the other end was left open. Two curled strips of metal were dropped into this open end. These should probably be classed as variants of sub-group III. There is only limited evidence available for the rolled pins. Very few come from reliable contexts, and many are stray finds (e.g. Castlemartin, Comberton, West Stow, and Winteringham). The pin from Sewer Lane (Hull) was recovered from a context dated to the sixteenth century (Armstrong 1977: 70). It is not possible to determine whether this pin was residual in this context or nearly contemporary because we lack comparative evidence. The discussion, which follows focuses, therefore, on the split-wire and cast spiral-headed pins. For these we have some evidence for date, distribution and use.

Most of the pins in this split-wire group are copper alloy (e.g. Bourton-on-the-Water, Driffield,[254] Kingsworthy [Figs 5.33.c & .d], Portchester, Shakenoak,[255] Winklebury). The cast group includes both silver (e.g. Eccles, Brandon, Bidford-on-Avon) and copper alloy pins (e.g. the pair from Cakebread Robey, Canterbury). The only iron example comes from Caerwent (Fox 1946: 108 & fig 12).[256] Nearly all the silver spiral-headed pins were cast. The exception might be a 23 mm spiral-headed pin recovered during excavations in Blackfriars Street in Carlisle (Dickinson in McCarthy 1990: 181 & fig 165.4).

After method of manufacturing the next most important feature of spiral-headed pins is the form of the shaft. There are two primary categories of shaft. First there are those pins with tapering shafts, such as the pins from Winklebury, Kingsworthy or **SOU 169 914**[257] [Fig 5.33.l]. This shaft form was common among pins of sub-group **LXVI.i**. Pins of the second sub-group have expanded shafts (**LXVI.ii**). About two-thirds of the way along the shaft there is frequently a swollen zone. The quality and character of this zone can vary markedly. On the pair of pins from Eccles the shaft

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[253]National Museum of Wales, acc no: 29.449/1. Mark Redknap recently told me about the find of a spiral-headed pin from the Museum's excavations at Caerwent that belongs to the same group.

[254]Hull Museum Services, acc no: 753.1980.

[255]Ashmolean Museum, acc no: 1971.720. 55 mm long.

[256]Newport Museum and Art Gallery, acc no: 84-161.

[257]Southampton Archaeological Unit.

swells just over 0.2 mm from the line of the shaft only to return to the original line about 2.0 mm's later. In the case of **CanAT CBR 406 and CanAT CBR 423** (Cakebread Robey) the shaft is actually shouldered and expands between 0.33 and 0.5 of a mm before it tapers to the point [Figs 5.33.m & .n]. Shaft hipping and swelling are not the only markings on pin shafts, in several cases lines can be noted on the shaft.

Hawkes discussed the pair of pins from grave 12 at Eccles (Kent) and she convincingly argued that they belonged to the very end of the seventh century. These had swollen shafts. Little can be added to her discussion of the date of these pins (Detsicas & Hawkes 1973) that has not already been said by Welch (1976b). The earliest viable dating for any of the groups would be the mid-seventh century. Pins such as those from Eccles and Bourton-on-the-Water came from contexts which included, characteristically, late hump-backed knives and date toward the close of the seventh century. Only one pin would be indicative of an earlier date. The difficultly with the pin from grave 25 at Girton (Cambs) has not been resolved, and it is unlikely that it ever will be. The Girton cemetery is confused at best and few of its contexts can be considered reliable. When both Hawkes and Welch wrote, the known examples came either from graves or stray finds, but with the exception of the Portchester find (itself not dated by the medieval layer from which it was recovered) they were not known from controlled excavation of settlement sites. This is no longer the case and now the spatial and chronological distribution of these pins differs from that presented by earlier authors (Donovan & Dunning 1936; Pretty 1972; Welch 1976b). We can now safely detail fifty-four spiral-headed pins from thirty-two sites; of these twenty-two pins come from excavation at four sites.[258] They can no longer only be seen as a type fossil of late seventh century graves. Spiral-headed pins were widely used in the late seventh century and throughout the eighth century. There is some evidence to argue that they continued to be used into the tenth century. Many of the examples are not much help in dating: some because they were poorly recorded as finds; others

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[258] The pin in the Lincoln Museum included by earlier authors (Donovan & Dunning 1936; Pretty 1972; Welch 1976b) must now be rejected from the group of an inward-turned-spiral-headed pin. I have excluded it from my distribution map. This rolled pin has an outward-turned-voluted head (see figure in Whitwell 1964: 70) so it must belong (contra Whitwell 1964) to a different group. At the same time we can reject the ideas about the origin of the spiral-headed pins expressed by Laing (1973: 63-65).

because they represent the activities of metal detector workers; and, still others because their context of recovery tells us little (e.g. the Hartlepool pin came from a context reflecting early medieval cultivation [Daniels 1988]).

Excavations by the Hendon and District Archaeological Society at Church Terrace (Hendon) recovered a 61 mm long copper alloy spiral-headed pin (Sammes 1986: 10 & fig). The site was rich in chaff-tempered pottery, but lacked both Continental imported pottery and Ipswich wares. There might be several ways to explain lack of imported or Ipswich pottery. This may reflect either the rural character of Hendon, or indicate that the main occupation on the site dates earlier than the currency of Ipswich ware. The other finds from the site do little to help us clarify this question. Ipswich ware might have been expected at Hendon given the site's location and the fact that similar pottery was recovered in the Strand. The lack of such pottery could be used to argue that the site was used predominately during the seventh century. Excavations carried out by the Museum of London recovered a copper alloy spiral-headed pin from Althorpe Grove in Battersea.[259] This settlement lay across the river from the main settlement of Middle Saxon London which was situated between the River Fleet and Whitehall with some late middle Saxon settlement as far west as the Tyburn (Blackmore & Redknap 1988: 223). The predominate types of pottery from Althorpe Grove were chaff-tempered wares with a limited quantity of Ipswich ware (Blackmore 1986: 214). This site lacked any significant quantities of Ipswich pottery, either because the greatest concentration of its use was before the early eighth century or because it was a settlement site with limited access to trade. Both Hendon and Althrope Grove confirm the use of the spiral-headed pins in seventh or early eighth century settlement contexts. These finds are not unique.

The two pins from Cakebread Robey must date to the period from after AD 650. The associated finds include *sceattas* suggesting an early eighth century date for this context (Garrard, CanAT, pers comm). These pins have a shouldered-shaft and round-sectioned terminals. They were obviously made in the same workshop, and may have been worn as a pair. Southampton has produced nine such pins so far (1987). These come from contexts dating after 700. Provisional

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[259]John Clarke, 21 Feb 1985.

dating of the contexts from which six of the pins came shows that three are from contexts dating between 700 and 750, one is from a context belonging between 750 and 800 and two came from contexts dated to around 850 (Riddler & Brisbane, SAU, pers comm). There might be some merit in looking more closely at the contexts of these finds and examining the problems of pit-deposition on a site-by-site basis, but this is unlikely to improve our understanding of the dating. What we can see is a picture of the continued deposition of these pins long into the eighth, if not the ninth, century. Other finds indicate even longer use. When I received the preliminary archaeological data from the York Archaeological Trust I was led to believe that a number of pins had late dates. Those from Coppergate have now been confirmed to have come from contexts of a tenth century date (e.g. SF 11367 came from context 31225 which belongs to phase 4a. This phase represents a 'realignment of fences to enduring property lines' and has been dated about 900 – c. 930/5. The pin SF 8890 came from context 20411 which belonged to phase 4b. This phase which has been shown to date between about 930/5 – 975 came from 'post and wattle buildings' [Tweddle, YAT, pers comm]). Without the detailed publication of the stratigraphy it will be difficult to say for certain. It looks as though layer 31225 could date earlier. It contained a fragment of a Handmade Type 1 cooking pot (1768; Mainman 1990: 515 & fig 150) which appears to belong to the late eighth or mid-ninth century. A further example from a late context was recovered at Carlisle (Dickinson in McCarthy, 1990: 181 & fig 165.4).

There are some possible continental parallels. A group of spiral-headed pins comes from grave assemblages in the regions of the Upper Main in Germany and Upper Austria. As yet spiral-headed pins have not been found from settlements sites. They are known from Alladorf, Ldkr. Kulmbach (Losert 1984; Leinthaler 1988/89), Grafendobrach (Ldkr. Kulmbach) (Freeden 1983), Felkendorf-Kleetzhöfe (Ldkr. Kulmbach) (Hundt 1953), Weismain-West (Ldkr. Lichtenfels) (Schwarz 1984), and Micheldorf-Kremsdorf, Upper Austria (Tovornik 1986). The majority are made in copper alloy and from wires which were pointed at one end and split and curled inwards at the other (Leinthaler 1988/89: 44–5) [Figs 5.34.b & .d]. There is evidence that some were produced in iron, such as the pin with a square-sectioned shaft from grave 40 at Grafendobrach (Freeden 1983:

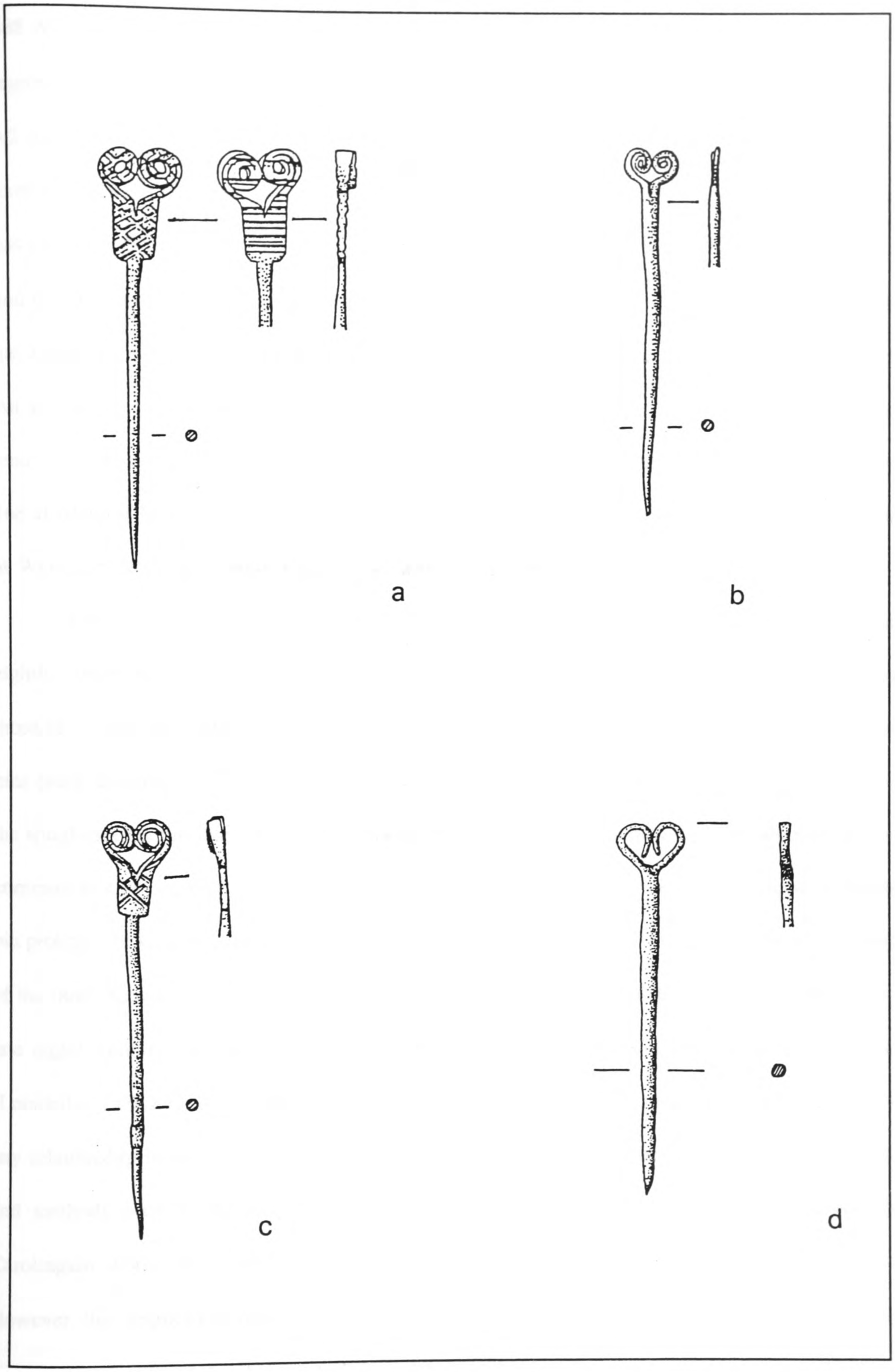

Figure 5.34

488 & Abb.35.1), but these tend to be exceptions. All examples have a tapering shaft. Some regional variation has been noted. Two pins, one from grave 168 (Leinthaler 1988/9: 64–5 & Tafn 3.2 and 26.168) and another from grave 199 (ibid. 70–71; Tafn 13.2 and 37.199) at Alladorf, terminate in a flat head–plate from which the terminals have been cut [Figs 5.34.a & .c]. Leinthaler has suggested that these pins were produced from a single strand of wire which was split at one end and then hammered flat. This argument is not convincing because the flat surface area of the plate has a greater total volume than that which could be produced by hammering flat a 2 mm round shaft. An alternative argument should be sought. In contrast to spiral–headed pins from England which tend to be undecorated some of the continental examples have been embellished. The pin from grave 168 at Alladorf had horizontal lines incised on both sides of the head–plate and one from grave 105 at Weismain–West had serrated edges (Schwarz 1984: Abb. 44.7).

These pins come from cemeteries belonging to the Carolingian and Ottonian periods (late eighth – tenth centuries). The grave assemblages represent a uniform material culture group with those of women containing beads, earrings and a knife. Some graves included looped–wire–headed pins (such as graves 177, 180 & 227 at Alladorf [Leinthaler 1988/9: Abb.6.2, 7.2, & 9.1]). One of the spiral–headed pins from Felkendorf–Kleetzhöfe was associated with a well–known type of bead common in ninth century contexts in Bohemia. Based on this association Hundt proposed that the pin probably belonged to the second half of the ninth century (Hundt 1953: 37–41). Further analysis of the other known finds has led Leinthaler to argue that these pins could date from as early as the late eighth century, but the majority of the closely datable examples belong in the ninth century (Leinthaler 1988/89). One might speculate on their origin and in particular about whether there is any relationship between them and the similar pins from English contexts. The similarity in form and methods used to manufacture these pins as well as the well–known contact between the Carolingian world and England encourages me to seek a relationship between the two groups. However, the simplicity in form makes independent development a strong possibility. The restricted nature of the Continental distribution, the fact that the spiral–headed pins are unknown at Continental emporia, as well as the chronological gap, all indicate that claiming such a relationship would be ill–

founded. Schwarz (1984) has argued for a late settlement of the Upper Main region and has demonstrated that the pins and other items in the grave assemblages reflect material culture of the newer populations which were settled there in the Carolingian period. Until further evidence appears the Continental and English groups should be seen as two independent developments. The same independent development must apply to the Irish spiral-headed series.[260]

Thus excavations at sites, such as Canterbury, Ipswich, and Southampton, have produced evidence indicating that these pins were used widely in the seventh and eighth centuries. Work on other sites indicates that this type of pin continued to be used into the tenth century. These tenth century finds are unusual and the vast majority of the finds from dated contexts belong two centuries earlier. With the larger sample of pins it is now possible to see sub-groups in the general type. There can be little doubt that there are three general subgroups (i.e. split-wire headed pins, cast pins, and rolled pins). The cast spiral-headed pins begin appearing during the second half of the seventh century and continue in use into the eighth century.

LXVII. Globular Zoomorphic-headed Type

This group includes pins with heads which appear like a globular knob decorated in the form of animals. Surprisingly few Anglo-Saxon pins have zoomorphic characteristics. Two pins from East Anglia represent the head of a pig or duck. One pin was recovered from excavations at Wicken Bonhunt in Essex [Fig 5.35.b] and the other came from Brandon in Suffolk [Fig 5.35.c]. These pins were cast as a single piece. Since the features of the head project beyond the line of the base form

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[260]It has been suggested that there might have been a relationship between these spiral-headed pins and a group from Ireland with similar terminals (see for instance Smith 1923: fig 183.d). There is little evidence to support this suggestion. Indeed, Irish examples, such as the pin recovered in the lake at Lakefield (Co. Cavan) [National Museum of Ireland, acc no: 1958: 3], the pins from the sand dunes at Strandhill (Co. Sligo) [National Museum of Ireland, acc no: 1962: 256], or the pin found in a crannog at Ervey (Co. Meath) [National Museum of Ireland, acc no: 1958: 44], are different enough from the English ones to lead me to argue that there is no foundation in this claim. The finds from Irish contexts are all cast. The Lakefield example is 138 mm long and it is divided into three zones by two notched bosses. The first boss is at the bottom of the junction of the two wires forming the spirals. The second boss is 57 mm lower. At the mid-point between the two bosses the shaft has been swelled and the section is rectangular. Below the second boss the pin tapers to a point. This division of the shaft by bosses into distinctively structured zones is a feature of the Irish pins. With the exception of the inward-curled terminals, the pins from English contexts do not share any similar structural features. The 242 mm long Strandhill pin is divided into similar zones by bosses.

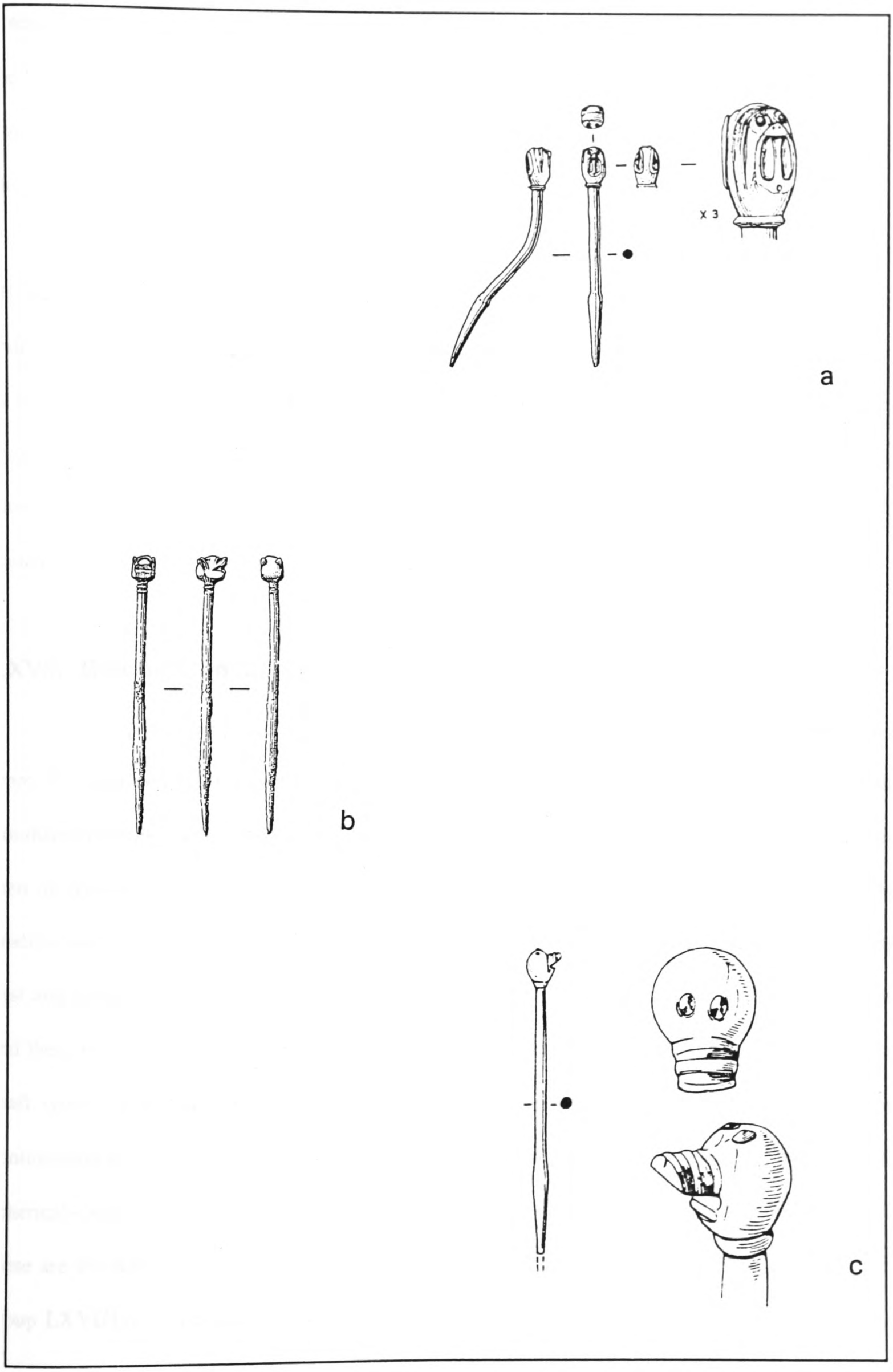

Figure 5.35

it seems likely they had been included in the mould. A pin recovered during work at Brandon has the head of a duck (Carr 1985: fig 13.5); this pin probably came from contexts dating to the early ninth century, but a more precise date is difficult to assign to Brandon. The similar pin from Wicken Bonhunt could belong in the middle Saxon Period (Wade, IAS, pers comm).[261]

A gilt silver pin from Waltham Abbey measuring 51 mm has a head resembling a pig (Huggins 1976: 116, fig 41.1) [Fig 5.35.a]. The pig with pointed ears was portrayed with a 'gaping mouth and a tiny snout' (ibid.). The eyes of the animal were inlaid with black stones and the shaft of the pin has shouldered swelling. This pin was recovered from layer F307, which represented the loam walls of the Viking Hall. So, Huggins concluded that the pin either dates from the construction phase or was lost among the loam used to build the walls at an earlier date and when the loam was gathered up to form the walls it lay among the natural debris collected at that time.

LXVIII. Biconical-headed Type

These pins have a head composed of two conical sections. The bottom one expands away from the shaft and the top one contracts towards a point at the top. In her investigation of the Southampton pins, Parsons divided the biconical-headed pins by presence and absence of collar and then by type of shaft (1985). She then noted further differentiation in the form of the head. Our analysis suggests it would have been more sensible if she had made the differentiation on head form first and then noted the presence or absence of collars. The type can be sub-divided by head size, and then by type of head first and then into sub-variants on a matrix of features such as collar and shaft types. There are two primary reasons for this proposal. The first is that it is a natural continuation of the form of sub-division used to arrive at the gross division into types such as spherical-headed, facet-headed, and biconical-headed pins. There are two main sub-groups and these are the small-biconical (sub-group **LXVIII.i**) and the medium-biconical-headed pins (sub-group **LXVIII.ii**). The small-biconical group includes those pins with a head diameter of 3 mm or less. The medium-biconical-headed pins have a head diameter greater than 3 mm. The first

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[261]Small Find no: 471.

subgroup shows little variation whereas the second sub-group shows a great deal of diversity. The pins of the sub-group **LXVIII.ii** can be divided into four variants: **(a)** those with heads with sharp medial carination (Waterman 1959: Fig 11.8); **(b)** those with a smoothed-medial band at the point of maximum girth of the head (Waterman 1959: fig 11.6), **(c)** those where the point at the top of the pin has been flattened (e.g. **SOU 24 830**); **(d)** and, those with a smoothed medial band and a flat top. Each of these sub-groups can be shown to include numerous sub-variants. The pins have a variety of shaft types. These range from plain tapering shafts, to swollen shafts, to hipped-shafts, and to shouldered shafts. So, based upon details of the head form, the collar and the shaft it is possible to divide the biconical-headed pins into a range of variants. In many cases the shafts of these pins have a round section, but this is not always the case. In the pin from context **IAS 5701 0113** at Ipswich the shaft appears to be round, but on closer examination it is clear that it is actually faceted.

LXVIII.i. 'Small'-biconical-headed Sub-type

[Map 5.17]

An example typical of the pins in this sub-group came from 15-17 Lower Brook Street in Ipswich. It survives for 32 mm (almost its total original length) and has a shaft diameter of 1.5 mm throughout.[262] This pin from context **IAS 5502 0230** was associated with middle Saxon pottery (Hatton & Wade, IAS, pers comm) [Fig 5.36.c]. A 50 mm long pin of this sub-group with a ring collar came from grave 83 at Dover (Evison 1987: fig 39.83.2) [Fig 5.36.b].[263] Evison broke the cemetery into plots and this grave came from Plot I, which contained burials of phase 7 of the cemetery. Burial in this plot supposedly continued into the eighth century. A comparison can be made with the pin from Sibertswold, grave 31 (Faussett 1856: 108) [Fig 5.36.a].[264] Before the point where the shaft swells two lines were incised into it. Associated with the pin from Sibertswold grave 31 was a silver bead (Faussett 1856: 108). Similar pins came from Barking **(SF872)** [Fig

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[262]Ipswich Archaeological Unit, pin from context: IAS 5502 0230.

[263]BM M&LA, acc no: 1963,11-8,447.

[264]Merseyside County Museums, acc no: M6553B.

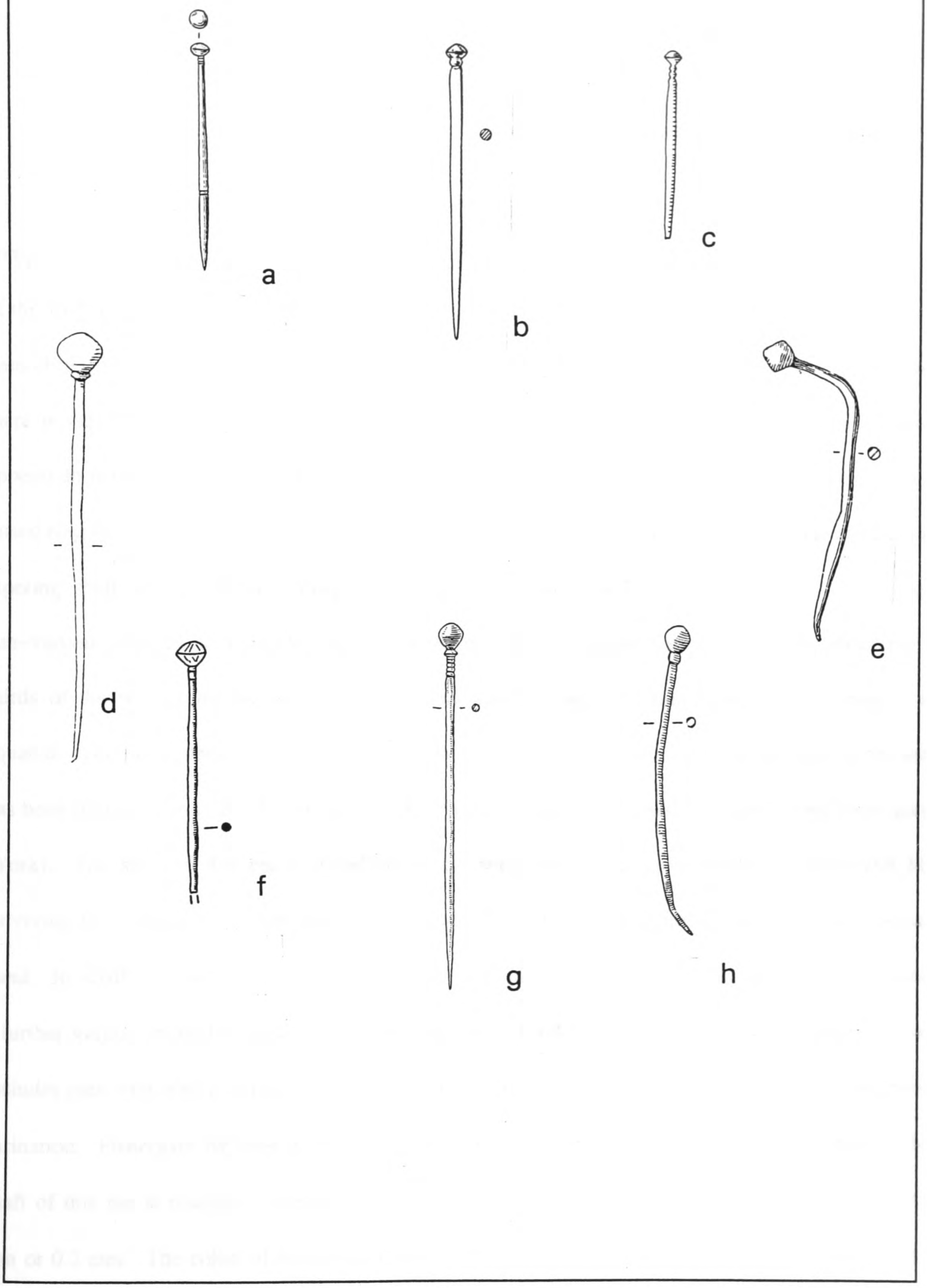

Figure 5.36

5.36.e], Brandon, Eccles [Fig 5.36.g], Ipswich, and Southampton (see Appendix 1). The contextual evidence would certainly allow grave 83 to be as late as the first half of the eighth century.

LXVIII.ii. 'Medium'-Biconical-headed Sub-type

[Map 5.18]

The majority of the pins in this sub-group have a maximum girth greater than 5 mm and complete examples range in length between 47 mm and 86 mm. The distribution of the dimensions of the shaft is quite narrow, ranging between 1.9 mm and 2.25 mm. The majority of these pins have unmodified biconical heads (see for example Peers & Radford 1943: fig 13.3); we have noted that there is variation in the form. In some instances the carination has been smoothed so that the pin appears to have a medial band. These pins include those without collars and those with incised ring, raised ring or carinated collars. A medial-banded-biconical-headed pin with a ring collar and a plain tapering shaft was recovered during excavations on the supposed site of Barking.[265] A further sub-variant came from York (Waterman 1959: fig 11.6). This pin has a set of lines about two-thirds of the way along the shaft. Above these lines the shaft is round while below them it is squared. The pin is decorated with ring-and-dot ornament. In some examples the head of the pin has been flattened, as in SF4177, a pin with the ring collar and the shouldered shaft, from Fishergate (York). The shaft of this pin is round above the shouldering and squared below. **SOU 169 21**, surviving for a length of 45 mm, has a 7 mm head diameter also has a *flat top with a smooth medial band*. Its shaft is round sectioned, unhipped and unswelled. Pins of this form can be grouped into a further variant of the biconical series [**variant LXVIII.ii.d.**]. A further, but less common variant includes pins with both a flat top and a smoothed medial band running around the point of maximum carination. Fishergate **SF3964** with its swollen shaft and raised ring collar is typical of these. The shaft of this pin is roughly 2 mm in diameter and the swelling only increases the diameter by 0.1 mm or 0.2 mm. The collar of the pin is 3 mm in diameter. In rare cases the biconical-headed pins were made with collars of a cushion type. **IAS 45 4601Cu** from Ipswich with a tapering shaft and

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[265]Museum of London, Barking Excavations, small find no: SF887.

a fine line engraved into the shaft about 22 mm from the end is one such example [LXVIII.ii.b.4.A]. The head of this 61 mm long pin seems to float on a cushion collar.[266] Far more common were pins produced by incising lines into the shaft or the inclusion of indentations in the mould for low relief round collars and high relief carinated collars. **SOU 30 68** is typical of biconical–headed pins with carinated ring collars. Based on an examination of the material in Appendix 1, then it seems prudent to divide this sub–group into a range of variants. These include:

LXVIII.ii.a. Pins with sharp medial carination
LXVIII.ii.a.1. No collar:
..1.A. plain tapering shaft;
..1.B. swollen shaft;
..1.C. hipped shaft;
..1.D. shouldered shafts;
LXVIII.ii.a.2. Ring Collar:
..2.A. plain tapering shaft;
..2.B. swollen shaft;
..2.C. hipped shaft;
..2.D. shouldered shafts;
LXVIII.ii.a.3. Carinated Collar:
..3.A. plain tapering shaft;
..3.B. swollen shaft;
..3.C. hipped shaft;
..3.D. shouldered shafts;

Similar sub–division of the variants **LXVIII.ii.a** through **LXVIII.ii.d** can be proposed on the basis of the finds from middle Saxon sites.

A full range of medial–banded–biconical–headed pins were recently recovered from excavations at Flixborough. This included those with carinated collars (e.g. **SF345, SF680, SF963, SF4261**) and those with double raised ring collars (e.g. **SF330**). From among the flat–top medial banded biconical our sub–group LXVIII.ii.d three varieties were apparent among the Flixborough finds. The first lacked collars (e.g. **3819**), the second had a ring collar (e.g. **4102**) and the third had a carinated collar (e.g. **317**). Similar pins had been recovered at Whitby.

These pins were frequently decorated with ring–and–dot ornament. In some cases this decoration was executed with the care to place the decoration within the zones defined by the pin itself. A flat–topped–biconical–headed pin from Sedgeford (Norfolk) has ring–and–dot ornament

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[266]Ipswich Archaeological Unit, small find no: IAS 45 4601Cu.

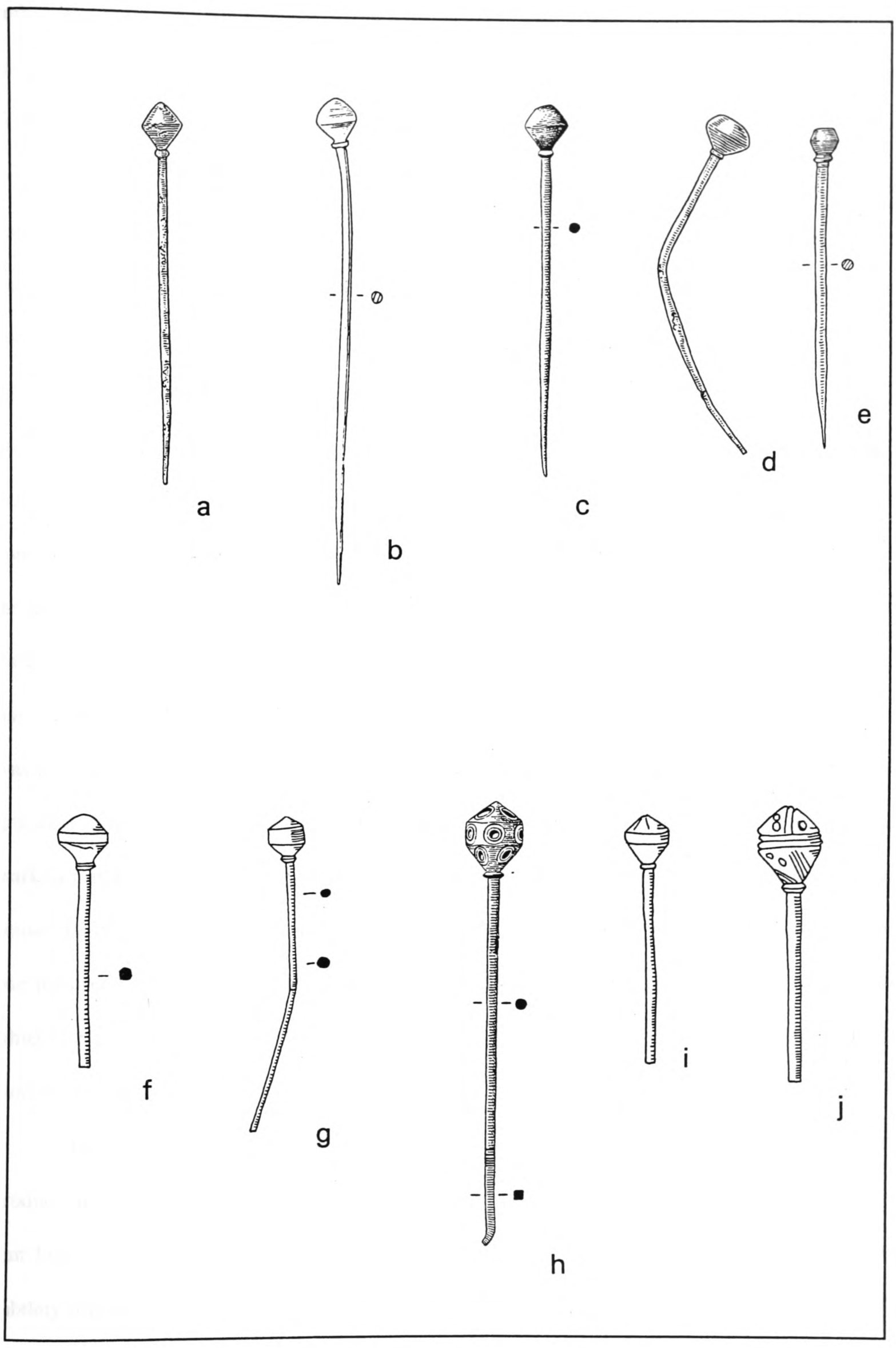

Figure 5.37

both in the upper and lower zones of the pin's head.[267] The 44 mm long pin has a head diameter of 6 mm. Usually the ring-and-dots on pins were set with what appears to be glass. For instance, in the medial-banded-biconical-headed pin figured in Waterman 1959 fig 11.6, the craftsman took care to execute the decoration within the three zones of the pin-head itself (i.e. in the top zone, the medial band, and in the lower zone). It might seem sensible to further sub-divide the pins into an undecorated and decorated group, but I think not. This is because, as I argued in chapter four, decoration is secondary to the form of the object. In the case of biconical-headed pins, although decoration was applied to the pins with consideration of the form of the object, the pin maker does not appear to have considered the form of decoration before making the object. The plans for decoration, then, did not influence the design of the pin and therefore can be said to have no significance on the form. Thus the form of the pin does not result from the intended character of the decoration. Whether decoration can be argued to have any chronological or social import is a different issue and will be considered below, but wrythen ornament does not appear on this type of pin. A pin from Barking Abbey with a medial-banded-biconical head, a flat top and a ring collar was decorated in an unusual manner. The medial band with its maximum diameter of 10 mm was graced with incised linear ornament. The head of the pin was divided into three sections by 3 linear markings and each contained three dots. The zone below was decorated by parallel lines running across the underside of the pin separating dots. Most unusual among the decorated examples was one published by Peers and Radford with lines radiating from the top to the medial point below which the pin's head seems to step down to the shaft in equal increments (1943: fig 14.9 (top row number 9 from the left). There are examples from South Ferriby (Sheppard 1909: Plate VII, fig 6).

These pins belong to an English series and a consideration of Continental material failed to produce any evidence that these pins had found their way to Scandinavia or the Continent. One 64 mm long pin from Domburgh has what appears to be a biconical head (Roes 1955). The form is subtlety different from the English forms. The English pins have an angular character, but this pin has a more arched or curvaceous form.

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[267]Norwich Castle Museum, acc no: 138.953.

Many of the parallels from Southampton (e.g. **SOU 31 2102**), from Ipswich (e.g. **IAS 2 7402Cu**), from Brandon (e.g. **SF2314**, or **SF4943**) and a parallel from Bonhunt, Essex (Bradley & Hooper 1974: fig 8.11) came from undisputable middle Saxon contexts. An example of LXVIII.ii.c.3.D, **SOU 31 2102**, from Southampton,[context 31 C5261] can be placed in the eighth century (Brisbane, SAU, pers comm). There is no evidence that these pins appear in the eighth century and stop in the ninth, but they appear to be rare on sites dating late into the tenth century. For example while there are many at Fishergate (York) there are few from Coppergate. It is not possible to tell yet, whether different sub-groups and variants of the biconical type had currency at different periods it is not possible to tell. The finds from Whitby may be taken to add further confirmation to the middle Saxon character of these pins. The examples from Canterbury are a little more problematic because these appear to continue into the twelfth century; it is possible that they are residual.

LXIX. Inverted-Pear or 'Hot-air-balloon' headed Type

[Map 5.19]

These pins have a head resembling an inverted pear or a 'hot-air-balloon'.[268] The examples I am aware of would lead one to report that they range in length between 33 mm [Fig 5.38.g] and 86 mm. The maximum girth of the head ranges between 3 mm [Fig 5.38.a] and 10 mm.[269] The diameter of the shaft ranges from 1.5 mm in Brandon **SF3172** to 2.5 mm in the case of **SF3226** from Brandon.[270]

A few rare examples have head diameters of 3 mm or less [**LXIX.i.**]. The difference between the dimensions of this head and the bulk of these pins is obvious. **SF142**, a pin with a

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[268]Ipswich Archaeological Unit, small find no: IAS 15 4801Cu.

[269]Ipswich Archaeological Unit, small find no: IAS 4 5203Cu; 86 mm long copper alloy pin.

[270]Suffolk Archaeological Unit, (Bury St Edmunds). An 80 mm long pin with a 7.5 mm diameter head and a round shaft throughout. Small find no: 3226.

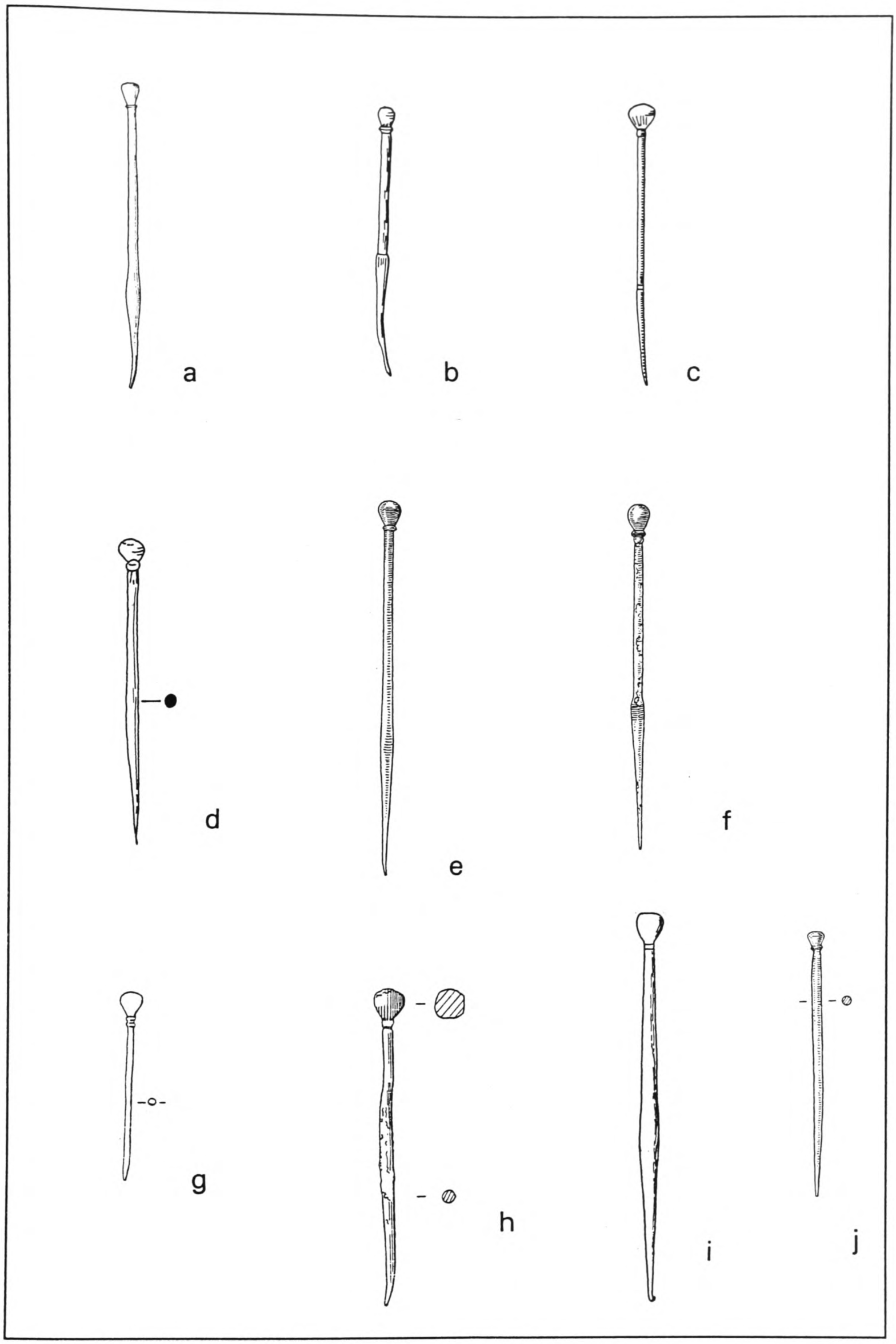

Figure 5.38

swollen shaft from Cakebread Robey (Canterbury), is typical of these [Fig 5.38.a].[271] **SF824**, also from Cakebread Robey, has a shouldered shaft and a round shaft section throughout [Fig 5.38.b].[272] **SF3267** from Brandon with a double ring collar and a swollen shaft belongs to this category. **SF493**, an undecorated 60 mm long copper alloy pin from Cakebread Robey with a diameter of maximum girth of 4 mm has a ring collar and a single incised line below and shouldered hipping.[273] Some pins have smoothly inverted-pear heads, such as **SF4848** with heavily shouldered hipping from Brandon.[274] This 63 mm long pin was decorated by ring-and-dot ornament with the rings raised above the surface. The shaft has a round section throughout. Others have ring collars at the junction of the head and the shaft. An undecorated example from Fishergate of a 47 mm long pin with a maximum diameter of 6 mm and a 3 mm collar diameter has slight swollen shaft.[275] While many of the ring collars are a single ring, in some cases double or triple rings are known. A pin surviving for a length of 37 mm from Brandon appears to have a double ring collar.[276] These pins have a range of shaft forms.

An analysis of the examples listed in Appendix 1 has led me to divide pins of type **LXIX** into sub-sets. The most common of these are those with smoothly inverted pear-shaped heads:

LXIX.ii.a. Smoothly Inverted Pear-shaped
LXIX.ii.a.1. No collar or remnants of metal reflecting casting:
..1.A. plain tapering shaft;
..1.B. swollen shaft ;
..1.C. hipped shaft;
..1.D. shouldered shafts;
LXIX.ii.a.2. Ring Collar:
..2.A. plain tapering shaft;
..2.B. swollen shaft;
..2.C. hipped shaft;
..2.D. shouldered shafts;
LXIX.ii.a.3. Carinated Collar:

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[271]Canterbury Archaeological Trust, Cakebread Robey, small find no: SF 142.

[272]Canterbury Archaeological Trust, Cakebread Robey, small find no: SF824.

[273]Canterbury Archaeological Trust, Cakebread Robey, small find no: SF493.

[274]Suffolk Archaeological Unit, (Bury St Edmunds), small find no: SF 018 4848.

[275]York Archaeological Trust, small find no: 6174.

[276]Suffolk Archaeological Unit, (Bury St Edmunds), small find no: 3172.

..3.A. plain tapering shaft;
..3.B. swollen shaft;
..3.C. hipped shaft;
..3.D. shouldered shafts;

Here we only divided the pins based on the presence or absence of ring collars. These could be sub–divided into raised or incised as well as single or multiple collars. Brandon **SF2308**, and **IAS 63 4302Cu** Turret Lane (Ipswich) are indicative of pins with double raised ring collars and these might form a further sub–variant. In several cases of pins with ring collars the shaft is round above the hipping and faceted below (i.e. Brandon **SF2294**). Whether it would be useful to note this feature in a formal way is not yet clear. Some inverted–pear pins have flattened knobs – **LXIX.ii.b.** *Flat topped inverted pear–shaped.* Typical of these are **SF2669**, **SF8106** and **SF5672** from Fishergate (York).[277] Among these were pins with moulded collars (Fishergate, **SF2669**) and hipped shafts (Brandon, **SF4925**),[278] and pins with shouldered shafts (Waterman 1959: fig 11.5) [Fig 5.39.f]. Almost the same range of shaft and collar types that can be seen in variant a can be seen in this variant. This sub–group can be subdivided into a number of variants and sub–variants just as we divided **LXIX.ii.a** (see above). I have also noted a small number of these pins have sharp carination at the medial position on their head [**LXIX.ii.c.**] (e.g. Brandon **SF2879**). A large number of these pins may have been made from blanks with shafts that began life with a square section. This was filed to appear round (Brandon **SF2006**, **SF2074**, **SF2086**).

Only a very few of these pins are decorated and where they are the decoration is usually confined to the head of the pin. Decoration can be seen on many, such as Brandon **SF4174** a **LXIX.ii.b.2.C** type pin.[279] Ring–and–dot ornament appears on **SGA'89 SF98** from the Shorts Gardens site in the Covent Garden area of London,[280] while others, such as **SOU 177 629**, **SOU**

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[277]York Archaeological Trust, small find nos: 2669, 5672 and 8106.

[278]Suffolk Archaeological Unit, (Bury St Edmunds), small find no: 4925.

[279]Suffolk Archaeological Unit.

[280]Museum of London, Shorts Gardens, small find no: SF 98.

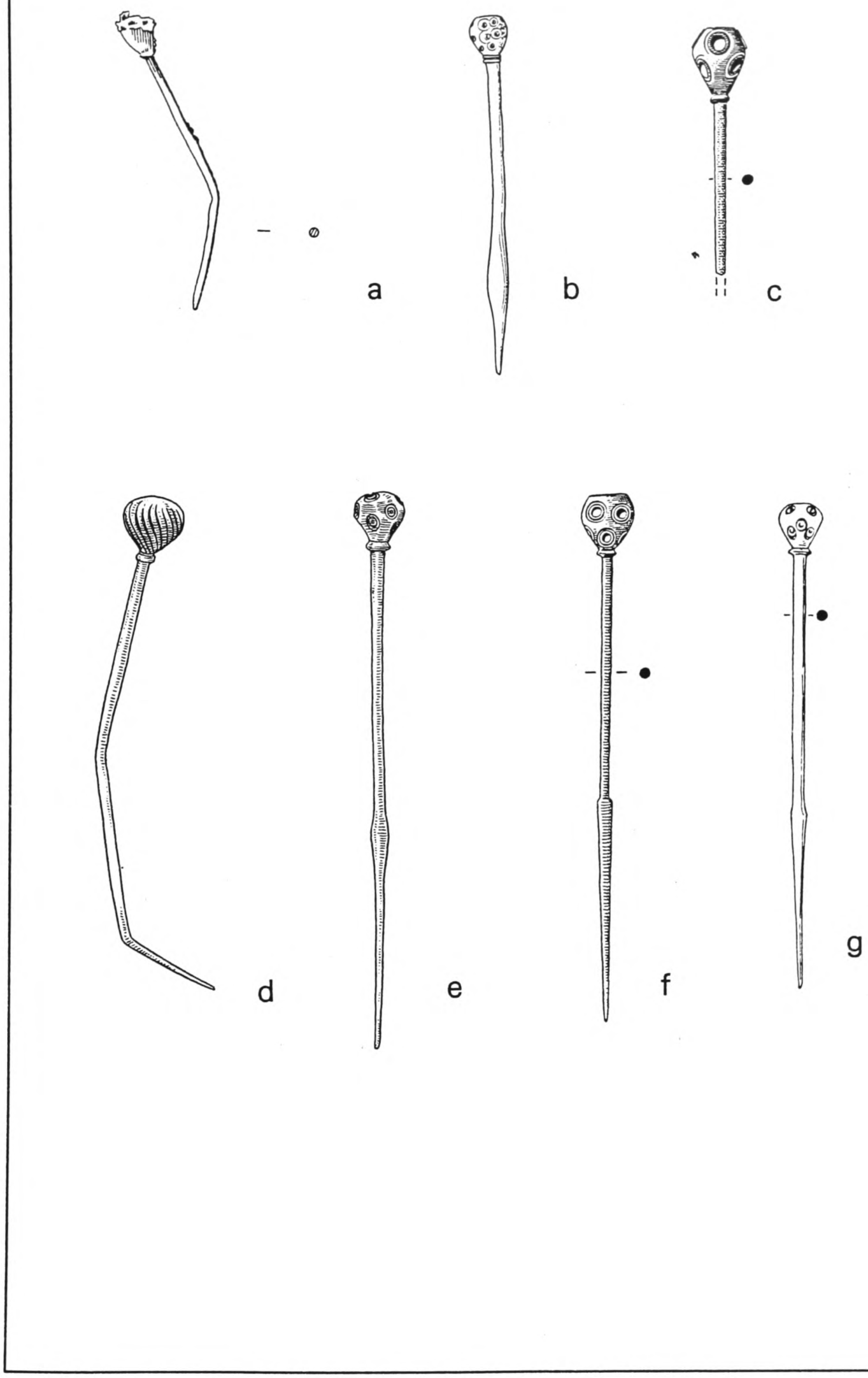

Figure 5.39

169 1, SOU 169 6, from Southampton have wrythen ornament.[281] The ring-and-dot ornament was produced either by punching the surface of the pin after casting or it was incorporated into the mould. Ring-and-dot ornamentation which is raised off the surface of the pin was probably most easily produced during casting of the pin (e.g. Brandon **SF2074**; **SF2086**; **SF2304**; **SF4848**). **IAS 4 5203Cu** from Ipswich is decorated with ring-and-dot ornament. The dots have been filled with glass.[282] The majority of these pins have a curved top, but there are examples of pins with flat tops. **SF945** from Brandon has a flat top; and the top was decorated with a cross and the sides of the head with wrythen ornament [Fig 5.39.d].[283] This 85 mm long pin has two lines set just over a millimetre apart 27 mm from the tip. The head has a smoothed collar which appears to have been the result of imperfect casting and not intentional design.

Parallels come from Brandon, Canterbury (Ross forthcoming a), Felixstowe, Flixborough, Ipswich (Wade & Hatton, IAS, pers comm), London, Market Weighton, Southampton (Addyman and Hill 1969), South Ferriby (Sheppard 1909: Plate VII, fig 6) and Whitby (Peers and Radford 1943)[284]. This type of pin has been recovered from settlement, monastic, and possible market sites but only in one case might one have come from a cemetery site, from Faversham. This could have come from a grave, but the context of its recovery, like that of most of the Faversham material, is dubious.[285] Two similar pins came from excavations at the Marlowe sites in Canterbury.[286] One from Brandon (Suffolk) had its head adorned with ring-and-dot ornament (Carr 1985: fig 13.2).

This type of pin was certainly established by the ninth century and was probably widely used during the eighth century, if not earlier. At Brandon, the limited presence of Thetford ware and the

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[281]Southampton Archaeological Unit, small find no: SOU 177 629.

[282]Ipswich Archaeological Unit, small find no: IAS 4 5203Cu.

[283]Suffolk Archaeological Unit (Bury St Edmunds), small find no: 018-945.

[284]While many of those from Whitby are to be seen in the British Museum two were illustrated in the publication of the site (fig 14[.3 & .7] {In this instance the sub-numbers are mine. I have numbered Peers and Radford figure 14 from left to right 1 - 13 for the top row and 14 - 25 for the bottom row}).

[285]Ashmolean Museum, acc no: 1909.152e.

[286]Canterbury Archaeological Trust, Marlowe small find nos: SF824 & SF 795.

few late ninth century coins led the excavator to argue that the site was abandoned 'very near the end of Ipswich ware's currency' (ibid. 40). Other independently dated finds from this site probably belong to this horizon. A gold-plaque of St John with an eagle-head inscribed with 'SCS IOHANNIS EVANGELISTA' from the site has been shown by Webster to belong to the later eighth or early ninth century since it is closely linked with the Canterbury manuscripts of this period (Webster 1980). This provides an horizon before which we can place the pins from the site. Further confirmation that this type of pin was established during the eighth century comes from Southampton (Mark Brisbane provided the contextual data). Most of the occupation evidence for these sites suggests that the period of most intensive use was before c. 820. However, two examples from the Marlowe site **CanAT SF824** and **CanAT SF795** came from contexts dated respectively to between 1100 and 1400 and between 850 and 1050. In at least the former case the pin was residual and this was also probably true in the latter case. **CanAT SF221** from the Cakebread Robey has a shouldered shaft with a round section above and below and came from a context dated between 650 and 850.[287] We have noted the presence of similar hipping on a pair of spiral-headed pins also from Cakebread Robey. Both on stratigraphic evidence from the site and based on comparative evidence we were able to place these pins into the period of the seventh or eighth century. This offers some confirmation for the placing of **SF221** into this horizon. The shaft of the pin certainly belongs to a group common at the close of the seventh and early in the eighth century. The finds from Whitby have been assigned to the period between the foundation of the monastery in 657 and its probable destruction in 867. The historical brackets on middle Saxon site activity at Whitby can be corroborated by the coin finds at the site. Among the early coins were two of Ealdfrith (AD 685-705) and among the latest coins were those of Osberht (AD 849-57) and Archbishop of York, Wigmund (AD 837-54). This would also seem to be the floruit for this type of pin. It must be noted that the Danish incursions may have been the cause of considerable disruption to the normal production and distribution of coinage and this may have had an influence on the deposition of coins into archaeological contexts after the middle of the ninth century. Two pins from Coppergate

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[287]Canterbury Archaeological Trust, Cakebread Robey, small find nos: SF221.

(SF10113 & SF14148) came from contexts which the excavators argued dated between AD 850 and AD 900.[288] The find of a pin during excavation at the Wingfield Street/Foundation Street site in Ipswich suggests that continuity of use into the tenth century is a distinct possibility.[289] This pin was associated with Thetford wares and imported pottery indicating that the deposit occurred in the tenth century.

LXX. Ball/spherical-headed Type

[Map 5.20 & 5.21]

These ball-headed pins range in length between 29 mm[290] [Fig 5.40.c] and 87 mm. The average head diameter ranges from 2 mm[291] to 11 mm. However, those with a diameter greater than 6 mm and those with a diameter of 3 mm or less form separate sub-groups. The diameter of the shaft above the two-thirds mark is constrained between 1.75 mm and 2.25 mm. At the maximum point of any swelling or hipping the diameter of the shaft varies from 1.75 mm to 2.25 mm. Of course differences in the type of swelling or hipping influence the diameter of the shaft, but this has already been noted. For instance the swelling on the shaft of the pin from Wye Down (Kent) increases the shaft diameter by over 1 mm.[292] Ball-headed pins belong to a matrix of sub-groups and variants.

While many of these pins have a head diameter of between 5 mm and 8 mm (sub-group **LXX.ii**), a small group have a head diameter less than 4 mm (sub-group **LXX.i**). **IAS 363 4801Cu**, a fine cast pin with 3 lines scored into the shaft, has a 3 mm diameter head.[293] This pin has a

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[288]York Archaeological Trust, **SF10113** came from context 26937 and **SF14148** from context 36532. Tweddle, pers comm.

[289]Ipswich Archaeological Unit, small find no: IAS 43 4601Cu.

[290]Marlowe IV, Canterbury, CanAT SF217 is closely parallel by the 30 mm ball-headed pins with carinated hipping from Whitby (BM M&LA, Whitby Loan, W.163).

[291]BM M&LA, Whitby Loan, W.174.

[292]BM M&LA, acc no: 93,6-1,190.

[293] Ipswich Archaeological Unit.

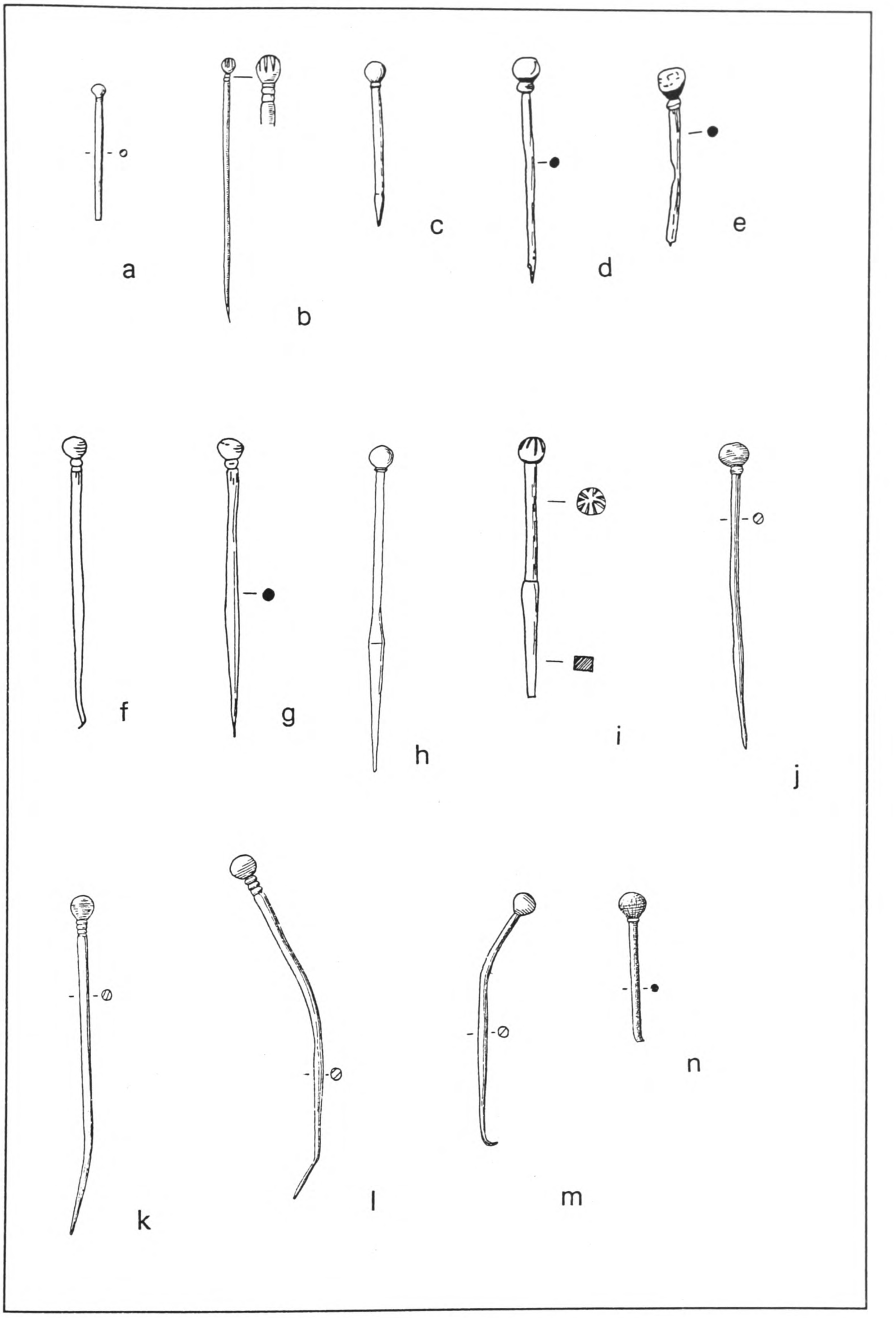

Figure 5.40

pronounced double ring collar. Pins closely paralleling **IAS 363 4801Cu** came from the site of Barking. Barking **SF 1050** measures 3.2 mm in diameter and has a shaft diameter of between 1.5 mm and 2 mm.[294] Barking **SF1764** has a pointed collar and was gilt. Whitby **W.170** has no collar, but a carinated shaft. The limited contextual evidence can leave us in little doubt that these pins belong to the seventh and eighth centuries (Ken MacGowan, Passmore Edwards, pers comm). One was found in grave 107 at Dover (Evison 1987: 240-1 & fig 48,107.5a) [Fig 5.40.a].[295] Another parallel recovered from a seventh century context came from grave 95 at Shudy Camps (Lethbridge 1936: 4.b) [Fig 5.40.b]. A few examples have a head with a 4 mm diameter, such as one from context **IAS 5801 0028** at Ipswich.[296] The finds are distributed at least as far north as Whitby: **W.168, W.170, W.176, W.180**, and **W.181**.[297] Pins of this sub-type appear to begin in the seventh century.[298] This group tends to be the least common and by far the most common are those of sub-group **LXX.ii**.

The majority of the extant examples of sub-group **LXX.ii** were made in copper alloy, but there are a few examples in materials such as iron and silver. A 45 mm long iron example came from Shakenoak (Oxon) (Brodribb, et al 1972: item 52.321 (p.108).[299] **CanAT MIV SF628** with a 6 mm head diameter and measuring 62 mm in length was recovered from Marlowe IV.[300] The pin has a round collar and a shouldered shaft. The pin is round in section both above and below the shouldering. Pins with spherical heads with a diameter of 5 mm or greater have a range of collar

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[294]Passmore Edwards Museum. Another comparable find is SF564; a 36 mm long pin with a 3 mm head and a 1 mm shaft diameter.

[295]BM M&LA, acc no: 1963,11-8,---.

[296]Ipswich Archaeological Unit.

[297]BM M&LA, Whitby Loan.

[298]Hawkes in her discussion of the pin from Polhill (1973: fig 54, item 509 [p.205], & 191) argued that this pin should be dated to the late seventh century. Critical to her assessment was a comparison between this pin and one from Camerton (Som) which was associated with pendants and glass studs. It is true that the Camerton pin is hipped, but the suggestion of a similarity in head form between the Polhill example and the Camerton find can not be maintained (Leeds 1936: Pl XXXI.5 [grave 5]). The date however is acceptable.

[299]Ashmolean Museum, acc no: 1970.313 & 1970.429.

[300]Canterbury Archaeological Trust, small find no: Marlowe IV SF 628.

forms and shaft types. **IAS 19 4601Cu**, a copper alloy pin with no collar and a plain tapering shaft, measuring 57 mm long with a head-width of 8 mm and a shaft diameter of 4 mm is typical of the group, although the shaft diameter is well outside of the normal range.[301] Some have moulded collars. Two examples of these were published from Whitby (Peers & Radford 1943: fig 14.1 & .2). A pin with a shouldered shaft, with round section above the hipping and a squared section below, was recovered at York (Waterman 1959: fig 11.5). A pin from Wicken Bonhunt is a close parallel (Bradley & Hooper 1974: 50 & fig 8[7]). Other examples with shouldered shafts have collars. These are usually single collars, but in some cases these pins have multiple ring collars (e.g. **SOU 44 002**[302]); Some ball-headed pins sit on a cushion collar. A ball-headed pin resting gently on its cushion collar came from Winchester [Fig 5.41.d].[303] The pin has a 6 mm diameter head and measures 40 mm in length; two lines were incised into the shaft. It can be paralleled by **W.187**, an incomplete pin.

Besides those pins with moulded and ring collars several pins are know with pointed collars. For example, we can note three pins from Barking, **SF1161**, **SF1601** and **SF1895**, each having a carinated-collar.[304] **SF1601** is 46 mm long, has a head diameter of 5 mm and a shaft diameter above the hipping of 1.5 mm and 2.0 mm at the point of the hipping. **SOU 20 008**, a worn pin measuring 59 mm long with a 5 mm head diameter from Southampton, also has a carinated collar but with a shouldered shaft (**LXX.ii.a.3.D**).[305]

Other pins have plain tapering shafts and ring collars, such as the 5 mm diameter ball-headed pin from, Southampton **SOU 169 2568**.[306] While in many examples these ring collars are single mouldings numerous examples with multiple mouldings can be cited. **CanAT SF771** from

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[301]Ipswich Archaeological Unit, small find no: IAS 19 4601Cu.

[302]Southampton Archaeological Unit.

[303]Winchester Historical Research Centre.

[304]Passmore Edwards Museum.

[305]Southampton Archaeological Unit, small find no: SOU 20 008.

[306]Southampton Archaeological Unit, from Context T1 12745.

Cakebread Robey, a 54 mm long ball-headed pin with a diameter of 5 mm and a round sectioned shaft with a 2 mm diameter and a swollen zone, was produced with an incised double-ring-collar.[307] Some further variants could be added such as an undecorated ball-headed pin from Shepperton Green with a moulded collar and a swollen shaft. At the point of maximum swelling four lines have been incised around the circumference of the shaft. Based on this evidence we can safely divide these pins into the following segments:

LXX.ii.a. Spherical-Headed
LXX.ii.a.1. No collar:
..1.A. plain tapering shaft;
..1.B. swollen shaft;
..1.C. hipped shaft;
..1.D. shouldered shafts;
LXX.ii.a.2. Ring Collar:
..2.A. plain tapering shaft;
..2.B. swollen shaft;
..2.C. hipped shaft;
..2.D. shouldered shafts[308];
LXX.ii.a.3. Carinated Collar:
..3.A. plain tapering shaft;
..3.B. swollen shaft
..3.C. hipped shaft;
..3.D. shouldered shafts;
LXX.ii.a.4. Cushion Collar:
..4.A. plain tapering shaft;
..4.B. swollen shaft;
..4.C. hipped shaft;
..4.D. shouldered shafts;

A pin with multiple ring collars from West Stow (West 1985: fig 246.1) [Fig 5.40.k] and another from Wicken Bonhunt (**SF343**) [Fig 5.40.l] are typical of subdivision **LXX.ii.a.5**.

While most have spherical heads there are some exceptions, such as Barking **SF1699**. In Whitby **W.166** the ball-head has been flattened.[309] This form might give us cause to establish LXX.ii.b., a variant to include flat-topped ball-headed pins. The shaft of this pin is square

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[307]Canterbury Archaeological Trust, Cakebread Robey, small find no: SF 771 layer 87; eleventh - twelfth century context.

[308]A similar problem that I noted in the discussion of the hot-air-balloon type can be noted here. Although we have only divided the sub-variants as far as shaft type, we could have incorporated details about the shaft section. Barking **SF921** is round in section both above and below its swelling, whereas Brandon **SF3167** has a faceted shaft below its hipping. But so far these differences have not shown us anything substantive.

[309]BM M&LA, Whitby Loan.

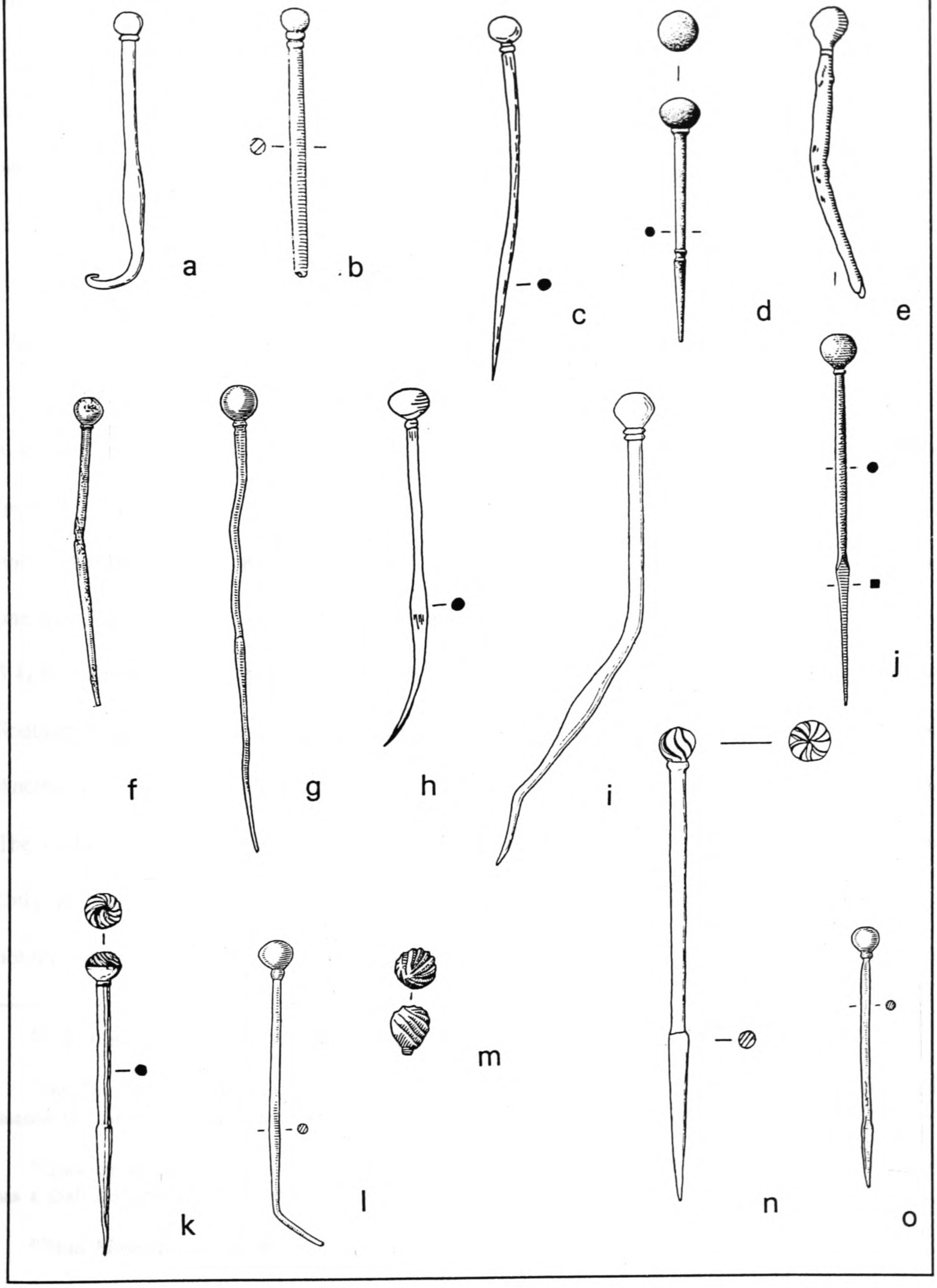

Figure 5.41

sectioned for the last 25 mm. Whitby **W.204** with a similar head has a shouldered-hipped shaft.

The usual style of linear decoration on ball-headed pins is wrythen ornament like that seen on the **SOU 31 11** from Six Dials.[310] Decorated ball-headed pins have been recovered from Brandon, Canterbury,[311] Colchester (Crummy 1983: 30, fig 31.499), Meols (Bu'Lock 1961: fig 3b), Ipswich,[312] Southampton (Addyman & Hill 1969: fig 26.9). It can be seen on an incomplete pin from South Ferriby (Humbs). This pin which survives to a length of only 23 mm has a head diameter of 7 mm.[313] A similarly decorated pin came from excavations at Wicken Bonhunt (Bradley & Hooper 1974: 50, fig 8.4), and another from excavations led by Canham in Shepperton Green. This latter pin has a moulded ring collar and has a swollen shaft (Clark 1979: 120, fig 13.6).[314] In some rare cases the heads of the pins were gilt; a case in point is **IAS 154 4601Cu**, a copper alloy wrythen decorated headed pin with a 7 mm diameter head and a tapering shaft from Ipswich.[315] About half a dozen of these pins have what appears to be a partial hat composed of lines radiating from the centre of the top of the pin to the medial point of the head. Hinton records one from Southampton (1980: 73[item xx] and Addyman and Hill another (1969: fig 26.10) (Fig 5.41.k). There are some even less common examples of linear ornament. **SOU 85 14**, a pin from Southampton, was decorated with a cross motif running around the medial line of the head.[316] Another example appears on a ball-headed pin from the Peabody site near the Strand in London. The Peabody pin **SF305** is a ball-headed pin with a collar at the junction of the head and shaft. Only the head and a small fragment of the shaft survive so it is impossible to determine whether or not the shaft was hipped in any way. The head is decorated by lines which radiate from the top of

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[310] Southampton, Southampton Archaeological Unit small find no: SOU 31 11; Wilthew, 1984.

[311]Marlowe III, Canterbury Archaeological Trust, Small find nos: SF780 & SF932. The 4 mm diameter ball-headed pin, SF932 has no collar and a round section above the shouldered hipping; below it was squared.

[312]Ipswich Archaeological Unit, small find no: IAS 154 4601Cu. This pin survives for a total of 33 mm and has a shaft diameter of 2 mm and head diameter of 7 mm.

[313]Hull Museum, acc no: 863.44.

[314]This pin with is large head belongs to sub-group **LXX.iii**.

[315]Ipswich Archaeological Unit, small find no: IAS 154 4601Cu.

[316]Southampton Archaeological Unit.

the pin's head and terminate at the medial point of the head. A flattened ball-headed pin with incised lines and a hipped shaft came from Southampton.[317] This pin can be paralleled by a 51 mm long pin from Waltham Abbey (Huggins 1976: 115 & fig 41.2[p.116]) [Fig 5.41.k]. The gilt copper alloy pin-head had a diameter of 5 mm and above the head's medial point it was decorated.

As is the case with other groups of pins from Saxon contexts we can see that in some instances the pin was not completely finished after casting. A case in point is **CanAT MIV SF625** from Marlowe IV at Canterbury, a pin that has a ball-head, a swollen shaft and what appears to be a slight collar [Fig 5.40.h].[318] The collar on this 57 mm long pin is crude and on closer analysis it becomes apparent that it is residual metal that had collected in this imperfect place in the mould during casting and that had not been properly trimmed away by the craftsman. Indeed although I have classed it as **LXX.ii.a.2.C** it probably ought to be **LXX.ii.a.1.C**.

The question of dating arises. Excavations by Peter Wade-Martins at North Elmham led to the recovery of very few pins. One was an 84 mm long pin with a head diameter of 8 mm (Wade-Martins 1970: 66, fig 19(b); 1980: fig 264.40). The head was decorated with wrythen ornament and the pin had a moulded collar and a shaft with carinated swelling. The pin came from a feature 44a in a cess pit. The context belonged to the late ninth or tenth century (Wade-Martins 1970; 1980). A similar pin from Waltham Abbey was recovered in the clay floor of the Viking Hall (feature 338). This suggests a tenth or possibly an eleventh century date. A silver spherical-headed pin from Ipswich came from a context that produced two sherds of black ware, and imported grey ware. The context would seem to belong to the second half of the ninth century.[319] The find from Wicken Bonhunt of a silver alloy pin is one example (ibid. fig 8[10]). This pin came from a post hole that the excavator argued belonged startigraphically to phase three of the site, a phase which included both Ipswich ware and some Thetford ware. This is a roughly a late middle Saxon context--early

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[317]Southampton Archaeological Unit, small find no: SOU 31 1025.

[318]Canterbury Archaeological Unit, Marlowe IV, small find no: SF 625.

[319]Ipswich Archaeological Unit, small find no: IAS 1 4801Ag; Blinkhorn, IAS, pers comm. Another pin of silver associated with Ipswich ware and 33 sherds of imported ware is clearly of middle Saxon date (context: IAS 5801 0028).

ninth century. **SOU 177 567**, a copper alloy pin, measures 47 mm long with a 5 mm diameter head with a ring collar and a swollen shaft.[320] The pin came from C315 (pit 131), a mid-middle Saxon rubbish pit (Riddler, SAU, pers comm). A ball-headed pin from the Peabody site near the Strand was found with pottery and other material culture evidence which led to the conclusion that this site represented part of the area which made up Middle Saxon London (Blackmore forthcoming b; Blackmore & Redknap 1988). Numerous other examples appear in Appendix 1 from Brandon, Canterbury, Ipswich, Southampton and York. These pins all come from contexts that belong between the early eighth century and the tenth century.

While the great majority of the examples noted are either middle or late Saxon, a few exceptions can be noted. David Rudkin, excavating at the site of Bevis' Grave (Ports Down, Hants), recovered one pin from a cemetery comprising 98 burials. A ball-headed pin from grave 44, 53 mm long with the head having a diameter of 3 mm (**LXX.i.a.1.A**), was recovered on the right side of the body's chest just off centre.[321] The pin with its plain tapering shaft was cast. A copper-alloy ball-headed pin from Wye Down measuring 69 mm in length with a ring collar and a worked zone of hipping, was associated with a red-glass bulla set in copper alloy and a purple bead.[322] The associated finds included an iron knife, an iron ring and an escutcheon. The latter find points to a possible seventh century date for this burial. **SF932**, from Marlowe III at Canterbury, came from a seventh century context (Garrard, CanAT, pers comm). Other seventh century finds are known as well, such as the pin from building one at Puddlehill (Matthews & Hawkes 1985: 69, 99 & fig 5).

In addition to the small and mid-range diameter ball-headed pins we can also note a group of pins with head diameters greater than 8 mm [sub-group **LXX.iii**]. Two from Southampton shown in Figures 5.42.d and 5.42.e are typical. A find from Whitby of a pin of with a head diameter of 12 mm is a further example (Peers & Radford 1943: fig 14.4). The pins often have

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[320]Southampton Archaeological Unit, small find no: SOU 177 567. [While this pin is from a middle Saxon context other comparable pins come from later contexts.]

[321]Southsea Castle Museum, 1974/6. Rudkin, pers comm (20 January 1986).

[322]BM M&LA, acc no: 93,6-1,190.

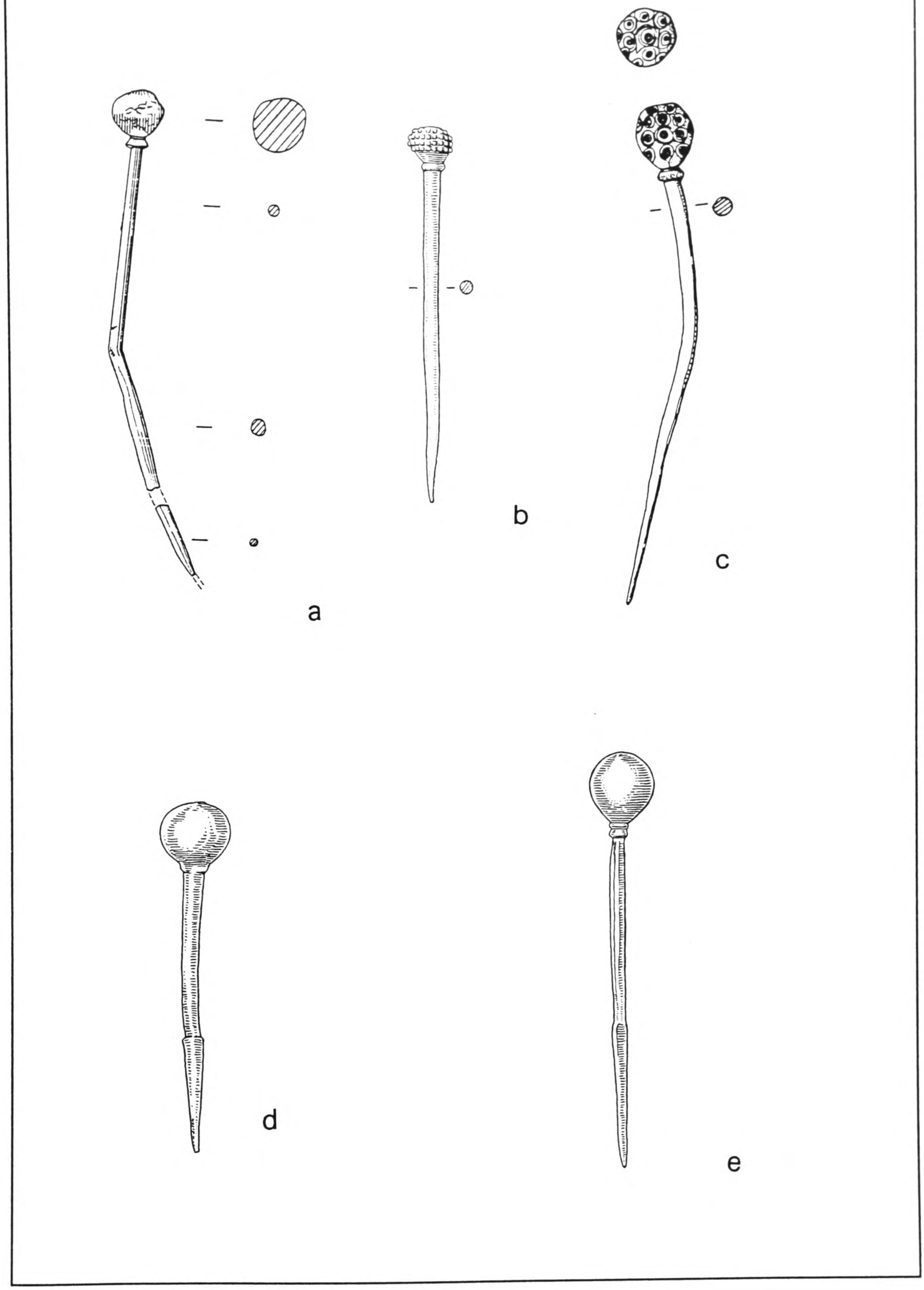

Figure 5.42

small collars to facilitate the transition from the head of the pin to the shaft. One from Southampton has a shouldered shaft with a round section above and a square section below [Fig 5.42.e]. One from Ipswich has a ring collar below the cushion.[323] The pin, **IAS 92 4801Cu**, measures 9 mm across its head and is 65 mm long. For much of the length the shaft it is round sectioned, but for the last 11 mm it is squared-off. As was the case in the earlier sub-groups (**LXX.i & .ii**) variation in the form of the head of these pins can be identified in the surviving material. An example of this variation can be seen in the spherical-headed pin with a flat-top found at Skimert (Bucks) (Farley 1980: fig 1.a) [Fig 5.42.c]. While the distribution is quite broad the number of examples are quite small. We have a find of one or two pins of this type came from each of the following sites: Ipswich, York, and Southampton. These, though, appear to be rare and outside the uniform size range of ball-headed pin in general.

While the distribution of the sub-group **LXX.i** is quite narrow, the distribution of **LXX.ii** includes nearly all middle-Saxon sites so far excavated (see Map 5.20).

LXXI. Domed-Cone-headed Type

This group includes pins with heads that expand away from the shaft to their maximum width. Above this the top of the pin is domed, like an ice cream cone. The length of the expanded section is greater than the height of the dome. There are few examples of this group. Several came from excavations at Barking. **SF 1571**, an incomplete example surviving for 30 mm with a maximum head width of 5 mm, has a sharply carinated collar.[324] A close and complete parallel, Barking **SF747**, has a maximum carination at its head of 3 mm [Fig 5.46.d].[325] This pin measures 44 mm in length. For most of its length the shaft has a round section of 2 mm. The shaft just before the last third of its length has a shouldered hipping. Below this it has a square section.

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[323]Ipswich Archaeological Unit, small find no: IAS 92 4801Cu.

[324]Passmore Edwards Museum, Barking Abbey, small find no: Sf 1571.

[325]Passmore Edwards Museum, Barking Abbey, small find no: Sf 747.

Another example, Barking **SF1008**, has a ring collar and a carinated zone of shaft swelling.[326] The evidence for dating the pin is at present broadly that of the general context of the excavations at Barking. These would suggest a date range from the end of the seventh century to the end of the ninth century. Although rare from other sites at least one parallel is known from Southampton [Fig 5.46.e].[327]

LXXII. Facet-headed, length less than 85 mm Type

[Maps 22-25]

This group includes pins with faceted-heads, but a total length of less than 85 mm. The group can be divided into four main sub-groups: Shudy Camps-facet-headed (sub-group **LXXII.i**), Hamwic-facet-headed (sub-group **LXXII.ii**), Coppergate-facet-headed (sub-group **LXXII.iii**), and Hamwic II-facet-headed (sub-group **LXXII.iv**). The Shudy Camps-facet-headed sub-group includes pins where the cuboid or elongated rectangle head extends little more than a millimetre beyond the line of the shaft. Hamwih-facet-headed sub-group comprises those pins with a faceted-head greater than 4 mm and less than or equal to 6 mm in any one dimension. These dimensions vary proportionally so the head of the pin appears either cuboid or rectangular. The York-facet-headed subgroup includes those facet-headed pins with a cuboid or elongated rectangular head with head measurements equal to or greater than 7 mm. The last sub-group reflects the existence of pins with flattened-faceted-heads.

LXXII.i. Shudy Camps facet-headed Sub-type [Map 5.22]

The head of each of these pins extends less than a millimetre from the line of the shaft and in some instances the pin does not expand beyond the line of the shaft at all.[328] Lethbridge recovered a pin of this type from grave 65 during his excavations at Shudy Camps (Cambs) (1936:

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[326]Passmore Edwards Museum

[327]Southampton Archaeological Unit, acc no: SOU 169 556.

[328]Long Wittenham, Urn X, BM M&LA, acc no: 75,3-10,348.

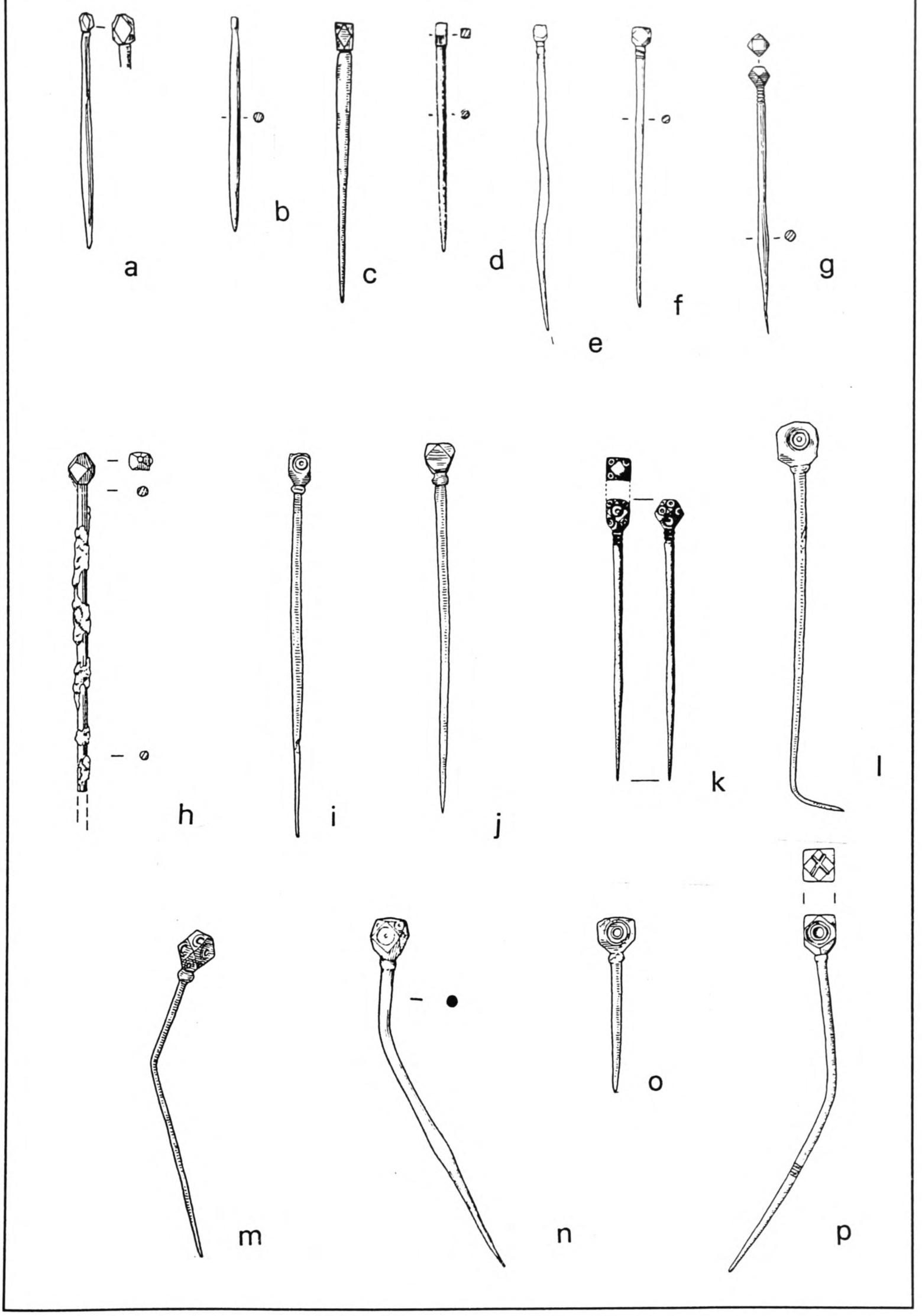

Figure 5.43

fig 4.c.1) [Fig 5.43.a].[329] A pin from grave 8 at Melbourn, recovered behind the head of the woman, survived for a length of 38 mm and has a head width of 2 mm (Wilson 1956: 32).[330] The shaft has a slight swelling, but no where along its length does it have a diameter much over 2 mms. A 47 mm long facet-headed pin with a 3 mm head came from grave 222 at Kingston (Faussett 1856: 81).[331] The diameter of the head is only marginally larger than that of the shaft. This pin has several lines engraved into the shaft and these give the impression of ring collars. Almost identical to this is a find from grave 163 at Finglesham (Kent) [Fig 5.43.g]. It might be possible to define variants based on shaft lines, but this is the only feature of variation within the sub-group. None of these pins have raised collars or have decoration on their heads.

Examples from settlements, such as Canterbury, are also known. **CanAT MIV SF1104**, a 72 mm long pin with a swollen shaft and series of head measurements 3x3x3 mm, came from a well at Marlowe IV. The layer (368) from which the pin came is thought to belong to the period 650-700.[332] It might be compared most favourably with **SOU 169 915** from Southampton[333] and a pin from context **IAS 5701 0219** at Smart Street in Ipswich.[334] A further example from Canterbury came from the Cakebread Robey site. **CanAT CBR SF536** is 50 mm long and has a cuboid head (2x2x2mm) with a shaft diameter of 1.5 mm and a ring collar.[335] The pin probably came from a context belonging to the Cakebread Robey phase VI(1-2). This phase has been shown to date between 400 and 850. A facet-headed pin from Lackford was associated with a miniature bone comb fragment (Lethbridge 1951: fig 28.49.17) [Fig 5.43.c]. Another small-facet-headed pin was associated with a cremation at Long Wittenham.[336] A comparable pin measuring 63 mm in length

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[329]University Museum of Archaeology and Anthropology (Cambridge), acc no: 36.840.

[330]University Museum of Archaeology and Anthropology (Cambridge), acc no: 53.186.

[331]Merseyside County Museums, acc no: M6337.

[332]Canterbury Archaeological Trust, pers comm.

[333]Southampton Archaeological Unit.

[334]Ipswich Archaeological Unit.

[335]Canterbury Archaeological Trust, Cakebread Robey, small find no: 536.

[336]Urn Q, BM M&LA, acc no: 75,3-10,349.

came from Faversham.[337] The pin with its 3 mm head had a shaft diameter of 2.25 mm tapering to 2 mm. The shaft was decorated with nine scored rings. Possibly closely related to this is the pin from grave 100 at Dover.[338] The finds from Shudy Camps and Melbourn come from cemeteries that belong to the late phase of Early Anglo-Saxon burials. Few of these pins have swollen shafts. One with multiple moulded collars from grave 163 at Finglesham does [Fig 5.43.g]. This pin was associated with a pottery bottle and among other items a buckle, and chatelaine fittings whose the seventh century context is indisputable. The combination of cemetery and settlement evidence leads me to suggest that these small-facet-headed pins belong to the seventh century; one problem may be the pin from Long Wittenham which ought to belong to the sixth century.

LXXII.ii. Hamwic facet-headed greater than 4 mm and less than 6 mm Sub-type [Map 5.23]

These pins have either a cuboid or rectangular head which has had its corners removed. This gives them a faceted form. The cuboid-rectangular sub-group have heads with measurements in the ranges of 4-6 mm wide, 4-6 mm long, and 4-6 mm thick. Most of the surviving examples were made in copper alloy, but the occasional iron example is known.[339] Variations in the form of the shaft among this sub-group can be noted. Either the pins have plain tapering shafts, swollen shafts, or markedly hipped shafts (i.e. shouldered shafts). Plain tapering shafts can be seen on pins, such as the undecorated 86 mm long pin **SF10103** from Coppergate (York). This pin has a 6 mm x 6 mm x 6 mm cuboid head.[340] Others were decorated with ring-and-dot ornament similar to that seen on Coppergate **SF8815**.[341] While these latter examples are copper alloy, a silver example

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[337]BM M&LA, acc no: 1135 G'70.

[338]BM M&LA, acc no: 1963,11-8,519.

[339]Ipswich Archaeological Unit, small find no: IAS 7402 0351. This pin came from a context where it was associated with Ipswich ware.

[340]York Archaeological Trust, Coppergate small find no: SF 10103.

[341]York Archaeological Trust, Coppergate small find no: SF 8815.

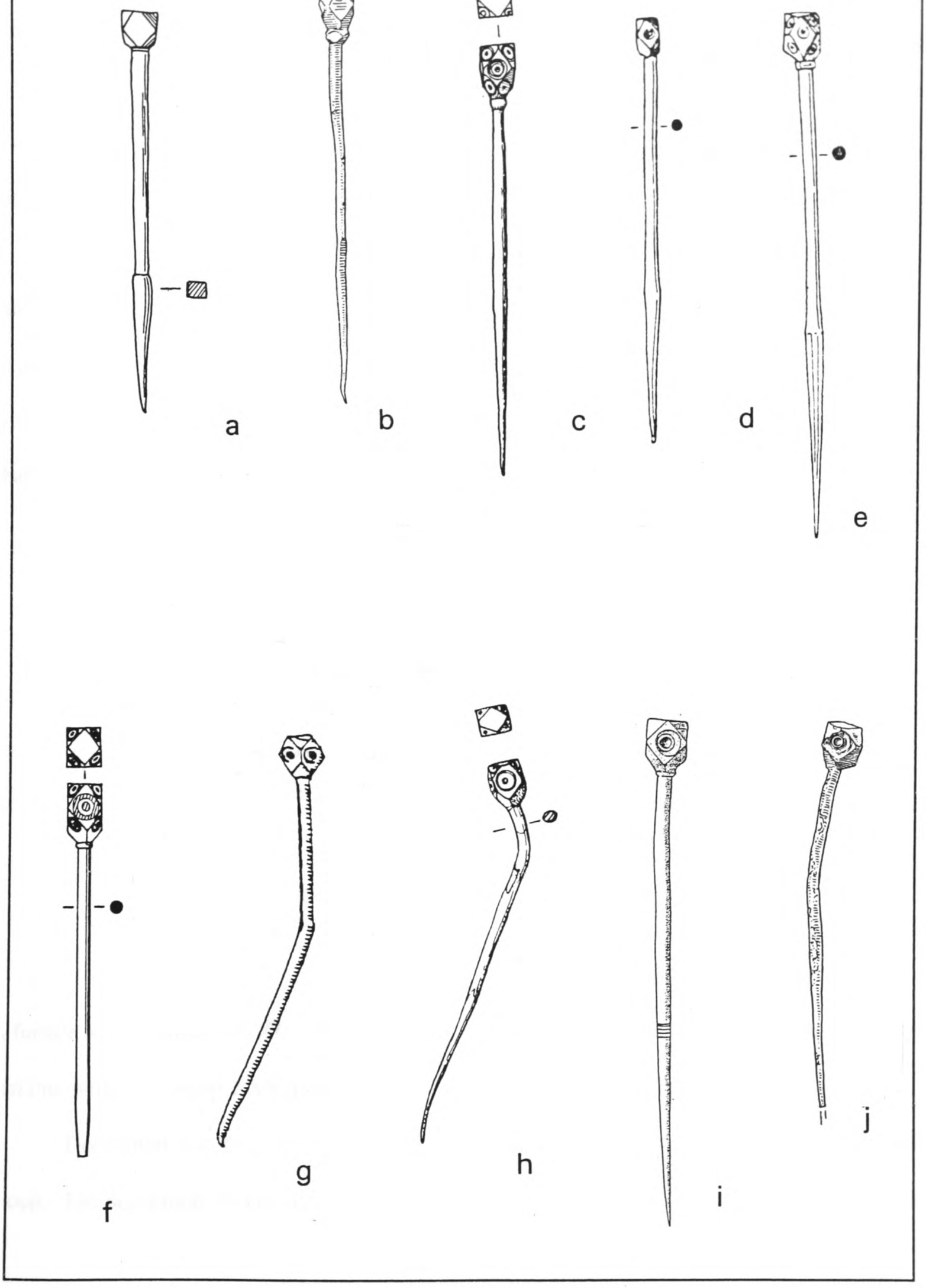

Figure 5.44

was recovered during excavations on Brook Street in Winchester.[342] At the junction of the head and shaft many of these pins have a collar. Some of the collars were intentional but occasionally they appear to represent nothing more than casting residue. Marlowe IIa **CanAT SF484** has a 5 mm x 5 mm x 5 mm faceted head and crude collar. The collar could be the result of poor casting and it certainly would have been difficult for all but the most skilled craftsman to remove debris from the junction of the head and the shaft.

Based on an examination of the data presented in Appendix 1 we have divided the pins of this sub–group into variants and sub–variants. The first division is between those with cuboid heads (e.g. Southampton **SOU 31 1258**) and those with rectangular heads (e.g. Southampton **SOU 23 004** with a 5 mm x 5 mm x 7 mm head[343]). The further divisions are based upon the forms of the shaft and the collar. They are as follows:

LXXII.ii.a. Pins with cuboid heads
- LXXII.ii.a.1. No collar:
  - ..1.A. plain tapering shaft;
  - ..1.B. swollen shaft;
  - ..1.C. hipped shaft;
  - ..1.D. shouldered shafts;
- LXXII.ii.a.2. Ring Collar:
  - ..2.A. plain tapering shaft;
  - ..2.B. swollen shaft;
  - ..2.C. hipped shaft;
  - ..2.D. shouldered shafts;
- LXXII.ii.a.3. Carinated Collar:
  - ..3.A. plain tapering shaft;
  - ..3.B. swollen shaft;
  - ..3.C. hipped shaft;
  - ..3.D. shouldered shafts;

A further series variant, **LXXII.ii.b** Pins with rectangular facet heads shares the same range of sub–variants with sub–group **LXXII.ii.a**.

Decoration was frequently applied to pins of all variants and sub–variants within this sub–group. The decoration occurs either in the form of incised or punched dots or ring–and–dot motifs.

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[342]Winchester Historic Resources Centre, SF 7575.

[343]Southampton Archaeological Unit. Coppergate **SF5197** with its 4 mm x 4 mm x 6 mm is an example. The context of this pin **17699** would appear to be Norman or later (Tweddle, YAT, pers comm). In this context the pin is probably residual.

An occasional example does occur with other decoration such as crossed lines, but this decoration tends to be rare. Caple in his earlier discussion of these pins divided the decorative pins into a group of all their own (1986). The decision to class the objects on the grounds of decoration is not satisfactory because it severs the form/decoration dependency relationship. The form of the pin was not dependent upon the decoration, but the placement of the decoration was dependent upon the existence of a surface or medium capable of supporting it. Such a relationship can only imply that decoration was secondary to the type of head. This is different from situations where the decoration and the form of the object it adorns evolved dependently. For this reason we have rejected the temptation to form further sub-divisions according to decorative motifs.

While heads decorated with ring-and-dot ornament are common, pins of this sub-group with decorated collars are quite rare. **SOU 36 97**, a 69 mm long pin graced with a rectangular facet-head, has a finely faceted shaft designed to appear round for the first 28 mm with a shouldered shaft below which is faceted-section. It has a wrythen ornamented ring collar.[344]

Facet-headed pins of this sub-group appear to have had a broad geographic distribution. A cross section of sites which have produced them includes: Bawsey (Norfolk),[345] Brandon (Carr 1985: fig 13.3, 13.4) [Figs 5.44.d & .e], Canterbury,[346] Harlying (Norfolk),[347] Ipswich,[348] Sedgeford,[349] Southampton (Addyman & Hill 1969: 25.5, .6, .7, .8; Wilthew 1984), South Ferriby (Sheppard 1909: Plate VII, figs 13, 14, 15, 16), Wicken Bonhunt (Bradley & Hooper 1974: fig 8.3), Whitby (Peers & Radford 1943: fig 14), and York (Waterman 1959). There are a number from the

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[344]Southampton Archaeological Unit. Another parallel from a site in Southampton is **SOU 24 23**.

[345]King's Lynn Museum, acc no: KL119-985-2. This collarless pin was recovered by a metal detector user to the southeast of the church.

[346]Canterbury Archaeological Trust, small find nos: CAT Marlowe SF484, CAT Marlowe IV SF 1104, CAT Marlowe IV SF1469.

[347]I examined the find in the BM. Its small find number is SF 255. The head measures 6 mm x 6 mm x 6 mm and the pin survives for 23 mm.

[348]e.g. find from Great Whip/Gower Street context: IAS 7404 0020.

[349]Wade, pers comm (17 December 1986), small find no.: KW GCC 30.1.

excavations at Whitby[350] and these are *thought* to belong to the period of the Anglo-Saxon Monastery--657 - 867 (Peers and Radford 1943). The pins from other sites come from stratigraphic contexts dating to the middle and perhaps the late Saxon periods. Addyman recovered a cuboid-facet-headed pin from post-hole 254 of structure D at Maxey (Addyman 1964: 64, fig 17.a). This pin with its carinated moulded collar and swollen shaft had been decorated with ring-and-dot ornament (i.e. LXXII.ii.b.3.B). Addyman argued that the context was late Saxon. A poorly formed facet-headed pin from Ipswich was recovered from a pit which included sherds representing a number of types of pottery vessels including Ipswich, Thetford, and Bardorf-type pots (Blinkhorn, IAS, pers comm).[351] The latest of the pottery points to a mid-ninth century date for the pit. A 68 mm long pin from Ipswich (4601) with a swollen shaft and a 4 mm cuboid head came from a context that would appear to belong to the eighth century (ibid.).[352] While in many instances the contexts are undoubtably middle Saxon (e.g. Whitby, Southampton [i.e. **SF SOU 31 1562**], and Brandon) others are less secure. Excavations at Portchester Castle recovered a facet-head pin with a carinated collar from a context which the excavator argued belonged to the early eighth century (Cunliffe 1976: 217, fig 139.54). Another copper alloy parallel with a 6mm x 6mm x 6mm facetted head was recovered from Market Weighton (Humbs).[353] Similar cuboid-headed pins come from the Peabody site in London. This was part of middle Saxon London (Blackmore, forthcoming). The pins come from settlement and cemetery sites.

A pin from Ufton Nervet measuring 75 mm in length with a decorated head was examined by J. Webster (Webster 1973-4: 56-57). The pin had a decorated collar and a swollen shaft. There were several examples recovered at Meols (Bu'Lock 1961: fig 3.a). These could belong to either the middle Saxon or late Saxon period. Although the preponderance of evidence from the site

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[350]BM M&LA, Whitby Loan, W.299 & W.300 [undecorated] & BM M&LA, Whitby Loan, W.306, W.310, W.314 & W.317 [decorated].

[351]Ipswich Archaeological Unit, small find no: IAS 48 4801Cu.

[352]Ipswich Archaeological Unit, small find no IAS 152 4601Cu. The shaft is 2 mm below the head, 2.5 mm at point of hipping and 1.5 mm just above its tip.

[353]Hull Museums, 138.1980.5.

indicates early Saxon and even seventh century occupation, it does not point to heavy use during much of the middle Saxon period (there is a complete lack of coins between the *sceattas* and the *stycas* of Ethelred). An 82 mm long facet-headed pin with five closely spaced incisions encircling the round-sectioned shaft has a single ring-and-dot adorning each of the four main facets and linear decoration on top of the head (Sills 1982: 40, fig 11a). Sills argued that this pin came from a context belonging between the eighth century and the tenth century.

The question of the origin of facet-headed pins cannot be ignored. Previous writers have on occasion proposed a link with Roman facet-headed pins (for instance, Caple 1985). Roman stratigraphic sequences later than the second half of the third century often include cuboid-facet-headed pins (Crummy 1983: 22-23). They were made in a variety of materials: bone, copper alloy and jet. Clarke published a number from the burials in the Lankhills cemetery; all from contexts which he thought suggested dates between the middle and late fourth century (Clarke [G] 1979: 316 [type B]). We know of others from fourth century contexts at Caerleon (Zienkiewicz 1986: fig 62.171). The comparative similarity of the late Roman examples and the middle Saxon cuboid-facet-headed pins has led to the suggestion that there was some continuity in manufacture. These proposals are tenuous at best. When Janet Webster looked at the possibility of a relationship between the Ufton Nervet pin and similar Roman pins she found decorated examples to be rare (1973-4: 57). She also discovered that 'swelling in the lower part of the shaft is not a feature of Roman bronze pins' (ibid.).

These facet-headed pins appear in middle and possibly late Saxon contexts. They are not known in fifth and sixth century contexts and only pins of sub-group LXXII.i begin appearing in seventh century contexts. Such evidence is negative and can be a shaky foundation on which to base conclusions. *But*, there is little mileage in postulating a connection between the two types because of similarity in form when the preponderance of evidence shows no continuity. It seems that the facet-headed pins make their first appearance in the seventh century. Whether the middle Saxon forms develop from these types is an unanswered question. Such a progression seems plausible.

LXXII.iii. Coppergate faceted heads greater than 6 mm Sub-type

[Map 5.24]

Few pins have cuboid measurements above 6 mm. One which does, **IAS 282 4801Cu**, is an 83 mm long pin with a 2 mm diameter shaft and an 8 mm x 8 mm x 8 mm block type head. This pin was associated with late, probably ninth century or later, features (Blinkhorn, IAS, pers comm). A similar cuboid faceted headed pin came from excavations on the site of the Anglo-Saxon Monastery at Jarrow (Ross forthcoming d).[354] This copper alloy cuboid-facet-head has ring-and-dot decoration on all its facets. The shaft joins the head without a collar and is round in section throughout. The head is 7 mm x 7 mm x 6 mm. It came from context 2018 at Jarrow which can be shown to date between the ninth and the twelfth century. The context was laced with finds generally considered to belong to the ninth century and this might support the suggestion that the pin was residual and belongs early in the sequence. Although some may want to see this sub-variant as late Saxon, middle Saxon examples are known. York Archaeological Trust finds **SF10103** and **SF8815** both have 6 mm cuboid heads. The former pin is undecorated. The latter has ring and dot decoration on the four main facets. These pins come from the phases of the post and wattle buildings at Coppergate which date between c.930 - c.975.[355] An incomplete and broken pin from Lincoln probably belongs to the period 900-930/40 (Mann, LAT, pers comm).[356] At Canterbury, for example, cuboid-facet-headed pins came from a context belonging to between 1400 - 1550 (i.e. **CanAT MIV SF471** [Fig 5.45.a]). It would be comforting if we could find some reasons to consider that in this instance the pin was residual, but finds from at least the tenth century can be noted.

Feature 10 of a sunken-featured building at Shepperton Green produced an incomplete facet-headed pin decorated with ring-and-dot ornament. While some of these cuboid-headed pins may

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[354]Jarrow Excavations, small find no: JA 73 UZ.

[355]Tweddle provided the contextual information. Another pin came form a tenth century context (**SF7177**). **SF7177** came from a context belong to phase 4b of the site (Context 20819).

[356]Lincolnshire Archaeological Trust, F76Ae64. The pin is 51 mm long has a 7 mm wide head and it is 5 mm thick.

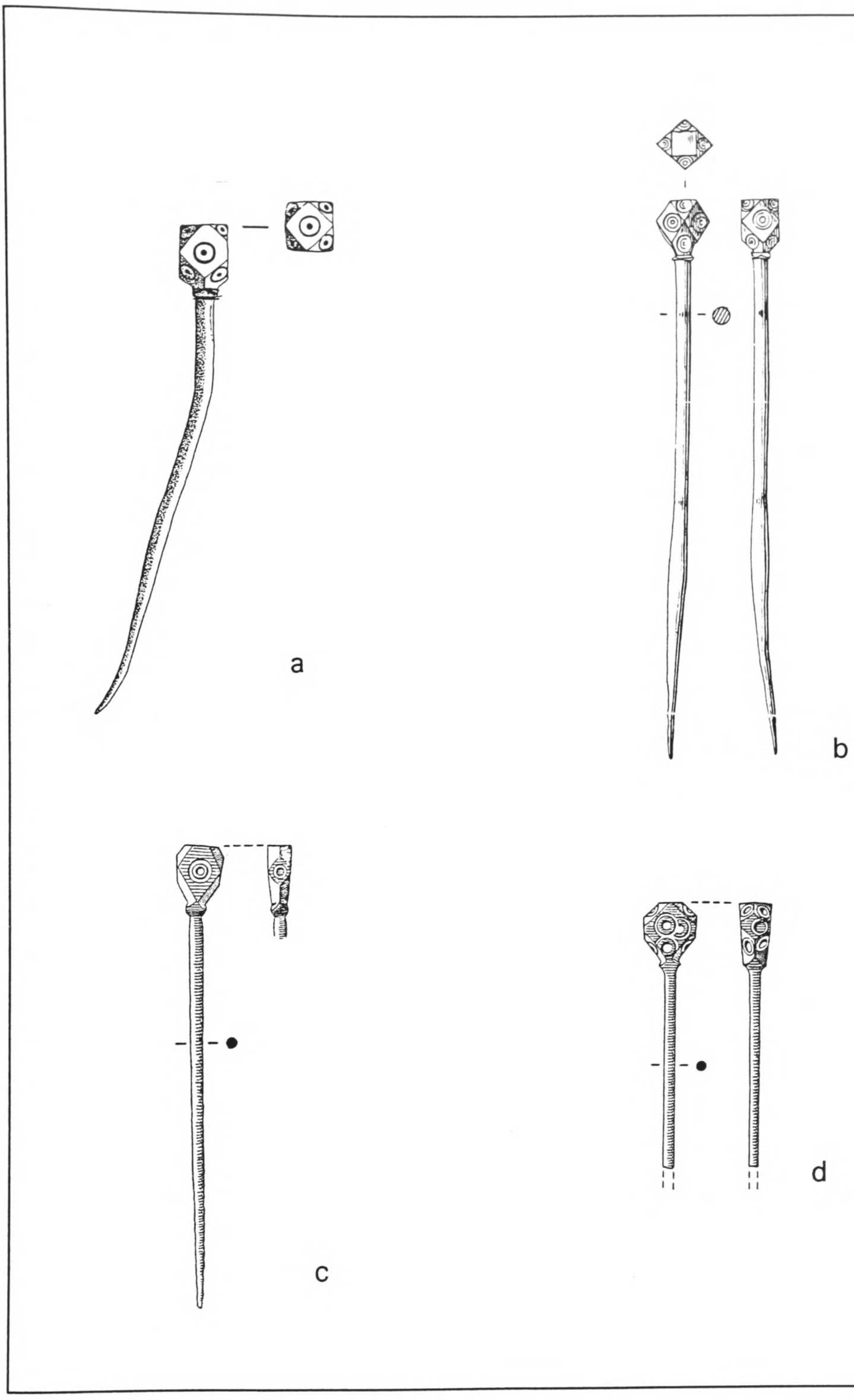

Figure 5.45

suggest a ninth – tenth century date, finds from other sites indicate a different date. The ring–and–dot decorated rectangular–facet–headed pin with a swollen shaft and a ring collar from Sedgeford came from a context which produced artefactual evidence which led Keith Wade to suggest that it belonged to a middle Saxon date [Fig 5.45.b]. A find from Great Whip/Gower Street in Ipswich was associated with local middle Saxon pottery (Hatton & Wade, IAS, pers comm, 1986). This 80 mm long pin had a substantial head measuring 7 mm x 7 mm x 8 mm.While most of our dates suggest a tenth century date for this sub–group we must account for this two finds. I would suggest that both these pins are residual. As yet we do not have a sufficient number of pins belonging to sub–group LXXII.iii to sub–divide them into variants and sub–variants, although it would not be surprising if they displayed variation similar to that seen in the two former sub–groups.

LXXII.iv. Hamwic Flattened–facet–headed Sub–type

[Map 5.25]

This sub–group includes pins with heads of about 2–3 mm thick, 4–7 mm long, and 4–7 mm wide. The largest example is Whitby **W.310**, with a head 5 mm thick and 9 mm wide. The corners are flattened so the pin–head has a faceted character. These pins are by comparison with the cuboid– or rectangular–headed pins flattened so it has become common to refer to them as flattened–facet–headed. They range in length between 45 mm and 85 mm. These pins have a full range of shaft forms. Available Continental data allows us to argue that this type is a middle Saxon variation of the cuboid– and rectangular–facet–headed pins. The head of pins belonging to the former group have an equal head width, length and thickness and the head of pins from the latter pins tend to be about 1 – 2+ mm longer than it is wide or thick. In the flat–facet–headed pins the head is generally around 2 – 3 mm thick, whereas the width and length of the head zone is in the standard range of 5 – 7 mm. As such the head of the pin appears flattened. There is a similar amount of variability within the flattened–faceted group. We can see a range of pins with matrix of collars, and a variety of shaft types. From the examples included in Appendix 1 we are able to divide the sub–group into the following subsets:

LXXII.iv. Pins with flattened facet heads
LXXII.iv.a. No collar:
..a.1. plain tapering shaft;
..a.2. swollen shaft;
..a.3. hipped shaft;
..a.4. shouldered shafts;
LXXII.iv.b. Incised Collars:
..b.1. plain tapering shaft;
..b.2. swollen shaft;
..b.3. hipped shaft;
..b.4. shouldered shafts;
LXXII.iv.c. Ring Collar:
..c.1. plain tapering shaft;
..c.2. swollen shaft;
..c.3. hipped shaft;
..c.4. shouldered shafts;

A great majority of these pins are decorated. One example of LXXII.iv.c.1, **SOU 24 002** is decorated on four main facets by ring-and-dot ornament. In some cases, as in **SOU 24 819**, a pin with a flatten faceted-head (3 mm thick x 7 mm wide) from Six Dials, the dot ornament is confined to the two main flat faces [sub-variant LXXII.iv.c.2].[357] **SOU 169 245** has single ring-and-dot on the front and back and on the sides of the head. Twenty-seven millimetres from the tip a line was incised into the shaft, below this the shaft is shouldered [sub-variant LXXII.iv.c.3]. **SF130**, from the Peabody site near the Strand, is a flattened-facet-headed pin decorated with ring-and-dot ornament.

Pins of this type come from York (Waterman 1959: 78 & figs 11.7 & 11.12) [Figs 5.45.c & .d] and controlled excavation at Southampton (Wilthew 1984),[358] Ipswich (Wade & Hatton, IAS, pers comm), Brandon (Carr 1985). They are known from several sites in the area of London between the Fleet and Trafalgar Square including, the Peabody Buildings site,[359] the Shorts Gardens site.[360] The majority of the contexts producing these pins produce other artefactual evidence or are stratigraphically placed to suggest they belong either to the seventh or to the eighth century. In this regard it is notable that they are **not** known from Coppergate, but do come from

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[357]Southampton Archaeological Unit, SF SOU 24 819.

[358]Southampton Archaeological Unit, small find no: SOU 24 819, 169 180, 169 245, & 169 1747.

[359]e.g., Passmore Edwards Museum, small find no: Peabody SF130.

[360]e.g., Passmore Edwards Museum, small find no: Shorts Gardens SF6.

Fishergate. One questionable group was published by Thomas Sheppard among the finds from South Ferriby. Here he assigned several of these pins to the Roman period, but this was certainly an error (1909, Plate VII, figs. 17, 18, 19). From among the large corpus of Roman pins discussed by Cool (1983) and Greep (1984) this head form is conspicuously absent, whereas as we have seen they are quite common on Anglo-Saxon sites. It now seems safe to re-assign this South Ferriby group to the middle Saxon period. This fits with the more recent evidence for the site which shows that it was intensively used (for what remains an unanswered question) during the middle Saxon period.

LXXIII. Flat Zoomorphic-headed Type

SMA 54T5, a pin fragment from York, is typical of a group of flat Zoomorphic relief decorated pins [Fig 5.46.a].[361] This pin, decorated only on its obverse face, survives in an incomplete state; after a length of 45 mm the shaft is lost. From the upper end the shaft expands to form a seat from which the flat-head blooms--two identical but opposed animals sit on their haunches. The snouts of the animals touch at the top and medial point of the pin. An ear of each animal extends beyond the pin's basic outline. From their gapping jaws long tongues hang out. These tongues, cross and terminate on the outer thigh of the opposing animal, and are stylistically similar to those seen on the Bolnhurst pin (Smallridge 1970: fig 1). A pin from Brandon has the heads of two serpents following the outer edge of the pin-head and meeting at the top medial point of the head [Fig 5.46.b]. They enclose a similar animal curled within the zone defined by their body.

Dating evidence is scanty and parallels few. A second similar pin came from Brandon, but this appears to have a more openwork character [Fig 5.46.c]. As I neared completion of this thesis Kevin Leahy showed me a recent find and similar find from Flixborough, but I am aware only of these four examples. The Flixborough example is different from the York find in that the animals face away from each other.[362] The Flixborough find is quite important because it is gilt and survives for its entire length of 71 mm. The head of this pin is 1.5 mm thick and the shaft has a 2 mm diameter except at the point of carination where it expands to 2.2 mm. Before the find at

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[361]Yorkshire Museum, acc no: SMA 54T5.

[362]Humberside Archaeological Unit, Flixborough small find 4163 from layer 3107.

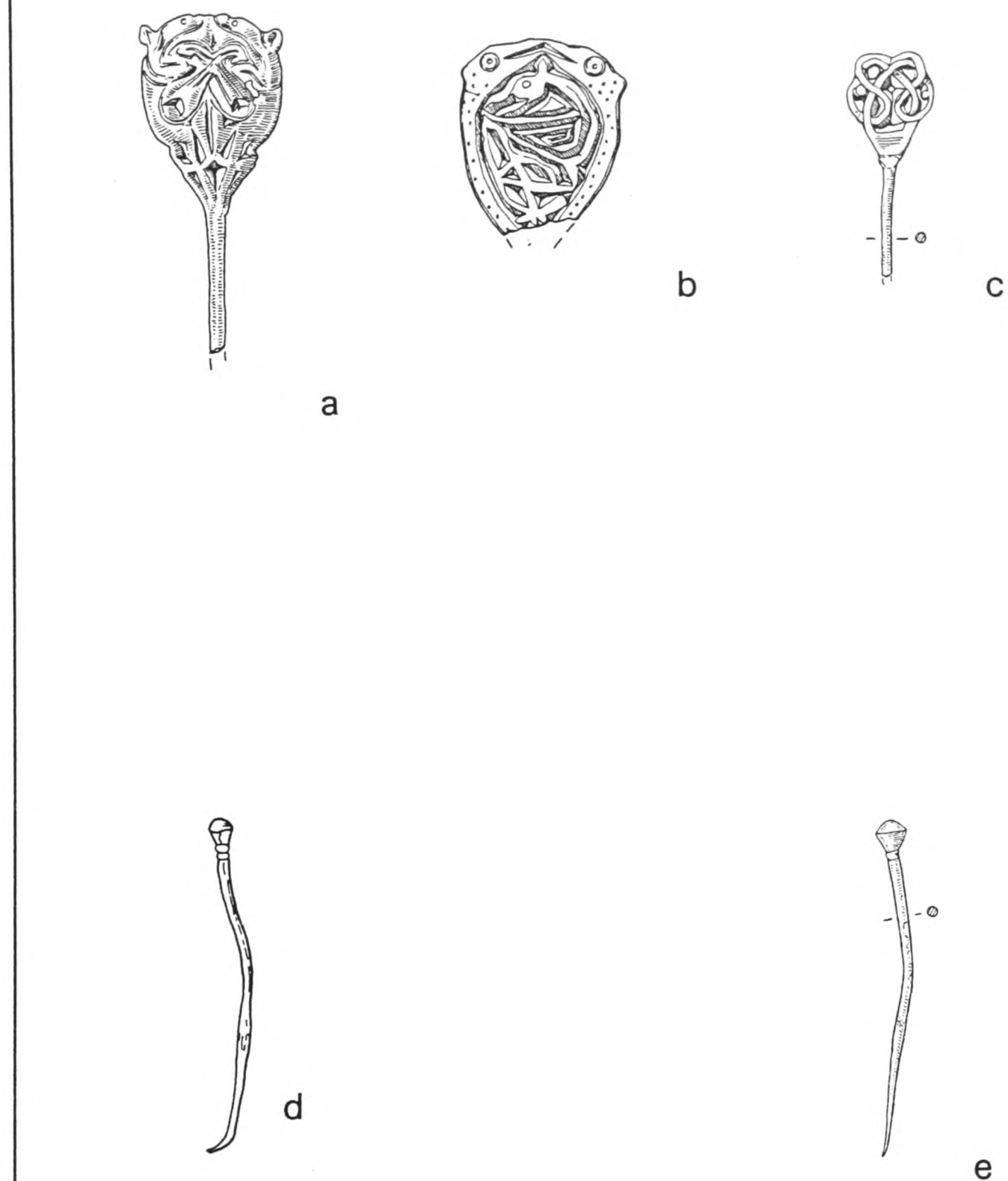

Figure 5.46

Flixborough we had no information about the character of the shafts of these pins. If the Flixborough example is accepted we may see these pins as having carinated hipped shafts. On stylistic grounds the Flixborough and Brandon pins belong to the late eighth or ninth century. The data relating to the contexts from which these pins were recovered confirms this dating.

Although the sample is only represented by four pins they divide neatly into two sub-groups: (i) plate-relief decorated pins, such as those from York and Flixborough, and (ii)open work decorated pins, a sub-group exemplified by one find from Brandon. The four extant examples indicate an Eastern and Northern distribution to the material. Confirmation of both the sub-divisions and the distribution of this type must await the recovery of further examples.

LXXIV. Witham Disc-headed Type

[Map 5.26]

This group incorporates pins with a discoid head-plate with a diameter greater than 20 mm and a thickness of less than 3 mm (except in places where bosses were attached).[363] These discs

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[363]A fragment of a gilt-bronze disc possibly from Ixworth (Suf) (Ashmolean Museum, acc no: 1909.448) might be part of a disc-headed pin (Hinton 1974: 24 [item 18]). David Hinton thought that this quarter of a disc included an equal-arm cross; the one surviving arm emanating from a hole in the centre of disc and terminating before the border in running spirals with shoots. This piece is probably considerably later than the bulk of disc-headed pins. As David Hinton pointed out, lobed leaves of this type occur on ninth century pieces and the only comparable 'equal-arm cross design occurs on the centre of the back mount of St. Cuthbert's portable altar' (ibid.). This is possibly early tenth century. The fact that it is incomplete makes it impossible to determine whether or not it is a brooch fragment or possibly a bookmount rather than part of a pin. On account of the separation of the disc chronologically from our main group and because we have no firm evidence that the disc formed part of a pin, I have decided to exclude it. A further fragment in the Ashmolean Museum (acc no: 1942.236) might be a portion of a disc-headed pin, but once again the surviving portion is too small to say for certain. The extant part is the central hole border and a fragment of decorated quadrant. A similar problem can be reported for the disc fragment from Hauxton Mill (Cambs) (University Museum of Archaeology and Anthropology [Cambridge], acc no: 2149.65) (Fox 1923: 298; Smith 1925: 245, fig 18; Lethbridge 1938: 324 Pl XII; Cramp 1964). It has also been excluded. I would make an identical case for the disc from Cambridge (Smith 1925: 245 & fig 17). This disc has an outer rim and is divided into four quadrants by bands which radiate from a central raised circle at each of 0°, 90°, 180° and 270°. The quadrants are decorated with linear ornament in the lower right and upper left quadrants having 'S-spirals' and the other two quadrants having a slightly less curvaceous character. There is nothing about this disc which suggests that it is appropriate to call it a disc-headed pin. A comparable fragment that, although it does not share complete decorative similarity with this example, is one from a grave at Lunde (Vangen Vos, Hordaland, Norway) (Petersen 1940: 182 & fig 148; Bakka 1963: fig 7; Wilson 1964: Pl II.d). I would be inclined to exercise caution at the thought of including the disc quadrant among the disc-headed pins. While there is little doubt this disc belongs to the group of late discs which have an outer border with ribbon interlace and an inner triangle of animal ornament nothing about the form of the disc makes it necessary to conclude it was a pin fragment. Objections of a similar nature could be raised to the obviously eighth century Anglo-Saxon open work disc recovered at Støtle (Norway) (Bakka 1963: 54-55 & fig 61). I am inclined to suggest that it was a book mount. A 122 mm long gilt copper alloy disc-headed pin with a 34 mm diameter head was recovered by metal detector users working in Losear Wood (nr Sheffield) (Sheffield Museum, acc no: 1985.669) [Fig 5.48.a]. The pin has a stepped collar, a tapering shaft

(continued...)

are decorated on the obverse face only; the reverse face is without exception plain. The pins were either cast with the shaft or had the shaft attached later. The form of the Witham pins has been taken, by many authors, as evidence to support the claim that these pins were worn as triplets. Most of these pins do have one hole on either the right or left side of the head. This suggests that they were linked with at least one other pin, and were worn as pairs. Nearly all the pins were gilt-bronze or bronze but some such as the pins from Meols Beach and Brandon were made in silver.

Past investigations of this group has included work by Evans (1892), Smith (1911; 1923), Sheppard (1914), Clark (1942), Cramp (1964), Wilson (1964), Smallridge (1969), and Bailey (1971), almost all of whom have focused mainly on the description and dating of particular pins (e.g. Wilson 1964; Sheppard 1914; Smith 1911). Three notable exceptions are Cramp (1964), Smallridge (1969) and Bailey (1971): Cramp made one of the earliest attempts to put these pins together into a precisely defined group; Smallridge (1969) showed the diversity of decorative motifs present and Bailey (1971), in his discussion of the disk from Pontefract, argued convincingly that many of these discoid pins were constructed of two independent elements (head and shaft). Taken as a whole, though, the published work on this group can be described as patchy. We now have enough examples, many as yet unpublished, to divide this pin group into a number of sub-groups and

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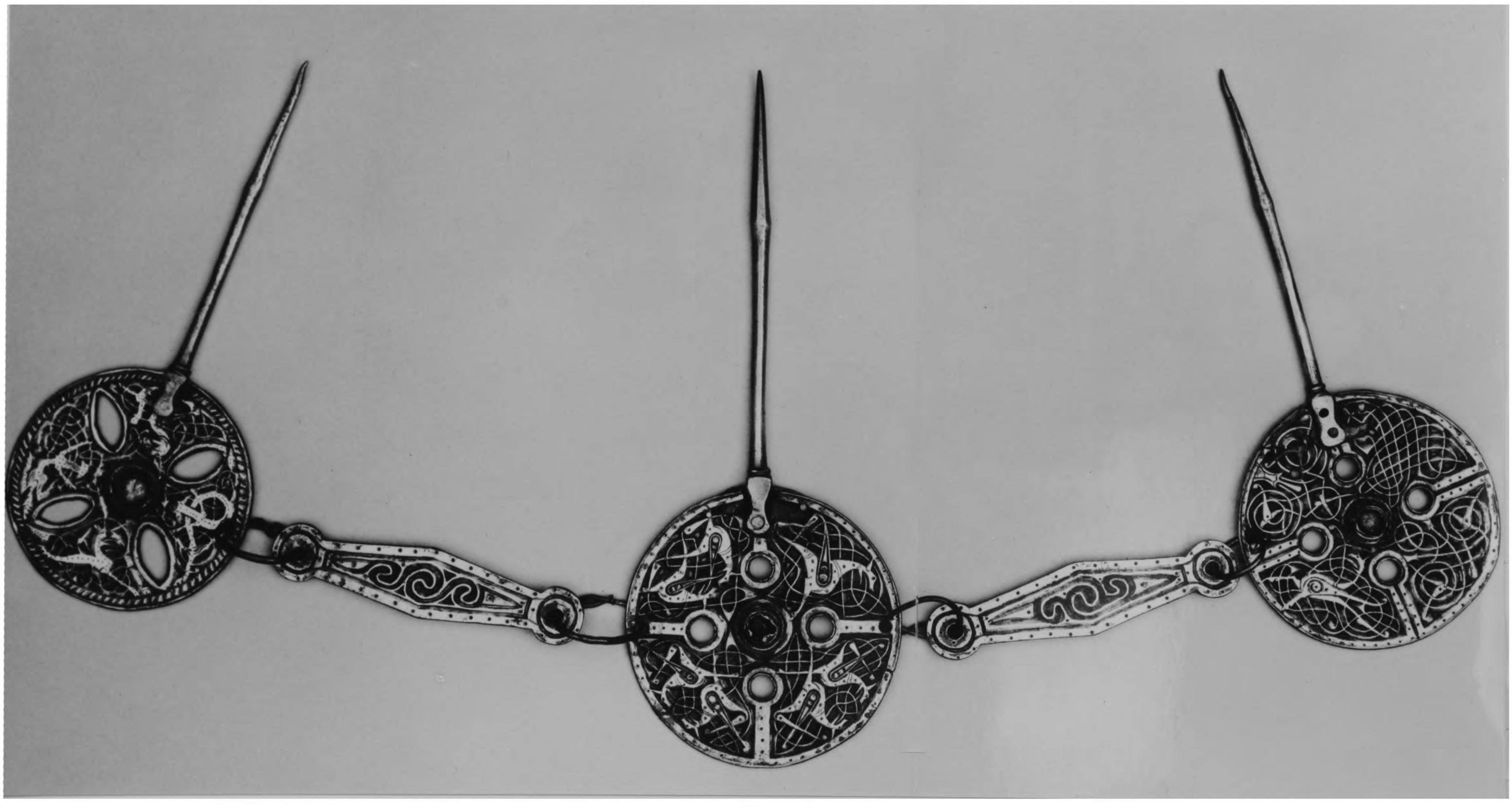
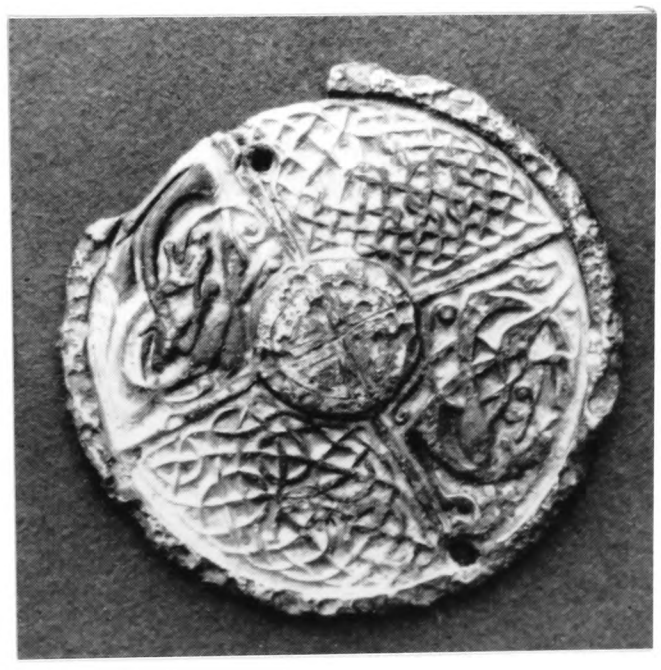
[363](...continued)
and an attachment for a chain on the right side of the head. The head was decorated with 4 entwined spiralling circles. It has been suggested that this pin should belong to our class, but this is problematic. Similar spiral ornament can, it will be agreed, be seen in Insular manuscripts. A further possible parallel is a bone disc-headed pin from London (Jessup 1950: Pl 1.3]). This pin measuring 66 mm in length, has a disc diameter of 19 mm and is 4 mm thick. The head was decorated with ring-and-dot ornament and had four notches cut from the edge and a hole punched through. In many ways it bears a great deal of similarity to this group. However the diameter of the disc head is 10 mm less than that which is common for cast disc-headed pins. This disc might be favourably compared to those bone disc-headed pins from terp sites (Roes 1963: Pl LIII.24, Pl LII.11 & .12). Another bone parallel with a hipped shaft, a wrythen decorated collar and head decorated with ring-and-dot ornament came from Northampton (Oakley & Harman in Williams 1979: 310 & fig 138.46). In a short note on this pin Oakley and Harman cite parallels from Southampton (Addyman & Hill 1969: fig 26.11), York (Waterman 1959: fig 11 nos 1-3) and Whitby. There is no parallel between these latter copper pins and the Northampton example. None of the examples cited has a head which in the slightest resembles a discoid head. Their other parallels to the Kegworth pin and the Witham pins are no more valid. Quite possibly this pin is middle Saxon as they suggest, although the pin itself came from phase 5 of house 9 which is a post-conquest context of the house (Williams 1979: 84-88). This should not cause us any difficulty because in the complex occupation sequence of this house there is ample reason to believe that earlier material was disturbed and redeposited. Features such as the wrythen collar, and the hipped shaft are particular strong indicators of the middle Saxon character of this find. Last there is the problematic find from 'a site near Scunthorpe' (S Humbs) [Fig 5.47.a]. This is not a portion of a disc-headed pin, but is a mount from a casket. The closest, although by no means exact, parallel I am aware of is on the silver plate on the coffin of St Cuthbert in Durham Cathedral. The arms of the cross have open C terminals with open-ends finishing at the edge of the head. A number of rivets have been placed through the head, none of these is positioned in such a way as to have secured a shaft to the disc. A further disc from Flixborough might be from a pin-head but it need not be [Fig 5.47.b] (see the discussion of Pontefract disc below).





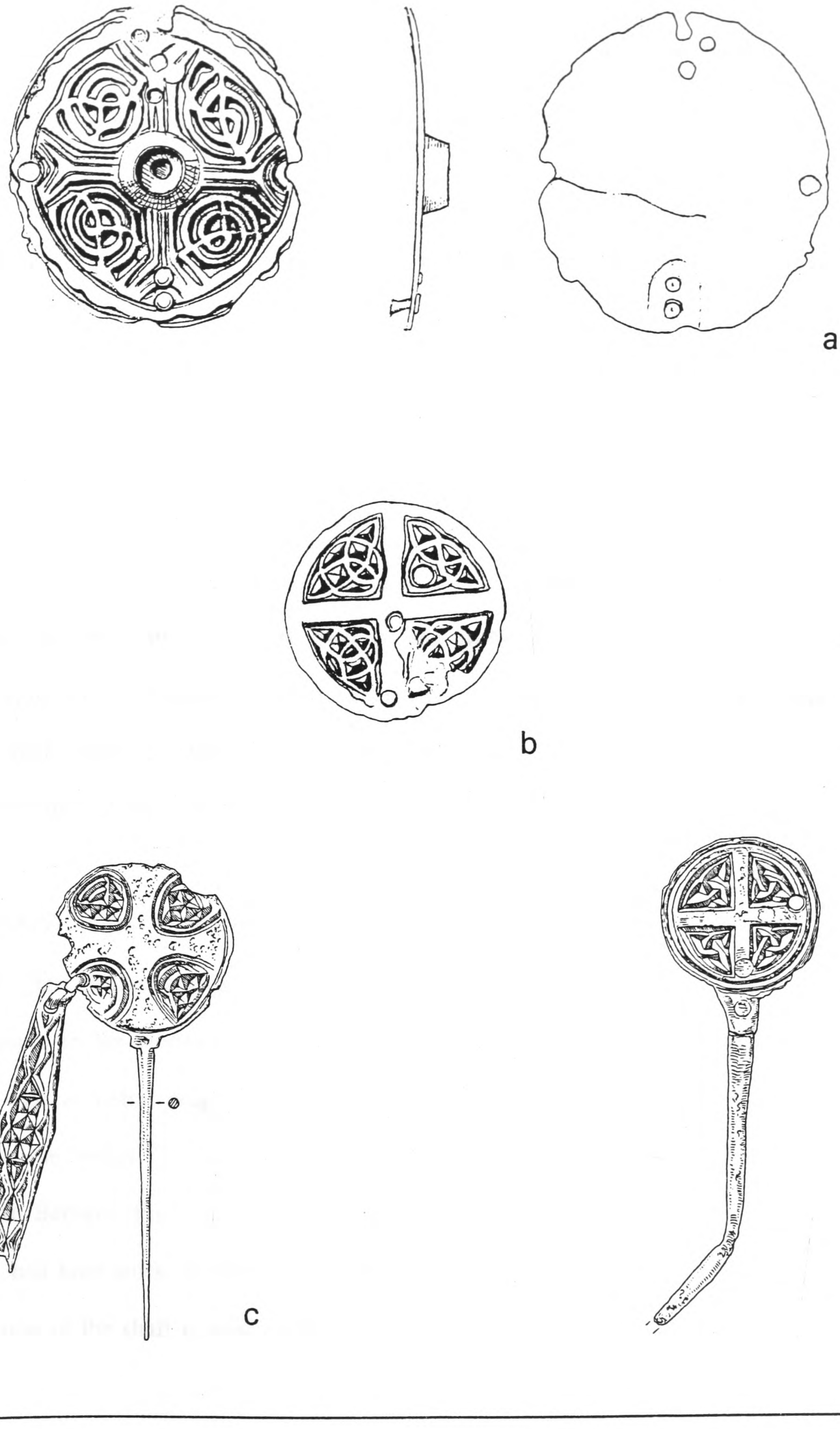


Figure 5.47

variants. The disc-headed group actually hides a great deal of diversity.

There are two main sub-groups of disc-headed pins: those where the head and the shaft were cast as a single unit (sub-group **LXXIV.i**), and those where the main elements were made separately (sub-group **LXXIV.ii**). The former group can be sub-divided into those decorated in relief only (variant **LXXIV.i.a**) (e.g. Barham [Fig 5.48.c]) and those decorated with bosses or settings for glass or precious stones (variant **LXXIV.i.b**) (e.g. Hitchin [Fig 5.48.b]). Both variants may be sub-divided into sub-variants depending upon decorative patterns and how the space on the face of the pins is divided up. Each of these sub-variants can be further sub-divided. Besides being disc-headed these pins share the additional characteristic that they were probably intended to be worn as a set or in some cases as a triplet (Witham Pins [Pl 5.II]). While we can divide the pins by construction into groups as described above it is also possible to divide the pins into different groups based solely upon the decorative motifs. Some like the pins from Brandon, Witham, and Mavourne, clearly were decorated with interlaced animal ornament. These can be contrasted with those pins decorated with knot-work designs. The finds from Barham [Fig 5.48.c], Chichester, Kegworth [Fig 5.47.c], Pontefract, and one from an as yet unspecified site (hereafter 'Site X') on the Yorkshire Wolds between Driffield and Malton, are typical. The pins decorated with interlace can be found in either of the first two sub-groups as can pins decorated with knotwork.

LXXIV.i. Cast Disc-headed

The pins of this sub-group were produced by casting the head and shaft as a single unit. In an example in the Norwich Castle Museum a 33 mm copper alloy disc is divided into four quadrants with a central projecting setting. The settings on each of the arms cross before they terminate at the border.[364] Each of the four quadrants has a different decorative pattern. A silver gilt pin from Barham [Fig 5.48.c] divided into four quadrants by bands, often described as an equal arm cross, had knot work decoration in each quadrant.[365] The pin was cast as a single piece and only a portion of the shaft is now extant.

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[364]Norfolk Castle Museum, acc no: 12.950.

[365]Ipswich Archaeological Unit, IAS 018 389.

a

b

c

Colour Plate III

A copper alloy pin found sometime before 1914 at Roos (North Humberside) has an incomplete shaft and decoration on only one face (Sheppard 1914: 11, fig; 1915: 52, fig; Clark 1942: fig facing 333).[366] The disc is 28 mm in diameter and the pin survives to a length of 47 mm. The extant portion of the shank is now bent back. The face of the pin is decorated with an expanded arm cross and a border runs around the outside of the pin. The arms of the cross terminate at the border and the space between the arms of the cross is uniformly decorated with knot-work ornament. Two holes were punched through the face of the pin, one punched from the front and one punched from the rear of the pin. The first hole cuts through the arm of the cross which passes between quadrants 1 and 2. The second hole cuts into the border of the pin above quadrant 4. Another pin from nearby at South Ferriby[367] is made in a (?)silver gilt copper alloy(?). Like the pin from Roos this pin is incomplete. The diameter of this pin-head is 24 mm. Quadrants 2 & 3 survive. Quadrant 3 is adorned with knot-work, whereas 2 appears to have been decorated with vine shoots.

The knot-work decoration on the majority of these cast pins is not deeply cut and has a flat appearance. This is not true, however, of the bronze pin from Kegworth recovered by Douglas Bedford while digging in mounds near The Hermitage, Kegworth (Derby). The Kegworth pin has a head diameter of 27 mm, it is 72 mm long and has a shaft diameter of 2.5 mm tapering to less than 2 mm (Cramp 1964: Pl II; Wilson 1964: Pl III.a) [Fig 5.47.c & Plate III.b].[368] Decoration on the face of the pin is compartmentalised by an expanded arm cross which forms four quadrants between the arms and the edge of the pin-head. These quadrants are adorned with a knot-work design. Attached to the head by a wire ring, which passes through a hole in the right side of the head, is an elongated diamond plate with decoration only on the front face.[369] The knotwork decoration has a very sharp, almost chip-carved character to it.

A consistent feature of these pins is the division of the head into quadrants. This division can be seen on all but a few of the pins. One example where it does not apply is on one of the

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[366]Hull Museum Services, acc no: 1500.42.

[367]Hull Museum, acc no: 1501.42.

[368]Leicester Museum Service (Jewry Wall Museum), acc no: II IL 1956.

[369]The diamond plate has flattened ends with a width of 5 mm and it expands in the centre to 10 mm in width. It is 44 mm long.

disc-headed pins from Meols (Clark 1942: fig on 335; Bu'Lock 1961: 9-10, fig 3 & Pl 2).[370] Here the disc-headed pin, which probably originally measured 30 mm in diameter, survives in a very fragmentary condition. The pin-head was decorated with chip-carved linear ornament and embellished with a central boss. The pin is not divided into quadrants by a cross motif, but is decorated in free form. As Bu'Lock noted, the closest parallel for these pins are the moulds from the Mote of Mark (Curle 1914: 147), but this is exceptional.

The pins decorated with set-bosses and lacking either an equal arm or an expanded arm cross include those from Hitchin [Fig 5.48.b][371] and the fragment from Wymeswold (Leics) [Fig 5.48.d] (sub-group **LXXIV.i.b**). The pin from St Andrews Street, Hitchin, has a silver-gilt disc-head decorated with chip-carved interlace (Evans,1892: 257; Wilson 1964: 58, 105 & Pl II(A)). The pin survives for 74 mm, has a 21 mm diameter head and the head is 29 mm long. Five glass studs decorate the face; one in the centre and four equidistant between the centre and the border. Each setting is secured in place by beaded silver wire and a rivet which can be seen on the reverse of the pin. The pin has an undecorated reverse. A chip-carved surface separates the settings. An examination of the slightly enlarged colour illustration of the pin makes the pointed character of the interlace evident [see Cl Pl III.a]. A loop set perpendicular to the plane of the disc crowns the disc. The shaft is plain and tapering. Until fairly recently this pin was unique, a recent find of a silver gilt pin from Wymeswold cast as a single piece offers a possible parallel.[372] Only about 25% of the head survives but from this it is possible to determine that it originally had a diameter of 25 mm. The shaft is round in section throughout and has a diameter of 2.5 mm. The head of the pin is decorated with ribbon interlace ornament and has 'bossed' settings which would originally have held glass insets. Like many recent finds the pin from Wymeswold does not come from controlled excavation but was recovered by metal-detector work. These same efforts produced not only this pin but also several *sceattas* (one of which dates c.720) and more recently a silver coin of Offa from the same area as the pin. All these point to an eighth-century date for the use of the site. The pin

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[370]Grosvenor Museum (Chester).

[371]Letchworth Museum, acc no: 1575-1976.

[372]Leicestershire Museums, Art Galleries & Records Service, acc no: 104.1987. This pin was recovered in 1986 by a metal detector user.

would certainly not be out of place in this context. The Hitchin and Wymeswold pins have been grouped into variant **LXXIV.i.b**.

LXXIV.ii. Fabricated disc-headed Sub-type

In this group the head and shaft of the pin were made independently. Richard Bailey described the 39 mm diameter copper alloy disc recovered from Pontefract (1971: 405-406, Plate II). Its obverse face is decorated and gilt with a border running around the pin edge. The space within this border has been divided by an equal arm cross with expanded arms and decorated with a central boss at the junction of the arms. The cross creates four pie-slice quadrants each of which holds 'chip-carved' knot-work designs. The function of this Pontefract disc is difficult to determine, but the distribution of rivet holes only in the lower quadrant of the disc would indicate that it was not intended as a book mount, although I, like Bailey, have difficulty explaining the large number of holes. It seems that this disc was originally intended to be the head of a pin. As Bailey suggests, many of the holes were necessary to secure the shaft of the pin to its head.

The Pontefract pin-head can be closely paralleled by a 30 mm diameter gilt copper alloy disc from 'Site X' in the Yorkshire Wolds (Haldenby 1990: 53, fig 1.2). The pin-head is divided into four quadrants by a cross with expanded arms. The arms of the cross terminate before the edge of the pin-head, which is marked by a slightly raised border. A raised boss decorates the intersection of the four cross-arms. The lower cross arm has two rivets through it which could have functioned to fasten the pin-head to the shaft. Each of the four quadrants is filled with knot-work identical to the type seen on the Pontefract disc.

Work at 'Site X' produced another disc from a disc-headed pin. The 35 mm diameter gilt copper alloy disc is divided into four quadrants by a cross with expanded arms. The pin has a raised border edge. Both the edge and the cross are decorated by a series of punched dots, and the junction of the four arms is graced with a boss. Only one of the quadrants has knot-work ornament; one of the other two has zoomorphic decoration and the third and fourth zones are decorated with vegetation ornament. The shaft of this pin-head shows no sign of having been riveted on, and Haldenby has suggested that this shaft must have been soldered to the pin-head (Haldenby 1990: 51, fig 1.1).

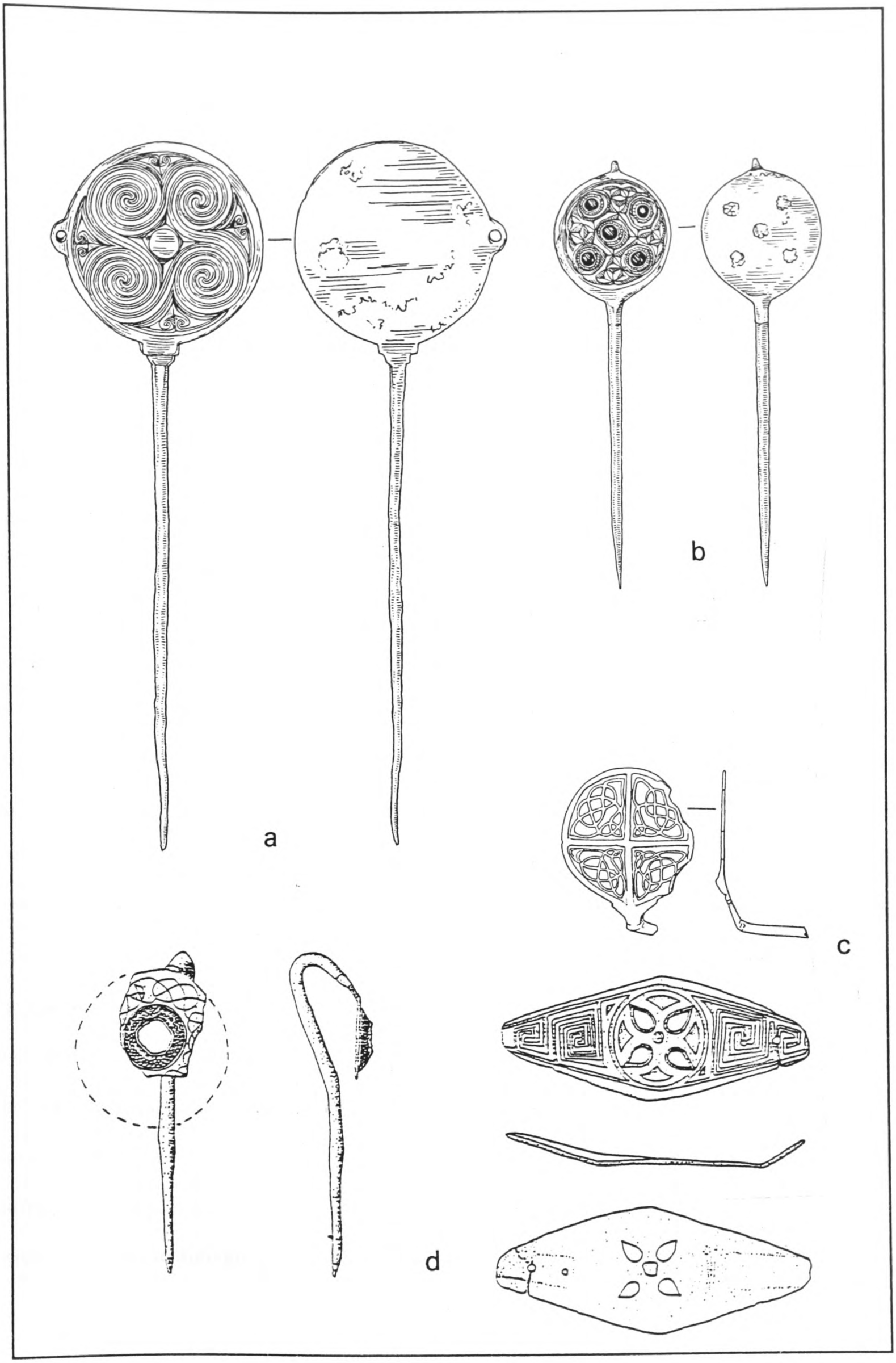

Figure 5.48

If Haldenby is correct and the stem of this pin had been soldered to the shaft, we have a crucial piece of information in our attempt to explain the previously inexplicable holes in the head of the pins. These holes, as is evident from those made in Pontefract disc, do not respect the design of the pin-head. This would lead me to argue that they were not intended by the original maker, but were a secondary addition. Solder is not always the most best way to secure two pieces as a single unit for a long period. If the shaft of the pin breaks away from the pin-head, the easiest way rejoin the two units is with rivets and many of the additional holes may make sense in this light. Some holes may still have been used, as Clark has proposed, to stitch the disc to the wearer's garment (1942). While such an explanation does account for some of the rivets it does not explain them all, as some seem to have been primary.

Cramp examined the find of 'An Anglo-Saxon pin from Birdoswald' (Cramp 1964: 90-3 & Pl I) [Fig 5.47.d]. This 74 mm long gilt-bronze pin has a head-diameter of 24 mm.[373] The face of the pin is decorated with an equal arm cross which divides the obverse face into four pie-slice quadrants. These are filled with geometric ornament which has a pointed character--similar to that on the Kegworth pin. 'The head-plate and pin have been cast separately and neatly slotted together, held firm by an iron rivet.'(ibid. 90). The quality of the work indicated to Professor Cramp that this arrangement was primary. It is odd that an iron rivet was used. But if we were to assume the use of iron rivets for fastening most of the shafts to the discs we might be able to explain the loss of the heads from these pins. However, when I examined the construction of the shaft I found reason to doubt the assumption that the fabrication was primary. The break in the shaft occurs several mm below the head (a point clearly evident in Fig 5.47.d]. The present shaft is held in place by two rivets. One of these passes through a hole made in the lower arm of the equal arm cross and the other passes through a hole in the stub of a shaft which extends below the head of the pin. The presence of the stub indicates that the pin was originally cast as a single piece and when the shaft broke a craftsman repaired it taking advantage of the portion of the original shaft. So, this pin actually belongs to sub-group **LXXIV.i.a**.

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[373]Tullie House [City Museum & Art Gallery], acc no: 40-1965, (Richardson, pers comm).

The gilt-copper alloy disc from Ixworth has four quadrants (Smith 1911: 337 & fig 7; Smith 1925: 245 & fig 16; Wilson 1964: 137 & Pl XIX.25).[374] These were created by a horizontal and a vertical band. These cross at the centre of the disc and the point is capped by a boss. Both bands are decorated by dots which rundown the length of the band. The vertical band has hole in the upper and lower zone. The horizontal band has three complete holes and one fractured. Two of these are in similar positions to those on the vertical band while the other two are closer to the edge. Indeed the latter holes were close enough that minimal damage to one edge of the disc resulted in the breaking of the hole. All four zones were decorated by quadruped animals (which appear to be horses) set in a field of interlace.

The Witham pins are also part of this sub-group--the heads and the shaft were made as independent units [Pl 5.II]. Wilson examined the discs themselves closely and has produced a in-depth iconographic description (1964). We cannot improve his work here, but three points, the significance of which appears to have been overlooked, might benefit from further consideration: (1) all three discs were made from separate designs and only two can be said to be moderately stylistically similar since the third disc (right most of the three) is stylistically and decoratively different from the others; (2) the holes in the head for linking the pins together are not original; (3) the shafts of the pins were attached later. The shafts of all three pins are identical as are the two link-plates. It would seem plausible to suggest that these pins began life as three gilt discs and at some later stage they were 'cobbled together' to form a pin-suite. It was at this later stage that the attachment plates and pin shafts were made.

Function and Date

I have noted the numerous holes in the heads of pins of both sub-groups **LXXIV.i** and **LXXIV.ii**, as well as the loop on the top of the pin from **LXXIV.i.b**. From this evidence it is safe to conclude that these pins were worn in pairs. The discovery of the triplet from Witham led to the

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[374]BM M&LA, acc no: 1927,12-12,23. In the illustration accompanying the 1871 publication the disc appears to have a brooch like fastening pin behind (Hills 1871 *JBAA* xxvii: 259[item 3] & Pl 12.3). Wilson (1964: Pl XIX.25) and Bruce-Mitford (1956: Pl XXX.A) both produce photographs (possibly the same one) that show a pin extending beyond the edge of the pin. From this evidence one wonders if this is a late disc brooch, as both Wilson and Bruce-Mitford called it, or whether it is a disc-headed pin. Two small bosses appear on the vertical arms of the cross. These were lost by the time Smith examined the pin in the early twentieth century.

suggestion that they were actually triplets, but, as I mentioned above, this is the only example of this arrangement and may therefore be a unique arrangement.

Among the fabricated group it is difficult to distinguish between those discs which were originally intended to be mounts (i.e. book mounts) and those which were intended to be used to make pins. There can be little doubt that pins such as those from Kegworth were intended from the start to be pins, but the same can hardly be asserted unequivocally of the Witham pins. One such problematic disc comes from Mavourne Farm (Bolnhurst, Beds) [Pl 5.III.3]. This 39 mm diameter copper alloy disc is divided into four pie-slice shaped quadrants by what Ann Smallridge has described as a 'slight relief equal arm cross' (1969: 13). Two of the quadrants (clockwise 2 & 4 as seen in Smallridge fig 1) are decorated with animal design and two (clockwise 1 & 3) are adorned with ribboned interlace. The two quadrants with animal designs are not identical, although they both contain two creatures with flat snouts, and a ribbon body which terminates in a rectangular foot. In quadrant 2 one animal, 'a', crosses over a second animal, 'b', with its tongue passing under the hind quarters of animal 'b'. The tongue of animal 'a' crosses over the hind quarters of animal 'b'. In quadrant 4 the heads of the crossed over animals bend back to confront each other. This decoration can also be seen on the pin from Brandon [Cl Pl III.b].

Little has changed since Rosemary Cramp pointed out in 1964 that 'the latter disc-headed pins, like that from Bridoswald, are all stray finds'(91). Most of the dating of these pins must be based on art historical grounds and has so far received only limited confirmation from the archaeological contexts. Although none of the known pins come from closed and secure contexts at least two can be shown to have come from middle Saxon sites. These are the pins from Brandon and Barham--at both these sites the concentrations of Thetford ware have led Carr (1985, Carr et.al. 1988) and Newman (forthcoming) to argue that these sites were predominately used during the middle Saxon period. It is possible that the site of Flixborough is also middle Saxon; certainly the majority of other pins from there are, although some are unquestionably ninth century, if not early tenth century finds (a difficulty we shall touch on in the concluding chapter). The fundamental difficulty with the find of all these pins is that with the exception of the pin from Brandon these pins do not come from controlled excavations. The majority are either stray finds or, as in the case of the pin from Barham, metal-detector finds. As such the context of their recovery provides us with

little information about their dating. The majority of the evidence for dating must be gathered by making comparisons with art historical styles.

The decoration on the Brandon disc-headed pin closely parallels that on the Gandersheim casket. The Gandersheim casket was constructed from carved bone panels and copper alloy fasteners.[375] Analysis of the decoration places the casket in the eighth century. In 1924 Brøndsted noticed the relationship between the decoration on the Gandersheim Casket and that on the Ixworth disc and the Witham pins (Brøndsted 1924: 138-141).

Smallridge's discussion of the dating of the disc from Mavourne Farm provides helpful evidence for dating this type in general. She suggests that the pin came from the sphere of Anglo-Carolingian metalwork. The animals on this disc compare favourably to those on the Elstow Cross shaft (Baker 1969: 30-1, Pl Ib). Smallridge argued that

> Unlike the sceatta of 700-750 where the animal bodies are completely subordinate to the interlace design, the portrayal of the animals on the Mavourne disc moves towards the naturalistic style of the animals in the roundels of manuscripts of the Canterbury school (c.750-825). (1969: 15).

Based on the similarity between the decoration on these roundels and that on the disc from Mavourne Farm, Smallridge has argued that the disc from Mavourne Farm should be dated at the close of the eighth century and later than the decoration on the Witham pins. She suggested that this pin belonged to the school of Anglian and Mercian craftsmen.

Bailey thinks that the pin from Pontefract belongs to the eighth century and argues this from the use of chip-carving and the gilt character of the pin. This is fine, but the crucial dating evidence here must be the use of the knot-work decoration. An unstudied area, but one in which further study of this group might be possible, is the relationship between the form and design of these pins and that of sculptured crosses. Clarke had wondered about this nearly 50 years ago, but had not been satisfied with the comparative value of the published examples (1942: 337). If the connection between sculpted crosses and pins were considered it might be possible to say something more specific about the chronology and about the exchange of iconographical information. There are

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[375] In the Herzog Anton-Ulrich Museum, Brunswick (FRG). see Brøndsted, *Early English Ornament*, (London, 1924), fig 115 or Wilson 1964: Pl I.a or Wilson 1984: fig 60. Brøndsted proposed that the casket belonged to the early ninth century. The casket bears an inscription on its base. The text of which translates as 'Holy Virgin be thou a light to Ely'. The authenticity of the inscription has been questioned and it is now considered dubious.

striking parallels between the bossed arrangements on standing crosses and on the pins we have considered here. Further, sculpted crosses and these disc-headed pins divide space into quadrants and employ similar cross forms. For example, on the cross-head of the Gosforth cross the arms of the cross extend beyond the band which divides the cross into quadrants (Bailey & Cramp, 1988: fig 289) and this can be contrasted with the form of the Gosforth 2A cross fragment which shows the arms of the cross terminating in the same line as the banding (ibid. fig 309). An arrangement similar to the latter occurs on the Kirkby Stephen 7A cross (ibid. fig 414a). In the case of all these crosses the central meeting point bears a raised boss.

Before concluding this discussion one final example of disc-headed pin needs to be taken into account. This is the pair of disc-headed pins from the Talnotrie (Maxwell 1912: 12-16; Wilson 1964: Pl IV.d; Laing 1973: 47 - 48). Both are decorated on the obverse face. These pins measure 78 mm in length. The left pin has a head diameter of 18.5 mm[376] and the right one has an head diameter of 18 mm.[377] These may be similar to the pins discussed above, but they have a significantly smaller head diameter and also share none of the decorative characteristics seen on the pins described as part of group **LXXV**. They were obviously intended to be worn as a pair and whether their function was similar to that of the disc-headed pins cannot be determined. They would certainly be dated at the very end of our group: the coins suggest that the hoard was buried shortly after about 875.

As the map suggests, these finds have a clear Northern and Eastern distribution of these finds. With the exception of the find from Chichester (the provenance of which is cloudy, in any case) the majority of the pins come from North of the Thames.

LXXV. Upside-down conical/trapezoid-headed Type

The shaft of these pins terminates in an upside-down conical or trapezoid block which expands away from the shaft. In other words, the narrowest part of the cone or trapezoid is at the shaft-end and the widest portion is at the termination of the pin. The pins with an upside trapezoid forms sub-group **LXXV.i** and those with a conical head sub-group **LXXV.ii**. The prototype of the

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[376]National Museum of Scotland (Edinburgh), acc no: FC 201.

[377]National Museum of Scotland (Edinburgh), acc no: FC 202.

pins of sub-group **LXXV.i** is a 65 mm long pin from Coppergate (York) **SF6789**.[378] The head of this pin expands from 5.5 mm wide to 8.2 mm wide. Typical of sub-group **LXXV.ii** is a pin from Fishergate, **SF4573**, measuring 65 mm in length. The pin had a shaft with a 2 mm diameter and the head expands at the top of the cone to a 5 mm diameter. Until quite recently these pins were quite rare. Work at the site of Flixborough has produced a substantial number of members for this sub-types i & ii.[379] We can assume that this type is Northern, and probably includes a number of sub-types which will be better sorted out when the Flixborough material is available for publication. Coppergate **SF6789** came from context 6950 which Tweddle tells me belongs to phase 5 of the site; a phase thought to begin in the late tenth century and to last until the second half of the eleventh century.

LXXVI. Racquet-headed or lollipop-headed Type

[Map 5.27]

These pins have a head resembling either a modern squash-racquet or a lollipop. One from York measures 67 mm long with a head thickness of 1 mm; the shaft diameter of 2 mm is typical. The maximum width of the head is 11 mm and from top to bottom it is 14 mm long.[380] The great majority of the racquet-headed pins were adorned with ring-and-dot decoration [Figs 5.49.a, .b & .c]. These dots were often punched through the head of the pin. The maker of these pins obviously saw one side of the head as the obverse and the other as the reverse. In Whitby **W.329** 4 ring-and-dots were punched on the outside edge of the obverse face.

Some of the diversity in the form of the racquet-headed pins can be seen by glancing at the figures in Waterman's discussion of the finds from York (1959: fig 11.1, 11.2, 11.3). A gilt bronze racquet-headed pin from 'Site X' has more complex decoration than is seen on most racquet-headed pins (Haldenby 1990: fig 1.3). The head of this pin was bisected along the longitudinal-medial line

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[378]York Archaeological Trust, Coppergate, small find 6789.

[379]Humberside Archaeological Unit, small find nos: SF2878, SF5457, SF5953, and SF2364 are all examples of sub-type **LXXV.i**, examples of sub-type **LXXV.ii** include: SF5047.

[380]Yorkshire Museum, acc no: H1102.

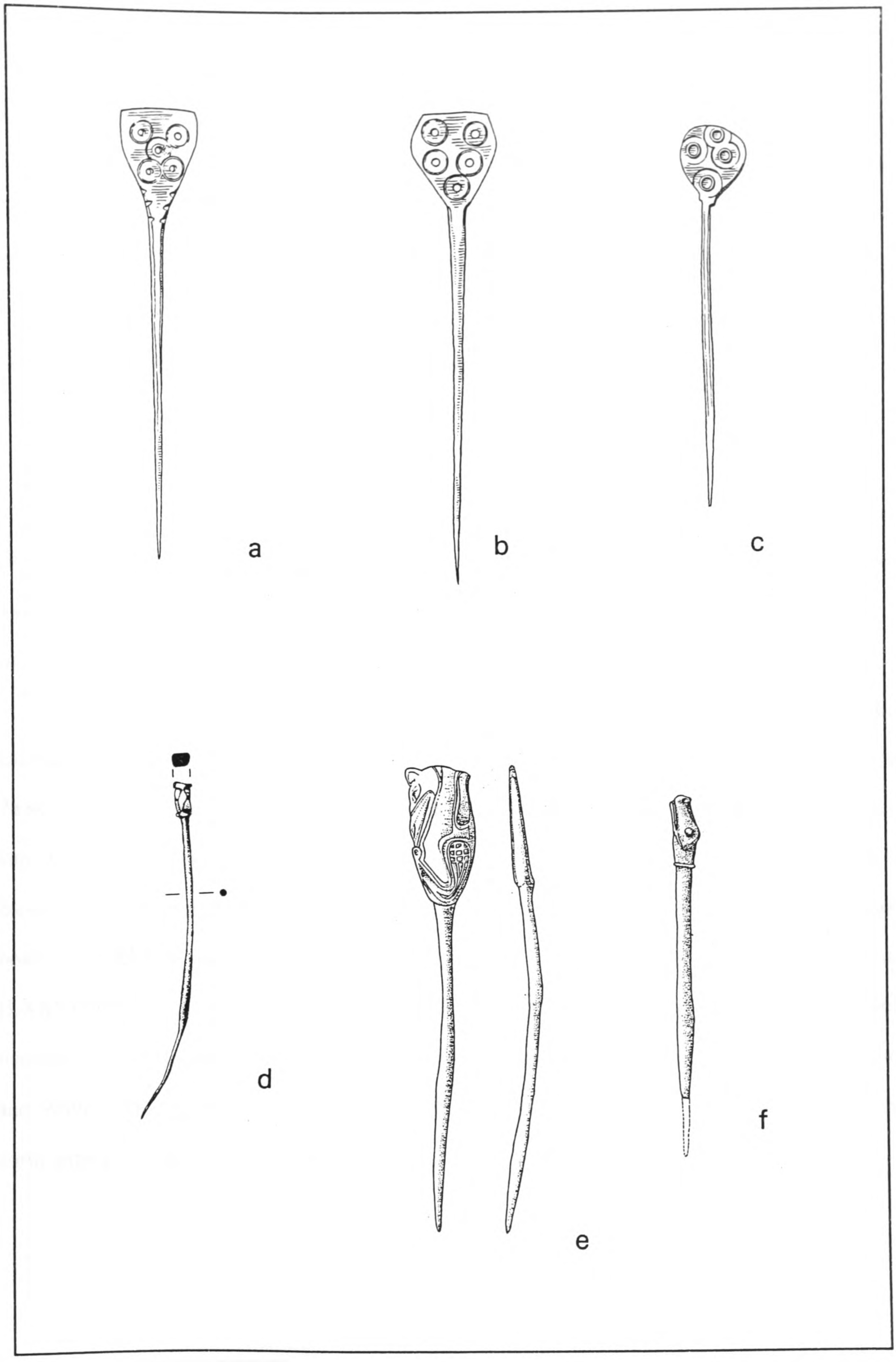

Figure 5.49

of the pin and the two zones were decorated with interlace ornament. The right zone has been pierced by a single hole, meaning that this pin was possibly the left hand member of a suite of pins. Similar pins came from Whitby (Peers and Radford 1943: 61 & fig 13.1, 13.7a, & 13.7). Both these pins were decorated with flat rings surrounding dots punched through the head of the pin. While racquet-headed pins were the most common, a number of other forms shared close affinity. One example from York, produced in copper alloy, measures 79 mm in length with a head that expands from a 3 mm shaft width to an upper head width of 13 mm.[381] The pin-head is 1 mm thick and the top edge of the pin is straight. Both the obverse and reverse of the pin-head were decorated with punched ring-and-dot ornament. Closely related is a pin in the Yorkshire Museum with a flat 1 mm thick head which expands in width from 3 mm to 14 mm before it contracts to 11 mm in width at the very end of the pin.[382] The shaft of the pin tapers along its 82 mm length. To these finds we may now add **SF4168** from Flixborough (Whitwell & Leahy, pers comm). This 75 mm long pin has a shaft diameter of 2.25 mm except where the shaft swells at which point it is 3 mm in diameter.

I propose that these pins were made from cast solid-headed pins. These were flattened after casting. For instance, Flixborough **SF4168** was produced from a flat-topped-inverted-pear, **SF 2838** from an inverted-pear-headed pin and **SF 417** from a biconical-headed pin. If we were to sub-divide these pins it would be on the basis of the outline of the head. It might be possible to create sub-groups of flat-spherical [**LXXVI.i**], flat-biconical [**LXXVI.ii**], and inverted-pear-headed [**LXXVI.iii**] pins (this latter group might have the variant of flat-topped-inverted-pear [**LXXVI.iii.a**]. A find of a racquet-headed pin from Strathtay gives the distribution its furthest northern parallel (Laing 1973: 47). Most of the other known examples come from sites such as York and Whitby. This group of pins is distributed predominately in the areas of Yorkshire and to the north with a few rare outliers in East Anglia, and at Southampton.

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[381]Yorkshire Museum, acc no: H2001.

[382]Yorkshire Museum, acc no: H2000.

LXXVII. Loaf-headed Type

These pins have a rectangular facet-knob below a flat-loaf which sits like a mortarboard on top of the pin. The shafts were either plain tapering or swollen. In some cases the rectangular faceted-knob does not terminate in the shaft but is itself seated on a further flat-loaf.[383] These pins were probably produced by filing off facets from a rectangular terminal to form a hat above a faceted rectangle. One example, decorated on its four main faces by punched dots, comes from Fishergate (York)[384] and survives for 45 mm and has a 2 mm diameter shaft. Another parallel comes from Dacre[385] (Cumbria) [Fig 5.49.d] and a more recent discovery from Flixborough[386].

With only three examples from English sites one wonders about the origin of these loaf-headed pins. Were they a short-lived individual type? Were they an import? A close parallel from Haithabu comes to mind, but this pin has a hole bored through its head and this holds a wire ring with twisted over ends (Jankuhn 1943: Abb 73d). Two other pins of similar form were decorated by ring-and-dot ornament and do not have holes bored through their heads (ibid. Abb 73e). A ninth-century date for the pin does seem well supported at Haithabu (ibid. 146-7). We do not yet have sufficient evidence to decide whether these are English pins exported to the Continent or foreign pins imported into England.

LXXVIII. Flixborough Animal-headed Type

Excavations at Flixborough have led to the recovery of a full range of middle Saxon pins. But the pins from the site are not confined to types such as *hot-air-balloon-headed* or *spherical-headed* pins and may not be limited to middle Saxon forms. Among the other types are several pins decorated or terminating in an animal head. Since the site is unpublished and the information about the pins is limited, I am in a position to illustrate only two of them. These pins were depicted by Leahy and Whitwell (1990a & 1990b), but the authors have not had the opportunity to discuss them in detail. I have illustrated these pins in Figs 5.49.e and .f.

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[383]Humberside Archaeological Unit, Flixborough, small find SF 4207.

[384]York Archaeological Trust, small find [1986.9 III] 4415.

[385]Lancaster University Archaeological Unit, R. Newman pers comm.

[386]Humberside Archaeological Unit, small find no: SF 4207.

The first pin has a puffed spatulate head (Fig 5.49.e). The edges of this terminal are decorated by the head and legs of the animal and the puffed portion represents its body. The snout, an eye and an ear of the creature can be seen adorning the upper left-hand corner of the pin-head. The pin is gilt. The second pin (Fig 5.49.f) terminates in a serpent-like head. The swollen shaft is separated from the pin-head by a single moulded collar. The eyes of the animal are set with dark glass and the very top of the pin has the nose and mouth of the creature.

Parallels to the first pin have not yet been identified. Likewise pins that terminate in a serpent-like head cannot be readily paralleled among the finds of Anglo-Saxon England. There are two similar, but not identical pins, one from London and another from York. Ward-Perkins published the first of these in 1939 as a medieval spoon (Pl LXI,a). When he published the second of these pins as a stylus in 1949 (Fig 1 & Pl XXIV.b) he reevaluated his earlier assumptions about the London find and suggested that this too was a stylus. These objects are more likely to be pins. The head of both pins is in the same plane as the shaft. In contrast to the Flixborough find with its serpent-like head with glass eyes the London and York finds have a dragon-like head. In both instances the head of the dragon is extremely detailed and a cylinder appears to protrude from the mouth of the animal. While we think that Ward-Perkins had not correctly identified the objects, there is little to dispute his dating of them to the eleventh century. Schwarz-Mackensen, in her study of bone pins, has identified from Scandinavian contexts a number of parallels to the pins studied by Ward-Perkins. Among her animal headed pins are two parallels that closely resemble the pin from Flixborough. The parallels came from Haithabu (Find no: 205) (Schwarz-Mackensen 1976: Abb 1.8) and Birka (SHM 5208:984; ibid., 1976).

LXXIX. Globular-headed Type

[Map 5.28]

These pins have a globular head decorated with filigree and granules. The head is normally hollow and often gilt. Based on variation in form and differences in decoration it is possible to divide these pins into a number of sub-groups. Paul Robinson closely examined these globular-headed pins as a part of his discussion of the lost pin from Marlborough. This 73 mm long 'silver gilt pin with filigree decoration on a globular head' had a head diameter of 12 mm (Robinson 1981:

56) [Fig 5.50.a]. The pin-head was composed of two hollow hemispheres which had been fitted together. A central band ran round the junction of the two hemispheres. Robinson proposed that the central band had been created by the 'out-turned flanges' (ibid.). While this interpretation provides a good explanation of the central band on this pin and those on some others like it, it does not account for the bands on all the known globular-headed pins, as our discussion of the other pins in this group suggests. So, while Robinson's work summarized the basic form of the type it does not provide a full picture of the complexion of this group. Here the group has been divided into a number of sub-groups.

An example of the pins of the first sub-group [**LXXIX.i**] is the pin from Wicken Bonhunt (Essex) (Musty, Wade, & Rogerson 1973: 287 & Pl VIII.2) [Pl IV.a]. The head of this gilded silver pin was decorated with spirals and granules raised from the surface by filigree decoration. This decoration seems to cover the pin in a rather free form manner. The head of this pin includes a collar with two raised ends and a concave centre. The head and collar of the pin were slotted onto the shaft. This pin is actually a decorative variant of this sub-group with the precursor to this being only decorated by 'S' spirals which began from a granule and wind back to a granule. A similar find from St. Catherine's Thorpe (Norfolk) decorated with 'filigree backwards S-scroll' has small tubular projections. These also appear to have been filled with glass.[387] A find from Sutton[388] (Suffolk) has rope 'S-scroll' spirals, but only low tubular projections [Fig 5.50.h]. An acceptable example of this pattern on decorative grounds only is the find from Ballinaby, Islay (Waterman 1948: fig 1). The spirals are confined to an upper and lower zone by a strand of wire which runs around the medial junction of the head. The Ballinaby pin was crudely slotted together, and it may have been constructed from a residual bead.

Typical of the second sub-group [**LXXIX.ii**] is the stray metal detector find from Martelsham (Suffolk) with a silver spherical pin-head decorated by "wire rope" (Fig 4.6).[389] Two medial bands of rope wire pass around the point of the maximum girth of the globe and these divide the pin into two decorated zones, an upper hemisphere and a lower hemisphere. In the upper zone

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[387]Norwich Castle Museum, acc no: 15.953.

[388]Ipswich Archaeological Unit.

[389]Ipswich Archaeological Unit, not accessioned.

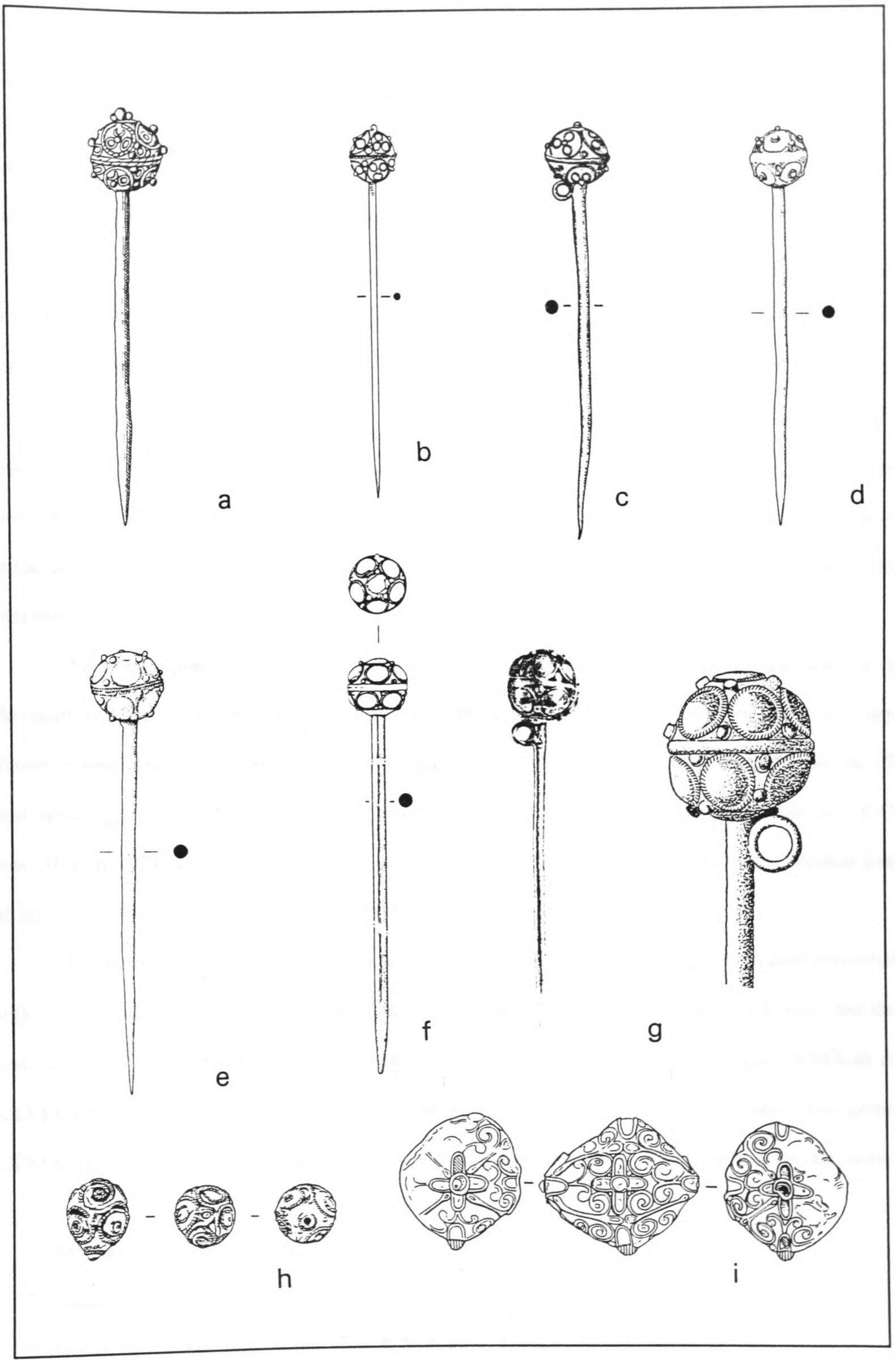

Figure 5.50

three large circles each enclose three smaller circles set in a triangular juxtaposition around a central granule. Between each large circle, in the triangular space created between large circles and the medial bands, is a granule of silver surrounded by a filigree wire. At the top is a silver granule. At the bottom is the hole for the shaft. The bottom hemisphere is identical to the top sphere. A similar gilt-headed pin came from Cottingham.[390]

Excavations in London led to the recovery of at least three examples of this sub-group. One from Heigham Street with applied decoration measured 68 mm long and had a head diameter of 13 mm at the point of maximum carination.[391] The head of the pin was made from two hemispheres that when fitted together formed a globe. The globular head was divided into two sections by a braided band which runs around the point of medial carination. The upper zone of the pin was decorated by three braided filigree circles surrounding a trefoil of circles centred around a small metal granule. Pins of identical character came from sites such as King St and Botolph St.[392] The Marlborough pin belongs to this sub-group.

Two other pins belong to this group but these have a small loop or ring at the junction of the head and the shaft: the silver-gilt pin from Bredfield, measures 65 mm long with a 9 mm diameter head and a 1.5 mm shaft (Martin, et.al. 1984: 321 & fig 79) [Fig 5.50.b],[393] and the 73 mm silver-gilt spherical-headed pin from Gilton Sandpit, Ash (Kent) with a head diameter of 11 mm (Hinton 1974) [Fig 5.50.b]. To this sub-group must now be added a recently published find of an incomplete pin from Ticknall (Derby) (Langley 1990: 56-8, fig 1 & Pl 1).[394]

While the Marlborough, Bredfield, and Gilton Ash pins form a single group of pins decorated with trefoil circles arrangements within circles, the British Museum London pin [Fig 5.50.e], and the Goathurst Common pin [Fig 5.50.d] are type finds for two other groups [sub-groups **LXXIX.iii** & **LXXIX.iv**]. In the London example, the pin has a medial double filigree band [sub-group **LXXIX.iii**]. This divides the pin into the upper and lower zones. Within each zone are raised

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[390]BM M&LA, acc no: 1981,7-8,1.

[391]Museum of London, Heigham Street SF 301.

[392]Museum of London, King Street, SF 112; Museum of London, Botolph Street, SF 104.

[393]Moyse's Hall Museum (Bury St Edmunds) acc no: 1983.19.

[394]Derby Museum, Loan no: 1986-L409.

smooth circular surfaces separated from each other by granules--there is no trefoil decoration as in the former sub-group. In the Goathurst Common instance the surface of the pin was only given a flattened medial band [sub-group **LXXIX.iv**]. The circles had a single banded-granule placed in their centre and the flat circle surfaces were separated by similar granules. A silver pin from Sawdon is quite similar to this one. The Sawdon pin has a medial band, flat raised circles edged by fine tooling and a small ring at the junction of the head and the shaft (Waterman 1948: 180-3 & Pl XXVIIa) [Fig 5.50.g]. It might be possible to offer a transitional form between the London sub-type and the Goathurst sub-type in a 74 mm[395] long pin from the Fens (Taylor 1985: 35-7 [item 204] & fig 15.204) [Fig 5.50.f]. In this pin the flat zones are created by circles of filigree wire. The upper and lower zones of the pin are identical, but the pin lacks a filigree band; only the flange of the junction of the two hemispheres acts to mark the upper and lower portions.

Some further division of these pins might be made based upon method of construction. The majority have a plain tapering shaft which enters the globular head and passes to the top of the globe. This point is normally crowned with a single granule (e.g. Gilton Ash, Bredfield, London, Goathurst Common, Marlborough). In one rare case the shaft passes through the head of the pin and a wire ring has been attached where it emerges above the globe (such as the 15 mm diameter globular-headed pin from Ballinaby, Islay pin).

A gilt pin-head from Sibton was produced in copper alloy with applied wires dividing the surface into cells [Fig 5.50.i]. The head is decorated with six cross settings. The arms of the crosses terminate in a central round cell. One of these cross cells is at the top of the pin and one at the bottom where the central cell has a fragment of wire emerging from its base. The other crosses form a medial band around the centre of the pin-head. In several of the cross settings garnets survive and in at least one of the central cells the blue-glass setting is still evident. This pin forms the type find of sub-group **LXXIX.v**.

The bead, with a 27 mm diameter, a length of 25.5 mm and from the Talnotrie Hoard (Maxwell 1912), provides an indication of the date of pins of this form and type of decoration.[396] The coins in this hoard all belong to the ninth century stretching from Northumbrian *stycas* of King

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[395]Taylor 1985 states that the pin measures 84 mm long, but the 1/1 illustration is only of a 74 mm long pin.

[396]Edinburgh, acc no: FC199.

Eanred to the Mercian penny of King Burgred (c.853–74). The hoard also included an Abbassid coin dated between 846–62. Associated with these coins was also a die/lead weight that had been decorated with ornament similar to that seen on the pieces from the Trewiddle Hoard. A medial band divides this bead into an upper and lower hemisphere. Each half of the sphere is divided by quarter strips. At the junction of the medial band and these strips there is a setting for a glass–bead. The only complete setting holds a green–glass bead. The segments are decorated by S–scroll filigree decoration.

The other possible date comes from the discovery of a fragment of a pin from Brandon.[397] During excavation a 60 mm long silver shaft with a broken collar was recovered. The tip of this is lost. Before the end of the shaft a swollen zone begins. Above the swollen zone the shaft is round and below it is faceted. At 11 mm from the broken top an added collar begins and covers a 6 mm of the pin shaft. At the upper end of the collar is the beginning of the bottom hemisphere of a globular–headed pin. The site as we explained in detail earlier, went out of use in about the time when Thetford ware became fashionable. So we can assume that the pin dates before the mid to late ninth century.

We have unanswered questions about the origin of these globular–headed pins. One explanation is that they are smaller cousins of spherical–headed pins such as those from Birka (Duczko 1984: 1–4; 1985: 95–97; Arbman 1940: Taf 41), Dorestad (Holwerda 1930: Afb. 64.4 & 64.5), Hedeby (Capelle 1968: 110, Tafn. 29.1a & 29.1b), and Syllöda (Driejer 1956: 17ff, Tafn 1 & 2; Holmqvist 1959: Pl 1). Bj 832 from Birka and the Syllöda pin form a closed group. In his discussion of the Syllöda find Holmqvist argued for the chronological position of these pins in the ninth century. He showed the relationship between this pin and other metalwork of both Northern and Carolingian Europe, but thought that the pin was made in northern England and Scotland. Graham–Campbell held an opposing view proposing that the pin was produced in Scandinavia (1980: 59). This latter view is also followed by Duczko (1984). These smaller pins may be cousins of the Syllöda and Birka pins. Robinson has, however, questioned this explanation, noting that the large pins 'do not bear a decoration based upon circles, but employ spiral patterns', (1981: 57–58). But, as we have seen, the globular–headed pins can be split into several sub–groups, the first of which

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[397]Suffolk Archaeological Unit (Bury St Edmunds), Small Find 4502.

has spiral decoration and the second of which was trefoil decoration. The 110 mm long silver pin from Ballinaby, Islay, is a good example of this type (Grieg 1940: 37-38, Pl 18; Waterman 1948: fig 1).

Within this group of globular-headed pins it is worth differentiating further sub-divisions. One group of pins that is decorated in free-form; another has decorative space divided into only a lower and upper hemisphere; and a third group is characterized by heads divided into compartments. The two globular-headed pins, one 92 mm long and the other 65 mm long, from Dorestad, are typical of the first group (Holwerda 1930: Afb 64.4 & Afb 64.5; Roes 1965: 8, Plaat II,6 & 7). The surface of the head of the pin was decorated with spiral ornament that begins from a single granule, winds away until it begins to form the other end of the S, and winds back towards another granule. The spirals move across the surface without being confined to any space. The shaft of this pin is set through the head. An example from Brandon in Suffolk closely parallels this pin.

A find from Domburg in the Leiden Museum is decorated with S-spirals and raised glass settings (Roes 1955: Plaat VII.9). The raised glass settings have beaded decoration at their base. The S-spirals terminate at each end in a granule and the settings separate the spirals. Roes argued that the combination of filigree and *sphérules* in this pin reflected Carolingian artistic attitudes (ibid. 81). The finds from Wicken Bonhunt and St Catherine's Thorpe are most closely paralleled by this pin.

This is to be contrasted with the similar, but different, 123 mm long silver pin from Hedeby (Jankuhn 1943: Tafel 3.f; Capelle 1968: Tafn. 29.1a & 29.1b). The head of this find has been divided into an upper and lower zone by a double band of filigree running around the medial point of the pin-head. In each zone there are two S-spirals turned sideways. Under the arch formed between the opposing curls a single granule has been placed. Each of the spirals begins with a banded granule. The shaft below the head is faceted until it meets a small bulbous feature, beneath which it has a round section. The facets have been decorated with dots.

In his examination, Robinson proposes that the decorative motifs are most closely related to those on Viking beads. The comparative similarity between the decoration on beads (i.e. Halla, Krsp. Grötlingbo in Gotland [Arbman 1937: 189-190, esp Abb 33.1 & Abb 33.2, Tafn 55.1a & 55.1b] or Karlevi, Krsp. Vickleby in Öland [ibid. 202 & Taf 64]) and that on these pin-heads is

obvious. Robinson was certainly correct to suggest this relationship. However, he was probably mistaken in assuming there was no relationship between the pins and their larger cousins (i.e. Birka, Dorestad). The connection is clear especially when we consider the numbers of these smaller pins decorated by spiral ornament: the pins that belong to sub-group **LXXIX.i** and especially those of variant **LXXIX.i.a**. Indeed the similarity between the larger and the smaller examples is more than striking.

The secure archaeological evidence for these pins is limited, therefore the dating must rest mainly on the comparative material. Many are stray finds (e.g. Museum of London **83.344/1** from the Thames near London Bridge). The pin from Dorestad dates before 875 since this is approximately when occupation ended (van Es & Verwers 1980: 300-303), the one from Hedeby belongs before the tenth century, and the pin from Birka probably belongs in the first-half of the tenth century (Duczko 1984: 3-4). Holmqvist (1959) made a case for placing the Syllöda pin between AD 850 and AD 950. These are the larger cousins. Robinson suggests that the smaller globular-headed pins belong in the late ninth/tenth century. Such a suggestion can only be made based on a comparison between the date of beads and the pins themselves. The pins closely resemble the character of beads produced before the end of the eleventh century,[398] for instance the spherical beads in the Halikko hoard (Duczko 1988: 221-223 & fig 9), those in the Tiurinsaari hoard (ibid. 222, fig 10) and the beads from the Vårby (Södermanland) find (ibid. fig 17). So Waterman was correct when in 1948 on quite limited evidence he hypothesized that 'the long continuance in the use of similarly decorated beads leaves open the possibility of an equally long life for the pins' (182). While it is clear that there is a relationship between the style of decoration on these pins and that on Viking beads there must also be a relationship between these globular type pins and their larger cousins.

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[398]Wladyslaw Duczko examined 'En guldpärla från Bjärges, Gotland...' (1988) and argued that this bead belonged to a type of late Viking Gotlandic filigree work. These beads are characterised by their double meander strip decorative motif. These strips tend to decorate biconical beads with wire turned around the bead from both ends and leaving space for the double-meander strips to encircle the medial area (212, fig 1). This form of decoration which owes much to Slavonic design represents the final phase of Nordic Viking Age design. The formal relationship between the beads and the pin-heads leads us to suggest that the pins must belong to the period before the eleventh century, since in the late eleventh century the hemispherical beads began to disappear.

The pin from Botolph Street (London) provides an additional helpful piece of evidence . The material from this site

> 'showed 9th as well as 10th century metalling on dumped deposits, fine cobbles had been used which had probably been imported from the chalk downland...'(Hobley 1988: 76).

Given this evidence, combined with our other conclusions about this type, we can date these pins to the period before the close of the ninth century but they may be as late as the tenth century.

The spherical-headed pins came from sites in East Anglia, Northamptonshire, Kent, London,[399] and Yorkshire. The distribution in Eastern England with the rare outlier in Marlborough further indicates that these pins belong to the Anglo-Scandinavian cultural horizon, both geographically and, it would seem, chronologically.

LXXX. Ely Lozenge-headed Type

[Map 5.29]

These cast pins have a lozenge-shaped head and nearly all are copper alloy (Waterman 1959: 78 & fig 11.15). The lower angle terminates in a shaft and the other three often terminate in small triangular finials (e.g. Birsay, Curle 1982: item 425 [p 63]). In a few cases the angles are not graced by finials.[400] Several examples of this type were known to Laing who grouped them into his Groups P and R (1973: 71); the two groups should really been seen as one group divided into various sub-groups.[401] **YAT SF 6294**, a 53 mm long pin from Coppergate has a finely sectioned shaft with a 12 mm long and 1 mm thick head.[402] Some have narrower heads, such as the copper alloy example from York, with knobs at each corner and only having a maximum width of 8 mm [Fig 5.51.b].[403] Other pins were not graced with finials, such as the incomplete pin from the Fishergate (York). This pin, surviving for 77 mm has a 9 mm wide head that is 2 mm thick. The

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[399]BM M&LA, acc no: 1960.7.4.1. and a pin from Goathurst Common and also in the BM M&LA, acc no: 55.8-20.1.

[400]Southampton Archaeological Unit, small find SOU 32 159 (184) is 62 mm long and has a 9 mm wide head-plate.

[401]He had a Group Q with a pin from Culbin Sands (1973). This should belong to group LXXX.

[402]York Archaeological Trust, small find no SF 6294.

[403]Yorkshire Museum, acc no: 1975(48) SF911.

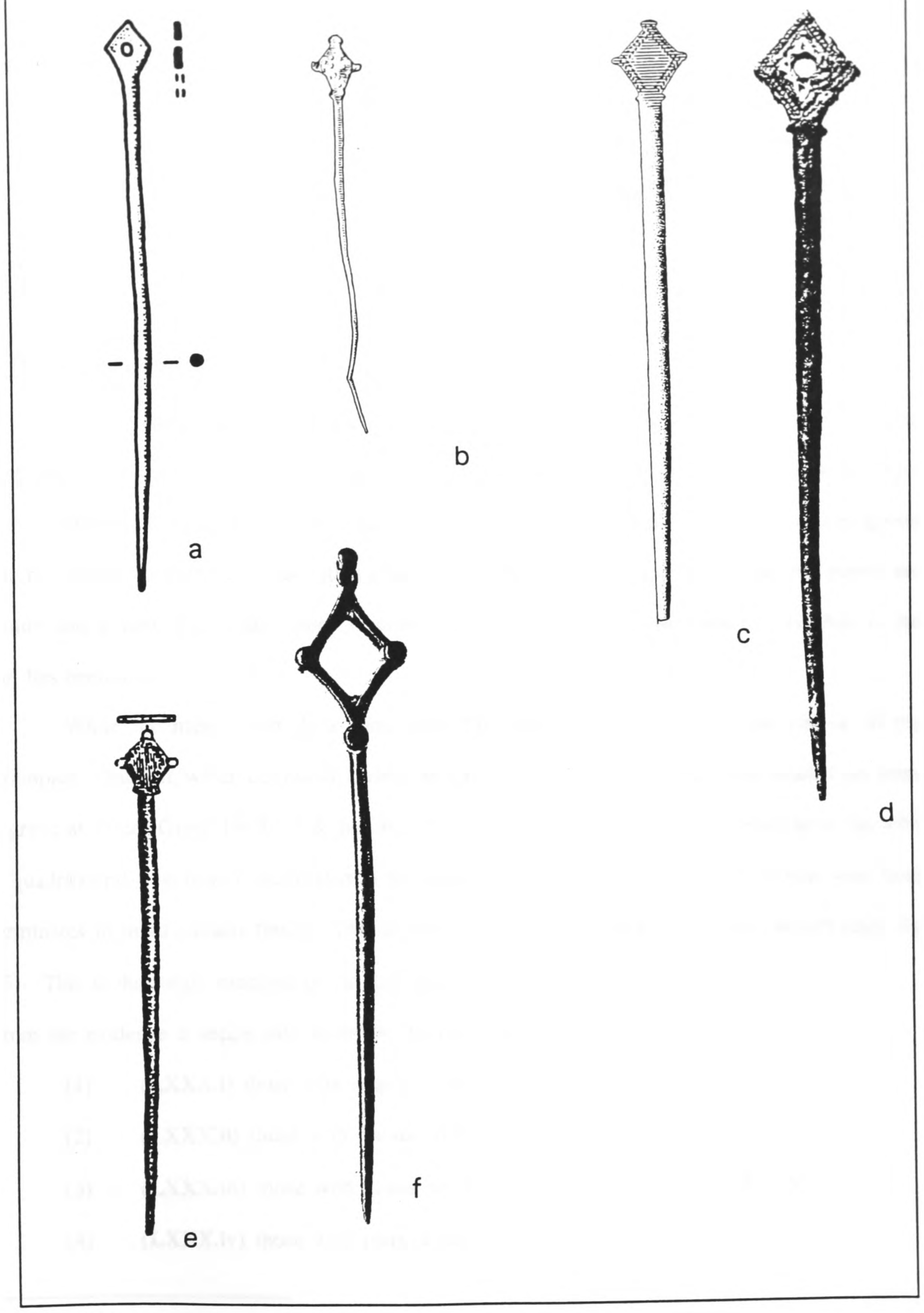

Figure 5.51

pin has a maximum shaft width of 3 mm just below the collar zone.[404]

Most spatulate-lozenge-headed pins lack collars and few have pierced heads (e.g. Lurk Lane, Beverley [Goodall in Armstrong, et.al. 1991: fig 115.632 [152]) [Fig 5.51.a]. **YAT SF6346** is one exception that came from Fishergate (York). This pin, with its 1 mm thick head, has a maximum head width of 10 mm. Each of the upper corners terminates with a finial. Below the head is a flat fillet collar. This pin has a hole through the centre of the head.[405] The shaft tapers from a maximum width of 3 mm. The standard shaft section is round, but, as would be expected, there are exceptions. Comparable is a pin from the 'Upper Norse horizon' at Birsay (Curle 1982: 62, 115[item428] & fig) [Fig 5.51.d].

An example of sub-group **LXXX.iii** from Dorestad must be indicative of the ornate character that these pins could take. All that survives of this pin is the 39 mm long silver pin-head (Roes 1965: 9[item 8] & Pl II.8). This lozenge-headed pin with finials on all corners has a herringbone filigree border. Each finial is set with a glass stud. A flat-diamond-shaped glass setting adorns the centre and a field of cloisonné work separates this from the herringbone border. The shaft of the pin has been lost.

While the majority of these pins were flat spatulate-headed this is not true of all the examples. One pin, which obviously derives its form this group, is the open-work headed pin from a grave at Tiree (Grieg 1940: 63 & fig 36) [Fig 5.51.f]. This 145 mm long copper alloy pin with a 'quadrilateral' cast head is perforated in the middle. Each of the corners of the 20 mm wide head terminates in small circular finials. This unusual pin was recovered with a tortoise brooch (ibid. fig 35). This is the single example of our sub-group **LXXX.v**.[406]

From the evidence it seems safe to divide the pins into five sub-groups:

(1) **(LXXX.i)** those with angular terminals;

(2) **(LXXX.ii)** those with finials on the angles;

(3) **(LXXX.iii)** those with heads decorated by inlays (Roes 1965: Pl II.8);

(4) **(LXXX.iv)** those with pierced heads;

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[404]York Archaeological Trust, small find SF 2169. The context of this find was not recorded.

[405]York Archaeological Trust, YAT SF 1986.9 6346.

[406]Laing included this pin in his Group R (Open Diamond Headed Pins) (1973: 71)

(5) (**LXXX.v**) those with an open-work head (Grieg 1940: fig 36).

Archbishop Wulfstan of York's burial at Ely included a spatulate-lozenge-headed pin (St Albans 1905: 3[item 10]; figured in Armstrong 1922-23: plate XIII.4 [11]).[407] If the historical association can be considered of assistance, this pin probably belongs to the eleventh century. **SF6294** from Coppergate (York) came from layer 20178 which was the pit fill of 20165 (Tweddle, YAT, pers comm). This layer belongs to phase **5C.r** which represents 'contexts associated with structure 5/12 at the rear of the site, and preceding the Norman dump layers above: dated to the central half of the 11th century.' The finds from Dublin appear to belong to the same period (O'Rahilly 1975; Wallace, National Museum of Ireland, pers comm). So, an eleventh century time frame for this group seems safe. Further confirmation comes from a 'lost' pin from Lurk Lane, Beverley. It was recovered from contexts thought to belong to phase 6A of the site. This phase was dated between 1070 and 1135 (Armstrong et.al. 1991: 24-29).

Distribution is predominately York, Lincolnshire and Dublin with the pin accompanying the burial of Wulfstan at Ely appearing at present as an outlier, although its presence should cause us no surprise. A large number of pins of this type came from Irish sites (Armstrong 1922-3: PL XIII, fig 4.9-4.11), such as the numerous finds from Dublin at Fishamble Street.[408] We have a wide distribution of finds from the Northern Isles (i.e. two finds from Orkney) and a find from the Continent.

LXXXI. Watch-winder Type

These pins have a head resembling a watch-winder: a cone, terminating in a flat top at one end and a bulbous knob at the junction with the shaft. This knob is often decorated by serrated edges. Few of these copper alloy pins occur in England. One from Fishergate (York) measures 47 mm in length, and the round-sectioned shaft has a diameter of 2 mm. The pin was cast.[409] This pin is typical of other watch-winder pins, although it is the only such find from Anglo-Saxon or Anglo-Scandinavian England.

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[407]Society of Antiquaries London (Recovered in 1770 at Ely).

[408]as for example Fishamble Street small find E172:9005. Patrick Wallace kindly showed me this material.

[409]York Archaeological Trust, small find [1986.9 III]: 4663.

Concentrations of these pins have been recovered from Ireland and the type is known from Scotland. O'Rahilly, in her discussion of the pins from Dublin, identified two sub-groups of this type. The first was 'composed of two "wheels", approximately circular in plan, of differing diameters: the lower one being greater' (Hencken 1936: 157 & fig 26.1; O'Rahilly, 1975: 20 & 110). The pin described above from Fishergate is typical of the second sub-group. O'Rahilly suggested that the origin of the head of these pins lay in forms seen on the 'spherical terminals of the "Thistle-brooch"' (O'Rahilly 1975). I am not convinced, but cannot suggest a better explanation of their origin. Based on the contexts of the finds in Dublin she proposes a date between the close of the tenth century and the close of the eleventh century. This would fit well with the stratigraphic date of the Fishergate find. Without adding circularity to our argument this date might be confirmed by evidence concerning by evidence concerning the association of this type with two other pins. At Ballinderry Crannog, a watch-winder type of sub-group 1, was recovered from a 'general context' which included two crutch-headed pins. I have argued below that these pins ought to date c.tenth to eleventh century (see below).

LXXXII. Bramble-headed type

These pins have a spherical head with protuberances at their top and on the sides of their head. On the obverse face they have a bramble-textured surface. This is in the shape of a broad 'X'. The reverse face has a discoid plane covering the central zone. Some examples have collars. Many of the known examples are adorned with collars. O'Rahilly identified 2 kinds of collars: raised band collars and 'beaded or notched band' collars (1975: 17). The shafts of these pins have a round section and taper from the head-shaft junction to point. Typical of this type of pin was the find from York (Waterman 1959: fig 11.16) [Fig 5.53.d]. This is also the only example from an English/Anglo-Scandinavian context of which I am aware.

In an analysis of the stratigraphic data from Dublin O'Rahilly noted that these pins were associated with '11th century structures and features'. Two pins were recovered in association with watch-winder pins. These we have proposed an independently determined date, so suggesting that their date might be helpful in dating the bramble-headed pins can be permitted without introducing circularity to the argument. O'Rahilly argued that these pins owed their form to the thistle brooches

common in Ireland in the ninth century: use of projections on top and sides of the pin head and the brambled face were features derived from the thistle brooches (O'Rahilly 1975: 18–19). The majority of the finds indicate that these pins are Hiberno–Viking and the appearance of one such pin at York reflects the historical interaction between the York and Ireland.

LXXXIII. Swing–Ringed Type

The ring of these pins was either attached to the side of the pin–head or was held in place by a looping of the flattened end of the shaft over the ring and closing the loop against the shaft. There are few of these pins in Anglo–Saxon or Anglo–Scandinavian contexts in England, but they refer primarily to types known from Northern Europe. Fanning has extensively studied the examples from Ireland and many from Scotland and Scandinavia. Although this type of pin occurs in parts of all these areas the density does not saturate all areas. For example Brøndsted reported that 'the ring pin has been found in the east part of .... Denmark....but otherwise ornamental pins are unknown in Danish Viking graves' (1936: 221).[410] In Chapter 2 I noted the soundness of his typological approach, but his chronological sequence is less satisfying at times. These swing–ringed pins are to be contrasted with the pins which have a flatplate above the knob, those with a fixed ring used to hold other rings, those with a pierced disk head, and our folded pin with a hole punched through the flattened head–plate and securing a ring with twisted over ends. Previous authors have referred to these pins as swivel ringed, but the great majority of the rings do not swivel at all. They only swing back and forth. Often it is possible to report that a pin was ringed, but be unable to tightly type it (e.g. the pin from Foregate [Chester] [*Miscellanea*, 1958: 72, Fig 3.r Grovesnor Museum acc no: 52557]).[411] Many of the types discussed by Fanning are present from contexts

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[410]Graves producing swing–ring pins from Denmark include: Ballerup (Brøndsted 1936: 200–1 & fig 113).

[411]It can be argued that the ringed–pins should be extended to include pins such as the human–headed pin with a swivel ring from Lough Ravel (Co. Antrim) (Bourke 1988).

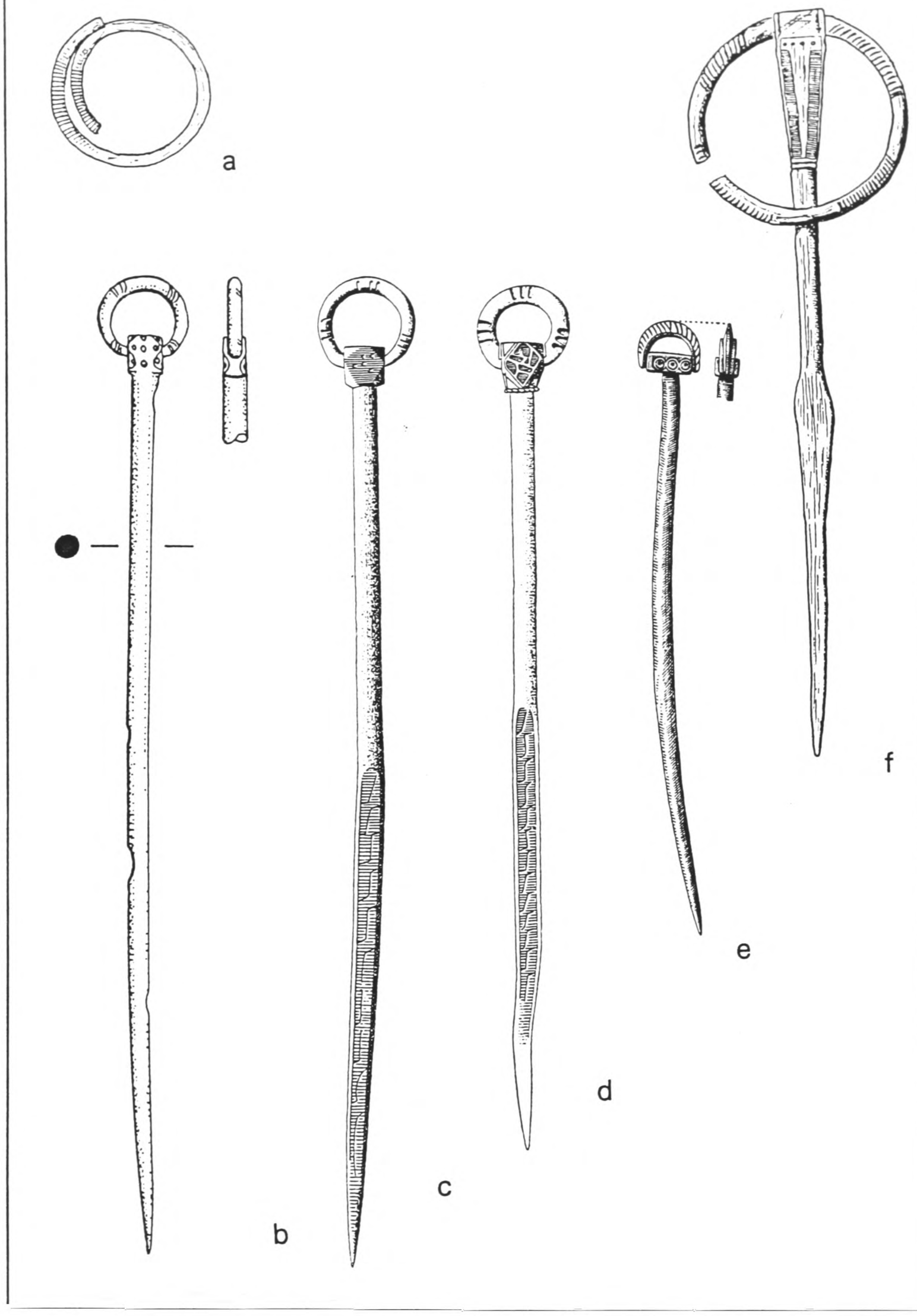

Figure 5.52

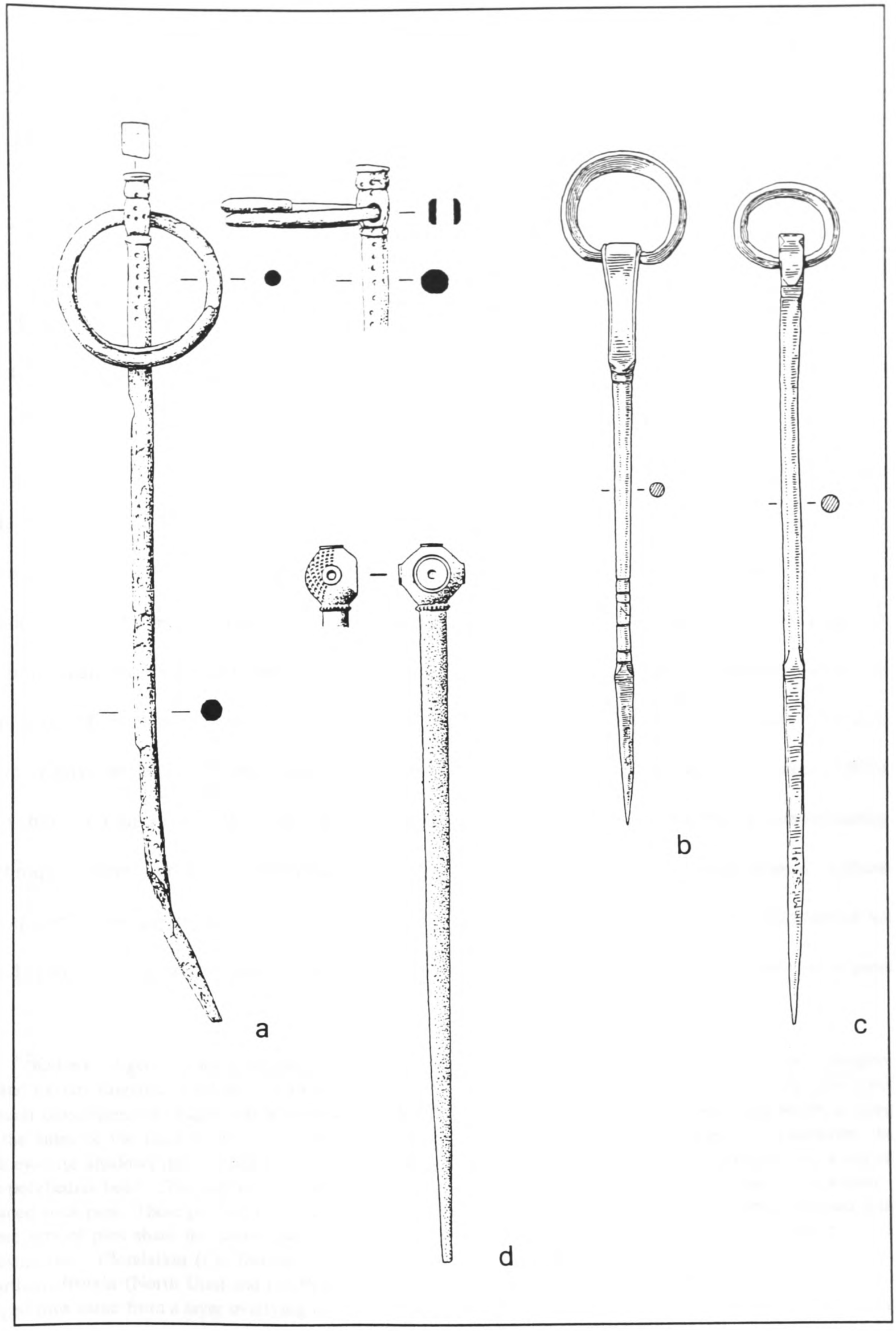

Figure 5.53

in Anglo-Scandinavian England, although a few are not.[412]

LXXXIII.i. Spiral-(spring) ringed Sub-type

These pins have rings open at the end and in form they resemble a section of a coiled spring or alternatively a sprung key-ring. These rings pass through the head of the pin. The wire is often decorated near the ends with transversing linear ornament. Finds of pins of this type are extremely rare in England. Among the few examples is a wire ring from one of these pins that was picked up at Meols (Bu'Lock 1961: 5.a; *contra* Caple 1986: 53) [Fig 5.52.a]. Having only the wire ring makes it impossible to determine specifically from which of the two basic sub-types of spiral-ringed pins the ring came. It could either have come from a pin with a looped head or from a pin with a baluster head (Fanning 1969; 1975; 1983a).[413] The spiral-rings were often decorated with transverse grooves. The shafts of most of the pins were round, although shafts of some of the loop-headed pins had a more octagonal form (Lynn 1985: fig 4.1) [Fig 5.53.a] and others have a squared section near the point (Manning 1986: 156-157 & fig 12.15). While Fanning's work has concentrated on the typological division of the pins based upon morphological features related to form, Kelly has taken an opportunity to examine these pins from a technological vantage (1986). In a study of a group of finds from county Louth he argued that two different kinds of manufacturing techniques were evident: hammering and casting. The baluster-headed group appear without exception to belong to the cast group and the loop-headed sub-group belong to the hammered set (ibid. 180). This is not to suggest that the cast group did not represent pins which underwent a great

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[412]Kidney-ringed pin with polyhedral-heads are not represented in the archaeological record in of Anglo-Scandinavian England as far as I am aware. These have a polyhedral head and a kidney shaped ring. Pins from several developmental stages can be seen among this group. The earliest form has a loose ring which is fixed to the sides of the head of the pin by tenons. Fanning argued that in the second stage of development the kidney-ring shadows the polyhedral head (1989: 168). In the next stage the ring becomes almost like a cap on the polyhedral head. The rings of these pins ultimately become fixed and these become the basis for the kidney-headed stick pins. These pins were derived from the plain-ringed, polyhedral type (Fanning 1989: 169) and both these sets of pins share the same distribution pattern across Ireland: (Lagore (Co. Meath), Ballinderry I (Co. Westmeath), Clondalkin (Co. Dublin), Derry (Co. Down), Dublin (Fanning 1989: 164 & 168-169 & fig 7.2)), Northern Britain (North Uist) and the Northern Islands (Iceland (Eldjarn 1956)). At Ballinderry I the kidney-ringed pins came from a layer overlying the plain-ringed pins (Fanning 1989). It would also seem plausible that they could be contemporary developments.

[413]Manning recovered three copper alloy spiral-ringed pins that had lost their rings. One was a 120 mm long loop-headed pin (1986: fig 12.15), another was a 102 mm baluster-headed pin (ibid., fig 12.61), and the third was a 126 mm baluster-headed pin (ibid., fig 12.85).

deal of secondary working because they certainly did--decoration was hammered and chiselled on to the surface and a file and saw was employed to make the mouldings (Kelly 1986: 183). The different forms of the shaft are consistent with this technological division--the shaft of cast pins tends to be round whereas hammered pins have a more rectangular form.

C.J. Lynn's excavation at Rathmullan recovered an incomplete spiral-ringed pin (1981-2: 145 & fig 28.2). The copper alloy spiral-ringed pin was decorated with transverse grooves. The rounded rectangular sectioned shaft had a double-grooved flattened folded loop. The finds were recovered from layer 7, a layer of rubbish deposited at base of a phase 2 house. This layer sealed phase 1 occupation, the debris of which included E-ware (Lynn 1981-2: 148). The phase 2 occupation layers included a pear-shaped plain bronze escutcheon (145 (no.3) & fig 28.1) and souterrain ware.[414] This material is all pre-ninth century.

Subsequent excavations led by Lynn at the raised rath of Gransha led to the recovery of a copper alloy spiral-ringed pin (1985: fig 4.1). The baluster-shaped head was decorated with dots and the spiral ring was decorated with grooves. The shaft of the pin had an octagonal section. This pin was found in phase 3 occupation at Gransha. This included layers which sealed phase 2 debris, the contents of which included two fragments of E-ware. The phase 3 evidence included souterrain ware. Lynn suggested that possibly occupation belonged to the tenth century (Lynn 1985: 88-89), but the souterrain ware would suggest an earlier but still post-E-ware date.

Such dating is at odds with the date range suggested by Fanning in his studies and it seems as though it is necessary to revise his suggestions. Fanning (1983a; 1983b) argued that these pins could be dated to the fifth/sixth century and did not belong as late as the seventh/eighth. His argument was based on two assumptions: (1) the demonstration by Greene (1955) and Byrne (1968) that the historical grounds on which the starting date of Lagore Crannog was established were mistaken, and (2) that some recent finds could be dated to the fifth/sixth century (Fanning 1983a: 325). The former claim may or may not be accurate, both Warner (1985/6) & Lynn (1985/6) have argued that Hencken's proposed date for the beginning of occupation was essentially correct. Warner concluded his re-examination of the evidence stating:

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[414]The layer included the remains of two other spiral-ringed pins, but to use them for dating evidence would add a circularity to our argument.

> The absence of Mediterranean pottery and penannular zoomorphic brooches, and the presence of E-ware at the lowest levels would seem to me to indicate very strongly that period Ia, and the start of occupation, does not pre-date the seventh century, and might even be as late as the 8th century. (Warner 1985/6: 77).

I cannot comment on the recent finds which Fanning claim come from fifth/sixth century contexts, since the details of the context are not publicly available. However, the preponderance of evidence causes me to question Fanning's early dating. If we can now accept the re-established dating for Lagore Crannog we can once again accept the argument which Young (1958: 92-94 & Pl XVIa) used to establish the date of the spiral-ringed-baluster-headed pin from Á Cheardach Mhór (South Uist) to the seventh/eighth century (see also Young & Richardson 1960). Lynn recovered several spiral-ringed pins from contexts which sealed E ware on two sites (1981-2; 1985). Indeed the associated material suggests that a pre-ninth or possibly as late as the tenth century date might be more acceptable. When the supposed fifth/sixth century contexts have been published we will need to re-evaluate this evidence, but at present there is no reason to accept such an early date. Pushing these pins back to an earlier date has another shortcoming in that it severs them from the other members of the swing-ringed group. The evidence for Meols does not stretch itself to this early dating and could not be stretched on the grounds of a single spiral-ring. The later date is therefore favoured on the grounds argued above and would be more likely to be correct. Among the dated material from Meols are two *sceattas* of c.725, but not sub-Roman or early Anglo-Saxon pottery (Thacker 1987: 289). The pin to which this Meols ring belongs was imported in the eighth or ninth century. This is the only example of this type in England.

LXXXIII.ii. Ringed-Crutch-headed Sub-type

Sub-group **LXXXIII.ii** includes pins with a ringed crutch-head. The ends of the crutch-head have notches designed to hold a D-shaped ring. Over time this ring evolved to fit the head of the pin closely. A copper alloy pin recovered during excavation in St. Augustine's Abbey, Canterbury and published by Radford in 1940 has a crutch head decorated with three dots on each of the two main faces [Fig 5.52.e]. Each of the two end faces have small depressions set into them. These hold the pivot pins of the D-shaped ring which has a ridge running along its outer edge and is decorated with vertical incised lines. The pin (excluding the ring) is 95 mm long and has a shaft

diameter of 3 mm. The height of the head is 3 mm, the width of the head is 4 mm, the length of the head is 7 mm, the thickness of the ring is 3 mm and the diameter of the ring is 10 mm. The pin was found in an empty grave on the site of the tower at the west end of the church (Radford 1940: 506). Radford suggested that this pin like the other finds he was discussing came from a pre-Conquest context. He went so far as to argue that the pin should be dated to the seventh century. He assigned the pin to this century based on two implicit assumptions: the supposed correctness of Armstrong's typology and an excessively narrow interpretation of Gocelin's description of Abbot Scotland's campaign to renovate St. Augustine's Abbey. First, the line of argument followed by Armstrong in his 'Irish bronze pins of the Christian Period', leads inevitably to the conclusion that these pins belong to an early Christian date (1922–3: 78, plate XIII.1). Armstrong, however, had no dating evidence on which to base his conclusions and his typological sequence runs exactly in reverse. Reversing the sequence would have the effect of placing the pins with exaggerated D-shaped rings earlier and the smaller D-shaped rings later. The second piece of evidence which confused Radford was the historical data. Peers and Clapham, in a report on the research program at St. Augustine's Abbey, recounted Gocelin's story that

> Abbot Scotland, when pulling down St. Mary's Chapel, transferred the remains of those bishops and abbots who had been buried there to the western tower of the monastery, laying them before the altar of St Mary there. (Peers and Clapham 1927: 211)

The burials which were moved were reported to have been those of seventh century bishops and abbots. Based upon the typological evidence as established by Armstrong and Radford's supposition that the burials at the end of the church were all re-depositions of burials originally of an early date, he concluded that the pin must also be assigned an early date. From the archaeological and documentary evidence it was only safe to conclude that **some** of the burials might have been of a seventh century date and that this area was in use as a burial ground at least in the eleventh century. Knowing from other evidence that the date range of this pin type can be assigned to the eleventh – thirteenth centuries, we can reconsider the context of burials at the western end of the church. First, they do not all represent reburials of the seventh century bishops and abbots, in fact at least one of these burials was considerably later. That is, it was the burial of an individual who died and was

buried at least in the eleventh century. The discovery of a pin in a grave at the west end of St Augustine's Abbey does not establish a seventh century date then, but may rather lead us to ask whether there may have been multiple eleventh century burials.

Two other crutch-headed parallels from England are known, and these provide helpful dating evidence. These come from the monastery at Jarrow. The two examples have lost their ring; in common with other crutch-headed pins they probably originally had a D-shaped or stirrup ring. The claim that they were originally ringed gains support from the fact that on the sides of the pins small depressions can be seen which originally held the pivot-pins for the crutch head. The pottery evidence for the context in which **JA 67 KJ** was recovered points to a date range of between the twelfth and fourteenth century, whereas **JA 78 IQ 1** comes from a context indicating deposition between the tenth and twelfth centuries.

If we turn to the evidence from outside of England we can arrive at possibly a more precise time frame for this group. These pins could be paralleled by crutch-headed pins without attached rings (e.g. Dublin E71:9196; Dublin E43:692),[415] but the ringless pins do not have pivot holes on the sides of their heads. Knowledge of the precise type of ring and the size of its arc would help us to narrow the date range and to identify closer parallels. Without the ring we can only offer broad comparisons. Fanning, who has done extensive research into the class of ringed pins on Irish soil (1969, 1970, 1975) and more recently investigated those coming from sites in Scotland (1983a) and the Isle of Man (1983b), has argued that this pin type was used primarily during the eleventh and twelfth centuries. His survey of these pins in Ireland has led him to conclude that:

> there is no firm evidence from any Irish site for a pre-late 10th/11th century context for the stirrup-ringed crutch-headed form (Fanning 1983a: 329).

Three possible parallels for the pins from Jarrow are known from Ballinderry 1 (Hencken 1936: 152 [fig 21.B], 157 [fig 26.H (items 13 & 14)], 221). These pins, which like the Jarrow pins have lost their rings, come from either eleventh or twelfth century contexts. This is evidently the same date range for the contexts of finds of similar pins from the Dublin excavations in High Street and

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[415] These are two examples from the 1962-1972 Dublin excavations discussed by C.O'Rahilly (1975: 131 - 137). Patrick Wallace showed me numerous other unpublished examples from later excavations in Dublin.

Winetavern Street (Fanning 1983a: 329). A plain ringed crutch-headed pin from High Street [E71: 3095] coming from a twelfth century context is one published parallel (Dublin 1973: 26 [item 24]).

In his study of the Scottish ringed pins Fanning identified five examples which had not yet lost their ring (1983a: 340 catalogue numbers 41 - 45) and five examples in which the rings did not survive (1983a: 341 - 2, catalogue numbers 54 - 58; in addition, numbers 60 and 61 may have been ringed but the evidence was scanty). Three of these examples (1 complete and 2 incomplete) were recovered by Hamilton at Jarlshof (1956: 127-8, 60.1 & 60.2 [items 231-3]). These, Hamilton argued, were of a ninth century date. This dating has been disputed. Graham-Campbell, relying on the excellent stratigraphic sequence available at Udal, was able to successfully argue that the crutch-headed stick pin from the Udal excavations came from an eleventh-century context (1974: 20 - 21, plate 1 b & c). This allowed him to re-evaluate the dating of the Jarlshof examples and assign them to a later date range. The two examples from Jarrow now give further Insular confirmation for Fanning's and Graham-Campbell's later dating of this group, and this evidence along with the historical data supports reassigning of the Canterbury pin to the eleventh century. The distribution of these pins is largely Ireland and Scotland. The three English examples are outliers.

LXXXIII.iii. Polyhedral-headed, swivel-ringed Sub-type

These swing-ringed pins have faceted heads and secure a circular sectioned ring (e.g. York [Waterman 1959: 78, fig 11.13 & 11.14] [Figs 5.52.c & .d] or Crook Street [Chester] [Thacker 1987: fig 42.2]) [Fig 5.52.b]. In the majority of the examples the ring was undecorated but in occasional cases the rings have been decorated with incised lines which give a textured appearance to the ring (e.g. Bu'Lock 1961: fig 5.g). The craftsman who made this latter pin took advantage of the space on the surface of the pin-head to decorate it with entwined ellipses. The surface around the ellipsis was probably filled with niello. On the reverse face the head was decorated by a incised cross.

The dating evidence for the appearance of these pins in England rests predominately on the evidence from Meols which actually is quite limited. Hume recovered several *sceattas* from the site

and these belonged to the second half of the seventh century. The next coin evidence from the site belongs to the ninth century and these are two *stycas* (Bu'Lock 1961: 7). The bulk of the finds from the site could arguably belong to the ninth and tenth centuries. The strap-ends provide one example (ibid. 12). A pin from Broadgate (Lincoln) can be shown to belong to c.eleventh century (Jones 1982: 104) based on the documentary and pottery evidence which indicates settlement of the area in that period. The ninth - tenth century dating suggested by the finds from England can be confirmed by finds outside of England.

A find from Buckquoy (Orkney) is elegant among the examples of this sub-group of ringed pins. Fanning has described at length this 171 mm long polyhedral-headed pin with a swing ring attached to the side faces of the head (1977: 223-4 & fig 120). The obverse face is decorated with an interlaced knot and the reverse has a saltire design. The shaft of the pin is round-sectioned but gives way to a rectangular section for the remaining length. This lower length is decorated 'on its broad faces with an incised step pattern delimited by two vertical lines and on the minor faces with a double vertical line' (ibid. 223). As Ritchie has noted the Bucquoy ringed pin can be compared to the pin found in the silver hoard of Skaill (Orkney) (1977: 190). Graham-Campbell has made a strong case that this hoard belonged to the mid-tenth century (1976: 120-1). Besides this parallel Fanning noted those fragmentary ones from the Isle of Man, which had been discussed earlier by Bersu and Wilson (1966: 43, 62, 79, 87 & Pls VIII.e, XII.d, XIV.c), as well as those from Iceland *(Eldjàrn 1956: fig 140), L'Anse aux Meadows (Ingstad 1970: 134-5 & fig 29; 1985: 175-177 & fig 5) and the remarkable find recorded by Dahl and Rasmussen of a similar pin from a grave in the Faroes (1956: figs 6-8). The outstanding feature of the latter pin, which came from a burial mound at Tjødrnuvik, is the string that remained attached. There is little room for debate about the dating of this group in the tenth century; the Buckquoy pin came from a burial where it was associated with half a silver penny of Eadmund (AD 940-6) (Ritchie 1977: 190). The distribution of the polyhedral-headed, swing-ringed pins is particularly interesting because they are confined to Ireland, Scotland and the Western Islands and are, as Fanning has noted, absent from Scandinavia (1977: 224). Where the pins occur in England it is in Anglo-Scandinavian regions.

LXXXIII.iv. Plain-ringed, Baluster-headed Sub-type

Fanning noted a distinction between pins with true polyhedral heads and those with what he termed baluster heads (1983a; 1983b; 1969). At least two pins from Anglo-Scandinavian England are examples of this sub-type. A 138 mm polyhedral-headed pin from Crank St (Leicester) has a flattened shaft for half of the shaft's length (Clough, et.al. 1975: fig 15a (right), 56 (item 45)) [Fig ;5.53.c].[416] A feature also evident on the pin from Deanery Fields (Chester) (Newstead & Droop 1936: 37 & Pl XIX.8).[417]

LXXXIII.v. Plain-ringed, loop-headed Sub-type

These swing-ringed pins have circular sectioned rings which pass through what consists of a flattened end which has been bent over. Some of these pins have a slight shoulder on the ring so that 'they can swivel freely but cannot slide through' (Fanning 1970: 76, fig 2a). Kenyon's excavations at the Jewry Wall site in Leicester led to the discovery in 'disturbed levels' of a 102 mm long copper alloy loop-headed pin with an undecorated ring (Kenyon 1948: 262 & fig 89.14) [Fig 5.53.b].[418] The 20mm diameter ring has a carinated section. The area just below the head has been flattened. After a short distance the shaft takes on a round section with a 4mm diameter which tapers to the point.

The pin among 'The Viking grave goods found near Larne' was 118 mm long, had a 4 mm shank, a 5 mm head and the ring was 36 mm thick (Fanning 1970: 76). This is consistent with other pins of this class such as those from the Limerick Museum.

	Length	Shank Diameter	W of Head	D of ring
LM Item 1	123	4.6 mm	5 mm	2 mm

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[416] Jewry Wall Museum (Leicester), acc no: 116'1962/680.

[417]The pin came from an upper layer of the Roman Gateway. It is most likely that the pin was from a layer which sealed earlier contexts.

[418]Jewery Wall Museum (Leicester), acc no: JW89.14. (see also Clough, et al, 1975: fig 15a (left). The measurements are incorrect). I have included a new illustration of this pin because the one in Kenyon 1948 is inaccurate. A fragment of a 56 mm long iron pin from Winchester might be a parallel, but it is difficult to establish whether it is a pin or a fragment of some other object (Biddle 1990: 560[item 1466]).

LM Item 2	73	3 mm	4.5 mm	1.3 mm

The shafts of pins of this type tend to have a round cross section and taper along their length. Two examples which illustrate this feature from the Limerick City Museum (Fanning 1969: 7 [item 1 & 2), figs 1.1 & 1.2). A number of the pins of this group are rounded in section until the mid-point of the shaft, but below this they have a flat rectangular section which tapers inward towards the point. Fanning has argued that these pins belong to the ninth and tenth centuries. His argument was particularly well supported by the find of two similar pins in coin dated graves at Birka (graves 176 & 1007). The Leicester pins belonging to this date range. As with the other ringed-pins, the few examples are clearly confined to Anglo-Scandinavian areas.

LXXXIII.vi. Serrated-ring, loop-headed sub-type

A 125 mm pin with a looped head and a swivel ring was recovered at the settlement of Meols (Bu'Lock 1961: 16, fig 5.l; Thacker 1987: fig 42.3) [Fig 5.52.f]. The shaft has a wide shoulder beginning c. 58 mm from the tip of the pin. From just above the shouldering to the tip the pin shaft has a rectangular section. Above this, it has a 35 mm long round section before giving way to a flattened zone before being folded over to hold the ring. This section is decorated with incised lines. The ring of the pin is decorated with lines that transverse the surface of the pin.

Only one pin of the type is known from England and this one comes from Meols--this pin is probably an import from Scandinavia. Graham-Campbell argued that:

> ...there is no ringed pin from Birka that is likely to be of insular manufacture, despite the well-defined Insular origins of this type of dress-fastener (1984:35)

Lena Thunmark-Nylen defined five types of ringed-pins present among the graves at Birka. Graham-Campbell accepted three groups as ringed pins and he argued that the others belonged to the class of penannular brooches. He excluded the penannular free ring, with straight cut terminals (Thunmark-Nylen, type I [1984: 6]) and annular free wire ring with knotted ends (ibid. type III [1984: 7]). Type III, which is represented by a single find at Birka from grave Bj 476 (Arbman 1940: Taf 44.5), has a ring the ends of which are knotted together. Graham-Campbell points out

that this pin is unknown in the Insular sequence. There seems little reason to include it in the class of ringed pins. In fact it may not be a ringed pin at all, but may represent the replacement of a ring on a pin which had lost its original ring (as I have not actually examined the pin it is difficult to determine whether the wire ring is primary or secondary). Of the other three groups, two types (Types II & IV) have their main differences, not in material, but in form.

Type IV includes pins with plain-ringed loop-heads. These pins were widely distributed in Norway and Sweden and were related to those from Ireland described by Fanning. The pins were commonly used before the arrival of the Vikings in Ireland, but gained popularity in the ninth and tenth centuries. Graham-Campbell argued that these pins were regional variations of the Insular type. Some of the rings had ribbed decoration, for instance, Bj471 (Arbman 1940: Taf 45.4) and Bj621 (Graham-Campbell 1984: fig 5.5; Arbman 1940: Taf 45.5). The differences lay in four features:

(1) use of an oval ring;

(2) expansion of the upper end of the shaft (as in Bj 832 (Arbman 1940: Taf 44.2) and Bj 1007 (Arbman 1940: Taf 44.1);

(3) shouldering;

(4) expanded lower shaft (as seen in Bj 176 (ibid. Taf 44.4), Bj476 (ibid. Taf 44.5), and Bj490 (ibid. Taf 44.3) (Graham-Campbell 1984: 36).

If Graham-Campbell is correct, that this is Scandinavian form and in particular a development local to Birka, then a similar pin from Meols would probably represent a Swedish import to the Wirral. The plain ringed pin has an oval ring with ribbed decoration, an expanded upper end of the shaft, and a shouldered and flattened lower shaft (Bu'Lock 1961: fig 5.1). There is an example of at least one of these pins from an Insular context. This is the pin from Meols. According to Graham-Campbell, Type V, is an East Scandinavian variant and it includes pins with an 'annular fixed ring, with an animal head at its base' (1984). These pins are derived from Irish pseudo-penannular brooches which were common in the eighth and ninth centuries. As is evident from Bj512 (Arbman 1940: Taf 43.4), Bj561 (ibid. Taf 42.2) and Bj798 (ibid. Taf 43.3), the pins were true ringed pins with a swivel ring and a long shaft. These pins were in Graham-Campbell's opinion not directly

derived from Insular examples but he argued that any examination of similar pins from Norway, as described by Petersen, made it was easy to see a transitional stage between the Irish material and the pins in the Birka graves.

All these suggestions seem eminently sound, but the fact that we know of at least one type IV pin from an Insular context leads us to wonder about the conclusion that he drew when he stated that:

> ...Insular influences on certain groups of penannular brooches and ringed pins at Birka are not to be explained by direct contact with Britain and Ireland, for amongst the Birka material there are not brooches or pins which should be considered as being of Insular manufacture. These new fashions for western dress appear to be introduced by way of Norway (ibid. 38).

This model cannot account for the pin from the Wirral. Surely the existence of one pin raises questions about the premise of Graham-Campbell's argument.

Conclusion

In this chapter we have described the different groups of pins from Anglo-Saxon and Anglo-Scandinavian England.[419] Where sub-groups exist they have also been defined. An effort has been made to keep the groups in proximal relationship when they have a similar form. In some cases pins of similar chronological position have fallen together. The task of the following chapter is to summarize chronological history of pins group as, well as to detail the indigenous character of the material and the debt to the Celtic, Scandinavian and Continental worlds.

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[419]Two primary types were common in the Middle Ages and a short mention of these seems prudent.

Post Saxon Types

There are two types of pins that are clearly not Anglo-Saxon, but, because they are the most common types of pins from the middle ages onward, I have included them at the end of the typology.

Lentoid-headed pins:

These pins have a shaft which terminates in a head composed of two sub-conical hemispheres. Each hemisphere is set in opposition to the other. The head of these pins is usually filled with lead. One of a pair of lentoid-headed pins from mid-sixteenth century demolition contexts was recovered during excavations at the parochial chapel of St. Lawrence Church in Burnham (South Humberside) (Coppack 1986: 59 & fig 19.8). A pin with a 'lentoid head hollow filled with lead' 60 mm long from Area 2 layer 35 at St Augustine's Abbey (Sherlock & Woods 1988: 193 & fig 60.27). Platt & Coleman-Smith (1975: 260, fig 243, 1788, 1790) recorded two similar pins from sixteenth-century contexts at Southampton. Nina Crummy (1988) published two of these from post-medieval contexts at Colchester (1988: 9, fig 5: 1383, 1384). 'The large form Type 6 has a head made of two hemispheres, the lower is fitted over a long shaft, and the two halves of the head are fixed together by filling the hollow with a ?lead-based solder' (Crummy 1988: 7). The pins from Sandal Castle came in the first case from a context dating around c. 1484-5 and in the second from a context between 1485 and 1600 (Caple 1983: 273 & Table 1: item numbers 35 & 38). These represent a handful of the known datable types.

Wound-wire-headed pins:

At the end of our period pins with wound wire heads become the most popular of the types in common use. These were discussed at length in the Chapter 4 because of the technological change they represent. These are outside the scope of the thesis.

Chapter 6

The Chronology of Pins

from Anglo-Saxon Contexts: Synthesis

6.i. Introduction

In Chapter 2 I discussed the previous work on pins and described at some length the research into Roman pins from Britain. The research of H.E.M. Cool into metal pins and S. Greep into bone pins has provided a suitable backdrop against which to set the Anglo-Saxon material. In Chapter 4 I examined in detail the methods used to manufacture pins based on the internal evidence of the pins themselves and categorized the different methods of pin production and observed change in the use of these manufacturing methods over time. In Chapter 5 I described each of the typological groups. In the discussion of these groups I aimed to specify their chronological and spatial distribution. So, although we have now established a group by group record of the currency for this material we have, as yet not taken a broad perspective. This Chapter aims to see the material with a chronological view in the hope of defining dated sets of the typologically distinct groups. To meet this objective the following discussion divides the pins into *sets of types/groups*. The *sets* are: (A) fifth and sixth century types; (B) late sixth and seventh century types; (C) middle Saxon types; and, (D) late Saxon and Anglo-Scandinavian types. Two further sections discuss the imported types and the 'unresolved types'. Table 6.1 is a chronological chart showing periods in which each type of pin was common. As is made clear in the caption of the table not all the date ranges are secure, and where they are tentative this is marked by dotted boxes. Furthermore, although absolute dates have been included in the heading of the table, this has been done for convenience and not to suggest a degree of precision that does not at present exist. Captions such as 'Early fifth century', 'Mid-sixth', etc would have led to a table of unmanageable size.

6.ii. (A) The Set of Fifth and Sixth Century Types

Pins from the first half of the fifth century are virtually unrecognized from England. One of the few exceptions is the single find of an imported Type 'Muids' pin from Gilton (Kent) [III]. Even this pin need not have been deposited in the first half of the fifth century, but it could have found its place in the archaeological record just after 450. We have argued that the cuboid–facet–headed pins [especially sub–group **IV.i**] probably belong to the late fifth, although we acknowledge that use in the early sixth century is a distinct possibility. The pin from Bifrons grave 15 was associated with a pair of cruciform brooches with 'a square plate, covered with five flat, uncoloured pieces of glass in cell–inlay' (Godfrey–Faussett 1876: 305). These, as Åberg pointed out 50 years ago, could well fit a late fifth century date (1926: 29–32 & Fig 33). This might indicate a date for the context and the pin; this date would be well–suited to the find from Canterbury (**CanAT SF958**). Some of the pins belonging to sub–group **IV.ii** could date after the mid–sixth century.

The biconical–headed group [**V**] must belong to the same horizon as the facet–headed pins of sub–group [**IV.i**]. Here again we have too few examples to talk conclusively about a distribution. There is one example from each of Sussex and Wessex and two from the Upper Thames Valley, but, whereas we can note the concentration of the facet–headed form [**IV**] in Kent, we can note a 'Saxon distribution' to the biconical–headed type. To the set formed by types **IV** and **V** we may add **VII**, *multiple–knob–headed type*. This group was shown to have belonged to the same late fifth century or the very early part of the sixth century horizon.

We identified a range in the *spangle–headed* pins [**VIII**]. Sub–groups **VIII.i**, **VIII.ii**, **VIII.iii**, and **VIII.iv** have been shown to belong to the end of the fifth century and the beginning of the sixth century. Pins of **VIII.i** are indisputably derived from the Vermand type defined by Böhme (1974) and we have suggested that the pins of sub–group **VIII.ii–iv** may be derived from **VIII.i**. A relationship may exist between pins of the *multiple–knobbed type* [**VII**] and sub–group **VIII.iv**. The most likely scenario is that in the sub–group **VIII.iv** pins we are seeing a confluence of two types, that is, the adaption of multiple knobs. Pins of variants **VIII.iii.a – iii.b** appear to owe

their form to a confluence of the spangle-headed and the facet-headed types. One would expect some interaction between pin forms and an interchange of design elements.

In the case of type **XV**, *flat-sheet expanded-headed type*, two sub-groups were noted. One sub-group **[XV.i]** includes pins that were folded, rolled and hammered into shape. It could be argued that their form reflected the method that had been used to make them--the folded character is unmistakable. The other sub-group **[XV.ii]** included cast or wrought pins. These were used in the last quarter of the fifth century and during the first half of the sixth century. Also similar, but better classified as a different group, are pins with spatulate head, **XVI**. These pins are cast in a manner similar to the pins of **XV.ii**, but they are shorter and stouter, and cannot be shown to have been derived from them. Moreover they appear to belong to a mid-sixth century date.

The *hook-headed* **[XVII]**, the *loop-headed* **[XVIII]** and the *crook-headed* **[XIX]** types were all made from either round sectioned metal rods or square sectioned metal rods which were rounded. The great majority appear to fit into the period of the first half of the sixth century.

Types **XXII** and **XXIII** represent pins for which only one example of each exists. While this is sufficient to establish the groups it is not sufficient to identify variation or to characterize the groups. These two groups could arguably find a place within the set of cast pins longer than 100 mm which include types **IV**, **V**, **VII**, and **VIII**. The pin from Sleaford, classified as type **XX**, is a one-off item, the design of which may owe something to the decoration seen on other types of dress fasteners.

The *curled-headed type* **[XII]** is unusual: nearly all examples were made in iron, the shafts have diameters 1 – 3 mm greater than the average of other contemporary types, and these pins come mainly from male graves. There can be little doubt that this group belongs to the mid-sixth century. The distribution reflects the contact which must have existed between Kent and East Anglia at this time.

Most of the types discussed here ceased to find their way into the archaeological record by the third quarter of the sixth century. One of the few overlaps between the early Saxon forms and seventh century types, are the pins of type **XXXV** (*knob-above-eyelet-headed type*). These pins,

which may first have appeared in Kent by the mid-sixth century, spread to Wessex and the Upper Thames Valley. They certainly continued in use into the seventh century--reaching their most ornate form in the find from the seventh century grave at Wheatley. In general that these early types were produced in copper alloy but silver examples are known. We have been able to see specific types as indicative of particular regions and in a few instances, such as the case of the **XXI** (*forged-headed type*), we noted quite localized forms.

6.iii. (B) The Late Sixth and Seventh Century Types

Several groups of pins were made out of a composite of materials such as garnets, filigree and gold-foil. These include **LVII** (*Sibertswold-bird-headed type*), **LVIII** (*composite-cruciform type*), **LX** (*Wingham type*), **LXI** (*garnet-set-disc-headed type*), **LXIII** (*Evesham type*) and the sub-group of the *linked pins*, with composite forms **[LXIV.i]**. These types came from seventh century contexts and most came from Kent. They do not appear to have continued to be deposited much after the beginning of the third quarter of the seventh century. Some examples come from single burials in Derbyshire, Wiltshire and the Upper Thames Valley. All these concentrations suggest an exchange of material and ideas with Kent. Some of the pins may represent the work of distinct workshops. Two composite pins from Derby probably came from the same hand, although they represent two different types. These are the Wigber Low type pin and the Cow Lowe pin suite which were made with capsules to hold the garnets. These are the only two such examples, and on the grounds of manufacture they are quite distinctive from the other composite pins.

From where did the inspiration for these composite pins emerge ? Conceivably they could be an indigenous response to the demand for short pins in the materials and the 'in-vogue' style of jewellery that were then available. We cannot see a Continental origin to the specific forms of the composite pins, although composite pins are known from the late sixth/seventh century in the Merovingian world (see Möller 1976a & 1976b). These Merovingian types are distributed over a broad spatial zone, but although they share with English composite types the fact that they are constructed of a diversity of material, they do not have any other formal links. Indeed, none of these

types has been found in Anglo-Saxon contexts. One example of the Merovingian the pin with a copper alloy shaft and an upside-down pyramid-head. The pyramid has a raised cubic zone on its top. A lozenge shaped setting which holds a glass inset and has a border of filigree circles (Janssen 1981: 361-362, & Abb 4[.2a & 2b] & Abb 5b) is set into the centre. This pin must belong to the beginning of the seventh century and other associated finds suggest that the grave from which it comes fits into the first half of the seventh century (ibid. 382).

A similar Merovingian pin from Minden grave 5 has a round upside down conical head made of a gold sheet head fixed to a copper alloy shaft (Böhner 1958: 83 & Taf 23.3). The top head is adorned with a central circular setting surrounded by a circlet of evenly spaced circular glass settings. Böhner argued that this pin belonged to the seventh century (1958 (vol i): 123). Both can be compared to the basket-headed pins from Lombard cemeteries, such as the pin from grave 157 at Castel Trosino (Mengarelli 1902: 313 - 314).[1] Other composite pins, such as the pair of silver pins from Monceaux, have upside-down conical heads (Boulanger 1908: 340 & Pl XXIX.6a & 6b).[2] The shaft of the pin passes through the conical head and terminates in a small ball above the decorated cone. A decorated collar extends below the wide end of the cone. The surface of the cone is decorated with filigree ornament including S-spirals. The pin illustrated in Boulanger's plate XXIX.6a is also decorated by small square settings for garnets and glass. In contrast the pin in plate XXIX.6b does not have any settings. Excavations at Coutras (Gironde) recovered, from grave 6, two composite pins (Barraud & Chieze 1982: 28 & 30 figs at bottom of the page). One has a head made of basket filigree work and the other has a head made of sheet metal. Both heads are like cones sitting on the end of the shaft and both are crowned by a setting of glass. The basket-headed pin is set with a convex circular setting and the sheet metal headed pin has a square setting.[3]

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[1]Castel Trosino, grave 157, Museo dell'Alto Medioevo (Roma).

[2]I have not actually seen these pins and my comments are therefore based on the illustrations in the 1908 publication by Boulanger.

[3]The use of basket or cage designs can be seen on numerous late fourth and fifth century pins (Gürçay Damm 1988: 139-140 [items 54 & 55]).

Here we have described one small group of Merovingian pins to capture the impression of the composite character that was given to some Merovingian types. Other examples could have been chosen (see Möller 1976a). All the Merovingian composite forms are different from the English series. Pins of the English series are short (less than 80 mm) and delicate (head diameter 5 mm ± 3 mm and a shaft diameter range 1.5 mm to 2.5 mm), whereas the merovingian types tend to be longer and bulkier. The set of composite Anglo–Saxon pins is limited to a small range of types each of which includes only a couple of individual members. In a few instances types that include pins that belong to the composite set also have members that were made by casting and the cold–working of copper alloy. Primary among these are the linked pins, **LXIV**: sub–group **LXIV.i** includes composite pins and sub–group **LXIV.ii** includes cast pins.

The late sixth or early seventh century also saw the beginnings of the casting of pins shorter than 80 mm with shafts having a diameter less than 2.5 mm and heads having a diameter less than 10 mm. The group of the *Kingston disc–headed type* [L] belong to the period at the end of the sixth century and continue throughout the seventh century. Some of these pins, with faceted–hipped or shouldered shafts, probably represent the latest of this group; those from Canterbury may be a case in point. Closely related to this type are the pins of the *pierced–disc–headed type* [**LI**]. Both groups are longer than 35 mm and shorter than 70 mm. Whereas pins of type **L** have head diameters in a range from 3 mm to 6 mm, those of **LI** have heads of 6 mm ± 1 mm. The slightly larger diameter of the heads of the latter groups was required by the intention that these pins should have rings passing through their head. The spatial distribution of the group is similar in so far as those of **LI** came from Kent, Essex, East Anglia and the Upper Thames Valley. Pins of group **L** appear to have been used longer than pins of group **LI**, starting both earlier and continuing further into the seventh century. We have noted several of the hipped examples from Canterbury came from contexts securely placing them in at least the second half of the seventh century. **LII** (*superior–looped–disc–headed type*) also belongs to Set B. These pins have the same dimensions as the pins of groups **L** and **LI** and have a similar structure. Once again we have a group with a Kentish–Essex–East Anglian distribution. **LIII** (*superior–looped–elliptical–headed type*) is closely

associated to **LII** in length and in form with a loop-above the head of the pin. Unlike the pins of **LIII**, the two examples of **LII** came from the Upper Thames Valley (Stanton Harcourt) and from (Burwell) Cambridgeshire.

Several other groups probably belong late in the seventh century horizon. **LVI** (*Castle Dyke wedged-headed type*) includes pins less than 50 mm long with wedged-heads. These pins came from seventh-century burials and occur only in Kent, Essex and Humberside. This pin type is to be joined by **XXXVIII** (*thistle-headed*) which we have argued on the evidence from Dover ought to belong in the second half of the seventh century. **LVI** and **XXXVIII** offer further indication of the coastal contact between Kent and the North East Anglian and Humberside Coasts. This type appears to have been short lived as it disappears by the beginning of the eighth century from England. There could be some claim to place the pin of type **XL** (*lyre-headed type*) along side these three groups, but with so few examples in the groups, and the fact that the one known example (of **XL**) is distributed outside our sphere of Kent-East Anglia-Humberside interaction zone we have resisted this temptation.

In conclusion then it is in the seventh century that we can place the development of a composite group of pins, a trend similar to that seen in other Anglo-Saxon metalwork. It is also the period during which pin-form settled on the shorter length of less than 80 mm and when the cast tradition began to develop.

6.iv. (C) Middle Saxon Types

Many of the types of pins included in this section may have been in use initially in the late seventh century, but as they come to characterize a single set common during the eighth and the first half of the ninth century they have been grouped together here. Types **LXVIII** (*biconical-headed type*), **LXIX** (*inverted pear or 'hot-air-balloon' headed type*), **LXX** (*ball/spherical-headed type*), and **LXXII** (*facet-headed length less than 85 mm*) form a rigidly bounded set. These groups have been divided into three sub-groups--small, medium, and large--based on the size of the head of pins in the group. The meanings assigned to the terms small, medium and large were defined in the

earlier sections discussing the sub–groups (see above). Nearly all these pins measure less than 80 mm and the maximum range of +10 mm could be noted. They all terminate in a knob, but a great variety of shaft and collar forms have been identified. Many have collars, but not all do. We have noted diversity in collar forms with some pins having moulded collars and others having collars made by incisions into the shaft. Numerous examples having tapering, swollen, carinated and shouldered shafts. The sub–groups bear a great deal of similarity in both chronological and structural terms.

Sub–groups **LXVIII.i**, **LXIX.i**, **LXX.i**, and **LXXII.i** all have a head less than or equal to 4 mm in diameter. Nearly all known examples belong to the seventh century, and have been recovered from both cemeteries and settlements. The settlement contexts are vague, but in the case of all sub–groups the finds from graves would suggest they all belong to the seventh century although some may have been deposited in very early eighth century contexts.

A set of sub–groups **LXVIII.ii**, **LXIX.ii**, **LXX.ii**, and **LXXII.ii** all have a head size greater than 4 mm and less than 7 or 8 mm. To this set we would add the sub–group of *flattened–facet–headed* pins (**LXXII.iv**). In the case of all five sub–groups we found these pins distributed across the full range of middle Saxon sites, with especially dense concentrations at sites such as Brandon, Flixborough, Ipswich, and Southampton. Analysis of the contexts of the finds left us unable to determine whether these pins were used only in the seventh/eighth centuries or whether they continued being made into the ninth century. The level of standardization in these middle Saxon groups is notable; we have pointed out the homogeneity of form throughout Anglo–Saxon England. Sub–groups **LXVIII.ii**, **LXIX.ii**, **LXX.ii**, **LXXII.ii**, and **LXXII.iv** also show a great deal of diversity in terms of shaft and collar forms, although decoration is in all cases limited. We were unable to see any regional influences or restrictions on the variants or sub–variants of any of these groups, but it would be surprising if some degree of regionalism were not present. The last series of sub–groups **LXVIII.iii**, **LXIX.iii**, **LXX.iii**, and **LXXII.iii** have diameters of 7–8 mm or more. In most cases the dating evidence is not yet available, but **LXXII.iii** is securely shown to belong to the tenth century from the finds at Coppergate and Jarrow.

A common feature on middle Saxon pins is an expansion of the shaft. The function of this feature is described in chapter 7 and in chapter 3 we noted under section **3.ii.g** (Shaft Forms) the varieties of hipping. At present the potential information hipping might provide about middle Saxon pins is under-exploited. I did not find the shouldering confined to a particular type of pin, but it appeared across most of the pins of types **LXVI, LXVIII, LXIX, LXX** and **LXXII**. There is also variety in the section of the shaft below its shouldering. A copper alloy cuboid-facet-headed pin from Marlowe IIa has a shouldered shaft which is squared below the shoulder.[4] In contrast a spiral-headed pin from Cakebread Robey has a round section above and below this shouldering.[5] Similar style shouldering can be seen on a garnet set pin from Faversham.[6] The close comparison between the hipping on the Cakebread Robey pins (type **LXVI**) and that to be seen on the Faversham pin (probably of type **LXIV**) might allow us to support claims about similar dates of the two types. A good deal more work on the archaeological contexts of pins with different shaft forms is needed, but before this can be usefully undertaken we must have more published contexts.

Moulded collars and swollen or hipped shafts are common features of middle Saxon pins. Although these features are common their presence is neither a sufficient nor a necessary condition for a pin to be identified as middle Saxon. In chapter 5 I cited numerous pins recovered from middle Saxon contexts which had neither shaft swelling nor upper shaft mouldings. From the discussion of these it can be concluded that the absence of these features, especially in pins of groups **LXVIII, LXIX, LXX,** and **LXXII**, *is not* a sufficient reason for concluding that a pin *is not* middle Saxon. On the other hand the presence of one or more of these features can not always alone be taken as evidence that a pin is of middle Saxon type and date. For instance, shaft swelling can be seen on Roman pins, although carinated (i.e. hipped) or shouldered shafts are almost entirely confined to the middle Saxon period.

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[4]Canterbury Archaeological Trust, Marlowe IIa, small find: SF484.

[5]Canterbury Archaeological Trust, Cakebread Robey small find nos: SF406 and SF423.

[6]Salisbury Museum, acc no: 3D 2A 13.

We need to determine an origin for these middle Saxon forms. A direct Roman origin can be rejected because we can find in the archaeological record of lowland Britain no evidence for continuity of any fourth century form into the fifth century. A Scottish origin might be postulated on the basis of Stevenson's (1955) claim that the form of pins in the seventh century in Scotland was similar to late Roman pins (in his view this was the result of continuity of manufacture). But Foster (forthcoming) could find no continuous sequence and suggested there must have been a break. This suggests that these seventh century 'Roman' forms must have been introduced from elsewhere. The main question is 'from where ?' I propose that the middle Saxon pins of types **LXVIII, LXX, LXXII**, and **LXIX** owe their form to contact in the seventh century with Southern Europe. Chapter 2 reported the conclusions reached by both Cool and Greep in their independent studies of Roman pins from Britannia. Of these the most important for us was their finding that pins shorter than 80 mm long with geometric heads (e.g. faceted, cuboid, ball, conical etc) and with a diameter greater than the diameter of the shaft were preeminent by the beginning of the fourth century. We also noted that a 'general' survey of pins from other parts of the western half of the Empire showed that similar types of pins were worn during the fourth century from Pannonia to Italy to Northern Gaul. In England these forms have not so far been discovered in contexts dating much after the beginning of the fifth century and before the seventh century. They do not appear in the Germanic graves of later than the first half of the fifth century on the continent either (Böhme 1974). Indeed there is reason to believe that they are generally absent from Europe North of the Alps for roughly 150 years before the seventh century.

We noted the continuation of the use of these Roman derived pins in Italy and can produce some evidence to suggest that the fashion of these pins continued there into the seventh century. The entry of the Lombards into Italy in the third quarter of the sixth century offers an opportunity for us to continue to trace the development of late Roman pins. An analysis of these cemeteries supports the argument that pins between 50 mm and 70 mm with geometrically formed heads continued to be fashionable in Italy into the seventh century.

When the Lombards arrived in Italy they brought with them their fashion of using pins longer than 100 mm. Pins of this kind were recovered in graves from the cemeteries at Cividale (Fologari 1906), such as those from the Sepolcreto of San Giovanni. Examples include the pin from grave 158,[7] grave 91,[8] or the silver pin with gold bands and linear ornament from grave 6/7.[9] These were deposited in the final thirty years of the sixth century. Similar pins come from the early graves at the cemeteries of Nocera Umbra (e.g. graves 64, 85, 107 & 144),[10] or Castel Trosino (e.g. graves G, L, 115).[11] These cemeteries offer evidence to show that the Lombard culture

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[7]Museo Archeologico Nazionale Cividale del Friuli, acc no: 4169.

[8]Museo Archeologico Nazionale Cividale del Friuli, acc no: 4062.

[9]Museo Archeologico Nazionale Cividale del Friuli, acc no: 4224.

[10]The finds from graves 64, 85, 107 and 144 are typical.

Nocera Umbra, grave 64, Museo dell'Alto Medioevo, acc no: 553. This 138 mm long silver pin which was recovered on the right side of the skull of the interred is 2.8 mm in diameter at the head and expands to 3 mm in diameter 25 mm below the head and then it tapers gradually toward the point where it is only 1.5 mm at the broken end. This pin is decorated with zones of incised lines. While most are concentrated at the head end there are two zones of fine lines at the tip.

Nocera Umbra, grave 85, Castello Sforzesco, acc no: 21417. This 107 mm long silver pin terminates at one end with a point and at the other with a rounded end. It tapers from the rounded end to the point. The first third is decorated by lines engraved into the shaft. This gives the appearance of long barrel zones separated by bevels. The grave also included a 44 mm long conical-headed pin [Castello Sforzesco, Accession Number: 21416 (Paribeni 1919: fig. 145)].

Nocera Umbra, grave 107, Museo dell'Alto Medioevo, acc no: 816. This 133 mm long copper alloy pin which was recovered on the right side of the skull of the interred tapers along its entire length from 3.5 mm in diameter at the head end to 2.5 mm just above the point (Paribeni 1919: 297). The head end of the pin is decorated by two zones of engraved triangle inset decoration. Above and below each zone is a block of incised lines. The pin was recovered on the side of the skull pointing towards the base of the grave (ibid. 297, fig. 157).

Nocera Umbra, grave 144, Museo dell'Alto Medioevo, acc no: 1052. This 117 mm long copper alloy pin, which was recovered on the skull of the interred, expands from a shaft diameter of 3.7 mm at the head to 4 mm at 15 mm below the head, tapers along the remainder of its length and is only 3 mm in diameter at its present end (Paribeni 1919: 327). The head end of the pin is decorated by two zones of engraved triangle inset decoration and multiple zones of incised lines.

[11]Among the graves at Castel Trosino similar finds come from G, L and 115.

Castel Trosino, grave G, Museo dell'Alto Medioevo, acc no: 1220. This 152 mm long cast silver pin with a tiny ball head tapers along its entire length. The pin is decorated with zones of linear ornament separating bands of triangles. These alternating bands terminate in a band of "X"s before the final shaft run (Mengarelli 1902: 199 & fig 36).

Castel Trosino, grave L, Museo dell'Alto Medioevo, acc no: 1262. This pin is 124 mm long, has a 2 mm diameter at its head end, expands to a diameter of 3 mm at a point 35 mm below the head and then tapers along its length to a shaft diameter of 2 mm at 5 mm from the tip. The silver pin is decorated by zones of linear

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changed soon after the Lombards entered Italy. Bierbrauer examined the cemetery evidence and concluded that the Lombards modified their material culture to conform to the predominant Roman one (Bierbrauer 1980: 89ff). The change was not immediate, but was well under way by the beginning of the seventh century. The graves that can be easily identified with Lombards are the weaponed male graves and those female graves with Pannonian-style buckles. Both these types of burials tend to date before AD 600. It is the female graves which are the most important to us because it is these that often include pins. Many of the graves at Castel Trosino have both pins under 70 mm and pins over 120 mm. Relying on associated finds alone it becomes difficult after AD 600 to ascertain whether the female burials belong to the invading Lombards or to the native Roman population (La Rocca, pers comm). Foregoing a discussion of the problems associated with assigning ethnic identity to individual burials at both Castel Trosino and Nocera Umbra, the female burials show that either the Lombard women adopted the current Late Antique Mediterranean fashions or that Roman women were interred by Lombards. The burials indicate a style of dress which included the use of shorter pins of late Roman style to fasten hair in place or secure headgear (e.g. a hairnet, such as those from graves 13, 26, 31 & 157 at Castel Trosino) (Mengarelli 1902). This change occurred early in the seventh century and can be seen at numerous Italian sites.

The conical-headed copper alloy pin in the Museo di Torino from 'Die Langobardischen Funde aus dem Gräberfeld von Testona' is a typical example (Hessen 1971: 12 & fig 1.11) [Fig 6.1.f]. The pin is 48 mm long, has a maximum head diameter of 6 mm, and an average shaft diameter of 2 mm. These shorter pins were generally cast in silver or copper alloy and when excavated from graves were normally recovered on opposite sides of the skull of the interred. The

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[11](...continued)
ornament separating bands of triangles (Mengarelli 1902: 206, fig. 47). The grave also contained two silver pins. One with a biconical head [Museo dell'Alto Medioevo, acc no: 1257] survives for only 20 mm of its original length; the other a spherical-headed [Museo dell'Alto Medioevo, acc no: 1256] pin survives for 37 mm of its length. Both pins have a maximum head diameter of 5 mm and a round-sectioned shaft. The biconical-headed pin had a shaft diameter of 2 mm tapering to 1 mm and the spherical-headed pin had a shaft diameter of 1 mm along much of its length.

Castel Trosino, grave 115, Museo dell'Alto Medioevo, acc no: 1742. This 159 mm long cast silver pin, which was recovered behind the head of the interred of the interred, tapers along its length from 3 mm at the head to 1.5 mm at the tip (Mengarelli 1902: 278 & fig 157). The pin is decorated by four zones of incised lines.

heads of these pins tended to be either spherical, biconical or, more rarely, faceted. For instance, grave 168 at Castel Trosino had 2 silver biconical-headed pins that when complete would have measured just over 50 mm each (Mengarelli 1902: 318) [Fig 6.1.g-h].[12] Grave 169 contained a copper alloy pair with a spherical head.[13] At Nocera Umbra similar short pins occur in graves such as 10, and 33.[14] The pair of spherical-headed pins (42 mm long) from grave 101 at Nocera Umbra were recovered on either side of the head [Fig 6.1.e]. The appearance of these shorter pins in Lombardic graves allows us to see the continuity of pin forms from the fourth century through to the mid-seventh century.

The cloak pin from grave 49 in S. Denis (France-Lanord & Fleury 1962) - (the supposed Arnegunde grave,[15]) - while unique in form and decoration, is typical of the decorative exuberance common on Frankish pins (see for instance Möller 1976b: 14ff). This early seventh-century grave also included two gold pins about 45 mm long with globular heads. These have been interpreted as veil fasteners (France-Lanord & Fleury 1962). Early in the seventh century pairs of pins derived

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[12]Castel Trosino, grave B, Museo dell'Alto Medioevo, acc no: 1183. The very tip of each of these silver spherical-headed pins is now lost (Mengarelli 1902: 194 - 195). One pin survives to 55 mm and 54 mm of the second pin is extant. Both pins have a round shaft section. These pins were cast, but bear the marks of having been hammered after casting.

Castel Trosino, grave 168, Museo dell'Alto Medioevo. This grave contained a pair of undecorated cast silver pins with biconical heads. The shaft of both pins is round in section and they taper from the collar to the point of the pin (Mengarelli 1902: 318 & fig 225). Both pins are just under 50 mm in length. They were recovered adjacent to the skull on opposite sides. This woman was also wearing two gold earings.

[13]Castel Trosino, grave 169. Museo dell'Alto Medioevo. This pair of now incomplete (one survives for 17 mm and the other for 21 mm) bronze spherical headed pins were recovered behind the skull of the interred. Both pins were cast and had a head diameter of 4 mm.

[14]Nocera Umbra, grave 10, Museo dell'Alto Medioevo, acc no: 171b. This complete silver spherical headed pin has a tapered shaft and was cast (Paribeni 1919: 186). Paribeni recorded this pin as being 60 mm long. The pin which is marked as coming from grave 10 in the collections of the Museo dell'Alto Medioevo is only 44 mm long. This grave also contained an 86 mm pin-like object with a scoop at one end and a point at the other [acc no: 171a]. The shaft tapers from 2 mm at the scoop end to 1 mm at the point end (ibid., 186).

Nocera Umbra, grave 33, Museo dell'Alto Medioevo, acc no: 382. This complete silver spherical headed pin has a tapered shaft and was cast (Paribeni 1919: 228). The pin is 35 mm long and has head diameter of 5 mm.

Nocera Umbra, grave 101, Castello Sforzesco, acc nos: 21402a & 21402b. Both silver pins were 42 mm long, had a maximum head diameter of 5.5 mm and had a shaft diameter of just over 1 mm. They were undecorated and the shaft tapers along its length (Paribeni 1919: 293, fig. 154). The grave also contained a bronze pin (Castello Sforzesco, acc no: 21401). This pin is 140 mm long.

[15]see Helmuth Roth in 'Zweifel an Aregunde' in Gedenkschrift für Gero von Merhart zum 100.Geburtstag, ed. O.-H Frey, et.al., Marburger Stud vor Frühgeschichte, 7: 276ff.

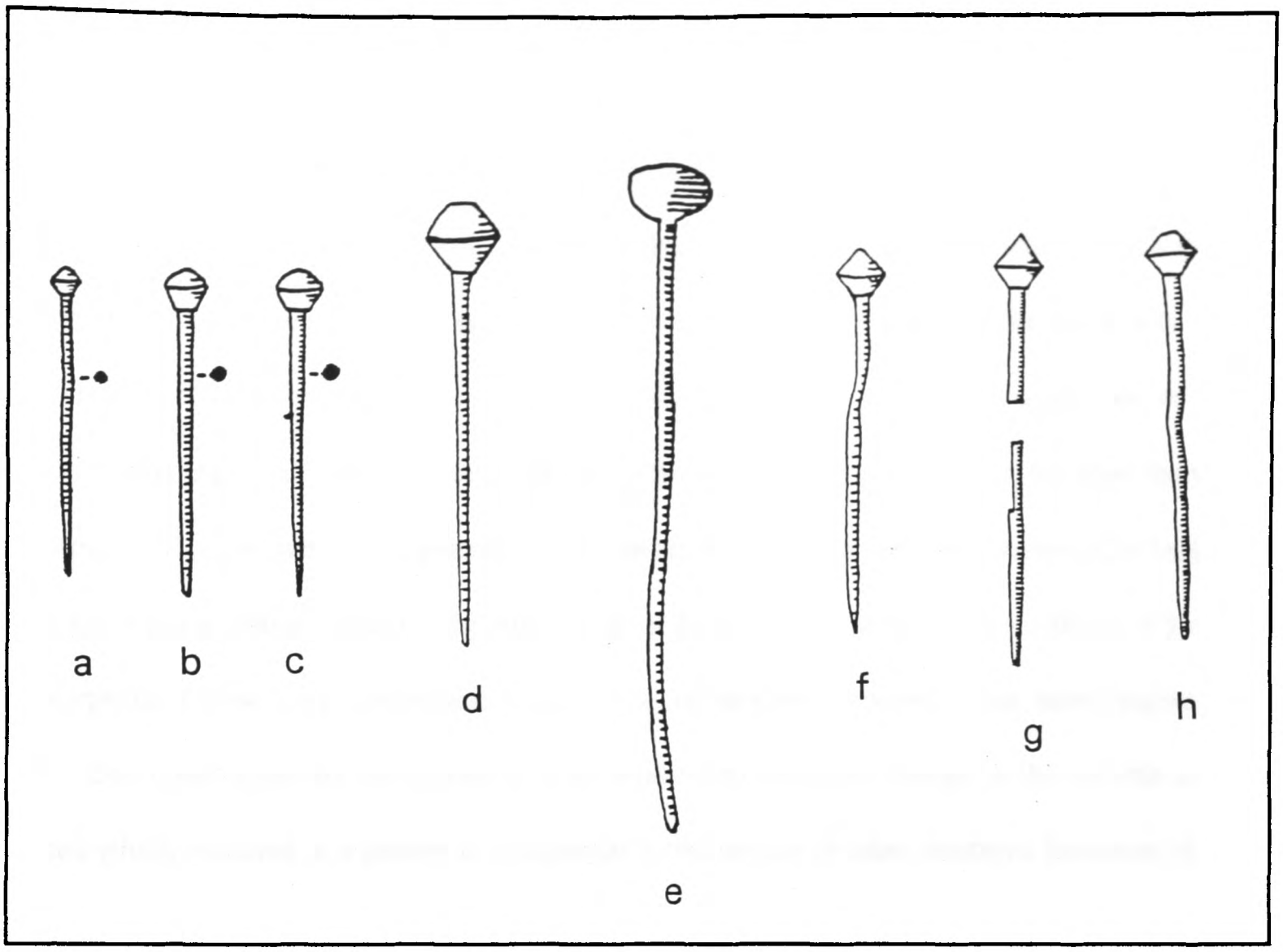

Figure 6.1: Continental Pins with Globular Geometric heads.

from Southern European models similar to those recovered from the cemeteries of Castel Trosino and Nocera Umbra begin to find their way into relatively wealthy and possibly aristocratic burials north of the Alps. Many of these burials were associated with the newly founded churches, especially in northern Switzerland, South Germany and along the Rhine. The pair of silver biconical-headed pins (on left and right side of the skull) from grave 36 in the Reformed Church at Meilen (Canton of Zürich, Switzerland) are typical of the general type and form (Drack 1977-78: fig on 107; 1978-9: fig 38). This grave also contained two silver earrings, and a bone comb. Other similar pins are known from grave 15 at Friedberg (Christlein 1977: Abb. 14.2-4) [Fig 6.1.a-c],[16] grave 133 at Miesenheim (Ament 1976: 244 & Taf 41,2.4), grave 326 at Kirchheim am Ries (Neuffer-Müller 1983: 68-69 & Tafn 60.10, 60.11, 60.38, 114.1 and 115.1,2), grave 8 at München-

[16]This grave was well-furnished with a sixth century Lombard brooch of bronze, glass beads, silver rings, silver earrings, bronze and a bronze pectoral cross, along with other items.

Harlaching,[17] Bermersheim grave 1 (Behrens 1937: 267 & Abb. 1.3; 1940: 18 & Abb. 7.3) [Fig .1.d], and grave 41a from Ingelheim (Zeller 1990: 317, 324, Taf 13.22 & 17). Grave 1 from Bermersheim included a biconical headed pin with a flat top, a pin most closely paralleled by pins of our sub-variant LXVIII.ii.c.1. This grave included a finger-ring mounted with a gold *solidus* of Childebert the Adoptive. The coin provides a *terminus post quem* of 660/62 for the grave. Grave 36 at Meilen probably belongs to the close of the seventh century although it might date as late as the very beginning of the eighth century (Drack 1978-9: 37-42). At Kirchheim am Ries there were two copper alloy pins with hemispherical heads about 93 mm long and one substantially longer pin which has a silver ribbed collar for the first 2/3rds of its length (Neuffer-Müller 1983: 114.1). With the exception of these royal/aristocratic burials, pairs of pins are not known from Merovingian sites.

One could argue for the spread of these types from Southern Europe in the seventh century, a spread which occurred in a pattern not dissimilar to the spread of other Southern European material culture, such as Coptic bowls. They probably followed the same trade routes as well. They certainly became popular in England at the end of that century and achieved in the following century currency throughout England.

The middle Saxon period also saw several other popular types that were clearly indigenous. Among these are the two sub-groups of the *spiral-headed type*, **LXVI.i** and **LXVI.ii**. Another group that belongs to this period, although certainly not earlier than the eighth century is **LXXIV**, the *Witham disc-headed type*. Pins of type **LXXIV**, with the exception of a single unprovenanced find in the Chichester Museum (which may or may not have come from the area), are all concentrated North of the Thames and South of the River Tweed. We have noted a range in design and construction of these pins and can see a link between the designs on free standing crosses and in manuscript illuminations and that on these pins. These pins seem to go out of fashion in the early ninth century.

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[17]In the Prähistorische Staatssammlung, München.

6.v. Late Saxon and Local Anglo-Scandinavia Types

This period is puzzling. We have some indication from the sites of Coppergate and Chester that many earlier types continued in use into the tenth century, but the evidence from towns such as London and Winchester gives us little indication that pins were used at all. Based on the finds from Coppergate we have postulated that some of the sub-groups of types **LXVIII**, **LXIX**, **LXX**, and **LXXII** continued to be used into the late Saxon period, but the evidence is very scanty indeed.

At least one type which belongs to this late period appears to reflect Anglo-Scandinavian interaction. **LXIX**, *Globular-headed type*, is certainly a mid-ninth to mid-tenth century form and it is one of the few forms that can be securely shown to sit in this period. This type also shows the strong contact between Eastern England and Scandinavia. The distribution within England is purely Anglo-Scandinavian with a single outlier in Wiltshire. Beyond this we would be treading on thin-ice if we were to attempt to elaborate further on the forms of late Saxon pins. The emergence of further archaeological evidence and increased discussion of comparative material will, over time, provide more data for our analysis of late Saxon pins.

6.vi. Imported Types

Pins were imported to England throughout this period from the Continent, Ireland, the Mediterranean, Scandinavia. Pins were imported from Scandinavia, Ireland and the Continent. The first undisputable import is the pin from Gilton Ash [III]. Types imported from Scandinavia include **XXXIII** (*Holywell Row type*), and it compares closely with pins which have elongated biconical zones at the end of the shaft below a loop-head. The two pins from grave 89 at Bifrons that form the type finds of group **XXXIV**, *Plated-knob-headed type*, have been shown to have been established as produced at Helgö. We have suggested that pins of **XXXVII**, the *Moulded-bird-headed type*, owe something to bird-headed pins from Scandinavia and the East Baltic area of Finland. All three of these types belong to an earlier stage of contact between England and the Nordic area. None of these imported types inspired the development of any derived forms. The same thing happened at a later date. Examples of the loaf-headed type, examples of which were

known only from Anglo-Scandinavian areas of York and its surrounds, arrived but appear to have had no impact. Whether these arrived as a result of trade or settlement is unknown and while they provide evidence of contact they influence no trend in production.

Other finds of imported pins belong to the period later than the mid-ninth century. We have noted a small number of the *swing-ringed types* [LXXXIII] as present in Northern and Eastern England. Some of these came from Ireland, whereas others appear to be Scandinavian imports (e.g. **LXXXIII.vi**). Among these few late pins are pins of type LXXX (*spatulate-lozenge-headed type*). These pins were distributed in all areas of Anglo-Scandinavian north, from Ireland, Scotland, Scandinavia including Denmark.

In the late sixth or early seventh century pins were clearly imported from the continent, and these were particularly common at Faversham. One of these types is XXXIX, the *Flat-plate-animal-heads* that on the basis of the comparative material and the small sample size we argued were imported. They did not lead to the development of indigenous versions and had no influence on existing types. A number of the English types from both the early and middle Saxon periods are unique. These types have either one or two members. One such example is type XXXVI (*Bifrons-bird-headed type*). We know that this style II bird must belong at the very end of the sixth or the beginning of the seventh century. There are no parallels for this pin within or outside England or the outside.

6.vii. The Set of Unresolved Types

The analysis of a number of pin shafts lacking heads allowed us to argue that they were not shafts broken from pins with a metal head. Using this evidence we established a group of organic-headed pins [I]. We have more questions about this group than answers. The finds from Flixborough could provide a promising source for investigating the character of the heads of these pins since an analysis of the detritus clinging to the tops of these pins is likely to produce results. The evidence from associated finds led us to place this group [I] in the middle Saxon period, but because of the character of the sites on which they have been found we have only been able to do

this in a general way. It is worth noting that the shafts of these pins have diameters which compare favourably with other middle Saxon pins such as those of groups LXIX, LXX, & LXXII.

The problem of the chronology of the glass-headed pins [type II] remains unresolved. They are not common on Anglo-Saxon sites of any period, but they are known from Dover and Ipswich among other sites. The closest parallels are not Anglo-Saxon or pins made in other parts of Northern Europe during the Migration period or later, but rather Roman pins; it may be that many glass-headed pins are residual Roman pins

Both the organic-headed and glass-headed pin types require further research before they can be placed within the chronological structure.

6.viii. Summary

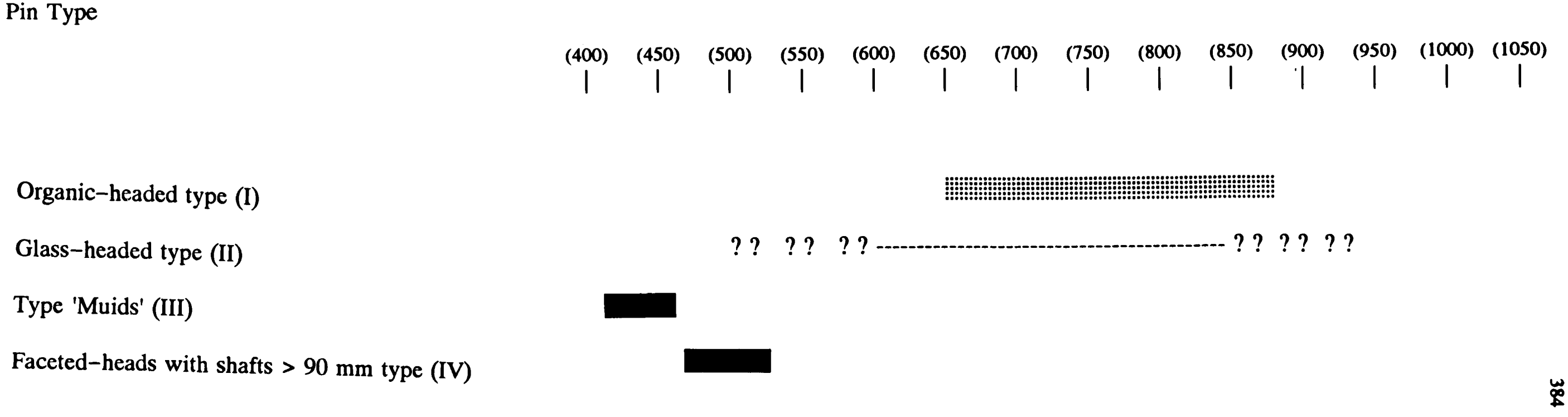
Although I have noted a great diversity in form I have found some general trends. First, there were two sets of pin groups common in the late fifth and during the first half of the sixth century. These were those groups including pins longer than 90 mm and cast/wrought/rolled; some types owed their form to Continental prototypes (*spangle-headed-type*, VIII) and others of were indigenous developments in England (the *curled-headed type*, XII). We also found a number of types of pins that were made from worked rod (XVII, XVIII, XIX) and at least one form that was made from sheet (XV.i). Whereas the worked rod group did not inspire a series of cast forms, those of the sheet-metal type did (XV.ii and XVI).

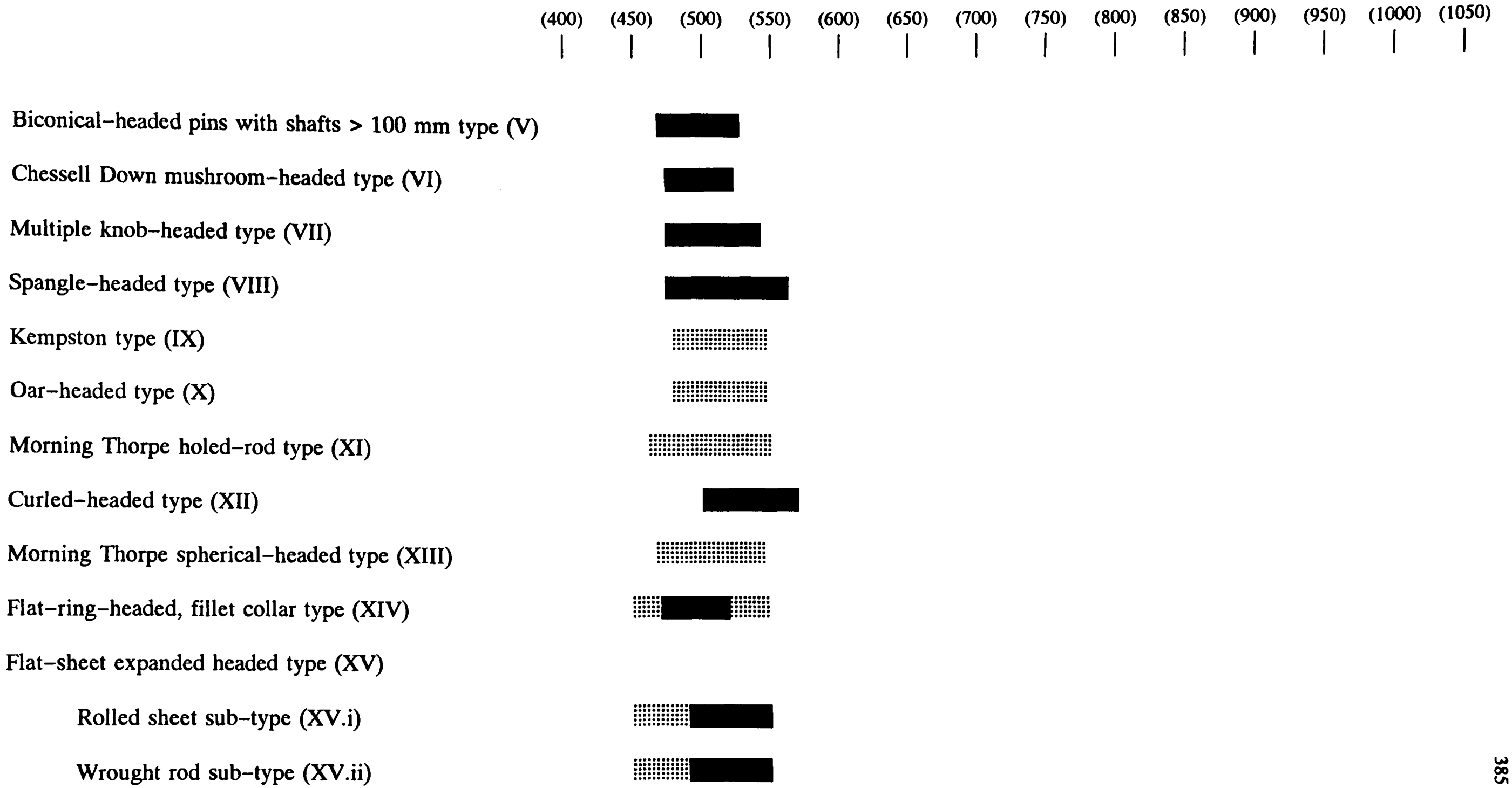
We reported that in the seventh century a number of composite pins, shared the same method of construction, such as the pins of types LVII, LVIII, LX, and LXI. It is also during this period that we begin to see a development of the cast type of pin measuring less than 80 mm (e.g. L, LI, LII, and LIII). The middle Saxon period saw a continuation of this latter seventh-century development in the beginnings of the sets of types including LXVIII, LXIX, LXX, and LXXII. These cast types were the most common throughout the next 150 to 200 years. We have been unable to be more precise in dating the variants and sub-variants, although it has proved relatively easy to identify them.

Now that we have established the chronology of Anglo-Saxon pins and in several cases have suggested something of their origin we must turn to the most hypothetical of the outstanding issues--function. The following chapter investigates the uses of these pins.

TABLE OF DATE RANGES

Dense (▬▬▬) and dotted (▒▒▒▒▒▒▒▒▒▒▒▒▒▒▒)boxes show the core period of use assigned to each of the types. Dashed lines suggest the extended period of usage, this does not account for exceptional residual usage (e.g. the pin of type IV in Finglesham 182 was clearly buried in a late 6th or early 7th century context and as such was between 75 and 125 years old). The date ranges indicated with dense boxes are considered secure whereas those indicated by dotted boxes are thought to be tentative. Not all sub-types are listed in the chronological table. Those shown are those that display chronological variation. Although absolute dates have been listed as headers for the table, this has been done for convenience to avoid the problems associated with use 'Early 5th century', 'Mid-6th', 'first third of 7th century', etc

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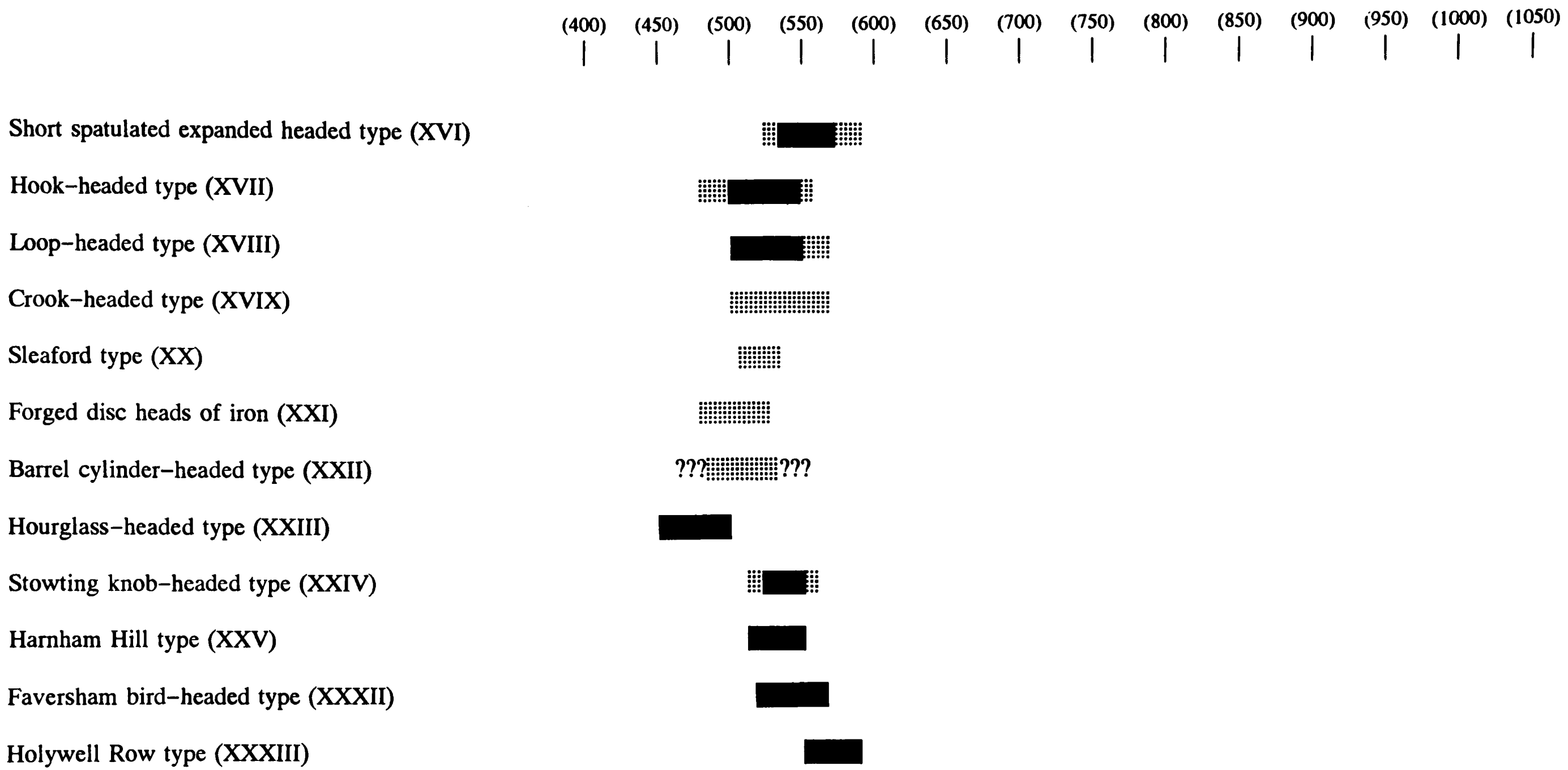
Biconical-headed pins with shafts > 100 mm type (V)
Chessell Down mushroom-headed type (VI)
Multiple knob-headed type (VII)
Spangle-headed type (VIII)
Kempston type (IX)
Oar-headed type (X)
Morning Thorpe holed-rod type (XI)
Curled-headed type (XII)
Morning Thorpe spherical-headed type (XIII)
Flat-ring-headed, fillet collar type (XIV)
Flat-sheet expanded headed type (XV)
Rolled sheet sub-type (XV.i)
Wrought rod sub-type (XV.ii)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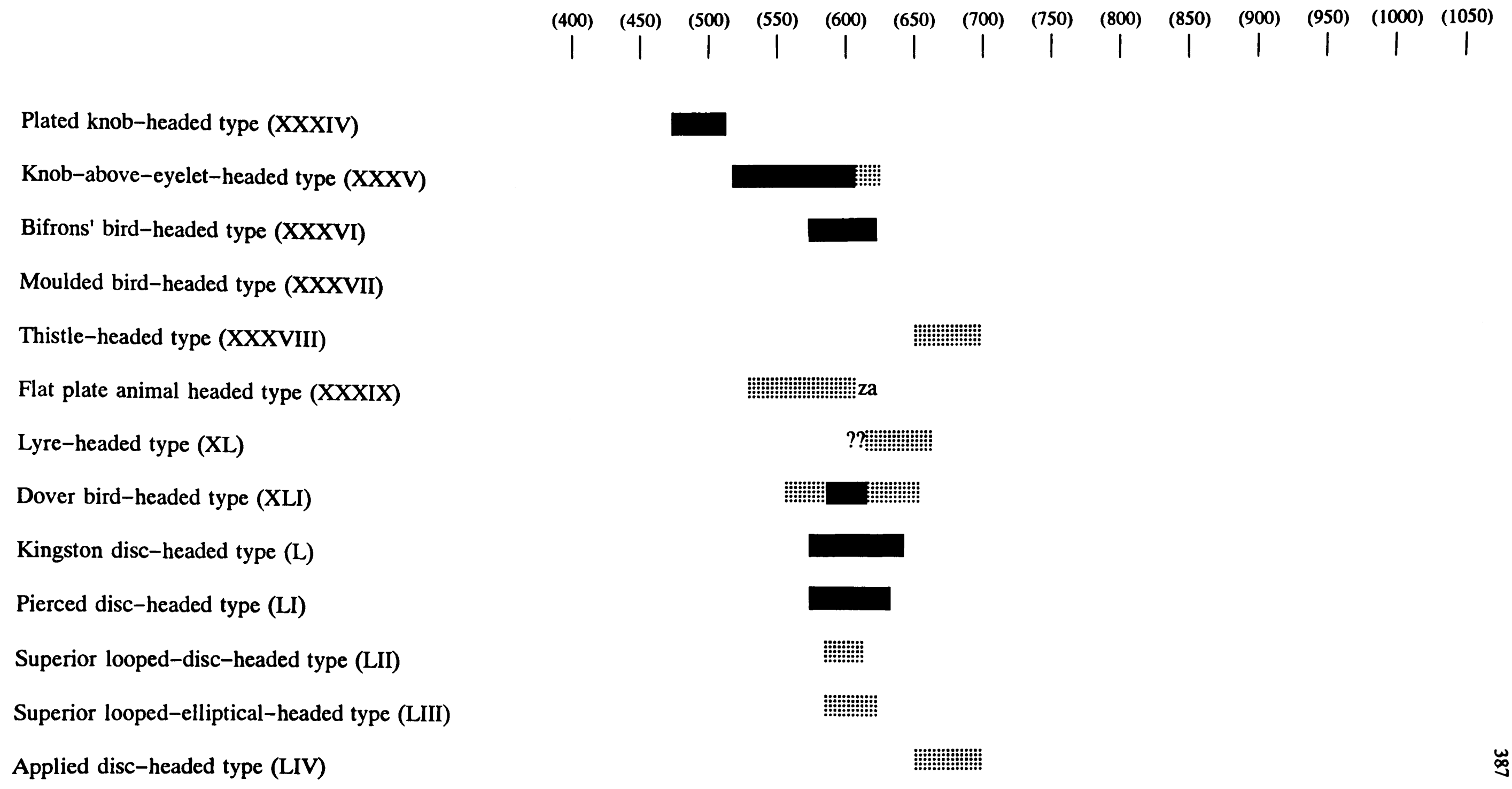
Short spatulated expanded headed type (XVI)
Hook-headed type (XVII)
Loop-headed type (XVIII)
Crook-headed type (XVIX)
Sleaford type (XX)
Forged disc heads of iron (XXI)
Barrel cylinder-headed type (XXII)
???
???
Hourglass-headed type (XXIII)
Stowting knob-headed type (XXIV)
Harnham Hill type (XXV)
Faversham bird-headed type (XXXII)
Holywell Row type (XXXIII)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Plated knob-headed type (XXXIV)
Knob-above-eyelet-headed type (XXXV)
Bifrons' bird-headed type (XXXVI)
Moulded bird-headed type (XXXVII)
Thistle-headed type (XXXVIII)
Flat plate animal headed type (XXXIX)
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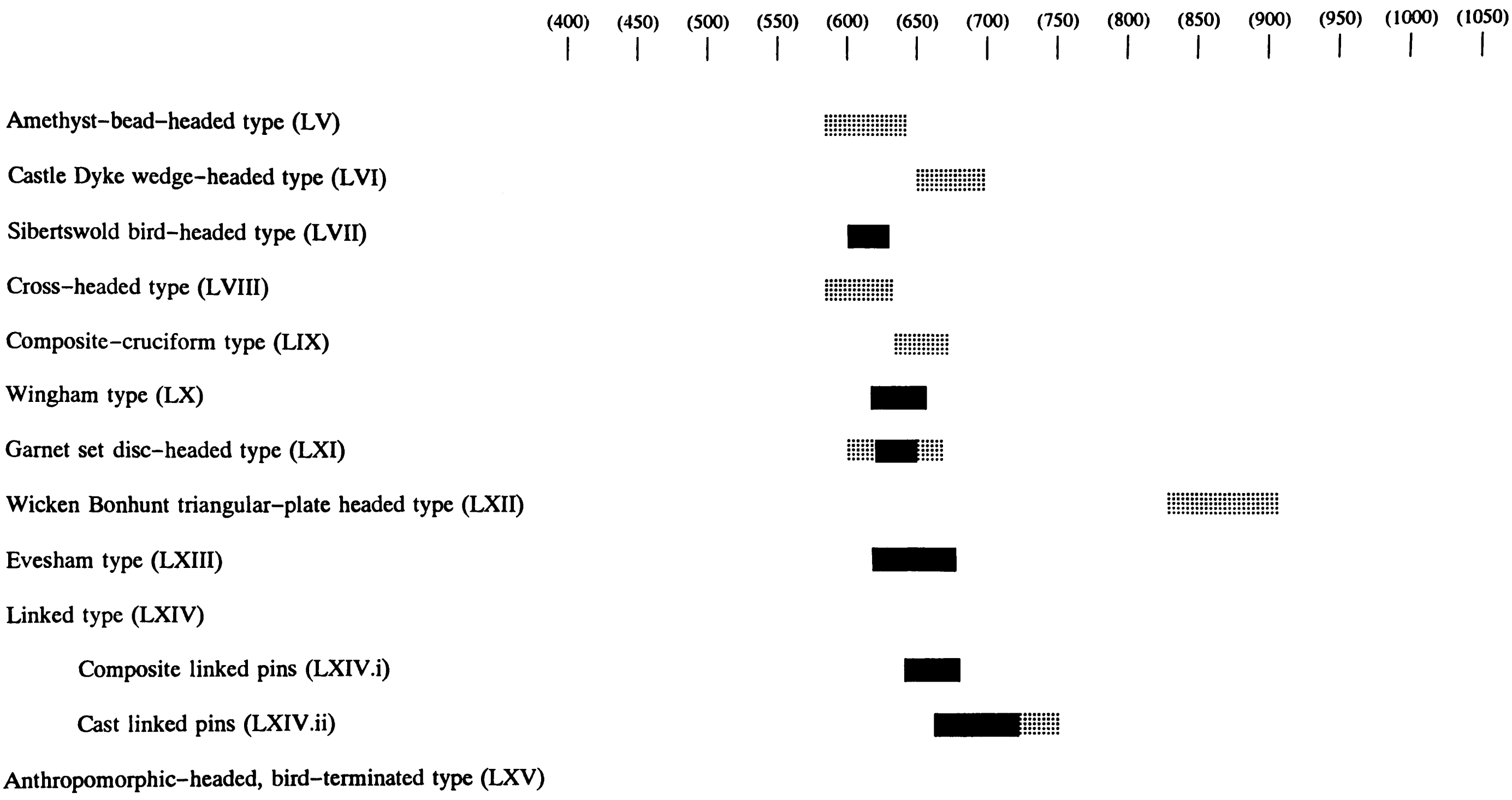
Lyre-headed type (XL)
??
Dover bird-headed type (XLI)
Kingston disc-headed type (L)
Pierced disc-headed type (LI)
Superior looped-disc-headed type (LII)
Superior looped-elliptical-headed type (LIII)
Applied disc-headed type (LIV)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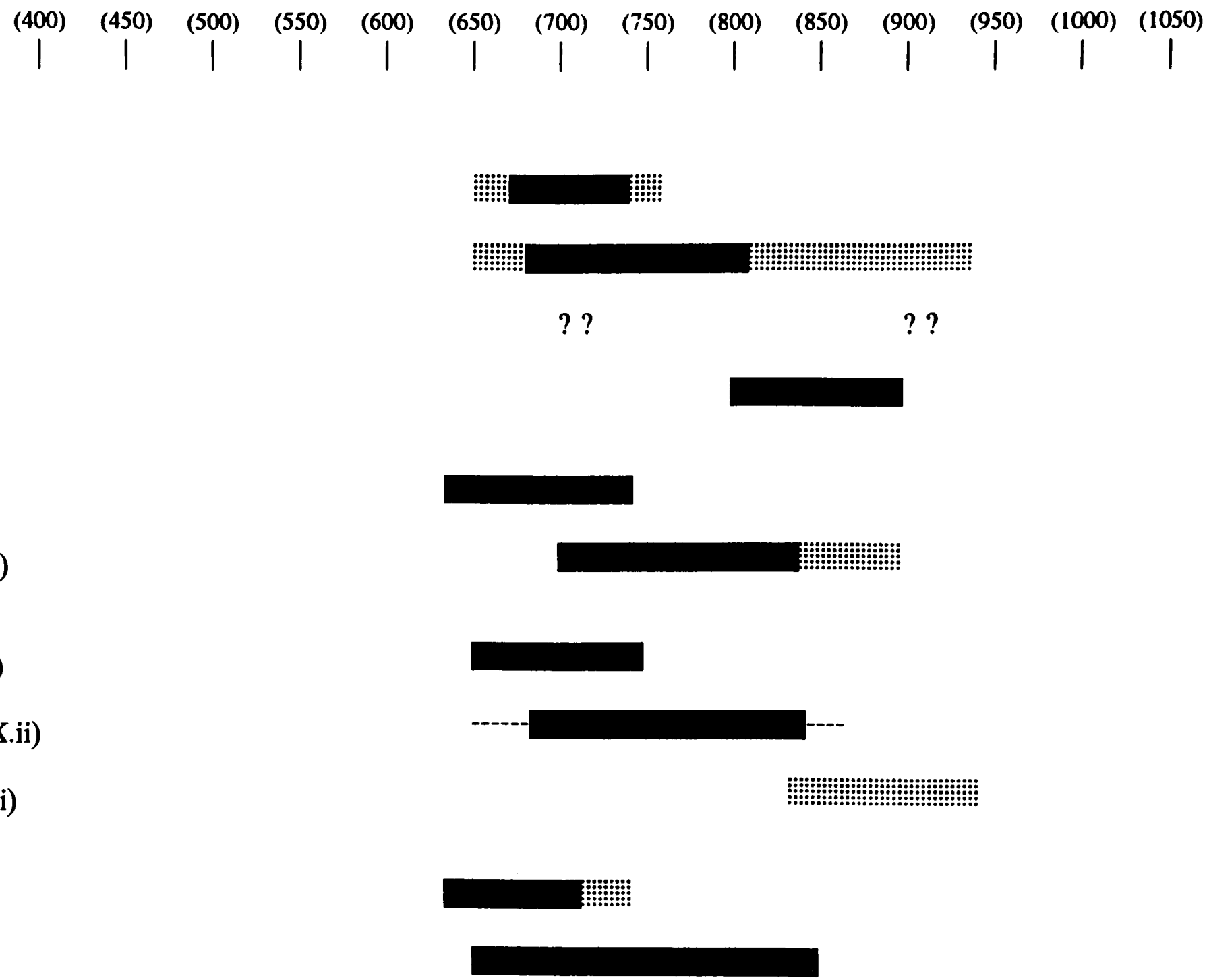
Amethyst-bead-headed type (LV)
Castle Dyke wedge-headed type (LVI)
Sibertswold bird-headed type (LVII)
Cross-headed type (LVIII)
Composite-cruciform type (LIX)
Wingham type (LX)
Garnet set disc-headed type (LXI)
Wicken Bonhunt triangular-plate headed type (LXII)
Evesham type (LXIII)
Linked type (LXIV)
Composite linked pins (LXIV.i)
Cast linked pins (LXIV.ii)
Anthropomorphic-headed, bird-terminated type (LXV)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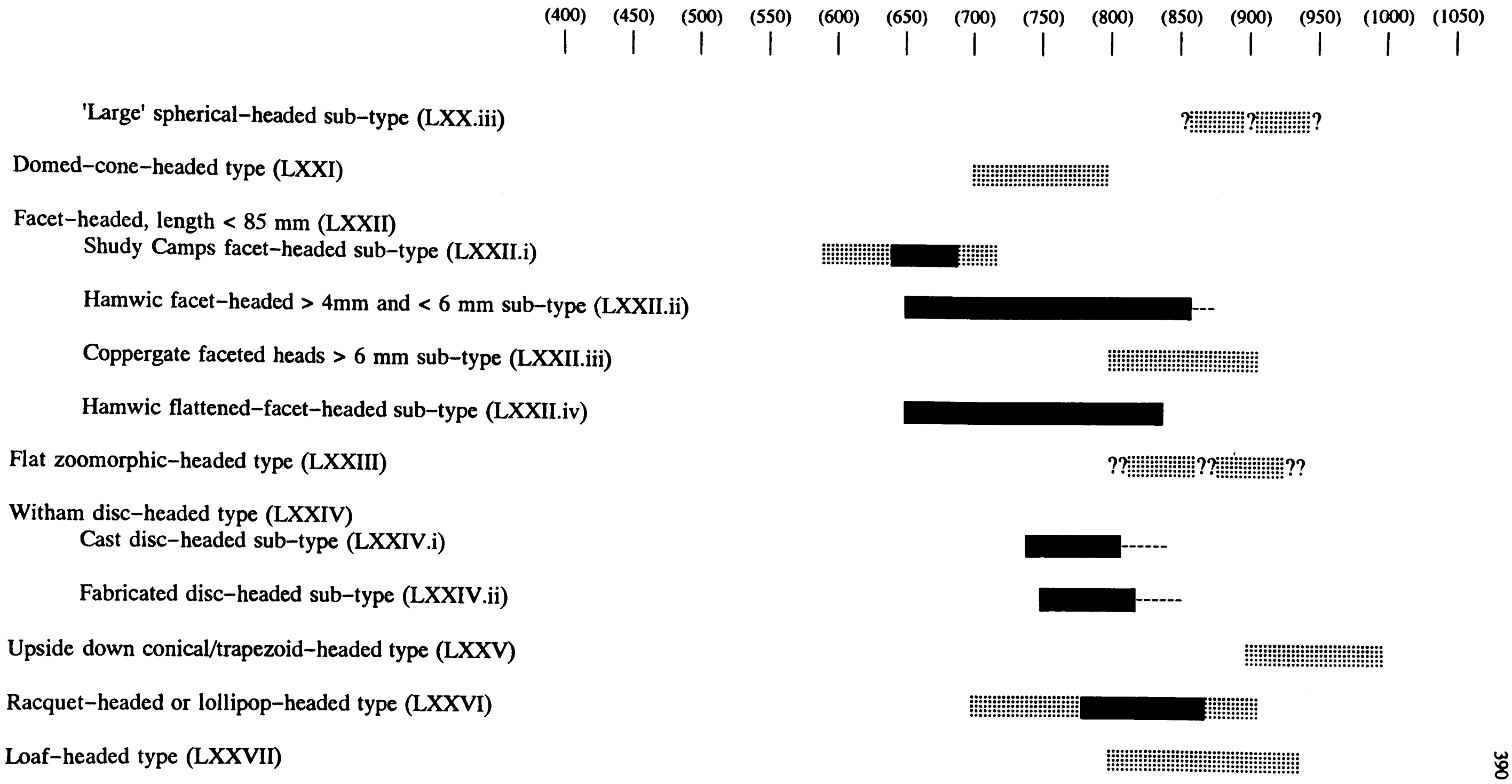
Spiral-headed type (LXVI)
Split-headed sub-type (LXVI.i)
Cast spiral-headed sub-type (LXVI.ii)
Rolled spiral-headed sub-type (LXVI.iii)
? ?
? ?
Globular zoomorphic-headed type (LXVII)
Biconcial-headed type (LXVIII)
'Small' biconical-headed sub-type (LXVIII.i)
'Medium' biconical-headed sub-type (LXVIII.ii)
Inverted-pear-headed type (LXIX)
'Small' inverted-pear-headed sub-type (LXIX.i)
'Medium' inverted-pear-headed sub-type (LXIX.ii)
'Large' inverted-pear-headed sub-type (LXIX.iii)
Ball/spherical-headed type (LXX)
'Small' spherical-headed sub-type (LXX.i)
'Medium' spherical-headed sub-type (LXX.ii)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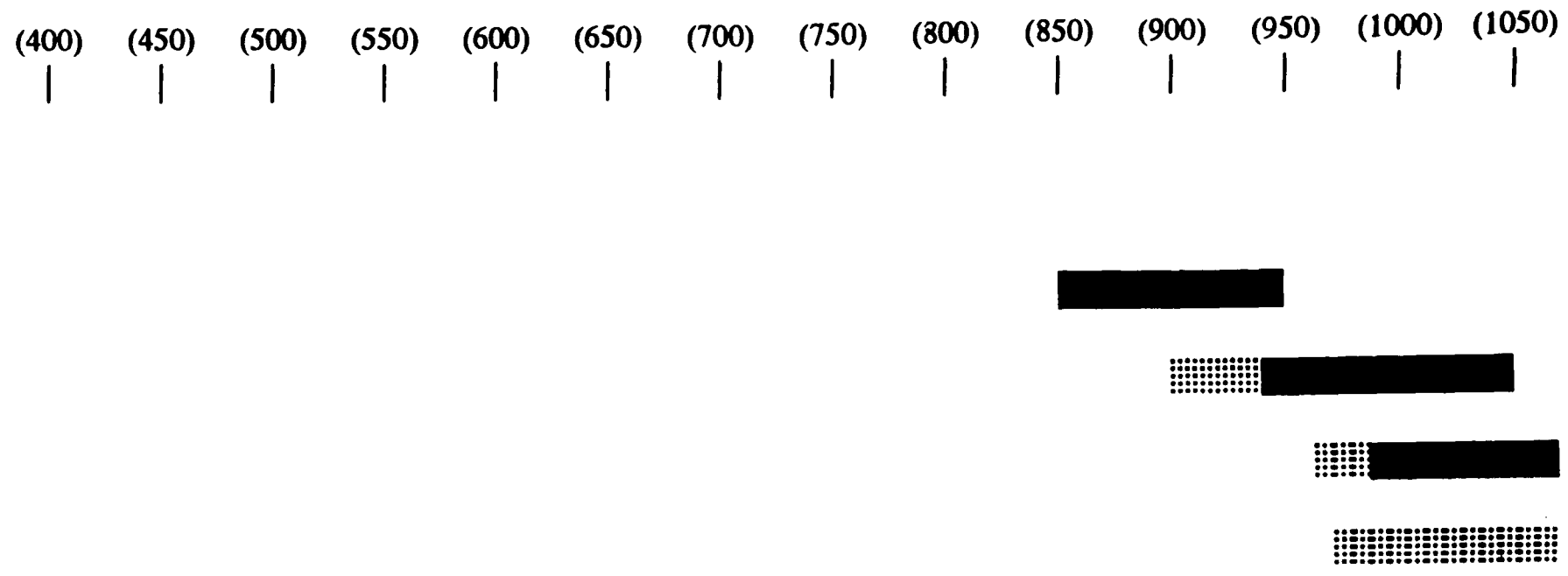
'Large' spherical-headed sub-type (LXX.iii)
Domed-cone-headed type (LXXI)
Facet-headed, length < 85 mm (LXXII)
Shudy Camps facet-headed sub-type (LXXII.i)
Hamwic facet-headed > 4mm and < 6 mm sub-type (LXXII.ii)
Coppergate faceted heads > 6 mm sub-type (LXXII.iii)
Hamwic flattened-facet-headed sub-type (LXXII.iv)
Flat zoomorphic-headed type (LXXIII)
Witham disc-headed type (LXXIV)
Cast disc-headed sub-type (LXXIV.i)
Fabricated disc-headed sub-type (LXXIV.ii)
Upside down conical/trapezoid-headed type (LXXV)
Racquet-headed or lollipop-headed type (LXXVI)
Loaf-headed type (LXXVII)



Flixborough animal-headed pins (LXXVIII)

Globular-headed type (LXXIX)

Ely lozenge-headed type (LXXX)

Watch-winder type (LXXXI)

Bramble-headed type (LXXXII)

Swing-ringed type (LXXXIII)

Spiral (spring)-ringed sub-type

Ringed-crutch-headed sub-type

Polyhedral-headed, swivel-ringed sub-type

Baluster-headed, swing-ringed

Plain-ringed, loop-headed sub-type

Serrated-ring, loop-headed sub-type