Mutable, Flexible, Fluid:

Papyrus Drawings for Textiles and Replication in Roman Art

Fundamental to the current critical understanding of Roman art is the question of replication of visual types. This has long been studied in terms of copies (notably the field known as *Kopienkritik*),[1] and themes such as emulation,[2] replication,[3] imitation,[4] canons and mutations,[5] and on a wider social level as communication through visually-articulated forms of discourse.[6] In particular, for my purposes here, in all surviving areas of artistic production from sculpture (both free-standing and relief) to wall painting to mosaics to textiles to terracottas, from the very expensive to the relatively cheap, Romans used a series of body-types accompanied by various attributes within a relatively restricted system to establish the recognizable iconographies of a series of mythological subjects.[7] What exactly was going on? Why do versions of the same figural type – for instance a reclining near-nude male youth – come to characterise a wide series of myths, depending only on specific attributes to identify a given theme (for example, a head in a pool for Narcissus, a nearby eagle for Ganymede, a deer for Cyparissus and so forth)? To what extent, within what appears to be a relatively limited system, can we expect artistic freedom, flexibility or agency in the making of such images from Roman

craftsmen, artisans or artists (these words are interchangeable in this historical and cultural context)?

One area of Roman artistic production – the textile industry in Egypt – from which a good quantity of material survives, especially from the later Roman era, offers some intriguing evidence for the flexibility of Roman artistic practice. In this case, uniquely, a number of papyrus drawings have survived, most in a lamentably fragmentary state, that appear to have been used as schemas or patterns for the making of tapestries and notably their figural adornment. I am going to argue that such objects – extremely interesting in their own right, if too little examined in the scholarly literature – represent potent evidence for the understanding of wider patterns of replication, including the potential for the skilled artisan to adapt what we might call 'open schemas' to widespread and variable uses.

In this essay I will focus on objects made to enable the creation and decoration of cloth in the Roman world. That is, I will examine the formal and aesthetic qualities of utilitarian materials intended to facilitate the making of textiles for functional use as clothing. My concern specifically will be the drawings that were used by artisans in the production of such fabrics in the Greek and Roman worlds, which means (given the survival history of the relevant objects archaeologically) mainly in Roman and late antique Egypt. My aim will be to explore how a certain level of intentional indeterminacy in such sketches – that is, a series of formal and aesthetic characteristics determined by these objects' functions – enabled both artistic

creativity and replicative (if not mass) production. My deep purpose is to examine how these issues, in the making of functional but decorative works, themselves impacted on some of the more profound questions of replication, aesthetics and artistic agency in Roman art as a whole.

The particular object of my focus, a papyrus sketched in ink (I will call it drawn or painted interchangeably), demonstrates radical and perhaps to us surprising levels of ambivalence in its specific iconography and of optionality in its suggestions to the weaver. I will argue that these enabled fluidity and mutability in the papyrus' use for the creation of a final iconographic form in the textile decorations woven in relation to it. The papyrus drawing is therefore not designed as an object that stands for itself but as an instrumental device that points elsewhere (in an open rather than fixed way), functioning as a lever for 'replications' which may themselves not necessarily have resembled each other in obvious ways. The papyrus, I will claim, was a schema far from a blueprint, open to a good deal of 'manual thinking' in the hands of the weaver, themselves carrying the embodied memory of making many tapestries. If what I suggest here about the manufacture of late antique Egyptian fabrics is true more widely for the making of Roman replications, then the evidence of such papyrus drawings is significant far beyond the textile industry or Roman Egypt, implying the potential use of other similar instrumental devices with open iconographic schemata in other areas of artistic production in the Roman world.

A word might be said about the term 'schema'. Since Ernst Gombrich's *Art and Illusion* (1959),[8] on which so much of our current understanding of naturalism and illusionism as forms of mimesis in both the ancient world and the Renaissance still rests, 'schema' has not been a term of approbation in art history. The schema in this model means a restricted, fixed and limiting structure imposed on pre-naturalistic forms of representation (Egyptian as opposed to Greek, Medieval as opposed to Renaissance, in Gombrich's formulations) by contrast with the free play of naturalism. My argument will be that this is a profound misunderstanding of schemata as used in the naturalistic but replicative representational culture of Roman art, which are immensely open to all kinds of free play on the part of artists and craftsmen on the one hand and potentially at the behest of patrons on the other. This itself has substantial implications for the issue of 'likeness' in the visual arts as implying a wide social category of viewing and playful potentialities rather than only mimesis and naturalism.

This paper starts in in the first section with an object, a tunic of the fourth or fifth century A.D. with decorations made as part of its weaving process. It is one of many that survive whole or in fragments from excavation in Egypt (perhaps originally as a tomb deposit, although we cannot know for certain). I move in the second section from this – one example in a very large corpus of 'Coptic textiles' from the late antique period in Egypt, including eras of pagan, Christian and Muslim hegemony – to something whose survival is much more rare. This is a papyrus drawing, now in the Victoria and Albert Museum, that was created to aid the

production of the kinds of decoration found on the tunic (and on hundreds of other Egyptian fabrics in the first millennium A.D.). There are a number of such papyrus drawings for fabric designs that have been recovered from Egypt, but the one on which I focus is in exceptionally good condition and of great art historical interest. The question of how artisans moved from sheets with drawings, like the V & A papyrus, to finished textiles is a profound one in the history of visual production. It represents an intermedial procedure between drawings in charcoal or ink, some painted and colored, and the making of the kinds of designs they sketch in woven fabrics. Every aspect of the production process involved entirely different technical skills (from drawing or painting on a papyrus sheet to the various techniques of tapestry weaving) and yet – at least in certain respects – the drawing helped to frame, perhaps even to determine, certain visual aspects of the weaver's finished fabric. The V & A papyrus and others like it offer precious and rare fragmentary evidence of workshop procedures and the business of making artistic materials for a market in the late ancient world. Since we have no certainty about how workshops for ancient textiles were set up, conclusions must remain at the level of best guesses and rational hypotheses.

My principal interest, however, is in what kinds of things the drawing does and what things it does not do. For it is by no means a rigid determinant of what was woven, and in numerous ways it leaves a great deal of space open to the flexibility of the artist making her or his weaving in relation to its design. In this sense it rather differs from tapestry design from the late middle ages to the modern period, which

has a significantly more determined one-to-one scale relationship of cartoon to fabric.[9] This in turn has much to tell us about the intriguing and long disputed problem of the model or pattern in antiquity, including the postulation of pattern books, and the potential use of open schemata in the creating of Roman figural art. In the third section , comparing the V & A sheet to others that survive from late antique Egypt, I explore some of the ways such sketches served as gadgets to generate image-bearing textiles (made in a totally different medium and by an entirely different creative process from the painted design). These drawings may have been devices in aid of sales as well as production; they may have enabled mass or at least more than one-off manufacture; they may have both constrained and enabled the free play of the cloth-maker's work in producing the finished textile. But beyond this, the proven existence of model sheets, like the V & A papyrus, in the production of ancient textiles and the rather open ways in which they help artists configure and combine forms, have significant implications for the theme of replication and copying in Greco-Roman art as a whole, well beyond the making of cloth, as I argue in the final section .

It has long been moot whether the replicated pictorial forms of painted and mosaic panels in Roman houses or of Roman statuary are based on patterns something like the V & A sheet (the terminology used includes 'model books', 'pattern books', 'copy books', 'figure books' and 'outline books') that circulated among artists, or whether other models of copying or artistic memory were responsible for visual replication.[10] There has been recent discussion of whether

we should be thinking of *books* of model sheets or of *independent* papyrus leaves or boards, as is certainly implied by the evidence of the sheets made to support the production of cloth.[11] Most of the thinking about patterns has assumed a close to rigid determinacy by which the finished work of art, whether a botanical drawing or a pictorial subject in mosaic or fresco or cloth, is thought to adhere to a blueprint,[12] as it were generated mechanically, even slavishly, from a cartoon in the way famous cartoons by the likes of Raphael, Rubens or Goya determined the production of elite products in tapestry workshops in the 16th century and after.[13] But close analysis of the V & A papyrus shows that its deliberate ambiguities of form were designed to give great freedom to the artists executing their work in relation to its visual framework – a freedom that allowed precisely the kinds of variation of subjects, attributes and glances that we regularly find in Roman replicative art.[14] *In nuce*, my argument will be that alongside traditions of precision in copying (which are likely to have involved close adherence to models), the evidence of pattern sheets for textiles implies that Roman art also possessed much more fluid processes of using open schemata which allowed far greater flexibility to producers and artists than has been assumed.

Textile

The tunic in figure 1, now in the Metropolitan Museum in New York, was woven as one complete fabric from undyed linen and purple-black wool in a flat-weave form with tapestry-weave designs, perhaps in the fifth or sixth century A.D.

in Egypt.[15] The tunic was made on a very wide loom, with the warp extending the distance from cuff to cuff along the arms, and the weft woven across the entire body length twice over (some 370 cm), since the flat woven fabric was folded down the warp in the centre to make the tunic, with a hole between the warp lines at the wearer's neck and the hems at the sides and bottom of the sleeves stitched together (figure 2). That is, the weft, which constitutes the visible and tangible surface of the cloth front and back, runs up and down the wearer's body vertically while the warp on which the weft is threaded runs horizontally. The tunic is said to be from the ancient city of Panopolis (Akhmim in Upper Egypt) and was given to the museum in 1926 (inv. 26.9.8) after purchase from a dealer in Cairo.[16] It is a garment typical of its time and place, and while many such tunics have survived, what is exceptional about this particular example is its excellent condition.[17] It is difficult to place a tunic like this on the socio-economic scale, since we cannot know how expensive it was, how long it took to make or how many craftsmen were involved in its manufacture. But it was clearly not cheap – sufficiently prized as an heirloom probably to have been used in the burial of its last owner, and likely available to be worn by either men or women some way up the social spectrum. At the same time it was likely to be much less costly than a silk tunic or than one made in the same materials but with a more elaborate decorative and color scheme (or, indeed, with gold thread).[18]

The decoration is simple – much simpler than that of the elaborate polychrome textiles that also survive from late antique Egypt – but fine. And within

the very limited formal options – two colors, a range of shapes that do not stray far beyond squares (known as *tabulae*), circles (known as *orbiculi*) and long bands (known as *clavi*) – it is consistently creative within the highly formalised and replicative but varied structures of late antique Egyptian textile production. Its design enables a grey color between black and white, the effect of hatching with alternate dark and light lines of weft, and the shift of figuration from black figures on white ground or on grey, to white figures on black ground. The themes offer what may be dancing satyrs in the two *tabulae* at the bottom of front and back (figure 3), and what look like dancing warriors with shields and occasionally weapons in the bands around the neck, via the vine scrolls in the frames around these figures to what may be Dionysus and Ariadne seated over bound half-nude female captives in the two *tabulae* at the shoulders (figure 4). This fusion of subjects seems to mix a victorious with a Dionysian thematic, both certainly celebratory and the latter potentially with a religious tinge. In any event, in its context (and we should not forget that in the same city Nonnus of Panopolis composed poems about the Gospel of St John and the life of Dionysus in the fifth century, roughly the period when this tunic was made)[19] there need be no conflict between the Dionysian theme and a general Christian environment.[20]

One issue, well instantiated by a fine garment like the Met tunic, is the use of replication in the design of some of the more pronounced figural elements of the cloth. For instance, the fine *tabulae* with figures that may be Dionysus and Ariadne seated over bound prisoners at the two shoulders seem to be made from the same

pattern, as do the white-figure panthers or she-lions, the kantharoi with vines, the rabbits and many of the other figures in the rich decoration that frames the neck opening (figure 4). Similar observations may be made of the *tabulae* and *clavi* at the lower hem on either side of the tunic, and of the bands around the sleeves. The replication is by no means slavish, more of a repetition of free versions of the same basic pattern. Something of the effect of a tunic like this one, when worn as part of the full dress of an Egyptian lady, may be seen in a tomb painting of a woman labelled Theodosia, standing in the Orans posture, from Antinoopolis in Egypt (figure 5).[21] Intriguingly, Theodosia appears to have been buried in a tunic much like that she wears in the painting, of which fragments were found by the excavators.[22]

Drawing

This complete piece of ancient clothing is not my subject.[23] What I want to do is to turn to something much more fragile and ephemeral – which lies behind these kinds of relatively high quality but reproduce-able, textiles. In the Victoria and Albert Museum in London, there is a fine papyrus drawing – it has been called a 'cartoon' (which perhaps incorrectly implies that it is a direct *modello* for a finished design) – for the kind of formal combination of *clavus* band and square pictorial *tabula* that appears both at the lower hems and at the shoulders of tunics with this form of decoration (inv. T15-1946, figure 6).[24] It is one of a number of papyrus

sheets – some monochrome like this and others with several colors, some figural like this one, some geometrical – that have survived from late antique Egypt and were certainly used as guides for weavers – though it is a moot point as to whether we should call them 'patterns', 'models', 'cartoons' or more open 'schemata'.[25] It is the kind of thing likely used for the making of tunics like that from the Met discussed above. Few examples of such patterns survive in such complete condition,[26] with original edges on the left and right sides as in this case.[27] This one is made of two layers of papyrus strips – the lower layer which now forms the back laid vertically and the upper layer horizontally. At the abraided section to the left, where some of the *clavus* has been lost because of the loss of part of the upper layer of papyrus, one can see the lower vertical layer that supports the upper surface. The back is unmarked (at any rate to the naked eye – one would need infra-red or x-ray photography to be certain that it was never marked) which implies that this sheet was made fresh for the drawing and is not a reused piece of papyrus (figure 7). The front is painted in very dark brown, perhaps black, ink against the horizontal layering of the papyrus. The white ground figures appear to be unpainted, formed of the papyrus ground but touched with a brush in black to create the breast of the seated male figure, his draperies, the spots on the beast beneath him and the face of the lower bust figure in the right corner. A grey-white paint is used on the dark ground to mark dots around the head of the seated male and the four bust figures in the corners, the wreath held by the putto to the seated figure's right, and notably the markings of the black figure birds, fish, animals and shells in the white ground circle within the main square.

The sheet, as the others like it, was probably placed behind the loom in the making of a tunic, so as to be visible through the warp threads until its drawing was covered by the weft whose design emulated the pattern below it.[28] The extent to which such a sheet determined the final product, served as an aide- mémoire or as a trigger for inspiring variations on a theme, will be discussed below. Its size, 18.1 x 14.1 cm,[29] makes it perfectly portable over long distances, as well as pragmatically movable and reusable between different looms in a workshop within the continuing process of making cloth. If an object like this were damaged, the cheapness of its material – simply strips of papyrus – meant that another could be easily made, presumably by the draughtsman attached to a given workshop who was potentially the weaver her- or himself. It is possible that the size of the sheet and of its drawings is designed for a 1:1 replication when the pattern was copied in cloth.[30] Certainly the size of the *tabula* (8.3 x 8.7 cm) and the width of the band (1.9 cm) broadly fit the late antique dimensions for these items on cloth, at least going into the fifth century, although there were always larger versions,[31] and the decorations gradually got larger towards and into the Islamic period.[32]

Objects of this kind imply a structure of workshop production – both models for attracting custom or even for determining aspects of the given design of a commission,[33] and working patterns for artisans from which to weave the designs on cloth. The fact that they are portable within a workshop (and even between workshops) allows the assumption of some replicative, if not mass, production of

late Roman fabrics, beyond the duplicated motifs in single tunics.[34] We may think of such papyrus designs as a fundamental pre-production stage of a process that led, beyond the making of actual cloth and clothing, to an industry of significant magnitude locally within Egypt, internationally across the Roman empire,[35] as well as globally to the south and west into Africa, east to the Sasanian, Indian and even Chinese worlds and north as far as Ireland and Germany.[36] It is not impossible that the pre-production drawing stage represented by the V & A sheet could have been filled by artefacts in other media (for instance actual *tabula*e or *orbiculi* made of cloth) but such things, while more durable, are also more expensive and less easy to produce swiftly. The industry had significant supply chains, such as wool-making and dyeing,[37] and a wide distribution network of traders and dealers dependent on it.[38]

Apart from the inherent interest of a fragile and ephemeral work of art designed as a device or mechanism for the production of a great deal more (and more durable) works, the deliberate mutability of the sheet is highly significant in the parameters it sets for an artist's activity and hence for artistic agency within the frame of the making of these kinds of textiles. For it is a model that is *not* prescriptive. The sheet's place in standing for a world of sketches that occupied the space between artists and their products, enabling replication and iconographic regularity within the Roman world without rigid prescription, makes it a precious and unusual survival within Roman art. Its implications in this area are what principally concern me in this article. Let us take the *clavus*, or band along the left

side. This shows flowers, leaves, a putto, all in white figure on black ground, as well as leaves in black figure on a white-ground circle. Such white figure *clavi* are common in the surviving corpus of textiles.[39] The images are sketched rather than finished, since they do not determine the weaver's copy but simply prod the artisan's memory – perhaps as much a tactile memory in the fingers as a visual one in the mind – to execute designs known by heart and endlessly replicated across the corpus of textiles in two colors of this kind. It is not certainly the case that the artisan would copy the elements of the band in the order in which they are depicted on the papyrus, although of course it was entirely open to him – probably him, but not inconceivably her[40] – to do so. On the right of the band are two suggestions for border designs – a wave shape and below it something resembling a three-leaf-clover form, which appears also at the top of the square *tabula* to the right but only for just over half its length.[41] Both the clover forms and the waves appear to be defined by the addition of grey-white paint strokes to the black figuration. The image, far from deliberately fixing visual form, inscribes a group of options into its design in order to offer prompts available to flexible variation and the craftsman's inspiration.

If we turn to the *tabula*, it shows a central mythological scene in a circle consisting of white figures on a black ground, ringed by a circular frame of black figures on a white ground and all set within a black square with four white-figure busts placed in each corner-spandrel, and the whole square framed by the suggestion of a floral border. This model for articulating the internal framing of a

tabula is not the only one – indeed, it might be argued that a square frame around the outside with an inner roundel is more common than the large circular frame. But there are plenty of examples in actual textiles of the type shown in the V&A drawing.[42] The intimacy of a framing process that uses the two colors of thread available in an alternating pattern for figures and background shows the direct closeness and dependence of this form of drawing on the technological possibilities implicit in the material of cloth, whose making it facilitates. The spandrel busts – possibly alluding to the seasons (and placed where seasonal busts are so often placed in the square corners around circular insets in Roman floor mosaics)[43] – are not fully finished. These kinds of busts in the corners of a square *tabula* are not uncommon in Egyptian textiles, where they often frame a central bust in the medallion within the square (figure 8).[44] The sketch of a face, jewellery and hair is reserved for the figure at the lower right, while the rest remain blank. Again the artist was free to be creative – as with the features of the putto in the band to the left.[45]

In the central medallion is a seated figure – possibly a nude Orpheus or Apollo playing the lyre, perhaps Dionysus with a large bowl.[46] Given what I am arguing is the deliberate and consistent indeterminacy of the drawing, it is possible that trying to identify a precise or intended figure in this kind of art is to ask the wrong kind of question. Arguably what matters here is a general form of humanoid figure to which the craftsman can give a particular and final infection – a recognisable identity – when making the textile in relation to other imagery that

might be used on the cloth. The decision on subject matter is ultimately dependent on the totality of the visual imagery chosen for the whole tunic and on the artisan weaver's decision rather than that of the pattern-making draughtsman or a patron instructing the draughtsman. Moving back before the final image to its potential pattern in this case throws light on the fascinating process of Roman pictorial replication where given types of figures in given positions can represent a variety of subjects depending on what attributes they were accorded. Here the very openness of figure and attribute denies a secure interpretation and indicates the freedom in artistic practice which this process offers. In the medallion, in addition to the options of faming given by the border designs, the papyrus offers an ambivalence of iconography that gives the maker a great deal of agency in finalizing the product. To the right, a figure – a youth or a putto, or indeed something that could be adapted to a victory – holds out a wreath towards the seated figure on the left, while an animal that looks like a panther stands beneath looking back at the seated figure. There is a five-petalled flower to the far left, which resembles several of those depicted on the *clavus* band to the right of the papyrus sheet. These elements could certainly make the final design of an *orbiculus,* or medallion, within a given textile. But it is not obvious to me that they need necessarily or finally be placed by the weaver where they have been put by the draughtsman: they are open to movement and variation within the creative process of textile production in the tapestry-weave technique. None of these figures, moreover, is fully or finally defined and a row of dots around the head of the seated figure, like those around the busts in the corners of the square, might offer interpretive possibilities for the artist that ranged from a halo to

a vine scroll (that is, in the context of my discussion of the tunic earlier, from Jesus to Dionysus). In the white ground circular frame are placed suggestions for birds, sea beasts with what appeared to be the tails of *ketoi*, fish, ducks and seashells.

It has been suggested that white figures on a dark ground, as in the mythological medallion within the *tabula* of the V & A papyrus, are relatively rare by contrast with dark figures on white.[47] That said, there are nonetheless several excellent extant examples (e.g. figure 9).[48] However, from the point of view of using the drawing as a device to generate woven cloth, there is a question as to whether a competent artisan might not equally produce a woven design in white on black or in black on white from the same sheet. If all that was needed was the mnemonic hint of formal structure and figural shape, then it is possible that it would have made no difference to the weaver in which color she or he made the ground and the image. It is true that the majority of our surviving fragments of papyrus designs for Egyptian textiles are executed in black figure on the papyrus ground but this does not necessarily mean that they could not have been used to make a version of the same design with an inverse color scheme.[49]

The non-prescriptive imprecision of the model sheet extends beyond figural depiction to the placement of its forms. I have tied the V & A papyrus to the kinds of tunics, with which my discussion opened, that juxtapose a square decorated inset and a band, as is done in the drawing. If we assume both *clavus* and *tabula* to be woven without a decorative wave or floral order – as in the tunic from the Met– then

the placement of the band and square are roughly correct and could imply direct replication into the woven decoration resulting from the use of the sheet (figure 3).[50] Certainly examples of direct replication of now lost exemplars do exist in the corpus of surviving textiles.[51] If however we imagine a weaver adding borders to both *tabula* and *clavus*, as is frequent in surviving examples,[52] and as the papyrus explicitly invites, then the placement of band and square are too close in the drawing for their positioning to be directly replicated on a weaving, since the added borders would overlap. Again the image is deliberately mutable to enable creative rather than slavish emulation, flexible rather than precise use by the weaver. The two elements of a drawing of this kind could be copied together on a textile as they stand or the papyrus sheet could be moved, allowing the woven design of the *tabula* to appear far apart from that of the *clavus* – as can be attested from surviving examples.[53] A further issue is that the band and *tabula* in the drawing are laid out for viewing from the same direction. This is by no means always the case in late antique textiles, where – as in the hem decorations of the New York tunic with which I opened (figures 1-4) – even within a single *clavus* or *tabula* more than one 'correct' viewing position may be envisaged, and in the shoulder decorations, the *clavus* band is perpendicular to the direction of the *tabulae*. Again, in actual weaving, there is little difficulty here, since we may imagine the artisan simply turning the sheet 90 degrees from the *clavus* when it comes to making the *tabula*.[54] Again, the format and manipulability of the sheet allows maximum flexibility in its usage.

Models and Schemata

Let me stand back a little from this intense focus on a flimsy piece of papyrus. It has been suggested – perhaps correctly – that such drawings stand between the customer and the weaver, representing the patron's selection of a design and indeed being created both to elicit demand and so that customers could choose patterns they wanted.[55] On the basis of papyri concerned with textile purchase or production, the ancient terminology for such design sheets was either *entypē* (related to the verb, *entypoō*, 'carve or mold in or upon') or *chartarion* (the diminutive for a sheet of papyrus).[56] If such sheets were used in purchase, then they stand in the idea-space between maker, consumer and object-to-be-bought, as both generator of desire for the textile that has not yet been made and broad pattern for aspects of its final appearance. In this sense they are a crucial point within the very large process of production that took cloth, made with designs like that on the V & A papyrus, far across the Roman world and east into the Indian Ocean.

If we expand from close analysis of this single sheet to looking at the others that survive in the corpus of papyrus drawings for Egyptian textiles, the same issues of non-prescriptive openness yet figural suggestion are apparent. Whether in color or in monochrome, there are a number of highly fragmentary drawings for *clavi* which seem to function in the same way, giving a general guide to the artist rather than a blue-print.[57] The best surviving is a probably fifth century segment from Hermopolis Magna now in Berlin (figure 10).[58] In this case colored fruits and

foliage are drawn on a black band, which appears to have lost most of its color in the lower section. The pattern of deliberately undefined faces, as in the busts of the V & A sheet as well as the expression of its main figure, is normal, allowing significant scope for agency to the textile maker. Fragmentary examples of a *tabula* drawing from Hermopolis (figure 11) showing a youth with a dog in white figure on black ground touched with grey-white paint (as in the V & A sheet),[59] and of what is probably a corner bust in a roundel from a *tabula* sketch in a variety of colored inks of unknown provenance now in Vienna (figure 12)[60] – the former fourth to fifth century, the latter fifth to sixth – certainly support the sense of regular openness in matters of facial expression in these kinds of sheets. Likewise, a range of further abraided and fragmentary figures executed in dark ink on papyrus apparently with little facial definition added thereafter reinforce the impression that lack of prescription in this arena was normal.[61] Drawings of winged putti are treated no differently when it comes to facial definition, as with what may be a winged putto in the central medallion of the V & A papyrus,[62] and likewise the precise expression of animals and birds is left undefined on the sketches (figure 13), as in the case of what may be a panther in the V & A sheet.[63] Even the openness to suggested border designs is emulated in other fragments – for instance a beautifully colored sheet of fine papyrus with birds now in Berlin, that has no border to the left but suggestions for black or red wave-designs in the bordering below and above (figure 13).[64]

Pattern drawings like the V & A sheet represent a fundamental device or mechanism for the generating of image-bearing textiles at the production stage.

They had something of the status of schematic diagram or avatar or virtual sketch – essential to the creative process and forgettable outside the weavers' studio, when the finished textile entered the salesman's shop or was delivered to the patron's hands. It is not only the very fragility of the object, but its deliberate range of indeterminacies in articulating the faces, attributes and finishes of figures, their lack of specific identity (which is to say their adaptability to numerous options) as well as the explicitly mutable way it offers different design possibilities for borders, that define its essence as an art object created for the specific purpose of generating other objects and not to survive in its own right. Yet in its materiality and in all the indeterminacies that I have outlined – including the further option of being turned in any direction in aid of the weavers' choices within tunic production – the V & A papyrus instantiates in a specific and final form (one that has survived at least 1500 years) what one might call the primordial creative energies and options in the art-making process that lie before a work of art attains its final form. The V & A sheet is a rare insight into that most creative stage of art-making in antiquity, all the more significant for being the product of an artisan's workshop rather than being a signature drawing from the hand of some famous artist.

Replication

The particular quality of the figural decoration of the central medallion – especially its indeterminacy about the subject (is the seated figure Apollo, Orpheus

or Dionysus?) – has profound potential for helping us understand the replicative qualities of figures and attributes in the Roman pictorial arts much more broadly.[65] If you look at the wall paintings of Pompeii, a version of the same male nude figure, leaning to the left and displaying his torso, with drapery falling over the legs but usually not covering his genitals, seated in contraposto, is extremely common across the corpus of surviving figural murals.[66] What determines his identity are the attributes supplied – an eagle by him for Ganymede (figure 14), a face in the pool next to him for Narcissus (figure 15), Medusa's head and a relieved Andromeda for Perseus (figure 16), a stag for Cyparissus. The hunters in these kinds of mythological images usually have spears, but figures of the kind shown in the V & A sheet with a lyre crowned by a wreath might be Orpheus or Apollo (figures 17 and 18). If there were several animals then the theme of Orpheus playing to the animals would seem compelling (figure 17).[67] If there were a woman with a laurel tree nearby, the likelihood would be that the figure with the lyre was Apollo playing to Daphne (figure 18); [68] if he were with a huntress, it might be Apollo and Artemis;[69] if the god were with a youth, depending on the latter's attributes, it might be Branchus or Cyparissus.[70] If the lyre became a wine bowl and the dots around the head were figured as vine leaves, then the likely candidate would be Dionysus (with a panther as his normal accompaniment). What the V & A papyrus implies is that this spectacular indeterminacy – fixed not by forms of portraiture or body-type but by attributes in relation to a standard youthful body (in this case ephebic and male, but the same holds true for female imagery) – is fundamental at the moment of image-generation. Adding another animal in place of the leaf to the left of the sheet and

defining the blob at the seated figure's left hand as a lyre would clinch the theme for Orpheus; removing the panther but keeping the lyre would make Apollo more likely – especially if accompanied by a youth or a maiden; defining the blob as a bowl and making the dots around the head into a vine scroll would determine the figure as Dionysus. At this stage of virtuality – that is, in the image's form as pattern-sheet and before it has been woven onto cloth – neither the draughtsman of the papyrus nor the weaver needs to decide. In a certain sense that decision is open to dialogue with the rest of the imagery, to the wishes of a given patron, to the momentary whimsy of the weaving process. My claim is that behind the very replication and figural repetition that is one of the most characteristic features of Roman art,[71] lies an immense and indeterminate openness – itself formulated in this fragile and immutable drawing – that moves to full definition during artistic production.

Let me end by briefly reviewing what I have suggested. The papyrus drawings for textiles are mutable – giving rich evidence of the non-prescriptive indeterminacy of ancient models or patters and allowing for a significant amount of creative innovation by the hands of artists.[72] In the case of the V & A sheet, some of that indeterminacy prior to the final making of artistic decisions – the pregnant realm of potential and possibility before a specific form, a fixed subject and a clear iconography is finally defined – has been caught on papyrus. The sheet makes a remarkable bridge between the pluralities of figural replication in Roman art (whether one thinks of textiles or paintings or indeed sculptures) and the realm of possibility prior to those pluralities being decided upon and executed. There is

nothing fixed or rigid about this kind of pattern, but it does nevertheless help the artist with suggested juxtapositions of themes, formal models of framing, iconographies and visual types, while never fully determining either the final subject or the details of visual expression.

The one fundamental difference between the context of late antique textiles with mythological subjects and that of earlier painting and sculpture within the Roman world is the presence of Christianity as a dominant, indeed exclusive, religion. What this probably means is that mythological subjects on Egyptian tapestries and their drawings are likely to belong to an antiquarian and nostalgic cultural realm, of allusion (more or less learned) to a hallowed traditional past, as opposed to one with active religious meanings, especially into the fifth century and after.[73] That in turn may imply even less of a need for any given subject to be unambiguously identifiable as a specific myth or as a specific figure: the general impression of antiquarianism may – through the long years of textile production from the fourth century to the Islamic conquest and beyond – have been sufficient for the majority of makers and consumers in Christian Egypt.[74] A fine roundel from the Walters Art Gallery in Baltimore makes the point: two figures, nude male and clothed female stand on either side of a lyre that rests on a pillar in the centre (figure 19). The lyre as attribute narrows down the subject-range, but it is patently impossible to distinguish the theme between Orpheus and Eurydice on the one hand and Apollo and Daphne on the other. It is true that if you went for Daphne, then the foliage that fills the surrounding space could be interpreted as the laurel tree into

which she will turn, but it is perfectly understandable as a landscape setting for any pair of lovers. The identification of very similarly replicated figures by specific attributes in Pompeian painting, for instance, has given way to a generalized mythological resonance that evokes famous lovers and where attributes do not necessarily define narrative particularity or individual identity. The V & A drawing may figure a pre-woven version of this kind of general but evocative antiquarian indeterminacy.

Coda

What are the wider implications of these reflections for the history of art beyond my specific focus on Roman art? In 1902, in one of the truly classic art-historical articles published by the Viennese which remains untranslated into English, Julius von Schlosser offered a fundamental discussion of the model book.[75] After examining a range of medieval and Renaissance material, von Schlosser argued that the medieval artist did not work from nature or from a direct relationship between draughtsman and object, but from other works of art and mental images in which the model drawing and ultimately pattern books of such drawings were the key means for the generation and transmission of image-types.[76] This contribution had and still has substantive repercussions in terms of pragmatism, in thinking about workshop practices, in the study of image-production and so forth. In 1959, von Schlosser's most famous student, Ernst Gombrich, took up the challenge of the model book as a determining schema for artists, in order to

chart a narrative of the rise of naturalism in resistance to schematism. The fifth chapter of his classic work, *Art and Illusion*, entitled 'Formula and Experience', is concerned with pattern books.[77] What for von Schlosser was an explanation for how certain kinds of art in certain periods came to look like they did, became for Gombrich an ideological negative as well as a structural and chronological element to be surpassed on the way to the triumphant creation of characteristically Western forms of visual illusionism.

For Gombrich, what matters most about the 'Greek revolution' is that Classical artists broke away from schematism which he characterises through Egyptian and archaic art. 'The Greek miracle' is 'unique in the annals of mankind', he writes:

> What makes it unique is precisely the directed efforts, the continued and systematic modifications of the schemata of conceptual art, till making was replaced by the matching of reality through the new skill of mimesis. We mistake the character of this skill if we speak of the imitation of nature. Nature cannot be imitated or 'transcribed' without first being taken apart and put together again. This is not the work of observation alone but rather of ceaseless experimentation.[78]

One may note the scientific metaphors of 'observation', 'experimentation', taking apart and putting together again, and the notion of systematicity. What is being rejected, according to Gombrich, is the pattern-book mentality of transcription and imitation in the sense of copying other works, rather than mimesis of nature. In Gombrich's case this was connected with the conviction that naturalism is itself a

less conventional form of representation than other kinds of more schematic visual rendition.[79] In this account, the pattern book represents both an historical explanation for the non-naturalism of medieval art (following von Schlosser) and in transhistorical terms it epitomizes the artistic paradigm of that deadly schematism of images (whether archaic, Egyptian, late antique or medieval) that 'no longer wait to be wooed and interpreted but seek to awe [the beholder] into submission':[80]

> To the Middle Ages, the schema is the image; to the postmedieval artist it is the starting point for corrections, adjustments, adaptations, the means to probe reality and wrestle with the particular… to make and match and remake till the portrayal ceases to be a secondhand formula and reflects the unique and unrepeatable experience the artist wishes to seize and hold. It is this constant search, this sacred discontent, which constitutes the leaven of the Western mind since the Renaissance and pervades our art no less than our science. For it is not only the scientist…who can examine the schema and test its validity. Since the time of Leonardo, at least, every great artist has done the same, consciously or unconsciously.[81]

My analysis of the V & A papyrus has attempted to show that Gombrich was quite wrong. The naturalistic wall paintings of Roman houses (which Gombrich cites with approbation several times and which belong within his world of Classical naturalism)[82], like the textiles from Roman and late antique Egypt (on whose pattern sheets I have concentrated because of their precious survival), are themselves often the replicative result of a kind of free play with model books that is

– as we have seen – anything but determined by formulae or constrained by schemata.[83] Indeed their very variation and the determining structures of their figural creativity are based on the openness of artists' relations to the drawn models with which they played. In Roman art, as in Gombrich's account of 'postmedieval art', the schema as represented by pattern sheets something like the V & A papyrus is indeed a starting point. But it is not a 'secondhand formula' to test against reality (as in Gombrich's triumphalist and progressivist myth of Western art as modern science). Rather, it is a memory-prompt offering a wide range of creative variation and thematic configuration around a series of figure types and their attributes within a visual culture characterised by stylistic illusionism, mythological reference and the willingness to entertain surrealist challenges to the realist assumptions implied by naturalism. The result was to create a powerful aesthetic, the taste for which spanned a wide social spectrum from the high elite to the relatively lower classes,[84] and the generation of which was in the hands of skilled artisans mass-producing all forms of visual culture (paintings, mosaics, moulded clay utensils, silverware, textiles). The space between the sketched pattern and the final artefact was wide and the flexibility it enabled was certainly much greater than any reductive model of stale formulas or dead schemata can allow.

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especially to Beate Fricke and Stefanie Lenk for the invitation. The editorial team and readers at *The Art Bulletin* have been exemplary.

[1] See e.g. Adolph Furtwängler, *Masterpieces of Greek Sculpture* (London: Heinemann, 1895); Georg Lippold, *Kopien und Umbildungen griechischer Statuen*, (Munich: Beck, 1923); Margarete Bieber, *Ancient Copies: Contributions to the History of Greek and Roman Art*, (New York: New York University Press, 1977); Brunhilde Sigismondo Ridgway, *Roman Copies of Greek Sculpture: The Problem of the Originals* (Ann Arbor: University of Michigan Press 1984). For some discussion of the historiography and the method, see Miranda Marvin, 'Copying in Roman Sculpture' in *Retaining the Original: Multiple Originals, Copies, and Reproductions*, ed. by Kathleen Preciado (Washington DC: National Gallery of Art, 1989) 29-45; Christopher Hallett, '*Kopienkritik* and the Works of Polykleitos', in *Polykleitos, the Doryphoros and Tradition*, ed. By Warren Moon (Madison, WI: University of Wisconsin Press, 1995, 121-60); Mark Fullerton, '"Der Stil der Nachahmer": A Brief Historiography of Stylistic Retrospection', in *Ancient Art and Its Historiography*, ed. by Alice Donohue and Mark Fullerton (eds (Cambridge: Cambridge University Press) 2003, 92-117, esp. 102-8; Ellen Perry, *The Aesthetics of Emulation in the Visual Arts of Ancient Rome*. (Cambridge: Cambridge University Press, 2005), 78-90.

[2] See e.g. Elaine Gazda (ed.) *The Ancient Art of Emulation*, (Ann Arbor: University of Michigan Press , 2002) and Perry, *The Aesthetics of Emulation in the Visual Arts of Ancient Rome*.

[3] See e.g. the essays in Jennifer Trimble and Jaś Elsner (eds.) *Art and Replication: Greece, Rome and Beyond*, *Art History* 29.2, (Oxford: Blackwell, 2006); Miranda Marvin, 'Roman Sculptural Reproductions, or Polykleitos: The Sequel' in *Sculpture and Its Reproductions*, ed. By Anthony Hughes

and Erich Ranfft (London: Reaktion, 1997) 7-28; Jennifer Trimble, *Women and Visual Replication in Roman Imperial Art and Culture*, (Cambridge: Cambridge University Press, 2011).

[4] See e.g. Anna Anguissola, *"Difficillima Imitatio": Immagine e lessico della copie tra Grecia e Roma*, (Rome: Bretschneider, 2012).

[5] See e.g. Salvatore Settis, Anna Anguissola and Davide Gasparoto (eds.), *Serial/Portable Classic: The Greek Canon and its Mutations*, (Milan: Progetto Prada Arte, 2015).

[6] See Tonio Hölscher *The Language of Images in Roman Art*, (Cambridge: Cambridge University Press, 2004), and Jaś Elsner 'Classicism in Roman Art' in *Classical Pasts: The Classical Traditions of Greece and Rome,* ed. James Porter (Princeton: Princeton University Press, 2006), 270-97.

[7] See esp. Stephanie Pearson, 'Bodies of Meaning: Figural Repetition in Pompeian Painting' in *Beyond Iconography: Materials, Methods, and Meaning in Ancient Surface Decoration,* ed. Sarah Lepinski and Susanna McFadden, (Boston: Archaeological Institute of America, 2015), 149-66, esp. 158-62, and Jaś Elsner and Michael Squire, 'Vision and Memory' in *Sight and the Ancient Senses*, ed. Michael Squire (London: Routledge, 2016), 188-212, esp. 192-203.

[8] Ernst Gombrich, *Art and Illusion: A Study in the Psychology of Pictorial Representation*, (London: Phaidon, 1959). For Meyer Schapiro's unpublished but acute attack on Gombrich's notion of the 'schema' see C. Oliver O'Donnell, *Meyer Schapiro's Critical Debates: Art through a Modern American Mind* (University Park: Pennsylvania State University Press, 2019) 30-34. For an account of schemata in Greek antiquity, see Maria Luisa Catoni, *Schemata: comunicazione non verbale nella Grecia antica* (Pisa: Edizioni della Normale, 2005).

[9] See e.g. Candace Adelson, *European Tapestry in the Minneapolis Institute of Arts* (Minneapolis: Minneapolis Institute of Arts, 1994), 1-12; Guy Delmarcel, *Flemish Tapestry* (London: Thames and Hudson 1999), 11-13; Concha Herrero Carretero, 'An Introduction to Goya's Cartoons and Tapestries' in *Goya: Images of Women*, ed. Janice Tomlinson, (Washington DC: National Gallery of Art, 2002), 89-101, esp. 90-1. On Raphael's cartoons for the Sistine Chapel, see e.g. Mark Evans, 'The Commission and the Cartoons' in *Raphael: Cartoons and Tapestries for the Sistine Chapel*, ed. Mark Evans, Clare Browne and Arnold Nesselrath, (London: V & A Publications, 2010), 18-20 and Anna Maria De

Strobel, 'Weaving the Sistine Chapel Tapestries' *ibid* 33-36. For a detailed account of making a series of late fifteenth century tapestries for a church in Troyes, based on contemporary manuscript evidence, see Tina Kane, *The Troyes Mémoire: The Making of a Medieval Tapestry*, (Woodbridge: Boydell, 2010), 36-47.

[10] Postulating copy-books in general for ancient paintings, see e.g. Roger Ling, *Roman Painting*, (Cambridge: Cambridge University Press, 1991), 217-9; John Clarke, 'Model-Book, Outline-Book, Figure-Book: New Observations on the creation of Near-Exact Copies in Romano-Campanian Painting' in *Atti del X Congresso internazionale: Association internationale pour la peinture murale antique*, ed. Irene Bragantini, (Naples: AIPMA, 2010), 203-14; Domenico Esposito, 'Disegno e creazione delle immagini nella pittura Romana' in *ibid.* 215-226; Emanuel Mayer, *The Ancient Middle Classes: Urban Life and Aesthetics in the Roman Empire 100 BCE – 250 CE* (Cambridge Mass: Harvard University Press, 2012) 168; for mosaics, see e.g. Paul Meyboom, *The Nile Mosaic of Palestrina*, (Leiden: Brill, 1995), 177-80; Katherine Dunbabin, *Mosaics of the Greek and Roman World*, (Cambridge Cambridge University Press, 1999), 300-303; Michael Donderer, 'Und es gab sie doch! Ein neuer Papyrus und das Zeugnis der Mosaiken belegen die Verwendung antiker "Musterücher"', *Antike Welt* 36 (2005) 59-68; Michael Donderer, 'Antike "Musterücher" und (k)ein Ende. Ein neuer Papyrus und die Aussage der Mosaiken, *Musiva & Sectilia*, 2/3 (2005/2006) 81-113; Andreas Schmidt-Colinet, '"Musterücher" statt "Meisterforschung". Zum Verständnis antiker Werkstattstrukturen und Produktionsprozesse' *Journal of Roman Archaeology* 22 (2009) 787-92; Andreas Schmidt-Colinet, 'The Reconstruction and Distribution of Pattern Books in the Roman Empire" Some Archaeological Evidence from Palmyra' in *Intorno al Papiro di Artemidoro* III. *I disegni*, ed. Gianfranco Adornato, (Milan: LED, 2016), 129-46. Against pattern books, see Philippe Bruneau, 'Les mosaïstes antiques: avaient-ils des cahiers de modèles?' *Revue archéologique* (1984): 241-72 and 'Les mosaïstes antiques: avaient-ils des cahiers de modèles? (suite, problement sans fin)' *Ktema* 25 (2000): 191-7. Focusing on the surviving evidence of papyrus drawings, see esp. Salvatore Settis, 'Il *papiro di Artemidoro*: Un libro di bottega e la storia dell' arte antica' in *Le tre vite del papiro di Artemidoro: Voci e sguardi dall' Egitto greco-romano*, ed. Claudio Gallazzi and Salvatore Settis (Milan:

Electa, 2006), 20-65; G. Adornato, 'Animali, teste, mani, piedi: L'arte del disegnoe pratiche di bottega nel mondo antico' in *ibid* 110-123; A. Anguissola, 'La bottega dell'artista' in *ibid* 124-31; Salvatore Settis, 'Il contributo del papiro alla storia dell' arte antica' in *Il Papiro di Artemidoro (P. Artemid.)*, ed. Claudio Gallazzi, Barbel Kramer and Salvatore Settis, (Milan: LED, 2008), 579-616, esp. 609-14; Jaś Elsner, '*P. Artemid.*: The Images' in *Images and Texts on the 'Artemidorus Papyrus',* ed. Kai Brodersen and Jaś Elsner (Stuttgart: Franz Steiner Verlag, 2009), 35-50, esp. 43-6; Stephan Lehmann, 'Skizzen aus einer Ägyptischen Malerwerkstatt:Tiere, Fabelwesen und Menschen im Artemidor-Papyrus' *Archiv für Papyrusforschung und verwandte Gebiete* 57 (2011) 267-273.

[11] See Joshua Thomas, 'The Illustrated Dioskourides Codices and the Transmission of Images During Antiquity', *Journal of Roman Studies* 109 (2019) 241-73, esp. 260-66, although this concentrates on the much more rigid transfer of precise and naturalistic botanical drawings, rather than the mutable and flexible iconographies I treat here. Note that while Kurt Weitzmann, *Late Antique and Early Christian Book Illumination* (New York: Abrams, 1977) 10 speculated about parchment sheets and Thomas, 'The Illustrated Dioskourides', discusses white wooden boards (known as *pinakes, leukomata* or *sanides*) as vehicles for the transmission of images, beyond the papyrus sheets discussed here, we might also postulate thicker (cardboard-like) papyrus panels made of 4 or 6 layers of papyrus as cheap and potentially more robust vehicles for long distance transmission than the two-layer sheets used in textile manufacture. In the still largely unpublished but hugely important Oxyrhynchus papyri with illustrations, stored in Oxford, there is at least one such papyrus board with the painted image of a child (perhaps Harpocrates) which was shown to me and Salvatore Settis in 2014 by Helen Whitehouse who is due to publish the visual material in the collection.

[12] On precise copying in manuscript illustrations see e.g. Thomas, 'The Illustrated Dioskourides Codices' with bibliography; and in wall painting, see e.g. Ling, *Roman Painting*, 217-9 and Clarke, 'Model-Book, Outline-Book, Figure-Book'.

[13] But note that even in Raphael's famous Sistine Chapel cartoons, compositions were in fact adapted to the technical needs of cloth production (itself the result of the intermediality between drawings on

paper and weaving). See Lisa Pon, 'Raphael's Acts of the Apostles Tapestries for Leo X: Sight, Sound, and Space in the Sistine Chapel', *The Art Bulletin* 97 (2015): 388-408, esp. 391-2.

[14] Effectively in relation to textile production, the V & A papyrus offers an example of the kind of conceptual image (*Konzeptfigur*) postulated for ideal sculpture by Christa Landwehr, who mentions possible models in terracotta, plaster or bronze as well as sketches in copybooks. See Christa Landwehr, 'Konzeptfiguren—ein neuer Zugang zur römischen Idealplastik', *Jahrbuch des deutschen Archäologischen Instituts* 113 (1998) 139–194, esp. 160-64 and 169-70.

[15] For accounts of the making of cloth in Late Antique Egypt, see Marie-Hélène Rutschowscaya, *Coptic Fabrics*, (Paris: Adam Biro, 1990), 24-41; Nancy Hoskins, *The Coptic Tapestry Albums and the Archaeologist of Antinoé, Albert Gayet*, (Seattle: Sekin, 2004), 23-50.

[16] See Annemarie Stauffer, *Textiles of Late Antiquity* (New York: The Metropolitan Museum of Art, 1995), no. 31, p.46; Helen Evans, 'The Arts of Byzantium', *Metropolitan Museum of Arts Bulletin* (2001): 26-27; Thelma Thomas, *Designing Identity: The Power of Textiles in Late Antiquity*, (Princeton: Princeton University Press, 2016), no. 8, pp. 46-47, 130-131, 145; Met online collections: https://www.metmuseum.org/art/collection]/search/447844?sortBy=Relevance&when=A.D.+1-500&where=Egypt&what=Tunics&ft=*&offset=0&rpp=100&pos=11

[17] On tunics, see Annalisa Zanni (ed.), *La tunica dell' Egitto Cristiano*, (Turin: Artema, 1998); Matthias Pausch, *Die römische Tunika. Ein Beitrag der Peregrinisierung der antikens Kleidung*, (Augsburg: Wissner, 2003); Nadja Pöllath, *Tunica – Palla – Vellata: Analyse figürlicher Darstellungen aus dem mediterranen Bereich in Spätantike und Frühmittelalter*, PhD. Munich 2005: https://edoc.ub.uni-muenchen.de/9167/1/Poellath_Nadja.pdf; Sabine Schrenk, ' Die Dalmatika zwischen funerärer Selbstdarstellung und kirchlichem Ornat' in *Kleidung und Identität in religiösen Kontexten der römischen Kaiserzeit*, ed. Sabine Schrenk, Konrad Vössing, and Michael Tellenbach, (Regensburg: Schnell und Steiner, 2012), 197-218. For surviving examples, see e.g.: Annette Paetz, *Aus Gräbern geborgen: koptische Textilien aus eigener Sammlung*, (Krefeld: Deutsches Textilmuseum, 2003), 7-20; Sabine Schrenk, *Textilien des Mittelmeerraumes aus spätantiker bis frühislamischer Zeit*, (Riggisberg: Abegg-Stiftung), 2004, 145-389 (many examples, whole and fragmentary). For pattern diagrams see

e.g. Rutschowscaya, *Coptic Fabrics*, 151. For some cultural reflections on tunics see Eunice Dauterman Maguire, *Weavings from Roman, Byzantine and Islamic Egypt*, (Urbana-Champaign: Krannert Art Museum, 1999), 10-13 and Thomas, *Designing Identity*.

[18] E.g. for fragments of silk tunics, see Schrenk, *Textilien des Mittelmeerraumes aus spätantiker bis frühislamischer Zeit*, nos. 60-63, pp. 178-92; for *clavi* from a tunic with gold thread and purple dye, *ibid* no. 98, pp. 250-63; for polychrome *clavi*, *ibid* nos. 87-97, pp. 235-50.

[19] For Nonnus, see e.g. Robert Shorrock, *The Challenge of Epic. Allusive Engagement in the Dionysiaca of Nonnus*, (Leiden: Brill, 2001); Laura Miguélez Cavero, *Poems in Context. Greek Poetry in the Egyptian Thebaid 200-600 AD* (Berlin: De Gruyter, 2008); Robert Shorrock, *Myth of Paganism: Nonnus, Dionysus and the World of Late Antiquity*, (London: Bristol Classical Press, 2011); Konstantinos Spanoudakis, ed., *Nonnus of Panopolis in Context. Poetry and Cultural Milieu in Late Antiquity*, (Berlin: De Gruyter, 2014); Domenico Accorinti, ed., *Brill's Companion to Nonnus of Panopolis*, (Leiden: Brill, 2016); Herbert Bannert and Nicole Kröll, ed., *Nonnus of Panopolis in Context II: Poetry, Religion and Society,* (Leiden: Brill, 2018;) Camille Geisz, *A Study of the Narrator in Nonnus of Panopolis' Dionysiaca*, (Leiden: Brill, 2018).

[20] Notably, perhaps the most famous surviving ancient hanging, the great fourth-century Dionysus tapestry now in the Abbegg Collection in Riggisberg, was found in Egypt wrapping a corpse dressed in an exquisite silk tunic with imagery of the Annunciation and the Synagogue. See D. Willers. 'Bild und Deutung' in D. Willers and B. Niekamp (eds.), *Der Dionysos Behang der Abbegg-Stiftung* (Riggisberg: Abbegg, 2015) 7-107, esp. 100-107 with earlier literature. At least those who planned this burial (in some of the most valuable textiles to have survived from antiquity) has no problem about the juxtaposition of Christ and Dionysus.

[21] See Evaristo Breccia and Sergio Donadoni, 'Le prime ricerche Italiane ad Antinoe' *Aegyptus* 18 (1938): 285-318, esp. 298-302; Mario Salmi, ' I dipinti paleocristiani di Antinoe' in *Scritti dedicati alla memoria di Ippolito Rosellini* vol. 1, (Florence: Le Monnier, 1945), 158-69, esp. 163-7.

[22] Breccia and Donadoni, 'Le prime ricerche Italiane ad Antinoe', 303-4, figs. 10 and 11.

[23] For a summary of the historiography and literature on Coptic textiles, see Thelma Thomas, 'Coptic and Byzantine Textiles Found in Egypt: Corpora, Collections and Scholarly Perspectives' in *Egypt in the Byzantine World*, ed. Roger Bagnall, (Cambridge: Cambridge University Press, 2007), 137-62.

[24] See *Catalogue des antiquités égyptiennes, séries coptes & arabes: formant la deuxième partie de la collection du docteur Fouquet, du Caire* Sale 19-2- June, 1922, (Paris: Georges Petit, 1922), no. 109, 'Carton de tapisserie', p. 19 and plate III; Salvatore Settis, '"Ineguaglianze" e continuità: Un imagine dell' arte romana' in Otto Brendel, *Introduzione al arte romana*, (Turin: Einaudi, 1982), 161-200, esp. 183-4; Annemarie Stauffer, 'Cartoons for Weavers from Graeco-Roman Egypt' in *Archaeological Research in Roman Egypt*, ed. Donald Bailey, (Ann Arbor: Journal of Roman Archaeology Supplementary Series 19, 1996), 223-30, esp. 226-9; Annemarie Stauffer, *Antike Musterblätter: Wirkkartons aus dem spätantiken und frühbyzantinischen Ägypten*, (Wiesbaden: Reichdert, 2008), no. 13, pp. 86-9; Annemarie Stauffer, 'Zum Gebrauch von Musterblättern in der Antiken Textilherstellung' in *Intorno al Papiro di Artemidoro* III. *I disegni*, ed. Gianfranco Adornato, (Milan: LED, 2016), 147-64, esp. p. 150; Salvatore Settis, 'I seminari pisani di Vittorio Bartoletti. Per un corpus dei papiri figurati' in *Ricordo di Vittorio Bartoletti*, ed. Diletta Minutoli, (Florence: Accademia Fiorentina di Papirologia, 2019), 1-18, esp. 6-8. For good images and diagrams of the kinds of tunic one might imagine the V & A papyrus helping its weaver make, see Stauffer, *Antike Musterblätter* 26-7.

[25] For a corpus, see Stauffer, *Antike Musterblätter*. Also Annemarie Stauffer, *Spätantike und koptische Wirkereien: Untersuchungen zur ikonographischen Tradition in spätantiken und frühmittelalterlichen Textilwerkstätten*, (Bern: Lang 1992), 48-52; Ulrike Horak, *Illuminierte Papyri, Pergamente und Papiere* I, (Vienna: Holzhausen, 1992), 63-92; Stauffer, 'Cartoons for Weavers'; Annemarie Stauffer, 'A Closer Look to Cartoons for Weavers from Graeco-Roman Egypt' in *Vestidos, textiles y tintes : estudios sobre la producción de bienes de consumo en la antigüedad*, ed. Carmen Alfaro Giner and Lilian Karali, (Valencia: Universitat de València, 2008), 159-63. Some recently published from Oxyrhynchus: Helen Whitehouse, 'Drawing a Fine Line in Oxyrhynchus' in *Oxyrhynchus: A City and its Texts*, ed. Alan Bowman et al. (London: Egypt Exploration Society, 2007), 296-306, esp. 297-8, 302-3. At length on

the geometric examples and designs generally, see Suzana Hodak, *Ornamentale Purpurwirkereien : De variis purpureis segmentis, paragaudis, clavis et ceteris ornamentis cum ornamento*, 3 vols., (Wiesbaden: Reichert, 2011).

[26] But see also Stauffer, *Antike Musterblätter*, no. 21, pp. 101-105 for a nearly intact and abstract rather than figural *tabula*; no. 37, pp. 132-6 for the remains of 3 pieces (divided between two museum collections in Berlin and Turin) of what was once another *clavus-tabula* pairing; no. 43, pp. 146-7 for a further *clavus-tabula* pairing in two fragments now in Turin.

[27] Stauffer, 'Cartoons for Weavers', 226.

[28] E.g. Stauffer, *Antike Musterblätter*, 10-16, Maryline Parca, 'The Textile Industry in Egypt in the Greek and Roman Periods' in Dauterman Maguire, *Weavings from Roman, Byzantine and Islamic Egypt,* 20-26, esp. 25-6 and Stauffer, 'Zum Gebrauch von Musterblättern', 148.

[29] I report Stauffer's measurements in Stauffer, *Antike Musterblätter*, 86 by contrast with her report of 15.1 x 14.1 at Stauffer, 'Cartoons for Weavers', 226.

[30] Stauffer, 'Cartoons for Weavers', 227.

[31] In particular if we are to trust the very large *orbiculi* represented on the clothing of aristocratic figures in fourth century art, such as the frescoes in the Temple at Luxor or the mosaics of Piazza Armerina. See e.g. Michael Jones and Susanna McFadden, *The Art of Empire: The Roman Frescoes and the Imperial Cult Chamber in Luxor Temple* (New Haven: Yale University Press, 2015) 121 with images on 104, figure 6.1, 119, figure 6.16 and 160-70, figure A.3 and for Piazza Armerina, 121, fig. 6.18.

[32] Stauffer, 'Cartoons for Weavers', 227 but reporting corrected measurements from Stauffer, *Antike Musterblätter*, 86.

[33] See Ines Bogensperger, 'How to Order a Textile in Ancient Times: The Steps before Distribution and Trade' in *Textiles, Trade and Theories: From the Ancient Near East to the Mediterranean*, ed. Kerstin Droß-Krüpe and Marie-Louise Nosch, (Münster: Ugarit-Verlag, 2016), 259-70 on the papyrological evidence for ordering textiles from workshops.

[34] At length on textile workshops from the rich papyrological evidence, see Kerstin Droß-Krüpe (ed.) *Wolle, Weber, Wirtschaft: die Textilproduktion der römischen Kaiserzeit im Spiegel der papyrologischen Überlieferung*, (Wiesbaden: Harrassowitz, 2011).

[35] See e.g. Miko Flohr, 'Towards an Economic History of Textile Manufacturing and Trade in the Roman World' in Kerstin Droß-Krüpe (ed.), *Textile Trade and Distribution in Antiquity,* (Wiesbaden: Harrassowitz, 2014), 1-15 and in Kerstin Droß-Krüpe and Marie-Louise Nosch, 'Textiles, Trade and Theories' in Droß-Krüpe and Nosch, *Textiles, Trade and Theories*, 293-328 for a large scale synoptic overview.

[36] See e.g. Penelope Walton Rogers, Lise Jørgensen, Antoinette Rast-Eicher (eds.): *The Roman Textile Industry and its Influence. A Birthday Tribute to John Peter Wild*, (Oxford: Oxbow, 2001); Manuel Albaladejo Vivero, 'Textile Trade in the Periplus of the Erythraean Sea' in *Making Textiles in pre-Roman and Roman Times: People, Places, Identities*, ed. Margarita Gleba and Judit Pásztókai-Szeőke (Oxford: Oxbow, 2013), 142-8; Kerstin Droß-Krüpe, 'Textiles and their Merchants in Rome's Eastern Trade' *ibid* 149-60; John Peter Wild and Felicity Wild, 'Berenike and Textile Trade in the Indian Ocean' in Droß-Krüpe, *Textile Trade and Distribution in Antiquity*, 91-110; Eivind Heldaas-Seland, 'Here, There and Everywhere: A Network Approach to Textile Trade in the *Periplus Maris Erythraei*' in Droß-Krüpe and Nosch, *Textiles, Trade and Theories*, 211-19.

[37] For spinning see e.g. Sophie Gällnö, '(In)visible Spinners in the Documentary Papyri from Roman Egypt' in Gleba and Pásztókai-Szeőke, *Making Textiles in pre-Roman and Roman Times*, 161-70 with bibliography; for dyeing, see e.g. Alexandra Uscatescu, *Fullonicae y tinctoriae en el mundo romano*, (Barcelona: PPU, 1994); Miko Flohr, *The World of the Fullo: Work, Economy, and Society in Roman Italy* (Oxford: Oxford University Press, 2013).

[38] See e.g. Jinyu Liu, *Collegia centonariorum: The Guilds of Textile Dealers in the Roman West*, (Leiden: Brill, 2009).

[39] See for instance, Carlo Pirovano, ed, *Arazzi, tappeti, tessuti copti, pizzi, ricami, ventagli*, (Milan: Electa, 1984), no. 31, p.72 and 102; Yvonne Bourgon-Amir, *Les tapisseries coptes du Musée historique*

des tissus, Lyon, (Montpellier: Université de Montpelier, 1993), vol. I, p. 117-9 and vol. II pl. 105-6; Dauterman Maguire, *Weavings from Roman, Byzantine and Islamic Egypt*, no. B25, pp. 123-4; Paetz, *Aus Gräbern geborgen*, no.80, p. 50, no. 82, p. 52, nos. 85-6, p. 53; Annette Paetz, *Die koptischen Textilien: Gewebe und Gewänder des ersten Jahrtausends aus Ägypten*, (Cologne: Kolumba, 2005), no. 10, pp. 44-8, no. 14, pp. 54-9, no. 21, pp. 66-7, no. 22, pp. 68-71, no. 23, pp. 72-4; Schrenk, *Textilien des Mittelmeerraumes aus spätantiker bis frühislamischer Zeit*, no. 106, pp. 261-3; Florence Calament and Maximilien Durand, ed., *Antinoé, à la vie, à la mode*, (Lyons: Fage, 2013), no. 160, pp. 398-403.

[40] On issues of gender, see Lena Larsson Lorén, 'Female Work and Identity in Roman Textile Production and Trade: A Methodological Discussion', in Gleba and Pásztókai-Szeőke, *Making Textiles in pre-Roman and Roman Times* , 109-25; Juliane Meyenburg, 'Berufsbezeichungen von Frauen in kaiserzeitlichen Papyri' in Droß-Krüpe, *Textile Trade and Distribution in Antiquity*, 177-87 and Lena Larsson Lorén, 'Women, Trade and Production in Yrban Centres in Roman Italy' in *Urban Craftsmen and Traders in the Roman World*, ed. Andrew Wilson and Miko Flohr, (Oxford: Oxford University Press, 2016), 200-221, esp. 204-8.

[41] For a repertoire of surviving border options as offered by the extant textile drawings on papyrus, see Stauffer, *Antike Musterblätter*, 31-34. For other examples of papyri with border suggestions not fully elaborated, see Stauffer, *Antike Musterblätter,* nos. 14, 15, 16, 21, 26, 34, 35 and 51. are

[42] See e.g. Rutschowskaya, *Coptic Fabrics,* p. 108 (top); Bourgon-Amir, *Les tapisseries coptes du Musée historique des tissus, Lyon*, vol. I, p. 32, vol. II, pl. 4; vol. I, p. 34 vol. II, pl. 7; vol. I, pp. 60-1, vol. II, p. 35-6; vol. I, pp. 72-3, vol. II, pl. 54; Alexandra Lorquin, *Nat: étoffes égyptiennes de l'Antiquité tardive du Musée Georges Labit*, (Paris: Somogy, 1999), no. 31, pp. 90-1; Paolo Peri, *Tessuti egiziani dall'età ellenistica al medioevo nelle raccolte del Castello sforzesco di Milano*, (Pistoia: Settegiorni, 2013), no. 126, p. 111; Schrenk, *Textilien des Mittelmeerraumes aus spätantiker bis frühislamischer Zeit*, no. 31, p. 301.

[43] See e.g. David Parrish, *Season Mosaics of Roman North Africa* (Rome: Bretschneider, 1984), type 7, p. 64, e.g. nos. 10, 11, 13, 24, 40, 43, 44, 49. An interesting parallel, also from clothing, is the gold belt buckle in the collection of the Cabinet des médailles in Paris with 4 busts around a seated figure

recently displayed in the Berthouville Treasure show in the US: see e.g. http://isaw.nyu.edu/members/te20-40nyu.edu/test-ignore, no. 75.

[44] See Alexandra Lorquin, *Les Tissus coptes au Musée national du Moyen Age, Thermes de Cluny*, (Paris: Réunion des musées nationaux, 1992), no. 57, pp. 174; Bourgon-Amir, *Les tapisseries coptes du Musée historique des tissus,*, vol. I, pp. 101-2, vol. II, pl. 83-4.

[45] Cf. Parca, 'The Textile Industry', 25: 'Plenty of room was left for the artist's fantasy'.

[46] The options are played out by Stauffer, 'Cartoons for Weavers', 226 and 2008, 86-7.

[47] Stauffer, 'Cartoons for Weavers', 226-7; Parca 'The Textile Industry', 25.

[48] Albert Kendrick, *Catalogue of Textiles from Burying-grounds in Egypt*, (London: H.M. Stationary Office, 1921), vol. II, no. 355, p. 30, pl. xix; Stauffer, *Antike Musterblätter*, 89; Bourgon-Amir, *Les tapisseries coptes du Musée historique des tissus, Lyon*, vol. I, p. 43, vol. II, pl. 17 (cf. Stauffer, *Antike Musterblätter*, 87-9); vol. I, pp. 60-1, vol. II, pl. 35-6; P. van't Hooft et al., *Pharaonic and Early Medieval Egyptian Textiles*, (Leiden: Rijksmuseum van Oudheden, 1994), no. 445, p. 183, pl. 33; Dauterman Maguire, *Weavings from Roman, Byzantine and Islamic Egypt*, C 3, p. 143, C 4, p. 144, C 9, pp. 150-1; Paetz, *Aus Gräbern geborgen*, nos. 29, p. 32, 103, p. 59, 119. p. 65, 120, p. 66; Peter Noever, *Verletzliche Beute/ Fragile Remnants: spätantike und frühislamische Textilien aus Ägypten*, (Vienna: MAK, 2005), nos. 3, p. 43, 4, p.44, 15, p. 57-9.

[49] Other white figure on black ground papyrus fragments include Stauffer, *Antike Musterblätter*, nos. 14-15, 21, 23. The number of black figure on lighter ground fragments is much greater: Stauffer, *Antike Musterblätter*, nos 16-20, 22, 24-50.

[50] See https://www.metmuseum.org/art/collection/search/447844; Paetz, *Die koptischen Textilien*, no. 5, pp. 31-35. Cf also the tunic fragment in Toulouse in Lorquin, *Nat: étoffes égyptiennes de l'Antiquité tardive du Musée Georges Labit*, no. 16, pp. 56-7 or the fragments in Ravenna in Clementina Rizzardi, *I tessuti copti del Museo nazionale di Ravenna*, (Rome: Istituto poligrafico e Zecca dello Stato, 1993), no. 4, pp. 48-9 and no. 15, pp. 66-7.

[51] See e.g. the two *tabulae* showing the hunt of Dido and Aeneas in the collections of Dusseldorf and Vienna in Stauffer, 'Zum Gebrauch von Musterblättern', 151-2. A number of examples are discussed in Stauffer, *Antike Musterblätter*, 57-63. The most obvious place for seeing this at work is in the surviving whole tunics where *tabulae* and *clavi* are replicated: see e.g. in the Met: https://www.metmuseum.org/art/collection/search/447845?sortBy=Relevance&where=Egypt&what=Textiles%7cTunics&ft=*&offset=0&rpp=20&pos=3; https://www.metmuseum.org/art/collection/search/447844; https://www.metmuseum.org/art/collection/search/447842.

[52] For instance Lorquin, *Nat: étoffes égyptiennes de l'Antiquité tardive du Musée Georges Labit*, no. 1, pp. 30-1 and no. 3, pp. 34-5; Marie-Hélène Santrot (ed.), *Au fil du Nil: couleurs de l'Egypte chrétienne*, (Paris: Somogy, 2001), no. 40, p.70; Schrenk, *Textilien des Mittelmeerraumes aus spätantiker bis frühislamischer Zeit*, no. 54, pp. 162-4; Paetz, *Die koptischen Textilien*, no. 29, pp. 83-92 (polychrome); Noever, *Verletzliche Beute/ Fragile Remnants*, no. 1, p. 40

[53] For example an adult tunic of the fifth or sixth century in the Louvre, see Santrot, *Au fil du Nil*, no. 39, p. 69

[54] For the certainty that papyrus model-sheets were made to be moved beneath the loom during the weaving process, see Stauffer, *Antike Musterblätter*, no. 24, p. 108-9 and 24-8, where the endpiece of a *clavus* design is drawn separately and to the right of the main band, so that the sheet would need to be shifted for the weaver to complete the design.

[55] See Bogensperger, 'How to Order a Textile in Ancient Times', 265-8.

[56] See Bogensperger , 'How to Order a Textile in Ancient Times', 265-6 with references.

[57] See Stauffer, *Antike Musterblätter*, nos. 10, 11, pp. 82-85; 18, 19, pp. 98-99; 58, pp. 170-1

[58] Stauffer, *Antike Musterblätter,* no. 10, pp. 82-3.

[59] Stauffer, *Antike Musterblätter,* no. 15, pp. 92-3.

[60] Stauffer, *Antike Musterblätter* no. 52, pp. 154-8.

[61] For instance a female painted in brown on fine papyrus now in Vienna: Horak, *Illuminierte Papyri, Pergamente und Papiere* , 77-8 and Stauffer, *Antike Musterblätter*, no. 33, pp. 124-5; a neckline piece from Hermopolis in Berlin, Stauffer, *Antike Musterblätter*, no. 17, pp. 96-7; a *tabula* and corner piece from Hermopolis now in Turin: Stauffer, *Antike Musterblätter*, no. 36, pp. 128-31; a trio of fragments from a *tabula* and *clavus* drawing now shared between Turin and Berlin: Stauffer, *Antike Musterblätter*, pp. 132-134; a frieze fragment (perhaps the frame of a *tabula*) in Vienna: Stauffer, *Antike Musterblätter*, no. 40, pp. 138-9; further *tabula* fragments from Berlin and Turin: Stauffer, *Antike Musterblätter*, nos. 41-43, pp. 140-147.

[62] For example, the faces of winged putti in leaves on sheets in Berlin and Vienna: Stauffer, *Antike Musterblätter*, nos. 55 and 56, pp. 162-65; the face of the putto holding a roundel and that of the probably female image within the medallion from Hermopolis and now in Berlin: Stauffer, *Antike Musterblätter*, no. 59, pp. 172-3.

[63] See Stauffer, *Antike Musterblätter*, no. 14, pp. 90-91; no. 16, pp. 94-5; no. 28, pp. 114-5; no. 29, pp. 116-7 which is parallel to the V & A sheet in being a fragment of a white ground circle round a medallion with black figure animals inside it; no. 30, pp. 118-9; no. 37, pp. 132-3 which has white figure animals on black ground roundels; no. 42, pp. 142-5; no. 51, pp. 152-3; no. 58, pp. 170-1; no. 61, pp. 176-7.

[64] Stauffer, *Antike Musterblätter*, no. 51, pp. 152-3.

[65] Replication has been a hot topic in Roman art history in the last couple of decades, mainly in sculpture: on sculpture, see the many items listed in notes 1-7 of this article. For replication and painting see e.g. Bettina Bergmann, 'Greek Masterpieces and Roman Recreative Fictions' *Harvard Studies in Classical Philology* 97 (1995): 79-120; Jennifer Trimble, 'Greek Myth, Gender and Social Structure in a Roman House: Two Paintings of Achilles at Pompeii' in Gazda *The Ancient Art of Emulation*, 225-248; Stéphanie Wyler, 'Roman Replications of Greek Art at the Villa della Farnesina' *Art History* 29 (2006): 213-32; Nathaniel Jones, *Painting, Ethics and Aesthetics in Rome*, (Cambridge: Cambridge University Press, 2019), 180-197.

[66] For reflections on this issue, see Mayer, *The Ancient Middle Classes,* 175-8; Pearson, 'Bodies of Meaning: Figural Repetition in Pompeian Painting', esp. 158-62 and Elsner and Squire 'Vision and Memory', esp. 192-203 for issues about memory.

[67] See e.g. Jürgen Hodske, *Mythologische Bildthemen in den Häusern Pompejis: die Bedeutung der zentralen Mythenbilder für die Bewohner Pompejis*, (Ruhpolding: Franz Philipp Rudzen, 2007), kat. 334, p. 254, taf. 71.3-4 (also with a panther to the right).

[68] See Hodske, *Mythologische Bildthemen in den Häusern Pompejis*, kat. 526, 265 and 589, p. 185, taf. 70.1-4 and 71.1-2.

[69] See Hodske, *Mythologische Bildthemen in den Häusern Pompejis*, kat. 202, p. 187, taf. 74.3-4.

[70] See Hodske, *Mythologische Bildthemen in den Häusern Pompejis*, kat. 487, 297, 85 and 472, p. 186, taf. 73.1-3 and 74.1.

[71] See Hölscher *The Language of Images in Roman Art*, for the ways such repetition constructs a discursive (he calls it 'semantic') system, with some critique and extension in Elsner 'Classicism in Roman Art'.

[72] The has affinities with the 'life of forms' proposed by Henri Focillon in his *Life of Forms in Art*, (New Haven: Yale Univeristy Press, 1942).

[73] This is the world of what has been called *Hellenism* in late antiquity: see for instance, Glen Bowersock, *Hellenism in Late Antiquity*, (Cambridge: Cambridge University Press, 1990); Anthony Kaldellis, *Hellenism in Byzantium: The Transformations of Greek Identity and the Reception of the Classical Tradition*, (Cambridge: Cambridge University Press, 2007); Miguélez Cavero, *Poems in Context: Greek Poetry in the Egyptian Thebaid 200-600 AD*.

[74] The antiquarianism of mythologically-related imagery is particularly marked in surviving silver-plate after the fourth century. See for instance, Ruth Leader-Newby, *Silver and Society in Late Antiquity*, (Aldershot: Ashgate, 2004), 123-180; a number of examples are discussed and illustrated by Jocelyn Toynbee and Kenneth Painter, 'Silver Picture Plates of Late Antiquity AD 300-700'

Archaeologia 108 (1986): 15-65, esp. nos. 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 58.

[75] Julius von Schlosser, ' Zur Kenntnis der künstlerischen Überlieferung in späten Mittelalter' *Jahrbuch der kunsthistorischen Sammlungen des Allerhöchsten Kaiserhaus* 23 (1902): 279-338, with discussion by Robert Scheller, *Exemplum: Model-Book Drawings and the Practice of Artistic Transmission in the Middle Ages (ca. 900- ca. 1470)*, (Amsterdam: Amsterdam University Press), 1995, 6-8.

[76] Von Schlosser, ' Zur Kenntnis der künstlerischen Überlieferung in späten Mittelalter', 279-86, 318-26.

[77] Gombrich, *Art and Illusion*, 126-52, also n. 19 at p. 337. Note that von Schlosser is one of the dedicatees of *Art and* Illusion (at p. vi). Cf. Ernst Gombrich, 'Experiment and Experience in the Visual Arts' (1980) in *The Image and the Eye: Further Studies in the Psychology of Pictorial Representation*, (Oxford: Phaidon, 1982), 219-24 on the attempt to 'struggle free from the conventions of art which had governed the Egyptians'.

[78] Gombrich, *Art and Illusion,* 120-121.

[79] Gombrich, 'Experiment and Experience in the Visual Arts' 297: 'Western art would not have developed the special tricks of naturalism if it had not been found that the incorporation in the image of all the features which serve us in real life for the discovery and testing of meaning enabled the artist to do with fewer and fewer conventions'. Note the profound Eurocentrism governing this assumption. Specifically on nature and convention in Gombich, see W. J. Tom Mitchell, *Iconology: Image, Text, Ideology*, (Chicago: University of Chicago Press), 1986, 75-94.

[80] Gombrich, *Art and Illusion*, 125, a passage specifically written in relation to late antique mosaics of the sixth century AD.

[81] Gombrich, *Art and Illusion*, 148.

[82] Gombrich, *Art and Illusion*, 112, 118-9, 120-1.

[83] I think here of Gombrich's 'revulsion from the formula' (p. 128) and his 'schemata of conceptual art' (p.121).

[84] On the question of class in the commissioning and viewing of Roman wall painting, see P. Zanker, *Pompeii: Public and Private Life,* (Cambridge, Mass.,: Harvard University Press, 1998), 135-203; John Clarke, *Art in the Lives of Ordinary Romans: visual representation and non-elite viewers in Italy, 100 B.C.-A.D. 315* (Berkeley: University of California Press, 2003) 223-268; Mayer, *The Ancient Middle Classes*, 166-220.