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**ECONOMIC PRODUCTION IN THE MONASTERIES
OF EGYPT AND ORIENS, AD 320-800**

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VOLUME 1



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***'During the ninth century, al-Ġāhiz, a pious and fanatical scholar, remarked that if a Christian hated work he turned monk and wore wool, trusting that in these clothes he would be supported by the rich and wealthy.'*¹**

¹ Tritton A.S. (1931) 'Islam and the protected religions'. *Journal of the Royal Asiatic Society of Great Britain and Ireland*, p. 328.



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Abstract

This thesis is a comprehensive, multi-disciplinary, qualitative and quantitative appraisal of the monastic economy in late Antiquity and the period of early Islam. Based on the textual and archaeological evidence of over 1,000 monasteries in Egypt and *Oriens*, this thesis combines both an in-depth analysis and an overall appraisal of monastic production. It follows an internal and an external, a micro-level and an integrative approach. It considers literary texts, papyri, inscriptions, colophons and published archaeological remains, especially in Syria and Palestine. The analysis of fieldwork data, personally retrieved in Syria, Jordan and Egypt in 2002 and 2003, rounds off the archaeological point of view. This thesis condenses the period until AD 800, as in many regions textual and archaeological documentation break off dramatically after ca. AD 770.

The emergence of monasteries in Egypt and *Oriens* after ca. AD 320 provoked a change of the socio-economic profile of late Antiquity. From the fifth century, *coenobia* and *laurae* played an important role in the late antique economy. Monasteries acquired land, employed labour, became centres of production and trade. Such involvement, however, gave rise to substantial internal controversy.

Having first considered monasteries as architectural units ('a working definition'; chapter I), this thesis seeks to investigate the conditions of monastic production (location, landownership etc.) in chapter II. As labour and work were controversial monastic issues, the attitudes towards labour are also examined here.

In chapter **III**, it considers the types of agricultural production (animal husbandry, beer, bread and cereals, oil, wine) and manufacture (basketry, glass, leather goods, pottery, textiles). For several reasons (state of documentation, ongoing scholarly debate, *etc.*), the principal focus is on bread, oil and wine. Chapter **IV** considers the services provided by these monasteries (copying and manuscript illumination, pilgrim accommodation, *etc.*). The organization of labour is the subject of chapter **V**. Finally, in conclusion, this thesis considers output (chapter **VI**), namely the issues of surplus (versus self-sufficiency), professional specialization (versus generalisation) and marketing of the monastic produce. It also considers a number of related topics, such as gender, guilt complex (*'complex de l'argent'*), professional training and the impact of monastic production on the local economy.

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Preface

The ninth century Islamic scholar al-Ġāhiz remarked that if a Christian hated work he turned monk and wore wool, trusting that in these clothes he would be supported by the rich and wealthy. Others, as found for instance in hagiographical sources, portray Christian monks as ascetics who withdrew from 'the world' to envisage a life of prayer in 'the desert' or in a monastery. However, even though withdrawn from the world, how and why could a monk become involved in the necessities of economy?

The intention not to turn monk and to wear wool, but to work on an answer was substantiated in 2001. At that time I wanted to know more about 'the monastery' and 'the monastic economy'. Thus, certain questions were quickly formulated: what were the sources of monastic subsistence? Which were the products and services that supported monastic communities? And, in order to consider self-sufficiency and surplus-production, how could production be quantified? Regional studies on such issue existed, and I am indebted to Hirschfeld's book on *The Judean Desert Monasteries* (1992). But, as monasticism was a universal phenomenon of Christian withdrawal from ancient society, at that time I could only guess the potential of a wider perspective considering many more monasteries, from Egypt to Mesopotamia. I felt like 'experimenting' with different types of analyses. The time was auspicious: enormous progress had just been made in the publication of papyrological and archaeological data from Egypt, Palestine and Syria. And through Syriac I had just been introduced to Mesopotamia. The time was

also auspicious for issues of economic production, as it was also a period propitious to the study of the ancient economy. It seemed to me opportune to limit the period under consideration to AD 800, when there were major changes to bring to an end many of these monasteries.

At the outset I hoped to reconstruct '*the monastic economy*', dreaming of a model to explain, in qualitative and quantitative terms, the economy of *any* late antique monastery. However, the careful analysis of the sources soon demonstrated that such a model could not have been obtained. With this in mind, this thesis considers a wide range of *aspects* and *trends* in economic production. But, as an ultimate aim, I hope one day to recognize the agents and their motives, 'the ones wearing wool' behind.

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Reader's guide

This thesis considers an enormous amount of documents. In order to handle this data, the following system of abbreviations has been devised:

[M.xxx] ... is the abbreviation to indicate, in an unambiguous number, a monastery. The system of numerotation is explained in vol. 2, p. 197 (sect. C.5.1). The number (xxx) also indicates its location (*ibid.*, and vol. 2, sect. B, maps). Usually, monasteries are given a separate datasheet (sect. C.5.3). Note that the sequence of numbers in vol. 2, sect. C.5.2-3 (gazetteer) is *not* continuous, in order to allow later additions between two recorded monasteries.

[Ill.xxx/y] ... indicates an illustration relative to the monastery [M.xxx]. The illustration can be found on the datasheet of that monastery, i.e. in sect. C.5.3.

(L.xxx) ... indicates a literary source other than a papyrus, ostrakon, inscription or colophon. The system of numerotation is explained in vol. 2, p. 97 (sect. C.1). Editions and translations can also be found there.

Papyri and ostraka are quoted according to the guidelines by Oates *et al.*, **Checklist of Greek, Latin, Demotic and Coptic Papyri, Ostraca and Tablets**. Working translations/summaries and other information are given in vol. 2, sect. C.2.

(I.xxx) ... indicates an inscription. Working translations/summaries and other information are given in vol. 2, sect. C.3.

(C.xxx) ... indicates a colophon. Working translations/summaries and other information are given in vol. 2, sect. C.4.

(WPxx.yyy) indicates a GPS® waypoint taken during two extensive fieldtrips in 2002 and 2003. The system of numerotation is explained in vol. 2, p. 216] (sect. C.6).

Illustrations and **tables** are presented within the text (vol. 1), whereas **plates** are presented, on creme-coloured paper, at the end of the sections to which they refer. Contrary to the convention, in this thesis plates are used to present 'extended tables' rather than image material. For images, cf. [Ill.xxx/y].

Maps are presented in vol. 2, sect. B.

The list of **abbreviations** can be found in vol. 2, sect. A.1, the **bibliography** in sect. A.2.

INTRODUCTION

Chapter I

1.1 *Monastērion*, τooy, *dayrā*: a linguistic and archaeological working definition

1.1.1 Development and terminology

On the outset of this study of monastic production, the mental and physical concept of 'monastery' needs to be delineated and defined. To date, this 'ontological' question has rarely been raised and only few attempts to find an answer been made. Cassian (d. 430), impressed by the 'monastic climate' he had witnessed in Egypt, was the first to relate an enquiry of that sort having taken place:

[Germanus:] *'Is there any difference between a house of cenobites (coenobium) and a monastery (monasterium), or is one thing covered by two names?'*

[Piamun, in reply:] *'Monastery (monasterium) is the name of the residence and does not imply more than the place where monks live (nomen est diversorii, nihil amplius quam locum [...] et potest etiam unius monachi habitatio nominari). House of cenobites (coenobium) points to the character and the way of life of the profession.'*
[L.206, XVIII, 9-10]

Expressis verbis, Piamun's reply highlights the linguistic difficulties when referring to monasteries in ancient texts. As this thesis aims to investigate into those forms of monasticism in which *koinos bios* was the chosen way of life, a preliminary definition of cenobitic sites – simply referred to as 'monasteries' in the following – needs first to be tried; the definition will prove relevant to the identification of cenobitism in the written sources and to the identification of monasteries on the ground.

Bousset and Bacht, in two fundamental articles, set forth what they believed to be the demarcation line between cenobitic and anchoritic life. Bousset (1923: 8), on the one hand, stresses the attitude towards obedience to authority as the

decisive criterion, whereas Bacht (1956: 95) defines cenobitism through the element of separation ('the wall') and the common participation in the table, prayer, liturgy and labour. Bacht also rightly notes that obedience to rules may also apply to the anchorites, as '*für Anachoreten ist die Bindung an den Abba nur vorübergehend, für Cönobiarthen Lebensgesetz*'. This note finds support in the hagiographical and canonical literature on monastic life. The first 'institutionalization' of monastic cenobitism is attributed to Pachomius (d. 346) in Egypt.

Evidence of a '*distinct tendency for the scattered members of the brotherhood to draw together*' [and to concentrate around the church]' (Evelyn-White – Hauser 1926-1933: II, 182) can be found during the fourth and fifth centuries all over Egypt (L.101/02/23), Palestine (L.233), Syria (L.124; L.414)² and Mesopotamia³. Shortly thereafter, a similar evolution can be observed on Sinai⁴ and in the Judean Desert⁵, east of Jerusalem. In Egypt, the *laura* of Nitria [M.362] soon became a semi-cenobitic 'training camp' to provide the most virtuous 'human resources' for the more anchoritic *laurae*/'monasteries', according to the principle '*primae scholae*

¹ The reasons to gather may have been manifold, such as (a) security, '*retaining the anchoritic ideal in spite of being in company*' (Chitty 1966: 69), or (b) for marketing the anchoritic ideal à grande échelle: '*dans la clôture d'un monastère, grâce au silence, au recueillement, à l'isolement du monde et à l'organisation de la prière, les avantages de la vie érémitique seront mis à la disposition d'un grand nombre*' (Leloir 1964: 203-204).

² Inferring from Theodoret's (d. 466) *Historia religiosa* [L.124] the North Syrian monastery, '*à l'origine, se présentait sous forme d'une agglomération de cellules*' (Canivet et al. 1977: 212).

³ Vööbus (1958-1988: I, 230-232; II, 140), Fiey (1965-1968: I, 12), Segal (1970: 108-109) and Symeon of Kefar 'Abdān: '*they took him to a monastery of outstanding discipline, which was called Monastery of the Cells of the anchorites, under the jurisdiction of Edessa*' [L.441, 420].

⁴ L.101B, Silvanus, 8; cf. Solzbacher (1989: 243).

⁵ E.g. Euthymius' (d. 473) cliff-monastery [M.788]; the sources mention Theoctistus as the first head of the *coenobium* after the founder had proved little desire to convert solitude into a cenobitic establishment (Chitty 1966: 82-84; Hirschfeld 1992: 69).

coenobia, secundus gradus anachoreseos' [L.206, XVIII, 4]. Similarly, Theoctistus' *coenobium* [M.788] served as a novice-house for those who wanted to 'graduate' to near-anchoretic life. In the Euthymian Palestinian system, canonized by Saba (d. 532) in the next generation, the *coenobium* had become the ancillary to the *laura* to which it formed an indispensable preliminary stage⁶.

The other way how to address this issue is, as outlined in the beginning, the study of terminology⁷. The earliest reference to *monachos* as a recognized figure of society dates to AD 324 (Judge 1977: 72. 88) and alludes to a person that contracts out of *bios politikos* (Canivet 1969: 209) or – in more simplistic terms and recalling the literal meaning – 'who lives alone' (Festugière 1961a: I, 19). *Monachoi*, on the other hand, were the ones whom Athanasius (d. 373) mobilized for his anti-Arian cause and who [τὸν μον]ήρη βίον ἀσκοῦσ[ι] (SB VI 8698). Judge (1977: 77) infers from this passage that the *monachoi* of Athanasius were practicing solitary life and resided firmly in the faith of Christ. The next to witness *monachi* in the East was Egeria before Jerome, too, conveyed *monachos* as *monachus* to the Christian West. *Īhīdāyē* and *bnay qyāmā* are similarly problematic terms that designate 'solitaries' and 'brothers of the covenant' in the Syriac tongue (Abou Zayd 1993). But, unlike *monachos*,

⁶ On the *laura* as a 'hybrid system', cf. below and Papachryssanthou (1973: 167). A special development of the Judean type is the *laura* of Gerasimus [M.714] in which the *coenobium* itself formed the centre of about seventy anchorites scattered in cells all over the plain. Novices would expect to graduate to the cells in time (Chitty 1966: 85. 90). This model was also frequent in Egypt and can be found at Dayr Apa Epiphanius [M.068], Dayr Anbā Abullū' [M.190], Dayr ad-Dīk [M.226], Dayr an-Naqlūn [M.308], Dayr Anbā Anṭūniyūs [M.318], Skēthis [M.348], Kellia [M.360], Ennaton [M.374] *et al.*

⁷ For studies undertaken to the present, for Greek, cf. Canivet (1969, 1977), Judge (1977); for Greek and Coptic, Derda – Wipszycka (1994), Gonis (2001), Wipszycka (2001c); for Syriac, Budge (1893: I, cxlvii-cxlix), Beck (1956), Vööbus (1958-1988: I, 103-108), Fiey (1965-1968: I, 11-12); for Arabic, Cheikho (1890: I, 194-201), De Blois (2002). Adam (1954) proposes the only trans-lingual approach.

these seem never to have been applied to the inmates of cenobitic establishments.

High in number, the terms to designate the physical dwelling are as intriguing as those for the monks. Theodoret (L.124) lists solitaries in Syria who dwelled in *oikēmata*, *oikiskoi* and *oikidia* ('houses of the poor'), in *skēnai*, *kalybai* and *kalybia* ('huts'). Others found shelter under the open sky (*hypaiterioi*), but limited their 'dwellings' by means of a *thrigkion*, a basic wall (Canivet 1977: 211-213). Theodoret also lists some (originally Socratic) *philosophias phrontistēria* and *katagōgia*, which seem to designate both places of individual seclusion and cenobitic sites (Festugière 1959: 327; Canivet 1977: 211-212). The tendency to draw together is also illustrated by Theodoret's *Life of Publios* who, living on the Euphrates, at some point decided to give up the concept of individual cells for his brethren and to group them together in one single complex or building, which Theodoret calls a *katagōgion* [L.124, V, 3].

The term *monastērion* adopts most of the semantic problems pertinent to its cognate *monachos*. Egeria made the explicit link between *monasterium* and *monachus* for those readers (Latin-speakers in the west) who may not have been familiar with these terms: '*vidimus monasterium cuiusdam fratris, nunc id est monachi*' in the Jordan Valley, and in Ḥarrān (south of Edessa) the noblewoman met clerics and *monachi* living in individual huts or *monasteria*, situated around the church⁸. Silvanus, clearly a monk⁹, lived in a *monastērion*. At the same time Sozomen (L.163, I, 12) described the sanctuaries of pre-Christian ascetics near Lake Mareotis

⁸ 'L.293, XVI, 2; XXI, 3. Note that elsewhere, between Clysma and Arabia (*ibid.*, VII, 2), Egeria witnessed *manasteria* (*sic*), translated by '*postes militaires*' (Maraval – Díaz y Díaz 1982: 154-155).

⁹ Cf. above, p. 2.

using the term *monastēria*. Law-makers used the term loosely as a hyperonym of various types of monastic establishments; needless to say, after the fifth century, *monastērion* was the term used most frequently, although it had never been defined¹⁰.

Firmer associations with the cenobitic ideal are conveyed by the term *koinobion* (< *koinos bios*). In the abovementioned *Lives of Pachomius* (L.131; L.335) *koinobion* designates the single monastery as opposed to the *koinōnia*, which was the confederation of all Pachomian monasteries¹¹. Despite Coptic sources mixing up ΚΟΙΝΟΒΙΟΝ and ΚΟΙΝΩΝΙΑ such that they became interchangeable, Coptic still provides some relevant terms for the dwelling, such as *σοογζς* (< *σωογζ*, 'to be gathered, collected') and *συνάγωγη* (< *συναγωγή*)¹². In the Pachomian system monastic structures could be subdivided into *νογ* (sg. *ηι*), i.e. units under the direction of the *ρᾶνῆι*, the 'monastic superintendent', and *ρι*, the 'individual cell', or *μαῖωπε*, the 'dwelling place, monk's cell or group of cells'. The entries in Timm (1984-1992) list further equivalents such as *ζενεετε*, a 'monastery of monks or nuns' or *koinobion*, *τοογ*, the 'community of hermits, monastery', and *τοπος* (*ετογδδβ*) (<

¹⁰ L.180/81; L.280/81/82. Surprisingly short, Liddell – Scott (1996: 1143, s.v. 'μοναστήριον'): 'hermit's cell; monastery'. Papachryssanthou (1973: 168) argues in favour of a distinction between *monē* and *monastērion*, suggesting that *monē* only designated cenobitic monasteries whereas *monastērion* would have been both a universal and a specifically juridical term.

¹¹ Cf. Rousseau (1985). Remarkably, the contemporary Cappadocian model of Basil (L.107) is bare of any technical term for 'monastery'. What is more, Basil's terminology was inspired by the words of the Scripture which made him refer to his brothers as a brotherhood (ἀδελφότης) (Cremaschi 2001: 99).

¹² Adam (1954: 229-230) and Crum (1939: 374, s.v. 'σοογζς'): *δπε/ζηγογμενος/ρωμε ἰσοογζς*, 'pater monasterii'. Note the semantic opposition between *κοινόβιον/κοινωνία/σοογζη/συναγωγή* ('congregation') to the notion underlying *μοναστήριον*.

τόπος), a 'holy place or shrine'.

For Syriac, Payne Smith's *Thesaurus* lists *sub voce* *dayrā* (> Arabic *dayr*): 'nesciens enim veram vocis significationem, quippe quae in suis temporibus valebat *monasterium*'; the dictionary continues: '*habitatio, imprimis monachorum*' (1879-1901: I, 852). Indeed, the semantics of *dayrā* range from 'sheepfold' and 'primitive dwelling-place' in earliest monasticism (Vööbus 1958-1988: I, 229; II, 62 fn. 8) to 'monastery' (*koinobion*) as used by Thomas of Marga's ninth-century *Historia monastica* [L.428]. 'Umrā (< 'mar, 'to dwell' or 'to be inhabited'), on the other hand, conveys the sense of a dwelling-place – for Fiey both terms are synonyms, they describe a cenobitic establishment¹³. Other terms used for 'monastery' are *ḥirtā*, the 'camp', and *qnūbyūn* (< κοινόβιον). Dadīšō' (d. 604) makes the distinction between *aḥē d-qālītā*, 'brothers of the *kellion*', and *aḥē d-ba-qnūbyūn*, 'brothers who [live] in the *koinobion*' (Budge 1893: I, cxlviii) – inside or outside the compound, the term *aḥē*, like Basil's concept of *adelphotēs*, certainly suggests some type of community.

Finally, *laura* was a technical term most frequently attested in Palestine. Despite its remarkable absence from the Justinianic Code, although initially defined as a colony of anchorites subject to a single 'abbot', *laura* also came to be applied to cenobitic establishments (Patrich 1995: 122-136; Cross – Livingstone 1997: 959, s.v. 'lavra').

Table 1 summarizes, in alphabetical order, the most common terms that in the

¹³ Fiey (1965-1968: I, 11-12). Payne Smith *et al.* (1879-1901: II, 2920, s.v. 'umrā'): '*coenobium, cella anachoretæ, κοινόβιον*'. The cenobites are the 'umrāyē.

period considered rendered notions associated with 'monastery':

Anchoretic	< Hybrid >	Cenobitic
		ahē d-ba-qhūbyūn
ahē d-qfītā		
(?)		dayr
	dayrā	
		hīrtā
	καταγώγιον	
		κοινόβιον/κοινοβιον/qhūbyūn
		κοινώνια/κοινωνία
		λαύρα
ΜΑΝΨΩΠΕ		
	μοναστήριον (μόναχος)	
		μονή
		COY2C
		ΣΥΝΑΓΩΓΗ
	τόπος	
		TOOY
	φροντιστήριον	
	'umrā	
		ΣΕΝΕΕΤΕ
	Conclusion: 'monastery'	

Table 1: 'Monastery' in the ancient sources: a summary of the terminology

'In Byzantium associations between monastic planning and domestic architecture may be closer than in the west. Paul Magdalino has noted the similarities between Byzantine household organizations, and there are recorded instances of places being converted to monasteries without significant change.'

(Ousterhout 1996: 32)

1.1.2 Physical constitution

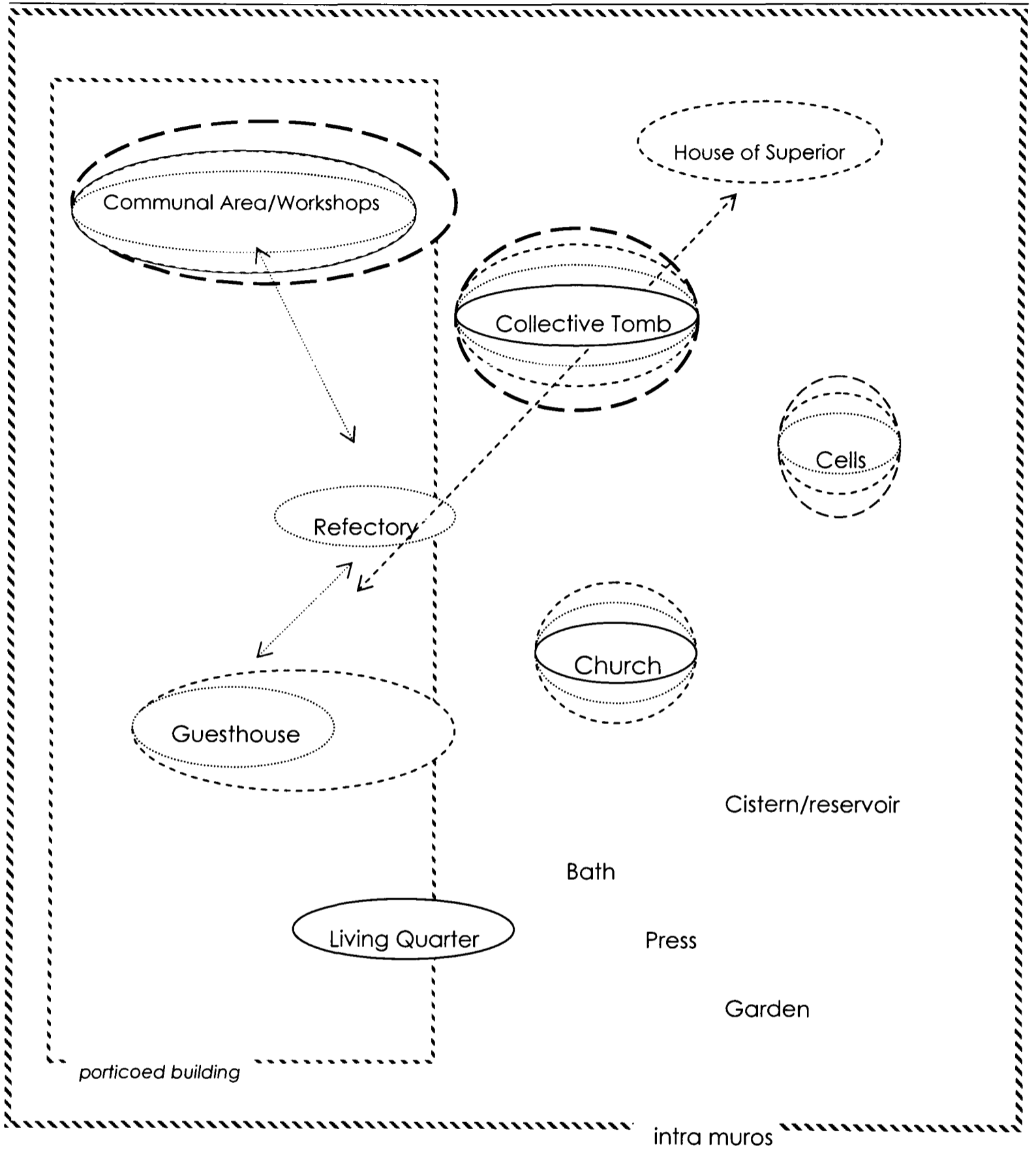
A fifth-century apophthegm from Egypt relates that somewhere in Sinai Silvanus, a monk built an enclosure, organized meals and imposed labour on his community¹⁴. The text suggests that Silvanus was the head of a cenobitic monastery. As there is so little archaeological evidence from this early period, Silvanus' *monastērion*, like many others, must have been extremely simple and poor¹⁵. Simplicity of construction and concept poses the main problem of identification to modern archaeology. The present section is another attempt to get hold of 'the monastery', namely by means of typology.

Out of seven literary sources that describe the act of monastic *foundation* of fourth to sixth-century monasteries¹⁶, five relate the erection of an enclosure, three of cells and gardens, two of workshops, a guest-house and a communal space, and one the efforts made to secure water-supplies. Remarkably, the erection of a church (*ḥayqlā*) is mentioned only once. Even without further investigation, this comparison suggests that the average early monastic foundation was indeed simple in layout, and that only the construction of the enclosure had been a priority.

¹⁴ L.101B, Silvanus.

¹⁵ Isaac of Antioch, deeply concerned about the state of the monasteries around Antioch during the fifth-century, recalls this very (and presumably already lost) ideal: '*monasterium fratrum decet esse pauperculum et vile (msarqā wa-mqallal, 'poor and scorned'), tantum necessitatibus eorum adaptatum, ne aedificatione eius avaritiae serviant'* [L.414, XXXVII, p. 332/333].

¹⁶ Fourth century, L.102; fifth, L.163 to L.414; sixth, L.146.



Lassus	—————	Festugière	- - - - -
Tchalenko	proposed here	- · - · -

Illustration I: 'North Syrian monastery': modular structure

The living and sleeping quarters (as well as the church) seem to have been prerogatives. The garden as the source of nutrition also occurs prominently. During the sixth century, many monasteries developed, were expanded, restored and endowed. But, where there is no textual documentation, what makes 'the monastery' a monastery 'on the ground'?

The question of how to deal with the lack of a model or type of a monastery relentlessly unveils the dilemma faced by the archaeologist. Recently, this dilemma has dramatically been brought to light by Martini and Steckner's (1993) *Das Gymnasium von Samos: Das frühbyzantinisches Klostergut*, in which the authors freely mixed in their interpretation the terms 'Klostergut', 'Sakralbaukomplex mit Wirtschaftstrakt', 'Domäne', 'Episkopion' and 'Episkopalkomplex'. After Walters' (1974) *Monastic Archaeology in Egypt*, Martini and Steckner's work, despite the extent of its publication, was another 'vertane Chance' (Brands 1999). Likewise stating 'a real problem of terminology', Hill (1994) also tried to solve the issue by answering the negative question 'When is a monastery *not* a monastery?', but finally also left his reader without a coherent reply. Ousterhout (1997: 301) was the last to consider this issue. In proposing his (very particular and later) Cappadocian model, Ousterhout highlighted the importance of the chapel (or 'church') and the refectory for the identification of a monastic site.

However, with our question in mind, the North Syrian Limestone Massif with its countless villages and monastic ruins may still be a fruitful terrain. The architecture of the Massif has been studied by Butler (1904, 1919b, 1929), Peña *et al.* (1975, 1980,

1982, 1983, 1987, 1990, 1999, 2000, 2003), Tate (1992) and Fourdrin (1991). Conclusions as to the typology of the buildings were drawn by Lassus (1947: 264-288), Tchalenko (1953, I, 162-173. 178-182) and Festugière (1959: 319-327) (ill. I). The assessment of the monasteries which these scholars considered led to the conclusion that (a) the church¹⁷ and (b) the collective tomb¹⁸ were the core constituents of any of these North Syrian monasteries. Disagreement arose with regard to (c) the quasi-canonical 'porticoed building', which, according to Lassus (1947: 272), sheltered the dormitories. Tchalenko (1953, I: 163-165) and Festugière (1959: 327) proposed a different interpretation of this building as a multi-functional place for catechism, workshops, common meals and the accommodation of guests¹⁹. Festugière also postulates (d) a separate complex for the superior. In addition, all three scholars acknowledge the non-compulsory character of (e) cisterns²⁰, (f) gardens, (g) presses²¹ and (h) baths²².

However, decades after Lassus, Tchalenko and Festugière, restrictions to their interpretation apply. Their selection was strongly biased by 'architectural excellence' (many of these scholars had a particular architectural interest) and

¹⁷ According to Tchalenko, the church being the architectural focus only applies to Antiochene. Lassus, Tchalenko and Fourdrin did not consider the numerous smaller, 'unspectacular' monasteries that have meticulously been recorded by Peña and only occasionally yield evidence of an oratory. The 'canonical' existence of a 'church-less' type in the surroundings of Apamea (Tchalenko, Fourdrin) underpins my later conclusions.

¹⁸ On the collective tombs, cf. sect. IV.2.2.1.3.

¹⁹ Cf. sect. IV.2.2.

²⁰ E.g. Qal'at at-Tuffāḥ [M.1100], Brayğ [Ill.1136/3], Dayr Ṭūrmanīn [M.1180], Dayr Ṭell 'Adē [Ill.1190/1], Qal'at Sim'ān [M.1226].

²¹ Gardens and presses are features less relevant to the identification of a monastery, but highly informative on the issue of productivity; they will constitute a main focus of chap. II and III.

²² Cf. sect. IV.2.2.1.3.

accessibility. Having enlarged the sample of study by further prospection – based on Peña and Fourdrin – in 2002 and 2003, I propose some preliminary amendment to illustration I.

Firstly, the evidence of a 'barrier' between the mundane and the monastery is the physical consequence of an inherent monastic idea, which has been outlined in section I.1.1. On the ground, the disposition and making of walls represents a fairly wide spectrum of solutions by which monastic communities opted for reclusion and opening towards the 'non-monastic world'²³.

Secondly, in view of the veneration of holy men, monastic tradition and legitimation, Lassus, Tchalenko and Peña stress the importance of the collective tomb. On the ground, the collective tomb is often the only distinctive feature that can be identified. For evident reasons, it rarely figures amongst the modules laid out in earliest times.

Thirdly, Lassus, Tchalenko and Festugière attach a high importance to the building of the oratory/church. This statement is relativized by the selection of sites:

²³ On the wall as a synonym for the monastery (*bēt šurāyē*, 'house of the man of the wall'), cf. L.437, 14. Purposes other than the 'strictly monastic' concept of separation are (a) '*nécessité matérielle*', (b.1) protection from the Bedouins (Doresse 1949a: 9) and (b.2) (military) fortification. The latter has raised major scholarly debate (e.g. Torp 1964; Bridel 1986). In North Syria, walls were generally simple and made in local limestone, a list of remains presented at the Dumbarton Oaks Symposium, April 2005, will be submitted for publication ('Monasteries as settlements') soon. Often different in their making, monastic walls are also attested at Dayr Apa Epiphanius [M.068], Dayr Anbā Šinūda [M.122], Mār Saba in the Judean Desert [M.684] (Festugière 1963) *et al.* The wall at Epiphanius' measures 0.7 m in cross-section (Thirard 1999: 390), the one at Mār Saba only 0.6 m (Patrich 1991: 437). Many of the Egyptian walls were built in sun-dried bricks and were unlikely to offer serious protection, nor is there evidence of towers to keep the walls under permanent control. Different in purpose, legal sources could call for monastic walls to protect the world from the invasions of 'holy men' (L.181, 133).

all of their monasteries were large, yielded 'top architecture', were centrally located (pilgrimage) and presumably endowed. The criteria presented in illustration I do not fully apply to the minor monasteries.

Fourthly, the question of accommodation has remained open to the present day. According to Tchalenko (1953: I, 166-167), Festugière, Canivet (1977: 214-215) and Peña (1983: 43-45), cenobitic accommodation in Northern Syria strongly reflects the perseverance of an ancient anchoretic and semi-cenobitic ideal, according to which even the inmates of the *coenobia* continued to dwell in individual cells²⁴. Alternatively, one may suggest arrangements such as found in the houses of the Syrian Limestone Massif where a bipartite division of workshops and stables (groundfloor) and living space (upper floor) was the most common arrangement in late antiquity (Sodini *et al.* 1980: 11-181; Tate 1992: 15-64). In Syria, dormitories of the Pachomian and post-Pachomian types have not been identified²⁵. If the argument of scattered cells/huts (or tents!) stands up to refutation on major sites, its strength must be found more surely on the minor ones. In eastern Syria, however, one exception seems to have applied: for Fiey (1965: 287), females were always bound

²⁴ Festugière (1959: 321-322) : *'En fait nous ignorons où étaient logés les moines [...] il faudra croire que les moines vivaient dispersés dans des cabanes qui n'ont pas laissé de traces'* and *'il est d'autre part difficile de se représenter les moines, dont on connaît le penchant pour l'isolement, vivant ainsi à l'étroit, dans une promiscuité de tous les instants qui ressemblerait fort à celle d'un casernement, et qui supposerait en outre un changement radical des règles monastiques vers la fin du Ve siècle'*. Traces of monastic cells/huts ('cabanes') could eventually be identified by aerial photographs, e.g. at Nikertai [M.902], Dayr Ṭūrmanīn [Ill.1180/1] and Qaṣr al-Banāt [Ill.1206/2]. Monastic cells (rock-cut, with altars, crosses, Syriac inscriptions), presumably related to the monastery of Mār Yakup [M.1420], could be discovered during my field-visit in the mountains south of Edessa on 11 September 2005.

²⁵ The issue of dormitories has not yet been satisfactorily addressed. From the absence of archaeological data in Syria and Mesopotamia and from studies at Dayr al-Balā'iza [M.174] in Egypt (Grossmann 1986; 2002: 272-276) one may assume that monastic (mass) accommodation did not necessarily imply any standard at all. Patrich (1995: 34) assumes there may also have been large dormitories in the developed Judean Desert monasteries (e.g. Hirbat ad-Dayr [M.666]).

to the *coenobium*, 'sans cellules extérieures et solitaires'.

Occasionally, the architectural remains are reduced to one building to provide the entire communal space: for dwelling (?), table, liturgy ('*oratoire*') and work. In Peña's publications the distinction between '*résidence*', '*auberge*' and '*oratoire*' is often difficult to discern, but it could reflect the multifunctional purpose of this module.

In conclusion, in various combinations, the wall, collective tomb, oratory/church, communal area, workshops and accommodation or cells were the modules of any monastery²⁶. It seems that – in amendment of former typologies – (a) in smaller establishments distinct oratories were mere surrogates; (b) it is still impossible to identify material evidence of mass accommodation and individual cells; (c) walls, though frequent in antiquity, have mostly disappeared, but doorways sometimes still mark the compounds; (d) the communal area ('*monastère*', '*résidence*', '*auberge*', '*oratoire*') is what in most cases still dominates the ground.

Finally, when is a monastery a monastery? The last word has not yet been spoken. However, based on the previous observations, one may define – for the sole purpose of identification – the 'minimal monastery' or Piamun's *monasterium* (ill. II):

- Enclosure and collective tomb (1), or
- Communal area and collective tomb (2), or
- Enclosure, communal area and collective tomb (1 and 2).

²⁶ For comparison of individual sites, cf. vol. 2, sect. C.5.3.

- In the absence of a collective tomb, **(3)** the assumption of a monastery will be upheld if supported by literary or epigraphic data or by the evidence of a former hermit/stylite living on a given site.

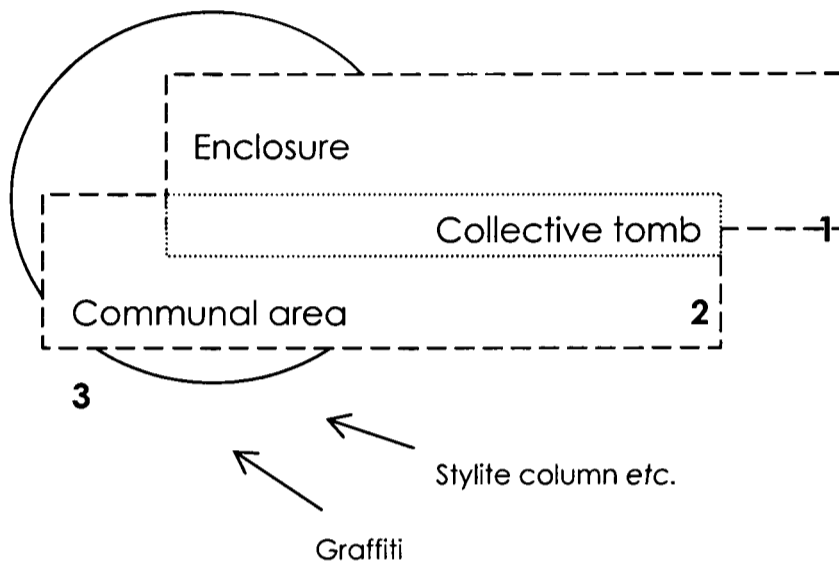


Illustration II: 'Minimal monastery': physical constitution

1.1.3 Postscript: agents *behind* the monastery

When dealing with economic production, one agent, acting *behind* the monks and monasteries, is often forgotten: the Church. The relationship between the Church and the monasteries has seen various phases, and monasteries enjoyed, in different periods, various degrees of dependency (independent, episcopal, patriarchal and imperial monasteries). The Council of Chalcedon (AD 451) and the *Justinianic Code* finally subjected the monasteries to the episcopal authorities²⁷. On the other hand, following Chalcedon, the Monophysite schism and the persecutions after the accession of Justin (AD 518) created an 'underground episcopacy' widely

²⁷ References are given in the respective sections.

based on the support of the monasteries²⁸. Thus, in the non-Chalcedonian Churches (Coptic, Syrian, Armenian), the bond between bishops and monasteries, as shown in a number of sections, was particularly tight. With this in mind, whilst aiming to highlight the role of the *monasteries*, this thesis must occasionally consider the influence of the Church and its bishops. As the holiest city of Christendom, Jerusalem was a place where this association was particularly obvious with most Churches running their own monasteries alongside²⁹. On the other hand, this 'ecclesiastical background' also reflects upon architecture. In a number of cases, again, the identification of church (with annexed buildings) versus monastery remains a matter of ambiguity - even more so as the legislation of late Antiquity, as shown above, was not concerned either with the definition of 'monastery'.

The desire to live a life of self-denial and poverty to enhance spiritual life was also a motive for the aristocratic and wealthy class to join or to establish monasteries (Paula, Melania, Severus of Antioch *et al.*), and it goes without saying that Palestine, with its places associated with the history of salvation, benefited most from aristocratic agency. Aristocratic agents also supported the monks with various resources, including existing buildings, which were simply transformed into monasteries. The distinction between (ordinary) building and monastery, common in urban monasticism, is perhaps the most delicate task for archaeology. The financial

²⁸ On the Monophysite persecution, cf. also Evans (1996: 105-112). Honigmann (1951, 1954), Vööbus (1958-1988), Frend (1972) and Torrance (1988) deal with the relationship between the Monophysite Church and the monasteries.

²⁹ On the monastic topography of late antique Jerusalem and its surroundings, cf. Wilkinson (1977: 1-43, 179), Limor (1988) and Binns (1994).

resources and patronage, private and imperial, will be considered in section **VI.3.6**.

1.2 Defining monastic production

A key term to describe production is productivity. Productivity, a concept in modern economics, can be divided in physical and economic (productivity). *Physical* productivity describes the *quantity* of output produced by one unit of production input in one unit of time, whereas *economic* productivity describes the *value* of output obtained with one unit of input. To give an example: if a monastery produced in one week an output of 2 units, whose price was 0.1 *solidi* each, the productivity of the monastery would have been 0.2 *solidi*. But, as the units of production input and units of time are often difficult to reconstruct for the ancient periods, production can only in exceptional cases be assessed that way. Further restrictions come from the lack of information on technological and market elements, such as output quantities and prices, which interact to determine economic productivity. The limitations of the 'economic science approach' are sufficiently clear.

However, is there a way to assess ancient monastic 'productivity'? Occasionally, there is evidence in the sources of output obtained during a day, a week or a year, the unit of production being a monk, a workshop or an employee of a monastery. Saint Saba, to give another example, used to deliver a quota (output) of 50 baskets (*malakia*) to his steward before the *synaxis* on early Saturday. The unit of time of production is clearly stated, namely one week minus Saturday-Sunday, which makes a total of 5 days (L.139, X). In the case of Saba productivity can be calculated as 50 units of output (baskets) per unit of production (Saba, as an

individual within the community) and 5 units of time (days): Saba's physical productivity was 10 baskets per working day! Unfortunately, however, there is no indication of the entrepreneurial spirit of the other members of Saba's congregation or even of Saba's productivity in other months, or during the entire year. Furthermore, as we lack information on the market value of Saba's late fifth-century baskets (supposing he produced for the purpose of sale), it is practically impossible to assess his economic productivity.

Accordingly, this thesis follows a different approach by describing production in a *qualitative* perspective, whereas only in a second step, where possible, output will *tentatively* be quantified ('productivity'). In this way production will be assessed with regard to the types of items produced, their availability in the region and their role for regional economies. However, as this thesis considers a very wide range of monasteries, the *individual* constituents of the economic productivity equation (i.e. the quantity of output, units of production, units of time, value) can some times be compared.

This said, the 'economic science' concept of 'productivity' cannot and will not be applied. What is more, this thesis focuses on individual determinants of the productivity equation and other factors that in many cases can be assessed: these are the accumulation of human resources (craftsmen-monks, laymen), innovation (e.g. terracing, irrigation machines), the accumulation of physical capital (e.g. through purchase, donation) and the 'business environment' (location of monasteries).

1.3 History of scholarship

Literature on monastic production is extremely thin and even non-existent for many parts of the Near East. An old classic, Seipel's *Die Wirtschaftsethischen Lehren der Kirchenväter* outlines, in scholarly perfection, the patristic view on the issue of economics in late antiquity. However, Seipel (1907: 104-105) considers the monastery only in passing and notes that

'einen Fingerzeig, wie sich die Vorstellung vom Leben der ersten Christen so ändern konnte, finden wir in dem charakteristischen Hinweis auf das Beispiel der Klöster. In diesen sah man eine Nachbildung des angeblichen Kommunismus der ältesten Zeit, und zwar hatte hier der Verzicht auf die irdischen Güter tatsächlich nicht die Armut im gewöhnlichen Sinne im Gefolge, sondern eher Reichtum, da ja die Kommunität für alle Bedürfnisse ihrer Mitglieder aufkam und dadurch von diesen jede materielle Not fernhielt'.

These lines were written well before economic issues became important in archaeology and papyrology.

The interest in the 'theology of work/*théologie du travail*' (Chenu 1955) in the writings of the Church Fathers – with particular focus on Basil of Caesarea (d. 379) and John Chrysostom (d. 407) – resumed in the forties, fifties and sixties with Tilgher (1944), Goeghegan (1945), Daloz (1959) and Vogüé (1964). Their research, too, pays only marginal attention to the monasteries. Only in 1979 the 'monastic issue' was addressed by Guillaumont, in *Le travail manuel dans le monachisme ancien: contestation et valorisation*. Guillaumont's ten-page article is a useful, but incomplete collection of literary quotations that refer, in one way or the other, to work in the ancient monasteries. Unfortunately, after Guillaumont no systematic

study has followed to the present day. This thesis aims at taking this issue further – it will be discussed in section **II.3**.

In 1953 a new standard was set by archaeology: Tchalenko's three-volume study *Villages antiques de la Syrie du Nord* (1953), assessed for the first time and by archaeological survey the economic role of late antique monasteries¹. The archaeological approach has since then been developed further by excavators in the Judean Desert and South Sinai, where Israeli scholars have now been working for more than thirty years. Their research has been meticulous in excavation and documentation, and various issues of monastic economy have been addressed (e.g. Hirschfeld 1992, 1999, 2002; Patrīch 1995; Magen 1990, 1993; Damati 2002; Dahari 2000). However, an attempt to assess production and productivity from an economic or mercantile perspective has only in few cases been made. Other excavations are currently in progress in various parts of Egypt (Dayr al-Bahīr [M.072], Dayr Anbā Šinūda [M.122], Dayr an-Naqlūn [M.308] and Kellia [M.360]) and Euphratensis (Tell Bī'a [M.1400]).

Since the seventies, the interest in monasteries has also strongly affected papyrology. Major contributions have been made by Gascou (1993), Gascou – MacCoull (1987) and Wipszycka. Wipszycka has published a series of articles on the Egyptian monasteries, notably *Les Terres de la congrégation pachômienne dans une liste de payments pour les apora* (1975); *Les Aspects économiques de la vie de*

¹ Tchalenko's model and subsequent studies in Northern Syria will be discussed elsewhere.

la communauté des Kellia (1986); *Les Rapports entre les monastères et les laures à la lumière des fouilles de Naqlun (Fayoum)* (1996); *Contribution à l' étude de l'économie de la congrégation pachômienne* (1996); *L'Organisation économique de la congrégation pachômienne: critique du témoignage de Jérôme* (1999) and *Le Fonctionnement interne des monastères et des laures en Égypte du point de vue économique: à propos d'une publication récente de textes coptes de Bawit* (2001)². Wipszycka follows an empiristic approach and her titles are self-explanatory. The fact that Wipszycka's and the articles by Derda (1995, 1997) also comment on material that has recently been excavated makes them particularly valuable for archaeology. Recently, Schmelz (2002) re-considered both the representatives ('*Amtsträger*') of the Church in late antique Egypt and of the monasteries.

In short: there is little specialized scholarship on monastic production and economy. Some scholars have focused on individual sites or regions and only occasionally the whole spectrum of evidence, textual and archaeological, has been assessed. However, standards to build upon have been set by Winlock *et al.* (1926) at the monastery of Apa Epiphanius [M.068], and been resumed by Hirschfeld, Patrîch in the Judean Desert and Godlewski (1986) at Dayr Apa Phoibammōn II [M.070]. While Winlock's research still suffers from the ('then-standard') lack of stratigraphic documentation, Godlewski had to face the difficulty of identifying what had as early as in the 1890s been cleared away.

² Namely Clackson (2000). This publication will also be referred to, on various occasions, elsewhere.

The interdisciplinary *and* trans-regional perspective, considering Egypt *and* *Oriens* and extending the period up to AD 800, is new.

1.4 Thesis content and methodology

Economic Production in the Monasteries of Egypt and Oriens is a qualitative and quantitative appraisal of monastic production as outlined in chapter 1.2 (*Defining economic productivity*). The thesis draws upon all types of available evidence, which is summarized in volume 2, section C (*Gazetteer*).

By aiming at a complete coverage of sites and micro-regions, this research wants both to highlight the 'exceptions' (in a micro-level perspective) and to assess what the monastic 'standard' – if a standard ever existed – was (in an integrative perspective).

As this thesis is the outcome of interdisciplinary and trans-regional research on this topic, there is no standardized methodological model to follow. Before entering the subject, at the outset, a wide framework of conditions (chap. II) needs to be addressed:

Firstly, the 'identity' of the monastery: despite abundant research carried out on monasticism in antiquity and the Middle Ages, the issue of *What is a monastery?* has not yet been addressed. Thus, section 1.1 (*A linguistic and archaeological working definition*) is an attempt to define the 'minimal monastery' in order to distinguish a potential monastery in the landscape from other relevant, but non-monastic sites.

Secondly, as most of the (traceable) economic activities were agricultural,

both the accumulation of physical and human resources, and the potential market possibilities need to be assessed. Sections **II.1** (*Material resources and the location of monasteries*), and **II.3** (*Fathers in controversy*) deal with these very issues and illustrate the potential of papyrological documentation, hagiographic sources, and published and unpublished archaeological remains.

Though monastic ownership of land (sect. **II.2**) has been addressed in various publications (predominantly on Egypt), it has never been quantitatively assessed. For this and similar purposes, the Near East will be divided into micro-regions (reflected in the numbering of the monasteries)¹. These are studied, where deemed necessary, both individually and comparatively.

Chapters **III** (*Production*) and **IV** (*Services*) offer an in-depth analysis of resources, production and products, presented in alphabetical order of the items produced. The emphasis of monastic production reflects the character of the ancient Mediterranean régime: baskets, bread (cereals), oil and wine. Chapters **III** and **IV** reconcile the textual and archaeological documentation, thin as it may be, of micro-regions and individual sites. Where a diachronic view fosters a better understanding, conditions are compared to those in Medieval and modern times. As different issues may relate to each other – e.g. shipping and the production of *ḥalfa*-ropes – these connections are being discussed as they help to understand the complexity of productivity at a given site. These chapters are based less on *a priori*

¹ Cf. vol. 2, sect. C.5.1.

hypotheses than on the thorough discussion of types of production at various sites. The discussion is supported by data which, presented in tabular form and in a geographical order, indicates agents, addresses, value, purpose etc.

This text provides a general appraisal of economic trends, complemented by micro-analytical observations made to understand the uniqueness of a given case. Of the approximately 1,400 monasteries studied, approximately 600 have been given individual datasheets (listing *all* factual data, illustrations and the bibliography; volume 2, section **C.5** (*Gazetteer*)), so that the complexity of certain sites can further be reconstructed by the reader through reference to the gazetteer. A set of abbreviations (e.g. M.xxx, Ill.xxx/x) serves as the reader's guide – a list of abbreviations can be found in volume 2, section **A.1**.

The question of human resources is dealt with in chapter **V**.

Chapter **VI** (*Output*) assesses output and 'productivity'. Drawing upon chapters **III** (*Production*), **IV** (*Services*), the question of surplus will be discussed and illustrated by the evidence from selected sites. However, the question remains open whether conclusions based on individual sites may be extrapolated to the wider world. Finally, market issues, as derived from the sources, are discussed together with the delicate issue of wealth, money and usury in monastic hands.

In summary, this thesis deals with the *economic interaction between monks and their living space*, the exploitation of land and other resources and the services they provide for their surrounding world. The symbolic wall that was to define the

world in *intra* and *extra muros* had never really existed, or had at an early stage been pulled down by economic ties. For late antiquity and the regions considered both these inner and outer worlds can be reconstructed to a considerable extent. Therefore, this thesis considers the papyri of Egypt, Nessana and Petra (where only a small number have been edited to date) and juxtaposes them with the chronicles and saints' *Lives*², archaeological and geological reports (where available), travelers' accounts and personal observation on the ground. Volume 2, sections **C.1-C.4** is the gazetteer of all literary sources, papyri, inscriptions and colophons considered for the analysis. The gazetteer includes translations that may be useful for the reader quickly to verify.

Even though the reconstruction of the late antique economy of the monasteries in Egypt is clearly dominated by the evidence of the texts, archaeological notes do exist for a number of regions or sites. For the monasteries of (a) Sinai and the Judean Desert I also propose, in addition to previous studies, the quantification of data in order to draw new conclusions on the economy. The interdisciplinary approach, however, proves most fruitful in well-defined regions such as the (b) Syrian Limestone Massif where monastic economy can best be studied by archaeology. The monasteries of the Massif seem to have played an important role in village economy. Thus, this thesis considers the Syrian monasteries both in their totality and in a well-defined region (e.g. Ġabal al-A'lā), based on previous surveys and my own prospection in 2002 and 2003. Home to villages and monasteries alike,

² Cf. sect. 1.5 (*Survey of the literary sources*).

the Limestone Massif was close to Antioch, the river Orontes and the Mediterranean Sea. This makes the Limestone Massif with its villages, monasteries and presses the only 'real-world' scenario in which to study monastic economy.

A variety of other disciplines may contribute to the reconstruction of the ancient economic reality: archaeology (the examination of presses, terraces, reservoirs), pottery analysis, epistolography, landscape studies (sacredness of space, visibility, pilgrimage) and aerial photography. Methodologically, as elsewhere, I consider all types of evidence available for micro-regions and individual sites. Once assessed with regard to their authenticity and value, these are incorporated into the analysis and discussion of the monastic economy.

Finally, since monasteries were interconnected with 'the world' through spiritual and economic bonds, the study of the monasteries also provides a fresh – though biased – view on their economic partners, namely the villages, cities, and their communities respectively. Similarly, the study of monasteries sheds some light on ancient technology. This and other issues are discussed in the relevant sections. On certain issues (e.g. pottery production), the monastic documentation may even open an entirely new view.

The following section will give an outline of the literary sources and set the framework within which to imagine monastic life and economy. The documentary sources (papyri, ostraka, inscriptions, colophons) are listed and translated in vol. 2, sections **C.2-C.5**. *(continue page 30)*

1.5 Annotated survey of the literary sources¹

1.5.1 Introduction

Since the beginnings of the monastic movement², the withdrawal from the mundane and the quest for a *Sonderwelt* had been reflected in written expressions of how ascetics wanted their world to be seen (internal view) and of how it actually had been (internal and external view). Before the AD 320s there is little written evidence of monastic practice, but around AD 400 literature on the subject seems firmly established (Rubenson 1995: 49). Plate I summarizes the evidence for such statement and illustrates that ascetic, monastic and hagiographic writings [L.x00-L.x59]³, including the epistolographic genre [L.x50-L.x59], head the literature on the subject concerned.

In this earliest phase (up to AD 400), literature from Palestine would be under-represented, had there not been Jerome's important *Life* of Hilarion [L.233], a valuable source which establishes the earliest link with the monastic movements in Egypt and Syria at that time (Van Cauwenbergh 1914: 1; Chitty 1966: 13-14). Jerome being a 'story-teller', the *Life* is full of socio-economic descriptive details. Literary material from Palestine has further been studied by Schiwietz (1904: II), Binns (1994) and, most recently Bitton-Ashkelony (1994) and Patrich (1995). However, Chitty's

¹ Sect. 1.5 deals with all literary sources considered for the issue of monastic production – note that sources void of such information are *not* presented here.

² On an attempt of periodization, for Syria, cf. Brock (1998: 22).

³ [L.xxx], indicating 'literary sources', is part of the scheme of abbreviations used in this thesis to identify sources. A scheme of these number, indicating genre, language, edition and translation, is given in vol. 2, sect. C.1 (*Literary sources*).

book *The Desert a City* and Cannuyer (1998) can still be considered the reference for contemporaneous material from Egypt, as is Vööbus's (1958-1988) *History of Asceticism in the Syrian Orient* for the Syriac world. Brock (1973a, 1979/1980, 1980, 1998), too, deals with historical and spiritual aspects relative to the Syrian monks.

1.5.2 Up to AD 400: the beginnings

1.5.2.1 Pre-cenobitic

In the desert of Egypt, in AD 356, Saint Antony died (1956a, 1956b). Antony and Ammonas, the fourth-century anchorite, bishop and likely successor of Antony at Pispir open the arena of writing in Egypt on asceticism and monastic affairs. Though neither Antony nor Ammonas were cenobites, Antony's *Life* [L.134], correspondance⁴, rules⁵ and aphorisms⁶ are extremely valuable for later periods due to their 'longevity', for, in style and content, these became exemplary and canonical in subsequent monastic milieux. Serapion's writings⁷, Paphos's *Life of Phif* [L.341] and Stephen's *Panegyric on Apollo* [L.342] seem to have been written against the background of a similar ascetic milieu.

At that time, asceticism also flourished in Syria and Mesopotamia, where (Pseudo-) Makarius/Symeon⁸ wrote to similar addressees. Marcianus' *Disciplina*

⁴ Antony: L.153; Ammonas: L.51/52; L.450; cf. Klejna (1938), Rubenson (1990, 1990-1991: 40-45). Antony's fellows lived in a loose confederation (M.318), accordingly Jerome on the Egyptian saint: '*misit Aegyptiacus ad diversa monasteria [...] epistulas septem*' (L.232, 88).

⁵ Antony: L.602; Ammonas: L.105.

⁶ Ammonas: L.104.

⁷ L.158; cf. Fitschen (1992).

⁸ L.119/57; L.451. On the identity of Makarius, cf. Dörries (1941) and Desprez (1980a: 34).

*perfecta*⁹ was written for ascetics near Cyrrhus, the epicentre of the later bishop Theodoret's see. Theodoret (d. 466), a highly prolific writer and main witness of life in the early periods, eulogizes the monks and hermits in his *Historia religiosa* [M.124] and *ecclesiastica* [L.164]¹⁰.

For the lack of the 'communal element' in Ephrem's writings¹¹, these are not considered here.

1.5.2.2 *The emergence of cenobitism*

The emergence of cenobitism is closely linked with the Cappadocian Fathers and, in Egypt, Pachomius. Basil (L.107/54; L.204), Gregory of Nazianzus (L.112) and Gregory of Nyssa (L.113/56) left an abundant corpus of writings, whose overwhelming influence was to spill over beyond the confines of their sees, above all to Syria and Palestine (Patrich 1995: 28; Brock 2001), whereas Egypt was the ground for an independent, but influential development. In ca. AD 320¹², Pachomius founded a hermitage near Tabennēsē [M.100] which soon was to become the

⁹ L.120; cf. Lebon - Roey (1968).

¹⁰ On the *Historia religiosa*, cf. below.

¹¹ Cf. Vööbus (1947: 5): 'Vor unseren Augen wird ein Milieu ausgebreitet, in dem nur das Alleinleben der Mönche bekannt ist. Überall herrscht allein die Anachorese. Die Mönche wohnen in den Wüsten und auf den Bergen und derjenige, der sich zufällig verirrt, kann hier kein Gespräch hören, wohl aber Weinen (De virginitate, II, 70, 20-21). Denn die Mönche wohnen hier einsam, so wie sie hier auch einsam sterben. [...] Das Mönchtum existiert isoliert in seiner Zurückgezogenheit von dem Kulturlande, von den Dörfern und Wohnsitzen, sodass noch überhaupt kein weltlicher Einfluss auf die mönchische Bewegung zu konstatieren ist (ibid., 71, 4-5). Ebenso ist hier auch keine Spur von dem Zusammenleben der Mönche und von Klöstern zu entdecken.'; also Vööbus (1958-1988: II, 62 fn. 8) and Leloir (1964).

¹² On Pachomian chronology, cf. Lorenz (1989).

centre of a series of well organized monasteries¹³. Authentic and pseudo-epigraphical, the corpus of Pachomian writings, the so-called *koinōnia*, is abundant¹⁴ – Pachomius (L.208; L.305/06/07/51), Horsiesius (L.303), Theodorus (L.310), the monks Ammon (L.150) and Čarour (L.302) – and often difficult to identify (Dunn 2000: 25). Pachomius' regimented system of 'labour camps, houses reminiscent of army barracks and spiritual values subordinated to restless agricultural and craft production'¹⁵ still provides one of the hypotheses to verify.

1.5.3 AD 400: the turning point

AD 400, the 'turning point', marks a considerable change in the number and quality of the source material – still there is little evidence from the papyri and archaeology. Eulogies of the pre-cenobitic and the early cenobitic ideal characterize the *Historia monachorum in Ægypto* [L.102; L.209], Palladius' (d. ca. 431) *Historia Lausiaca* [L.123; L.421] and the more retrospective *Apophthegmata Patrum* [L.101; L.201; L.301]¹⁶, centred on Skēthis in Egypt, later Wādī n-Naṭrūn. A lack of autopsy characterizes the *Church Histories* by Sokrates [L.162] and Sozomen [L.163] (Winkelman 1990: 208-212), and, according to Dunn (2000: 29), Palladius had never been further south than to Panopolis (Šmin).

¹³ On a concise history of this development, cf. Rousseau (1985) and Krause (1998a: 156-170). 'Whereas Egypt's forte was cenobitic monasticism, in Syria it was the solitary virtuoso who [still] dominated the scene' (Brock 1973a: 13).

¹⁴ L.103/31/50; L.208; L.302/03/05/06/07/10/35/51.

¹⁵ Jones (1964: II, 929) – opposed by Rousseau (1985: 77) – and, similar, Cannuyer (1998: 89): 'organisation 'juridique', hiérarchisée, centralisée de celui-ci par rapport à la souplesse du lien charismatique'.

¹⁶ Cf. Evelyn-White - Hauser (1926-1933: II), Regnault (1987). Guy (1964: 129-130): 'Une source par excellence, difficile à utiliser'.

Evagrius' (d. 399) life was another link between early monastic traditions. Educated under Basil and Gregory of Nazianzus, Evagrius had been received in Jerusalem by the communities of Rufinus and Melania on the Mount of Olives, retired to the deserts of Egypt, lived for two years in Nitria [M.362] and then moved on to (and died in) the early *laura* of Kellia [M.360]. Evagrius' *Practicus* [L.110] – a treatise that later became influential in the Syrian and the Armenian milieux – and the *Sententiae ad monachos* [L.111] can still be regarded as articulations of the timeless wisdom of the spiritual monastic tradition of that time¹⁷. However, it is still an open question whether monks (*monachi*) or others were the addressees of the 137 *Sententiae* (Driscoll 1991: 39).

John Chrysostom (d. 407), monk, priest and the leader of the Antiochene School before moving as patriarch to Constantinople, directed his preaching to the instruction and moral reformation of the Christian society of his day. Chrysostom's concern about issues of work¹⁸ and the moral discipline of the monks in Antiochene resulted in prolific writings, some of which also relate to the issue of production and 'productivity' (L.114/15). Similar concerns were expressed by Jerome (d. 420) when writing letters from his Bethlehem retreat (L.250), as well as the Edessene bishop Rabbūlā (d. 435), embraced by the 'Brothers of the Covenant' (*bnay qyāmā*), clergy and monks as their 'model of spiritual authority' (Drijvers 1999: 140)¹⁹ – we will come back to Rabbūlā and his disciplinary 'corpus' on various occasions.

¹⁷ Cf. Hausherr (1931), Quecke (1989).

¹⁸ Cf. below, sect. II.3.

¹⁹ L.423/24; (Pseudo-) Rabbūlā: L.425.

'Potted rules of epideictic'²⁰, by AD 400 the hagiographic genre [L.x30-L.x49] had also taken shape on the Palestinian and Syrian soils: Jerome (L.231), Gerontius (L.230) and others drew contemporary pictures of urban monasticism in the Holy Land. Syriac hagiography, too, was booming: *Lives* were written of Mār Samuel of Ešfīn (L.437)²¹, Jacob of Ṣalāḥ (L.432)²², Alexander (L.431)²³, the 'missionary of the Arabs' on the desert fringe, Mār Symeon (L.438)²⁴ of Qarṭamīn [M.1440] in Mesopotamia and Mār Bassus (L.434), the head of a major monastery in Apamene. The factual quality of these *Lives* consists in their focus on everyday life, on topographical, social and economic conditions, on means of subsistence and on the actual emergence of the 'holy man'.

1.5.4 AD 450-550: the heyday

Literary – often hagiographic – production saw a heyday during the following century. To date, Theodoret's *Historia religiosa* [L.124], a selection of 30 biographies, is still the primary source for the fourth and fifth-century ascetic and monastic movement around Antioch, Apamea, Chalcis, and the shores of the Euphrates²⁵;

²⁰ Mango (1980: 248): 'These potted rules (of epideictic or hagiography) [...] could be applied to any monastic saint concerning whom nothing definite was known save for his name, place of origin and date of his liturgical commemoration' and 'pieces which fit the encomiastic scheme rather too well may become suspect in respect of historical veracity' (Watt 1999: 159). More acknowledging, Cox (1983: 134) states 'the creative use of history' in hagiography. The value of the genre for the reconstruction of social and economic realities, however, has convincingly been shown (Barns 1964; Magoulias 1971; Teja 1974; Patlagean 1977).

²¹ Cf. Palmer (1990: 20-32).

²² Cf. Dolabani (1973: 9-35).

²³ Cf. Gattier (1995).

²⁴ Cf. Palmer (1990: 13-18).

²⁵ Cf. Canivet (1977), Peña (1980). For a map of the monasteries mentioned by Theodoret, cf. Jedin (1970: 12 B. 17*-18*).

biography no. 26 constitutes one of the three *Lives* of Symeon the Stylite (the Elder, d. 459)²⁶, famous for his pillar at Qal'at Sim'ān [M.1126]. A Syriac text of this period relates the *Life* of Mār Benjamin (L.435) near Dara, and the *Life* of Ḥannīnā [L.447], by Jacob of Sarūḡ (d. 521), takes the reader down to the Euphrates, where John Bār Aphthonia (L.433)²⁷ would found the monastery of Qennešrē [M.1406]²⁸. Constantina/Ṭellā (mod. Viranşehir) was the see of John (d. 538) whose *Life* [L.446] and *Rules* [L.418]²⁹ mentions further monastic sites as far west as to the Mediterranean Sea.

Bitton-Ashkelony's (2004) publication on Gaza is the first also to consider the monastic communities which flourished around Gaza and which developed a physiognomy of their own, after theological struggles and barbarian invasions had stormed the Egyptian monasteries from the close of the fourth century. These events led their monks to wander into the Gaza region, provoking a gradual shift of gravity of monastic spirituality from Egypt to Palestine. Witnesses to this climate are Mark the Deacon (L.145) to whom we owe the illustrative account on Porphyry's life (L.145). Porphyry (d. ca. 420) had lived for five years in Skēthis and for a short period on the shores of the river Jordan. Equally, the Syriac *Life* of Peter the Iberian [L.448] provides valuable material for the history of Christian *Oriens* beyond Gaza, as Peter (d. 491)

²⁶ The other *Lives*, one Greek one Syriac, are L.133 and L.449.

²⁷ Cf. Watt (1999).

²⁸ The localisation of this influential monastery is still disputed. Nau (1906: 76) suggest a site near Europus (mod. Ğarāblus) while others (Blanco 1998: 653; Molina Gómez 1998: 396-397) propose a location some 18 km south. I visited the latter location on 27 September 2002 – there is no compelling reason to assume that that site was Qennešrē.

²⁹ Cf. below.

was personally acquainted with a number of prominent personalities of his day³⁰. The last witness of the 'Skēthis-model' transferred to Gaza was Isaias (d. 491), the most influential monk of Gaza during the fifth century. In his *Asceticon* [L.304] Isaias set new standards for monastic life on the Palestinian soil. The *Asceticon* was soon translated into Syriac³¹ and Coptic³² and later commented on in Syriac by Dadīšō' (L.415). The *Asceticon* and other writings (L.304; L.416; L.605) explicitly refer to (Isaias' model of) monks, labour and 'productivity'. Monasticism near Gaza came to an 'apogee' during the sixth century, and is well reflected in Barsanuphius' (d. 540) collection of 800 *Questions and Replies* [L.106]. One generation later, the archimandrite or abbot Dorotheus (d. 560/580) wrote a series of homilies for the monks around Gaza, many of which were compiled into corpora on spiritual training: Dorotheus' *Doctrines* [L.109] and *Instructions* [L.108] emphasize the attitude of the heart in the approach to God and humility as the epitome of all virtues. Dorotheus takes up some of Isaias' ideas and regulates monastic attitudes towards the mundane: it goes without saying that Dorotheus objects to the involvement in economic affairs³³.

In Egypt, the heyday of cenobitism and related writing (including the papyri)³⁴ came with Shenoute from AD 431 to 466³⁵, the reforming abbot of the so-called 'White Monastery' or here, in this thesis, referred to as Dayr Anbā Šinūda

³⁰ Cf. Kofsky (1997).

³¹ Draguet (1968).

³² Guillaumont (1956). Note the then-inverse direction of the spread of monastic ideas.

³³ Cf. below, sect. II.3.2.

³⁴ Cf. vol. 2, sect. C.2; most papyri considered date from the fifth to eighth centuries.

³⁵ On Shenoute and his literary corpus, cf. Frandsen (1981), Emmel (2004).

[M.122]. Highly gifted in organizational skills, one of Shenoute's emphases was his practical concern about monasticism and issues that related to economic life. As the vast Coptic literary corpus (L.308/09) is currently under edition (direction Prof. Emmel, Westfälische Wilhelms-Universität Münster), there may still be major discoveries. Besa (d. 474)³⁶, Shenoute's successor, preserved the memory and legacy of his master for eternity (L.337/38; L.630).

During the following period, some Coptic hagiographers recalled the legacy of the earliest holy men. These were the virtues of John Kolobos (L.343)³⁷ and Daniel (d. ca. 576)³⁸, whose *Life* [L.333] and *Narrations* again spread into the Coptic, Syriac and Ethiopic³⁹ milieux. The *Life* of Longinus [M.340], the 'Skēthis-style' abbot of the *laura* of Ennaton, takes this model down from the Inner Desert to the Mediterranean Sea.

In central Palestine, this heyday is marked by the *Lives* written by Cyril⁴⁰ which unfold an entire monastic cosmos in a period of trouble. These *Lives*, of Euthymius (L.137)⁴¹, Saba (L.139)⁴², Cyriacus (L.136) and John (L.138)⁴³, of Theognius, Theodosius and Abraham prove extremely fruitful in connection with archaeological research on the terrain [M.660-].

³⁶ Cf. Kuhn (1954-1955).

³⁷ Cf. Regnault (1984). Kolobos is known from the *Apophtegmata Patrum* (L.101A, I,13; L.101B, Kolobos).

³⁸ Cf. Van Cauwenbergh (1914: 10-29).

³⁹ Cf. Goldschmidt (1897).

⁴⁰ Cf. Flusin (1983: 11-86).

⁴¹ Cf. Hirschfeld (1993).

⁴² Cf. Patrich (1995).

⁴³ Cf. Patrich (1993a).

1.5.5 AD 550-800

After the mid-sixth century, only few eye-witnesses testify to their experience of monastic life and the socio-economic conditions in Egypt and Palestine. One of these contemporaries was John the Almsgiver (d. ca. 619)⁴⁴, the patriarch of Alexandria from AD 606 to 616 whose sobriquet reflects his munificent liberality towards the needy and the poor. John's *Life* (L.144) (with a translation into Syriac)⁴⁵, is an impressive account of the trans-regional and trans-Mediterranean activity of the Alexandrian Church, be it for relief operation – after the sack of Jerusalem by the Sasanians in AD 614 – or for business transactions as far as to the British Isles.

Pisentius (d. 632), the bishop of Koptos (mod. Qift), is among the most outstanding personalities of the Egyptian Monophysite ('Coptic') Church of that period. In his *Letters* (L.352)⁴⁶ the bishop-monk discusses the practical problems of a troublesome period and provides insight into all sorts of affairs of private and public life. A valuable particularity of his correspondence is the light it casts – in addition to the papyri and archaeology of the region – on the ways in which the Theban monastery of Phoibammon (II) [M.070] used to interact with its surrounding world. Another representative of the Coptic milieu relevant to this thesis was Samuel (d. ca. 695)⁴⁷, the last well-known monk trained in Skēthis who later moved to the Fayyūm [L.216] and to another Libyan Desert depression referred to in the texts as 'the

⁴⁴ Cf. Gelzer (1889).

⁴⁵ Bedjan (1890-1897: IV, 303-395).

⁴⁶ Cf. Abdel Sayed (1984).

⁴⁷ Cf. Van Cauwenbergh (1914: 39-50), Atiya (1991: VI, 2092-2093 s.v. 'Samū'īl of Qalamūn, Saint').

reeds', *Qalamūn*. *Samuel's Life* (L.339)⁴⁸, supported by archaeological evidence at Dayr Anbā Samū'īl [M.302], once again illustrates the enormous influence of Skēthis throughout these times.

The Arabic and Ethiopic sources that deal with this period are altogether rather historical: John of Nikiu (d. ca. 690)⁴⁹ was bishop in the Delta and as such *mudabbir* (Arabic, 'administrator') of the monasteries throughout the Egyptian land. His *Chronicon* [L.560] preserves the post-Conquest conditions in Egypt up to the late seventh century. Despite the author's educational and social background, the source contributes little to the understanding of the conditions of the monks and the monasteries. On the other hand, the tenth-century *History of the Patriarchs* (L.666) by Severus ibn al-Muqaffa', the bishop of al-Ašmūnayn, is extremely informative on the events after AD 500 in the Delta, Aegyptus and Arcadia Heptanomis. Eutychius' (Sa'īd b. Baṭrīq, d. 940) *Universal History* [L.662] adds some genuine information on the seventh century and on taxation under Islam. Eutychius was the orthodox patriarch of Alexandria from AD 933 to 940.

The lives and writings by John Moschus (d. 610)⁵⁰ and John Climacus constitute a link between Egypt, Mount Sinai and Palestine. Moschus was a monk in the Judean Desert, and a close friend of Sophronius (d. 638), the later patriarch of Jerusalem. He was the ancient 'monastic globetrotter' *par excellence*⁵¹. Moschus'

⁴⁸ For a complete Ethiopic version of the Coptic text, cf. Esteves Pereira (1894).

⁴⁹ Cf. Carile (1981).

⁵⁰ Cf. Chadwick (1974).

⁵¹ A delightful book on a modern travel with John Moschus 'in the pocket' is Dalrymple (1997).

*Paterikon*⁵², a collection of *apophthegms* and miraculous stories, and the *Spiritual Meadow* (L.118)⁵³ provide a trans-regional, but often tale-like insight into daily monastic life⁵⁴. During the Middle Ages Moschus' *Spiritual Meadow* became a true classic and was translated in various idioms⁵⁵. John Climacus' (d. ca. 649) reputation is based on another foundation, namely his long-lasting influence on Christian spirituality. Addressed to anchorites and cenobites living on the eastern shores of the Red Sea, Climacus' *Ladder of Divine Ascent* (L.116)⁵⁶ deals with the means by which the highest degree of religious perfection might be attained. Steps 4 ('on obedience'), 13 ('on despondency'), 14 ('on gluttony'), 20 ('on alertness'), 26 ('on discernment') and 27 ('on stillness') provide valuable information on virtues and the desirable daily routine. These include aspects of the economy.

In the present context the accounts of historians such as Evagrius (L.160), Procopius (L.161), al-Balāduṛī (L.661) and Theophanes (L.165) are only of limited significance. Next to Severus ibn al-Muqaffa' in Egypt the tenth-century *Universal History* (L.660) of Agapius, the bishop of al-Manbiḡ in Syria, provides some relevant information on the seventh and eighth centuries.

⁵² Cotelier (1677: 338-712).

⁵³ Cf. Pattenden (1975).

⁵⁴ Cf. Pasini (1985).

⁵⁵ On Arabic, cf. Guaramia (1965).

⁵⁶ Cf. Völker (1968). On translations into Syriac, cf. Teule (1995).

1.5.6 Focus I: canonical literature

Plate I illustrates the quantitative preponderance of written sources in the Syriac tongue⁵⁷. Whatever the effect of the events of the seventh century on the monasteries in Syria and Mesopotamia⁵⁸, Syriac literary production continued on a considerable scale. During the eighth century, historiography reached its apogee⁵⁹. More than a dozen of the Syriac documents classified as canonical in volume 2, section C.1 deal with the monastic routine in the Syrian tradition, set the standards of how to realize the 'angelic life'⁶⁰ and deal with the transgressions of established rules. Needless to say, these *Canons* [L.401-L.413] constitute some of the most valuable documents for the reconstruction of monastic life *intra* and *extra muros* and provide the reader with an internal view⁶¹.

A whole corpus of pseudo-Ephremic – sometimes canonical – literature still awaits critical investigation before ascertaining their authenticity, including two important *memrē*⁶² and a set of *Canons* [L.411] 'for novices' (Vööbus 1955: 55; 1970: 361). The other authority whose name adorns many pseudepigrapha was Rabbūlā (L.426)⁶³, the influential Edessene bishop from AD 411/2 to 435.

⁵⁷ On the (Greek) Palestinian canonical material, issued by Saba, cf. Patrīch (1995: 255-275).

⁵⁸ Cf. Haldon (1997: 295).

⁵⁹ Cf. Brock (1976, 1979/1980, 1987).

⁶⁰ On the concept of 'angelic life' (ἀγγελικὸς βίος), cf. Frank (1964).

⁶¹ Other *Rules* attested in Syria: Bassus (L.124, XXVI, 8), Eusebius (*ibid.*, IV, 5), Marcianus (*ibid.*, III, 3-4), Publius (*ibid.*, V, 3-4), Theodosius (*ibid.*, X, 3), Philoxenus (cf. below, fn. 70); in Palestine: Melania (L.230, XXIII), Isaias (L.605), Saba (Patrīch 1995: 255-275); in Egypt: Antony (L.602; Breydy 1996), Pachomius (Rousseau 1985: 48-53, 87-90, 100-101), Horsiesius (Lefort 1956: 82-99), Shenoute, *On the Life of the Monks* (Leipoldt 1913: 41-173; Amélineau 1888: 254-270, 248-277), MS BM Add. 17.216 fol. 43r, pseudo-Shenoutian, for nuns (Fiey 1965: 284).

⁶² *D-'al ya'nūtā* ('on cupidity') and *d-maksanūtā* ('rebuke'), edited by Lamy (1882: IV).

⁶³ Cf. above, p. 34.

Canonical writing was indeed at the very heart of Rabbūlā's work and, still before him, of Marūtā'⁶⁴, the early fifth-century bishop of Martyropolis/Maipherqaṭ (mod. Silvan). Both Marūtā's and Rabbūlā's *Canons* [L.420; L.423/24] – 'for the monks', 'for the clergy and the *qyāmā*'⁶⁵ – constitute rather 'complete' sets of rules for the early Syrian semi-anchoretic and cenobitic communities. These corpora are particularly concerned with the interaction between the monks and the mundane, which includes economic issues. Vööbus (1970: 315) considers Rabbūlā a reactionary and his engagement a '*rigoristische Reaktion gegen den fortschreitenden Prozess des Zönotentums im Interesse der archaischen Überlieferung des Mönchtums*'. The monasteries of the late fifth century are the earliest that can be grasped in archaeological terms. One may note that Chrysostom, Marūtā, and Rabbūlā and others were bishops (and monks) who expressed their concerns about the monasteries within their episcopal sees. Some kind of episcopal supervision had first been enacted in AD 398 (L.282, IX, 40, 16; L.280, I, 4, 6), but was made an obligation only by the Council of Chalcedon in AD 451 (*Canons* 3-4; Ueding 1953: 609. 638).

In late antiquity holy men exercised an authority that was spiritual and, in principal, non-institutional⁶⁶. Thus, it is little unsurprising to find *Canons* [L.427], similar to those of Rabbūlā, attributed to Symeon the Elder (d. 459), the proto-hero of

⁶⁴ Cf. Vööbus (1960: 115-118).

⁶⁵ Cf. Vööbus (1958-1988: III, 68-77).

⁶⁶ Cf. Brown (1971, 1992, 2002), Howard-Johnston – Heyward (1999).

stylitism in Antiochene. The model of monastic life addressed by these *Canons*, semi-anchoretic or cenobitic, is not very clear (Vööbus 1958-1988: II, 222).

After AD 500, canonical writing continued in Mesopotamia, Syria and Osrhoene: *Canons* (L.407), presumably of a Syrian origin, were composed for a female congregation (Vööbus 1970: 359). Two sets of Syriac *Canons* [L.403], sixth and twelfth centuries, have been attributed to the Persian monastery of Mār Mattay, one of the most outstanding monasteries in the Syrian west (Vööbus 1958-1988: III, 172-175; 1970: 329-332). And, finally, mention should be made of the *Canons* [L.418]⁶⁷ by John (Bar Qūrsōs), the bishop of Ṭellā (519-538), another church official concerned about the discipline of the monks in his see.

An anonymous collection of seventh and eighth century *Canons* (L.404)⁶⁸, others by Dionysius I (d. 845; L.410) and Ignatius II (d. 883; L. 413), both patriarchs of Antioch, reflect the longevity of episcopal concern in Syria until deep into the period of 'Abbāsīd rule.

1.5.7 AD 485-800: Syria and Mesopotamia

During this period Syria and Mesopotamia never ceased to be highly prolific soils for Christian writing. Section 1.5.6 (*Canonical literature*) having considered the uniqueness of Syriac literature as to the rendering of the episcopal disciplinary concern (Marūtā, Rabbūlā, John, Dionysius I, Ignatius II *et al.*) others, metropolitan bishops and patriarchs, need to be mentioned for their special commitment to the

⁶⁷ Cf. Vööbus (1958-1988: III, 175-181).

⁶⁸ Cf. Vööbus (1958-1988: III, 279-284).

monastic cause. Philoxenus, the bishop of Hierapolis/Mabbūg (mod. al-Manbiğ) from 485 to 523, is sufficiently known as an influential and prolific author of the Syrian Church⁶⁹. Less known, however, is his interest and dedication to ascetic issues and the monasteries. Philoxenus expressed his thoughts both in the canonical⁷⁰ and in the epistolographic form (L.452): a key concept in Philoxenus' writings is the dichotomy of a *corporal* and a *mental* stage. Forcedly this concept then deals with practical issues such as the activities to be undertaken and the schedule of hours for prayer and work⁷¹. The other prolific writer to mention is Severus (d. 538), the patriarch and bishop of Antioch. The *Clavis Patrum Graecorum* (CPG 7070) credits Severus with more than 4,000 letters written between AD 512 and 518 (Geerard 1974: III, 333), before the persecution of the Monophysite clergy really began. In homilies (L.426) and in letters (L.453), the patriarch and monk addresses monastic life and demands from his brothers, *ex cathedra*, the restoration of ancient monastic ideals (Viller 1932-1995: XIV (1989), 748-51 s.v. 'Sévère d'Antioche'; Nin 1994).

What Theodoret (d.466) was for the Syrian milieu, John of Ephesus (d. 586) was for the Mesopotamian: John of Ephesus can be regarded as *the* authority on saints' Lives after the Monophysite schism in the surroundings of Amida (mod. Diyarbakır). Accurate and full of details, his collection of fifty-eight biographies (L.419) deals with

⁶⁹ Cf. De Halleux (1963).

⁷⁰ Much of Philoxenus' material is still unpublished. The '*Klosterordnung*', BM 761, 8^o; 770, 5^o b; 815, 6^o and *Rules*, BM 837, 8^o (Baumstark 1922: 142; Wright 1870) are worth mentioning here.

⁷¹ On the authenticity of Philoxenus' *Letters*, cf. Harb (1969). Graffin (1986) summarizes various aspects in Philoxenus' concept of monastic life. Cf. also sect. V.2.2.1.

all sorts of social interaction between the monks and the local communities⁷². Ashbrook-Harvey (1990: 52) recognizes in John's *History of the Eastern Saints* 'a coherent framework in which social responsibilities were shared and performed in an organized fashion' and in which monastic groups stood in a canonically defined relationship to one another and to the lay community. This is the setting in which the ascetic still 'inhabited a realm outside the temporal world but also had become settled in the midst of its society'. *Lives* no. 1 to 24 deal with the monks in Mesopotamia and provide important information on the economic situation in Amidene. *Lives* no. 35, 47 and 58 deal with communities that were cenobitic in the literal sense.

In Ṭūr 'Abdīn, a few miles from Nisibis and the Persian frontier⁷³, a brilliant enterprise of monastic foundation was carried out during the sixth century AD: the *Life* (L.430) of Mār Aḥā (d. ca. 560)⁷⁴ not only illustrates the contemporaneous process of foundation of a cenobitic community, but also the large-scale appropriation and exploitation of agricultural land. Symeon's (d. 734) *Life* (L.442), whose sobriquet was – as will be shown – 'of the Olives' ('Olivarius')⁷⁵, may well be regarded as the completion of this process of monks and abbots familiarizing themselves on a grand scale with agricultural and economic affairs. Despite Palmer

⁷² Cf. Ginkel (1995).

⁷³ On the shifting frontier and the impact on the Ṭūr 'Abdīn monasteries, cf. Ostrogorski (1963: 60), Palmer (1990: 4-8), Cameron (1994: 113. 120. 167).

⁷⁴ Vol. 2, sect. C.5.2.9 lists two monasteries of Mār Aḥā. The monastery referred to in the *Life* [M.1442] may actually be the monastery near Nisibis, at Çatalçam.

⁷⁵ L.436, 25: 'Mār Symeon of the Olives, son of a certain distinguished notable named Mundar, of the village of Ḥabsenas; being monk in this monastery for 32 years, in AG 1011 (AD 699/700) he became bishop of Ḥarrān.' Symeon's monastery was of Mār Gabriel [M.1440], near Qarṭamīn.

(1990: 14) partly discrediting the account for the 'old and new, tradition and phantasy, historical records and blatant plagiarism', Symeon's *Life* does reflect economic issues and the leading role of the monasteries in dealing with the Islamic authorities.

Theodotus' (d. 698) *Life* (L.443, unpublished)⁷⁶, written by an 'insufficiently literate' author, is the 'faithful transcription of the narrative of an uneducated man' (Palmer 1987: 203). For the present purpose, this 'faithfulness' with regard to local events and socio-economic conditions is its real strength. Theodotus was a true globetrotter: trained in the monastery of John Bār Aphtonia at Qennešrē [M.1406] he visited Egypt, returned to Mesopotamia (Zuqnīn), spent some years in the region of Claudia and died in the monastery of Mār Abay, above Qeleṭ. Theodotus' concern was not to build houses, but to relieve the needy and the poor. His *Life* casts strong light on an 'archaic' approach to monastic life under the early caliphate.

The last biography to be listed is that of Stephen (d. 794), the 'Sabaite wonder-worker', whose *Life* (L.631) stands at the outset of a period of prolific manuscript production in Arabic ('*una febbrile attività culturale e di traduzione*')⁷⁷ centred around Mār Saba monastery [M.684] in Palestine. The information on the daily life at Mār Saba, however, is surprising: the monks were still weaving their

⁷⁶ Cf. Palmer (1985, 1987, 1990: 88-91). An edition of MS Dam. 12/18, fol. 58a-69b has been announced; on the Garshuni version, cf. Palmer (1990/1991). When quoting Theodotus in this thesis, reference is made to partial translations in Palmer (1990).

⁷⁷ Pirone (1991: 10). On literature composed at that time in Arabic, cf. Griffith (1988); in Greek, Blake (1965), Mango (1991), Sahas (1994). Cf. also sect. IV.1.

baskets. Work, just as in the early monastic periods and under Saba (d. 532), was the means to keep their minds under control.

1.5.8 Focus II: chronicle writing

Once again, for the abundance of written documentation, our attention returns to the Syriac tongue. The genre in question is seventh, eighth and twelfth to thirteenth-century chronicle writing, for which there was a very distinct tradition in Syria and Mesopotamia (Brock 1979/1980, Hoyland 1991, Palmer *et al.* 1993). In contrast to the historiographic genre, these *Chronicles* (L.460-L.466, L.468/69, L.471/72), written, stored and copied in various monasteries (e.g. Zuqnān, near Amida)⁷⁸ *'durent donc se contenter de la recherche des faits, l'étude des événements'* and *'pas comme attitude globale d'une société par rapport à l'ensemble des faits vécus'* (Fiey 1984/1985: 264). These 'deficiencies' however, in view of the problems considered at present, again prove to be their very quality: the micro-level (rather than the global) perspective provides a very genuine insight into daily life, the socio-economic conditions and the trials and tribulations of many local and monastic communities. The chronicles by Michael the Syrian (d. 1199; L.472), Gregory Bar Hebraeus (d. 1286; L.486) and others (e.g. L.462) also originate in and around Mesopotamia. These draw on earlier sources and follow similar genre-

⁷⁸ E.g. the *Chronicon* attributed to Pseudo-Dionysius ('Zuqnān Chronicle'; L.465), a narrative of the events until AD 774/775, is the most valuable of these accounts on the events around Edessa, Amida and other parts of Mesopotamia. On the chronicle, its author and origin, cf. Witakowski (1987), Ishaq (1992-1993).

specific schemes⁷⁹. Though they offer a wider geographical perspective, their overall contribution to this thesis is low.

1.5.9 Focus III: on law, pilgrimage and *ad-diyārāt* ('monasteries')

Legal documents, mostly issued in Constantinople, play a relevant if subordinate role. Knecht (1905: 122) rightly notes that '*volkswirtschaftliche und politische Gründe, nicht Kirchenfeindlichkeit, drängten die Kaiser zur Beschränkung der kirchlichen [Vermögens]freiheiten*' as reflected in the Theodosian (L.282) and Justinianic Codes (L.181, L.280/81)⁸⁰. Much of this legislation relates to issues of property⁸¹, but the implementation of the law in the *chora* of the Near East remains largely unclear. The same applies to the imperial Church and its decrees. Many of these were issued at the Councils of Chalcedon, AD 451 and 797 (L.180).

A strong contribution is being made by the skill of observation (often mingled with imagination) reflected in various pilgrim accounts. These westerners, Egeria (L.293), the anonymous pilgrim of Piacenza (L.291) and others (L.190, L.290/92 *etc.*) travelled far and wide⁸². But pilgrims also flocked into Egypt, Palestine and into Syria from *Oriens*, Ethiopia, Persia and Armenia⁸³.

⁷⁹ Cf. Conrad (1991), Olster (1993).

⁸⁰ Cf. Pfannmüller (1902), Alivisatos (1913). On imperial legislation on monasteries and monastic life, fourth to eighth centuries, Frazee (1982), Kaplan (1976), Barone Adesi (1990), Patrich (1995: 32-35). The so-called *Syro-Roman Lawbook* has been edited by Vööbus (1982) and Selb – Kaufhold (2002).

⁸¹ Cf. below, sect. II.2.1.1.

⁸² Cf. Wilkinson (1977), Hunt (1982), Solzbacher (1989).

⁸³ E.g. Baršaumā (Honigmann 1954: 16-18) and Rabban Cyprian (L.428: VI, 2); cf. Fiey (1969) and sect. IV.2.3.

Accounts that originate from *Wanderlust* and curiosity (rather than pilgrim's motivation) can be found in Arabic as from the ninth and tenth to the fifteenth century⁸⁴. These are the tenth-century *Book of Strangers* (L.690) in which the still-functioning monasteries of Syria are perceived as '*devotional sites and touristic pleasure-grounds, homes to celibates and venues of promiscuity alike*' (Crone 2000: 151). This genre of the *ġurabā'* ('strangers') is closely related to the genre of *ad-diyārāt* ('monasteries')⁸⁵. Though the focus of the *ad-diyārāt*-narrative is rather 'unmonastic' – namely the satisfaction of curiosity –, these accounts, most unfortunately lost, reveal many details on the layout and the actual life in these monasteries. In Egypt, credit must be given to (Pseudo-) Abū Ṣāliḥ (L.601), and al-Maqrīzī (d. 1442; L.664), a Muslim polymath devoted, among others, to Coptic historiography.

⁸⁴ L.690, 1. 14. 51. 60. On the relationship between these motives, cf. sect. IV.2 (introduction).

⁸⁵ E.g. L.606; cf. Sachau (1919). For an introduction to the genre, Troupeau (1975).

CONDITIONS OF PRODUCTION

Chapter II

Century	Egypt	Egypt- Palestine	Palestine	Palestine - Syria	Syria	Alia
late III – early IV						L.142 <i>Life</i> Macrina
IV	L.104/05/51/52; L.450 Ammonas L.103/31/50; L.208; L.303/05/06/07/10/35/51 <i>Koinonia Pachomiana</i> L.134/53 (<i>Life</i>); L.602 Antony L.158 Serapion L.302 Čarour L.341 <i>Life</i> Phif L.342 <i>Panegyric</i> Apollo L.603 Athanasius		L.233 <i>Life</i> Hilarion		L.119/57; L.451 Ps.-Makarius L.120 Marcian L.164 Theodoret L.401 <i>Canons</i>	L.107/54; L.204 Basil L.112 G. Of Nazianzus L.113/56 G. of Nyssa
late IV – early V	L.102; L.209 <i>Hist. mon. in</i> <i>Ægypto</i> L.123; L.421 Palladius (- 'Enanīšō') L.163 Sozomen L.205 Sulpicius	L.110/11 Evagrius Pont. L.145 <i>Life</i> Porphyrius L.293 Egeria	L.122 Nilus L.230 <i>Life</i> Melania L.231 <i>Epitaphium</i> Paula	L.250 Jerome	L.114/5 J. Chrysostomus L.423/24 Rabbūlā L.431 <i>Life</i> Alexander L.432 <i>Life</i> Jacob L.434 <i>Life</i> Mar Bassus L.437 <i>Life</i> Mar Samuel L.438 <i>Life</i> Mar Symeon	L.143 <i>Life</i> Tychon L.202/03 Augustin L.206/07 Cassian
V	L.101; L.201; L.301 <i>Apophthegmata Patrum</i> L.308/09 Shenuute L.337/38; L.630 <i>Life</i> Shenuute L.340 <i>Life</i> Longinus L.343 <i>Life</i> J. Kolobos L.350 Besa	L.304; L.416; L.604/05 Isaias	L.137 <i>Life</i> Euthymius L.448 <i>Life</i> Peter Ib.	L.160 Evagrius Schol.	L.124 Theodoret L.133 <i>Life</i> Symeon L.420 Marūtā L.427/49 (<i>Life</i>) Symeon L.435 <i>Life</i> Mār Benjamin L.447 <i>Life</i> Ḥannīnā	L.135 <i>Life</i> Hypatius
late V – early VI			L.106 Barsanuphius L.139 <i>Life</i> Saba L.140 <i>Life</i> Dositheus L.146 <i>Life</i> Theodosius L.295 Theodosius		L.403/07 <i>Canons</i> L.433 <i>Life</i> J. Bār Aphthonia L.446 <i>Life</i> J. Bār Qūrsōs L.452 Philoxenus	L.205 Benedict

VI	L.291 Piacenza Pilgrim L.333 <i>Life Daniel</i> L.666 Severus	L.108/09/55 Dorotheus	L.136 <i>Life Cyriacus</i> L.138 <i>Life J. Hesychiasta</i> L.190 Epiphanius	[L.160 Evagrius Schol.] L.161 Procopius L.692 <i>Divani</i>	L.415 Dadīšō' L.418 J. Bār Qūrsōs L.419 J. of Ephesus L.425 Ps.-Rabbūlā L.426/53 Severus Ant. L.430 <i>Life Mar Aḥā</i> L.472 Michael	
late VI – early VII	L.144 <i>Life J. Eleemosynarius</i> L.352 Pisentius L.662 Euty chius	L.118 J. Moschus			L.408 <i>Canons</i> L.409 Dadīšō' L.468 G. Bār Hebraeus	L.121 Maximus Conf. L.141 <i>Life Theororus</i>
VII	L.339 <i>Life Samuel</i> L.560 J. of Nikiu [L.666 Severus]	L.116 J. Climacus		L.462 <i>Chronicon</i> 1234 L.661 al-Balāduṛī	L.436 <i>Life Mar Gabriel</i> L.443 <i>Life Theodotos</i> L.471 J. Penkāyā [L.472 Michael]	
late VII – early VIII				L.660 Agapius	L.404 <i>Canons</i> L.411 Ps.-Ephrem L.442 <i>Life Symeon Oliv.</i> L.465 <i>Chronicon</i> 775 L.469 G. Bār Hebraeus	
VIII	[L.666 Severus]		L.631 <i>Life Stephen</i>		[L.465 <i>Chronicon</i> 775] [L.472 Michael]	
late VIII – IX				L.165 Theophanes L.663 Ibn Hurdādbih	L.410 Dionysius I L.413 Ignatius II L.665 al-Mas'ūdī	
post IX	L.601 Ps.-Abū Ṣāliḥ L.664 al-Maqrīzī	L.606 aš-Šābuštī		L.606 aš-Šābuštī	L.690 <i>Book of Strangers</i>	

Plate I: Literary sources relevant to the issue of productivity (summary)

'Je ne crois pas qu'il y ait sur la terre une position plus horrible, plus rebutante que celle de cette sorte de monastère' [...] Nul arbre, nulle plante élevée ne l'environne; aucun chemin n'y conduit; nulle trace d'hommes ne se remarque dans son voisinage, ou si quelques unes y sont empreintes, elles sont bientôt recouvertes par les sables, ou effacées par les pas des bêtes féroces et sauvages, véritables habitans de ces affreuses solitudes. Telle est l'apparence rude et pénible de ce réduit d'hommes inutiles, comme leur habitation.'

(Sonnini – Buisson 1799: II, 166-167, on their return from Wādī n-Naṭrūn)

II.1 Material resources and the location of monasteries

II.1.1 Separation from 'the world'

II.1.1.1 *The textual evidence*

Separation from 'the world', as expressed by the terms *monos* and *monē*, has been part of the concept of being a monk or hermit to the present day. In early Christianity 'the desert' simply was conceived as the counterpart of 'the world'. The term 'the desert' was first coined by the *Desert Fathers* in Egypt during the fourth century.

The earliest mention of 'the desert' goes back to Athanasius who reports that Antony (d. 357), having achieved a certain degree of ascetic perfection, moved his abode from the Nile to the Inner Desert (εἰς τὴν ἐσώτερον ἔρημον)¹, situated near the monastery [M.318] extant to the present day. Even though the site was at a three days' distance from the cultivated area (the Nile Valley) and equally distant from the Red Sea, it was abundant in water-provisions. This allowed Antony to make out

¹ L.134, 49 (4). On L.134, 46 (2-5), cf. Wipszycka (1997b): 'Quand a-t-on commencé à voir les moines comme un group à part?'

of the oros a 'divine city' in previously unsettled land². Similarly, the 'desert literature' of the fifth century focuses on Skēthis (i.e., later Wādī n-Naṭrūn) [M.348 *et al.*] and refers to the depression in the Libyan Desert as *pan-erēmos (topos)*, *pan-erēmē* or, in the Latin translation, *vastissima eremus*: the *pan-erēmos* was the ideal environment where the highest ascetic perfection could be achieved³. The 'reclusive' character of Skēthis as a *pan-erēmos (topos)* is now being challenged by recent research on salt and natron in the valley, which has brought to light several ancient workers' settlements. Furthermore, some texts highlight the interaction, economic and spiritual, between the workers and the holy men⁴. In antiquity, the distance between the Nile and Skēthis was 40 miles 'de voyage dur' (Guy 1964: 143) - before the construction of the narrow-gauge Decauville Line, men and pack-animals, however, travelled this distance in a single night⁵. I dare to suggest after careful consideration that for the Skēthis of the monks neither the ancient term '*pan-erēmos*', nor the modern term 'desert' (entirely waterless) should be applied.

Another term to consider is *oros*, which Liddell-Scott (1996: 1255 s.v.) simply renders as 'mountain' or 'hill'. In the papyrological documentation *oros* frequently designates (substantial) monastic settlements along the Nile rather than 'mountain'⁶. Rémondon (1967) gathered some evidence on the use of *oros*, the

² Cf. vol. 2, sect. C.5: Dayr Anbā Anṭūniyūs [M.318].

³ This is the theme of the *Apophtegmata Patrum* [L.101] and of Palladius (L.123), the first eyewitness on Skēthis. On Skēthis and the concept of *pan-erēmos*, cf. Guy (1964).

⁴ Cf. Nenna *et al.* (2000: 99-102) and my contribution in Shortland *et al.* (2005).

⁵ And 'one night and one day' [L.102, Makarios] when approaching Skēthis from north, namely from Nitria [M.362] respectively.

⁶ E.g. Wādī Sarḡā [M.172] etc.; cf. vol. 2, sect. C.2.

'pays montagneux et désertique, pays étranger (par opposition au pays plat de la vallée et du delta qui constitue la zone irriguée); très fréquemment il désigne le désert, la bordure élevée – escarpement montagneux, falaise plus ou moins abrupte ou lente remontée – qui jouxte soit le mur d'enceinte d'une ville comme Syène, soit le plus souvent le territoire des villages.'

'Aux abords de l'élévation désertique qu'est l'oros s'arrête le système d'irrigation'⁷, and 'ces abords désertiques du territoire des villes et des villages ont avant tout une vocation religieuse et funéraire' (Rémondon 1967: 343-345). At a later point we will come back to the concepts of 'the desert', oros, Rémondon and the evidence of archaeology.

Separation from 'the world' – though physical separation was less serious or enforced than the sources suggest - was by no means a specific characteristic of Egypt, but is well attested everywhere. A possible key to unlock the meaning of 'true' separation is directly provided by the monastic authority of Basil of Caesarea (d. 379)⁸ who, in *Letter 2*, sets forth his ideas:

'There is only one way out of this, namely, total separation from the entire world. But withdrawal from the world does not mean physical removal from it. Rather it is the withdrawal by the soul of any sympathy of the body. One becomes stateless and homeless. One gives up possessions, friends, ownership of property, livelihood, business connections, social life and scholarship. The heart is made ready to receive the imprint of sacred teaching, and this making ready involves the unlearning of knowledge deriving from evil habits. To write on wax, one has first to erase the letters previously written there, and to bring sacred teaching to the soul one must begin by wiping out preoccupations rooted in ordinary habits. [L.154, 2]

In this statement Basil stresses that separation from 'the world' did not

⁷ Similarly, McNally (1998: 83): 'In Egypt, desert begins where irrigation ceases. To monks, the desert offers the isolation of spiritual distance, of freedom from pre-existing organization, not necessarily an isolation defined by physical distance from roads or settlements.'

⁸ On Basil (d. 379) and his concept of leadership, 'renouncing the world yet leading the Church', cf. Sterk (2004).

necessarily imply physical withdrawal, but the wiping out of the preoccupations of ordinary life. The concept of proximity to the temporal society was a given and the dramatic isolation eulogized in the Egyptian and Palestinian hagiographies was rarely to be found. Brown (1971) and Ashbrook-Harvey (1990: 15) state a similar situation in Syria and in Mesopotamia at that time: with the fusion of the eremitic and the cenobitic vocations, individual *virtuosi* found their practices increasingly conducted within (monastic) communities as is attested by stylite monasteries, pilgrimage and collective tombs⁹.

The consequences for site selection of monastic communities are well illustrated by the *Life of Mar Samuel* (d. 410) in Ṭūr 'Abdīn: Samuel, the Syriac text relates, lived with eight brothers 3 miles (*masyūnīn*, *mansiones*) from the village of Ešfīn. Later the community moved 'one day's walk' further east, to a location called 'Coldness (of Water)' - *Qarṭamīn*. At *Qarṭamīn* monastery (Dayr Mār Gabriel) [M.1440] the community grew to thirty brothers. The site had an abundance of water and the young girl's voices, who had been a source of considerable disturbance to the blessed while living only a bowshot removed from the village, were unlikely to be heard again (L.437, 4-6. 9). 'Three miles from the village' etc.: Festugière has already noted the problematic nature of numbers in hagiographic literature, most of which are 'évidemment', 'surement' or 'certainement exagéré' and 'un chiffre rond qui n'est pas a serrer de près' (Festugière 1961: IV/1, 29 fn. 4; 34, fn. 2; 40, fn. 26-27; 103, fn. 3). Distances are given in various sources, such as the

⁹ Cf. sect. IV.2.2.1.3.

Historia Monachorum, the *Life* of Theodore (d. 613) of Sykeon and others¹⁰.

Concentrations of suburban monasteries are attested throughout the Near East, from the Upper Tigris to the Nile: at Amida, Edessa¹¹, Antioch¹², Scythopolis, Jerusalem¹³, Gaza, Alexandria¹⁴, Oxyrhynchus¹⁵, Lycopolis (Asyūṭ) and Aphroditō¹⁶. The 'bowshot location', which these cases exemplify, was by no means 'forbidden land': some monasteries were situated close to the gates, such as Mār Jōḥannan Ūṛṭayā at Amida¹⁷ or Basil's foundation at Caesarea (the Basileia), whose particular purpose was housing the travellers and nursing the urban sick¹⁸. Monasteries situated close to the walls (or the gates) are also known from cities such as Hermopolis Magna (al-Ašmunayn)¹⁹, Antinoopolis (Antinoë)²⁰ and Scythopolis [M.820]. Passarions's monastery, amongst others and situated close to the gate towards the Kidron Valley²¹, served the same purpose of accommodating the guests and

¹⁰ *Historia Monachorum in Ægypto*: John of Nikopolis, 6 miles from the city (L.102, I, 6; II, 1); *Life* of Theodore (d. 613): Sykeon was 12 miles distant from Anastasiopolis (Ancyra) (L. 141, 3); a fellow monk lived 6 miles off the village of Galgatia (*ibid.*, 4); Andreas settled 8 miles from the monastery by the village Brianeia (*ibid.*, 48); the village of Euarzia, 8 miles from the monastery (*ibid.*, 56).

¹¹ On the identified monasteries around Edessa, cf. Segal (1970: 190-191) and vol. 2, sect. C.5. In AD 449, 90,000 men are told to have dwelled in the hills around the city (*ibid.*, 191).

¹² Cf. Festugière (1959).

¹³ The study of monasticism *intra muros* and in the suburbs is still a major task to do. Kloner (2003: 50*-58*) lists over forty monasteries in the north-western sector of the city during the Byzantine and early Islamic periods.

¹⁴ West: Pempton [M.372], Ennaton [M.374], Oktokaidekaton [M.376] etc. (Martin 1991; Haas 1997: 258-267); east: new discoveries between the city and Canopus [M.370] (Daszewski 1990).

¹⁵ 10,000 monks and 20,000 nuns, according to L.102, V, 6.

¹⁶ Approximately 40 monasteries, none identified (Timm 1984-1992: III, 1438-1461; MacCoull 1988: 5. 7).

¹⁷ L.419, XIX; Trombley (2000: map 5).

¹⁸ E.g. Basil, when leaving Pontus to return to Caesarea (Kayseri), soon to become its bishop, founded a monastery outside the city, with a hospital and a hospice for travellers (Rodley 1985: 239).

¹⁹ Kolluthos 'of the Gate' [M.208].

²⁰ 'Chiesa D' [M.216].

²¹ Milik (1960-1961: pl. I, no. 35).

pilgrims to Jerusalem: on a visit to the Holy City as a young man, Saba, the future leader of Palestinian monasticism, found shelter in that monastery²².

The localisation of the suburban monasteries, was determined by factors that were in opposition to the 'separation ideal'. These were busy places, and in *Letter 7* Jerome gives a vivid picture of how people were drained to the suburban martyr shrines (L.250, 107, 1-2). Palladius (L.123, 5, 1; 7, 1; 21, 6) and Moschus (L.118, 60. 73. 75. 105. 106. 171. 172) note the re-use of cemeteries by monastic communities – in certain instances this can be confirmed on the ground²³. The evidence of monasteries re-using cemeteries is more tenuous in Syria and Mesopotamia (Vööbus 1958-1988: I, 172).

The urban monasteries (as opposed to sub-urban), equally serving shrines, housing guests, pilgrims and holy men, are also attested in most of the above-mentioned cities, but usually escape archaeology²⁴. Needless to say, Jerusalem was the most blessed of the blessed cities with monasteries, it seems, everywhere²⁵.

II.1.1.2 *The archaeological evidence*

II.1.1.2.1 Egypt

Having dismissed the equation of (modern) 'desert' (both as to physical

²² L.139, VI; Hay (1996).

²³ E.g. Dayr Anbā Abullū' [M.190]; Dayr an-Naṣārā [M.228], Dayr Apa Jeremiah [M.334].

²⁴ This evidence is textual. In contrast, note that, to date, in the Syrian Limestone Massif not a single 'urban' (i.e. village-centre) monastery has been identified/found (cf. below, sect. II.1.1.2.5).

²⁵ Cf. sect. I.1.3 (fn. 29, gazetteer of sites; problems of identification), IV.2.2 and IV.2.3.1 (monastic guest-houses), VI.3.6 (patronage, above all Eudokia).

remoteness and hydrological conditions) and *erēmos/oros* in Christian literature, archaeological data may support this hypothesis. The monastery of Apa Patois [M.157], situated on the *oros* (κώμης Ταναίθεως) near Aphroditō, was surrounded by arable land (σπόριμοι γήδιοι; P.Lond. 483, 15-17), livestock and pasture (κτήνη, βοσκή; *ibid.*, 79. 89-90). The *oros* near Aphroditō must have designated - as opposed to the πεδιάδες - the elevated and most distant part ('fringe') of the village terrain (Rémondon 1967: 345-346)! The same observations with regard to physical setting may be made at the (post-AD 800) monasteries of Ballās, Dayr al-Mağma and Dayr al-Malik Mihā'īl²⁶, at Dayr Anbā Šinūda [M.122; pl. II, no. 1]²⁷, the Aphroditōpolitan monastery of the Oasitai [M.167]²⁸, and Hathor [M.262]²⁹ in the Kynopolitan nome. Plate II, no. 2 and 3 visualize the same 'escarpment-location' as a common 'rule'. Not included on plate II are the monasteries of Anbā Abullū [M.190], situated on a *kōm* (i.e. hill) on the foot of the Libyan Desert escarpment, and Dayr Nazlat Tūna/Tūna al-Ġabal [M.198], also situated on slightly elevated terrain.

In fact, very few monasteries in Egypt were 'truly' remote. Where remoteness was a given, water (and other economic factors) influenced the use of the terrain. The best documented 'remote' monastery is that of Anbā Samū'īl of Qalamūn [M.302] in Wādī Muwaylih, situated over 20 km west of the Nile. As shown by the texts

²⁶ Boutros (2000: 84-85): '*Contrairement à ce que nous avons vu pour le désert d'Armant, l'image archéologique pour le VI siècle n'est pas celle que les notices hagiographiques nous livrent, elles et celle d'unités à la fois modestes et très sophistiqués, à proximité des champs et des hommes*'.

²⁷ Situated ἐν τῷ ὄρει Τριφίου τοῦ Πανοπολίτου (P.Cairo.Masp. 67312, 39). On the complex economy of Shenoute's confederation of monasteries, cf. below.

²⁸ Situated ἐν ὄρει Σκινεπώεως, near Lycopolis (P.Herm.Rees 31 (erroneus?); Rémondon 1967: 346). On wine from the Oasitai, cf. sect. III.1.5.2.

²⁹ Situated ἐν τῷ ἀπηλιωτικῷ ὄρει τοῦ ἄνω Κυνοπολίτου (P.Lond. 1913; P.Neph. 48).

and the geological profile, the depression of Wādī Muwayliḥ, where the monastery is located, was extremely well watered. Organic (reeds) and saline resources are easily available on the soil [III.302/1]. Such conditions also prevailed in Skētis, the *erēmos* Kellia [M.360] and the location on the fringe of the Delta, the *laura* of Nitria [M.362] (mod. al-Barnūġ). The demographic growth of the Kelliots during the sixth to eighth centuries would not have been possible, if water had not easily been available on the ground; today, the water table in Kellia is only 10 metres below ground. Water was the *sine qua non* and restricted the 'desert' hermits to certain locations where they could lift water from a lake or river, or, suggested by the sources, seep the water through the sand (e.g. L.341, 9). Similarly, Makarius' choice of locations in Skēthis was clearly driven by the dialectic between the need for water (near the lake/in the marshes, but close to the natron-workers, 'the world'), and the 'separation' he would have gained if he had settled in the *ġabal* without water behind³⁰: today Dayr al-Baramūs [M.348] marks the place of Makarius' final withdrawal, but without the communal effort of digging a well (in 1912, the water table at the monastery's well was at -17 m)³¹ – the community would not have survived³².

The evidence from Kellia and Skēthis, and the accounts of individuals who

³⁰ L.101B, Makarius; Evelyn-White – Hauser (1926-1933: II, 34).

³¹ Lucas (1912: 7). Today water is electrically pumped from the ground [III.348/2].

³² In 1898 the monastery would have been situated 5-6 kilometres from the lakes (Schweinfurth 1898: map 1). One may infer from various passages that Makarius's first abode was situated around Qārat al-Mulūk, in the proximity to the ponds.

tried to push further into the desert and risked breakdown or death³³, suggest that the *erēmoi* and *pan-ēremoi* eulogized by the sources were less inhospitable zones than these sources suggest. For the monks they constituted 'minimal deserts' for the purpose of mortification, but still they were characterized by conditions bearable (if not also profitable) to human life.

II.1.1.2.2 Sinai

Contrary to the modern impression, in Sinai water was available throughout the year in the valleys, as was fertile alluvial soil. The climate conducive to cultivation of desert orchards enabled human existence despite a multi-annual average of precipitation in parts of the mountain of only 65 mm per year (Dahari 2000: 25). Among the 61 monastic sites in Southern Sinai (map IV) one can observe a higher concentration of monasteries in Ġabal Sufsafa (Mount Horeb), Wādī Muwayġid and Wādī ʔ-Ṭlaḥ. Based on the analyses by Dahari (1993, 1998a, 2000) and Finkelstein (1985), the following observations can be made (cf. pl. V; ill. III):

Firstly, the percentage of *coenobia* (versus hermitages) is highest in Ġabal Umm Šomer (100%), followed by Wādī Siġillīya (75%), Ġabal ad-Dayr and Wādī Abū Ġayrus (each 50%), and lowest in al-Leġa and Wādī ʔ-Ṭlaḥ (each 33%), Wādī Muwayġid (29%), Wādī Ġibāl/Ġabal Bāb, ar-Rāha/ar-Rabba Plains, the Fre'a Mountain and Pharan Oasis (each 25%) and Ġabal Sufsafa (6.66%). With Wādī ʔ-Ṭlaḥ (33%), Wādī Muwayġid (29%) and Ġabal Sufsafa (6.66%) at the lower end of the

³³ So happened 18 miles north of Skēthis, on the way to Kellia (L.123, 27).

spectrum, it is likely that the *coenobia* had 'absorbed' previous eremitic establishments³⁴.

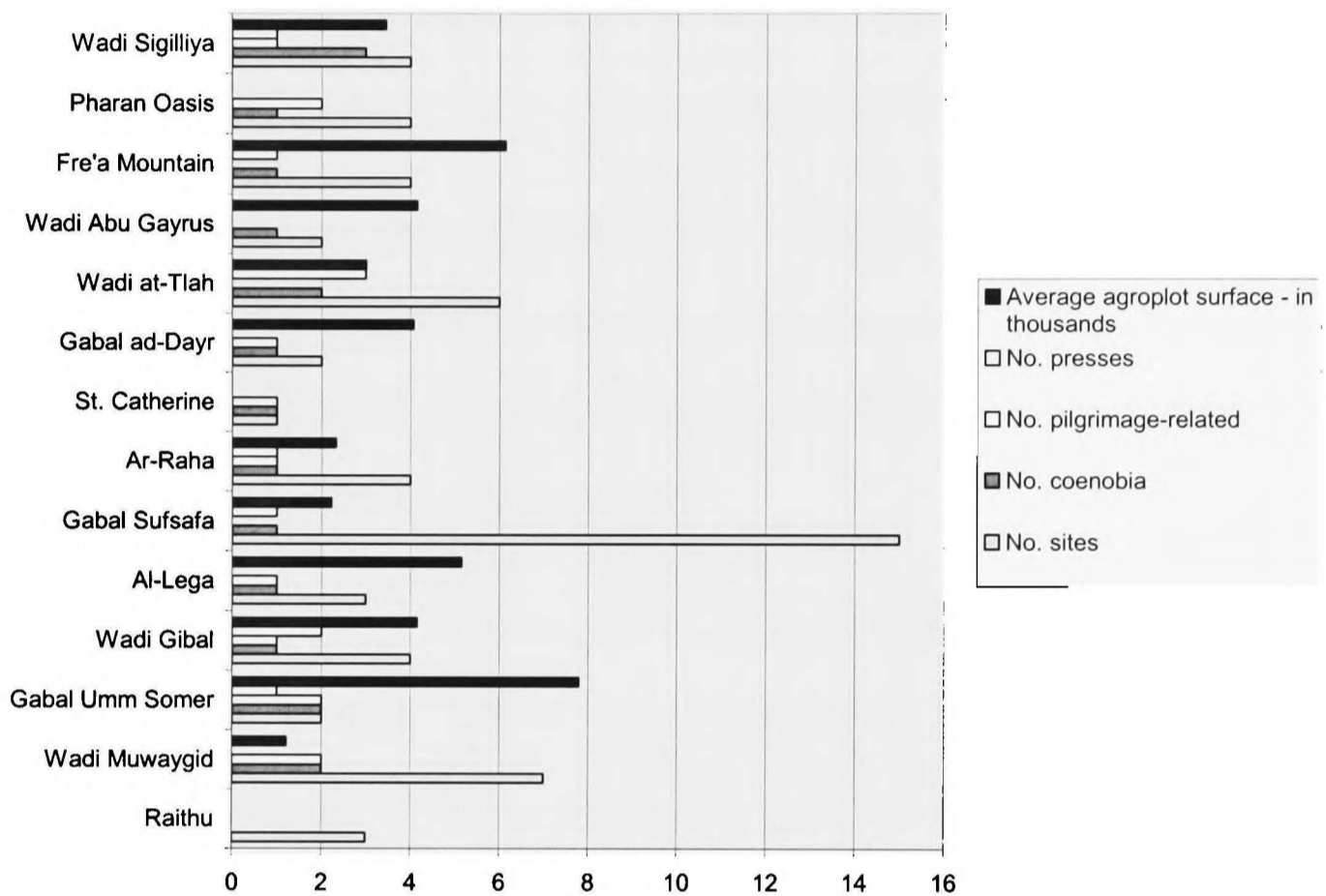


Illustration III: Archaeological data from South Sinai, summarized (ex pl. V)

Secondly, Ġabal Umm Šomer, Pharan Oasis and Wādī Muwayġid had the highest number of pilgrimage-related sites (100, 50 and 29%). On Ġabal Umm Šomer both monasteries were involved in pilgrimage and one in the production of wine. The ratio of *coenobia* to sites related to pilgrimage is 1 to 1 in Ġabal Umm Šomer and Wādī Ġibāl/Ġabal Bāb, al-Leġa, ar-Rāha/ar-Rabba Plains, St. Catherine and Ġabal ad-Dayr. The ratio highlights the importance of the monasteries in the

³⁴ Cf. sect. II.2, pl. V, where *coenobia* are indicated in **bold**.

provision for pilgrims' needs.

Thirdly, 5 out of 10 presses were found at monasteries related to pilgrimage. The average surface of the agricultural plot was also highest in Ġabal Umm Šomer, remarkably followed by the Fre'a Mountain where pilgrimage is not attested at all.

Fourthly, in some regions smaller numbers of establishments correspond to a higher average surface of the individual agricultural plot (Ġabal Umm Šomer, al-Leġa, Ġabal ad-Dayr, Wādī Abū Ġayrus, Fre'a Mountain). In each of these cases at least one cenobitic monastery was involved.

Even though the use of statistics is hampered by few and ill-defined data³⁵, such quantitative analysis allows the highlighting of some characteristics. Accordingly, on Sinai monastic settlement was strongly conditioned by the morphology of the mountain, by pilgrimage, water and soil. With further analysis of the archaeological remains one may be able to trace further economic 'specialization'³⁶ at certain locations, and to assess the ability of the monks of Sinai to fulfill their philanthropic vocation and to meet their nutritional demands.

II.1.1.2.3 The Judean Desert

As an orographic desert, the Judean Desert shares similar conditions with

³⁵ Since these statistics are based on Finkelstein (1985) and Dahari (1993, 1998, 1998, 2000), other systematic errors may apply: a) none of the authors has worked out what he considers a monastery, b) nor is data on pilgrimage and agricultural surfaces available for every site, c) conceived as an archaeological survey, the authors hardly considered the evidence of the texts (e.g. on Raithu). However, ill. III is based on the available data, no interpolation has been made.

³⁶ On wine-production in Sinai, cf. sect. III.1.5.3.

Sinai. Patrich has noted that all of St. Saba's monasteries and *laurae* were located on the slopes of Ġabal Muntar, the highest summit in the Judean Desert, 524 m above the sea (Patrich 1995: 51-54). However, annual precipitation decreases eastward from 400 to 50 mm, there was no perennial spring in the Kidron basin, and only a small flow of water at the foot of Saba's monastery [M.684]. The soil was of poor quality. Thus, Castellion/al-Mird [M.690] necessarily became the furthest monastery built towards the east (map V). Furthermore, settlement in the Desert was restricted by continuous security problems (e.g. L.139, 72. 175) and by the harsh surface of the terrain: east of the anticline axis deep *wādīs* form obstacles for transport and communication, and movement north–south was possible only at the foot of Ġabal Muntar.

The location of the monasteries in the Judean Desert was apparently determined by the course of the *wādīs* and by the proximity to the highways Jerusalem-Jericho ('the pilgrimage route') and Jerusalem-Bethlehem-Tekoa-Caparbaricha. The monasteries east of Bethlehem ('Shepherd's Field' [M.610] etc.) mark the *oros* of the Judean Desert, the desert margin where barren soil changes to fertile land. To survive in orographic deserts, *enormous* efforts had to be made to catch and store water in order to ensure an all-year supply³⁷. The real constraints of orographic deserts (Sinai, Judean Desert) must have been widely unknown to the Egyptians who lived, too, in *orei*, *erēmoi* and *pan-erēmoi*. It is remarkable that in the

³⁷ Reference is made to the ubiquitous installations for the catchment of water and to the countless cisterns and reservoirs. On reservoirs in the late antique monasteries, cf. sect. VI.2, fn. 5.

literature of the fourth and fifth centuries the Egyptian - and not the Sinaitic and Judean 'deserts' – had become the most eulogized habitats of holy men.

II.1.1.2.4 Western Samaria

The conditions in Samaria were the antithesis to those in the Judean Desert – fairly fertile fields and hillsides carefully turned into terraces which grew grapes and olives (Dar 1986, 2000; Maeir 2003). Recent surveys in Samaria have brought to light a number of monasteries [M.800-], most of which replicate the common economic régime. There too, monastic settlement is roughly aligned with the course of the *wādīs* and the Roman road from Jerusalem to Antipatris and Caesarea³⁸, but the state of exploration still does not allow one to judge on many settlement types. Gophna (Bagatti 1979: 111-115) and 'Abūd (Schick 1995: 240-241) were the only villages in the region, while, with terraces and presses, the monasteries were situated in some more isolated terrain (map VI).

II.1.1.2.5 Ġabal al-A'lā (North Syria): a case-study

The 'relative' completeness of archaeological documentation and the well-defined rural terrain still render the Syrian Limestone Massif (map VIII) the most propitious micro-region to study patterns of monastic location and settlement types. A dividing line between the Mediterranean and the Syrian Desert, the Massif marks the easternmost region of sufficient average annual precipitation to share the common basis of the Mediterranean agricultural régime (Tchalenko 1953; Tate 1992;

³⁸ On the latter section of this road, cf. Dar (1973).

Foss 1995: 218-223). By devising a complex demographic model based on the numbers of architectural units (rooms etc.), Tate was able to trace the demographic development of the region whose flourishing came between AD 350 and 550 and culminated around AD 500. Tate concluded that in the Limestone Massif '*la forme quasi exclusive de l'habitat*' was the village ('*le village*'), of which Tate made out the number of 70 among 92 identified sites within a 355 km² terrain. 30 of these ruined sites could not be identified. The focus of this study are the remainder of 22 sites labelled by Tate as '*des écarts*'. During the fifth and sixth centuries these '*écarts*', Tate (1992: 203) argues, '*ont été réoccupés, voire intégrés dans des couvents, au Ve et VIe s. l'habitat intercalaire est un fait récent, il consiste essentiellement des couvents*'. It is difficult to verify Tate's hypothesis, for the second volume, in which the author intended to disclose his evidence, has not appeared. For parts of the Massif, however, this gap has been meticulously filled by the work of Peña *et al.*³⁹. Though less rigorous in their methodological approach, Peña's publications are the only ones to do far-reaching justice to many of the more than 145 monasteries and monastic estates (cf. also Tchalenko 1953: III, 86-106)⁴⁰. Unfortunately, since none of these publications can claim to be comprehensive, the uniqueness of monument preservation and of textual documentation still calls for a systematic survey of the *monasteries* of the Limestone Massif. The following study in

³⁹ Peña *et al.* (1975, 1980, 1982, 1983, 1985, 1987, 1990, 1999, 2000, 2003). The '*Inventaires archéologiques*' of Ġabal Zāwīya, Ġabal Sīr, Ġabal Ḥalaka and Ġabal Sim'ān still have to appear.

⁴⁰ '*Couvents antiques du Massif Calcaire, rangés par ordre alphabétique des toponymes modernes*'. Tate (1992: 339) counts only 23. Tchalenko's list draws both on textual and archaeological data, but does not supersede Peña's *Inventaires*, whose strength lies in the detail of description and the complete coverage of identified sites.

Ġabal al-A'lā may indicate a possible way to go.

With a length of 25 km and a width between 5 and 7 km from east to west, Ġabal al-A'lā (pl. III and table 2) yields a manageable quantity of ruins (namely 85 in total) wherein to study the location of monasteries in a defined mountain-range. In the northern part of the ġabal ancient settlement was organised by the principle of north (from the Plain of Antioch) to south, whereas the south of Ġabal al-A'lā (divided by Wādī Hermes) was accessible from the Plain ar-Rūġ. Two routes connected Antioch with the Massif and the Syrian plains: one via Imma (mod. Yenişehir), Cilvegösu ('Ayn Dalfa) and Qaṣr al-Banāt [M.1206], the other via Ḥārim, Wādī l-Kabīr, Baqirha and Sarmadā⁴¹. This shows the degree of exposure and the accessibility of Ġabal al-A'lā, both friendly and hostile (hence the citadel of Ḥārim, crucial during the First Crusade), from the plain of Antioch. Unsurprisingly, until recently Ḥārim and Armanāz (the entrance to Wādī Hermes) had permanent markets and *khans* for the products of the region and from the exterior (Van Berchem 1914: 229-238; Froment 1930: 285; Cahen 1940: 135. 472; Tchalenko 1953: I, 95-96. 391-392). The privileged location, the fertility of the soil and 85 ruins make the ġabal a micro-region well worth exploration.

The incentive to focus on this very mountain was Peña's work on the *Inventaire du Jebel El-Ala: recherches archéologiques dans la region des villes mortes de la Syrie du nord* between 1983 and 1986, which aimed to achieve

⁴¹ At all locations there are traces of Roman roads; in Ġabal al-A'lā, near Ḥārim, Bšendlāya and Ġuwānīya (in the north), and Dāra aš-Šarqīya, Ḥarab al-Qays al-Qiblīya (in the south); indicated in Peña (1990: map) and pl. III.

complete archaeological documentation within four years. Among the 85 sites of Ġabal al-A'lā, no less than 42 were cenobitic monasteries (35) and eremitic (7) sites. One third of these monasteries had not been identified previously, and in only six cases did the identification remain unclear (*'monastères probables'*; Peña 1990: 44). Considering the total surface of ca. 160 km² of Ġabal al-A'lā, the average density of monastic settlement is one monastery per 3.6 or 4.6 km². However, for reasons of the actual morphology of the mountain, the northern part of the *ġabal* (from Ḥārim to Wādī Hermes, as shown in pl. III) was characterised by village settlement aligned with the Roman road⁴². The chain of villages (often distinguished by communal features and the remains of a church) goes along parallel to and at a distance of approximately one kilometre from the eastern escarpment and slopes. This 'band' with a 3 to 4 kilometres width constitutes the habitable world in northern Ġabal al-A'lā, with 83.3% of the villages⁴³ and 76.9% of the monasteries, whereas beyond this band (i.e. in the western parts), six monasteries and two (to four) villages can still be identified.

Village	Distance ⁴⁴	Direction	Monastery	ID	Pilgrimage	Press ⁴⁵	Tower	Notes	Bibliography ⁴⁶
[Ḥārim]									
L	1.2 km	SE	Dayr Wādī Habīš	M.1024					---
L	1 km	SSE	Karm Mūsā	M.1026		x			
Kafr Mū									
L	0.7 km	WSW	Dahar ad-	---					

⁴² Notably Kafr Mū, Ḥirbat al-Burġ, Banābil, Bettir, Kfayr, Berīš-North, Qirqābīze, Qalblōze, Bšendlente, Ma'ssarte, Behyō, Berīš-South, Kefr Kīlā, Bšendlāyā, Qaṣr al-Ḥammām, Kafr Māris, Ṭell Tītā, [Ḥirbat ar-Rūmān,] Kūkū, Ġuwāniya (although this last location is close to the plain).

⁴³ Based on the total number of 24, including Ḥārim, Armenāz and Kafr Taḥārīm.

⁴⁴ Approximate, from a hypothetical 'village centre'. often the church.

⁴⁵ For specifications, illustrations etc. of the presses, cf. sect. III.1.4.4.2-4 and vol. 2, sect. C.5.

⁴⁶ Other than in Peña (1990) (only).

			Dayr						
L	0.9 km	ESE	al-Qaşr	M.1022		x	x		
Hirbat al-Burg									
Banābil									
Bettir									
									Tchalenko 1953: I, 384
L	1.2 km	NW	Al-Mintara	M.1020		x			
L	0.4 km	SW	Qaşr Anfar	M.1018		x			
Kfayr									
						x			Tchalenko 1953: I, 384
Berīš-North									
Qirābize									
						x	x		Tchalenko 1953: I, 319-342
Qalblōze									
						x	x		Tchalenko 1953: I, 343-344
L	0.4 km	NW	Qaşr an-Nu'mān	M.1016		x	x		
Bšendiente									
Ma'ssarta									
L	0.4 km	SSE	Ma'assir aš-Šarqīya	M.1010		?			
L	0.9 km	W	Qaşr al-Ġarbī A	M.1012	x	x			Tchalenko 1953: III, 102
L	1.4 km	W	Qaşr al-Ġarbī B	M.1014		x	x		
L (isolated)	2.5 km	W	Dayr Salūna	---					Tchalenko 1953: III, 92
L (isolated)	2.8 km	WNW	Beteifa	---					
L (isolated)	3 km	NW	Mār Ishāq	---					Tchalenko 1953: III, 100
Behyō									
						x	x		Tchalenko 1953: I, 345-373
Berīš-South									
L	0.5 km	NE	Dayr Šem'un	M.1009	?				Tchalenko 1953: III, 92; Tate 1992: 339
Kefr Kīlā									
L	0.5 km	E	An-Naqūz (Qaşr ad-Dayr)	M.1008	x	x	x		Tchalenko 1953: I, 345; III, 102
Bšendlāyā									
						x			Tchalenko 1953: I, 384; Schachner 2005: 166-168
L	0.4 km	NNW	As-Siġn	M.1006	x	x	x		
L	0.4 km	SW	Dayr al-Malik	M.1004	x	x			Tchalenko 1953: III, 89
L	0.8 km	S	Qaşr ad-Dayr	M.1002		x	x		
Qaşr al-Ĥammām see Bšendlāyā									
Kafr Māris									
L	0.4 km	N	Qaşr Nawāwis	M.998		x	x		
L	0.4 km	S	Ad-Dayr	M.996	?	?			Tchalenko 1953: III, 97; Tate 1992: 339
Tell Tītā									
L	0.4 km	NW	Ad-Dayr	M.994		x	x		
Kūkū									
Ġuwāniya									
L	1.1 km	N	Al-'Amāra	---					

L	0.8 km	SWS	Mağarat Qaşr ad- Dayr	M.988					Tchalenko 1953: III, 95; Tate 1992: 339
Sūgāyā									
[Armenāz]									
L	0.4 km	SE	Fahūra	---					Tchalenko 1953: III, 86
[Kafr Tahārim]									
L	1.2 km	SE	As-Sayyid	M.990			x		
'Abrayta									
L	0.7 km	W	Hirbat Sa'ta	---					

Table 2: Northern Ġabal al-A'lā (North Syria): village settlements and related monasteries

Apart from the problem of identifying 'urban' (i.e. village-centre) monasteries – '*nous ne connaissons pas un seul monastère bâti parmi les maisons*'⁴⁷ – the area of northern Ġabal al-A'lā confirms a picture of rural life and rural monasticism that is being suggested elsewhere⁴⁸, but can now be traced archaeologically on the ground. It shows that the monks lived in a world of extremely 'low separation' where they have been closely interconnected with the villagers, the countrymen and the outside world. Accordingly, the average distance between monastery and village in northern Ġabal al-A'lā was 0.72 km, and 0.71 km within the eastern band. Twenty-three out of the 26 monasteries were situated in a sub-urban environment, and only three monasteries occupied the most isolated terrain. Though the ratio of monasteries to village was 1.08 to 1 in the *ğabal* and 1 to 1 in the 'band', illustration IV yields some kind of alternate pattern as to the number of monasteries per (village) settlement⁴⁹.

⁴⁷ Peña (1990: 33) and, similarly, Tate (1992: 339). In the present section, the term 'urban' simply denotes '*parmi les maisons*'.

⁴⁸ *Lives of Nicholas of Sion* (ed./tr. Ševcenko 1984), Theodore of Sykeon (L.141) and Theodoret (L.124).

⁴⁹ As shown by the dark graph. The villages are listed in their sequence from north to south.

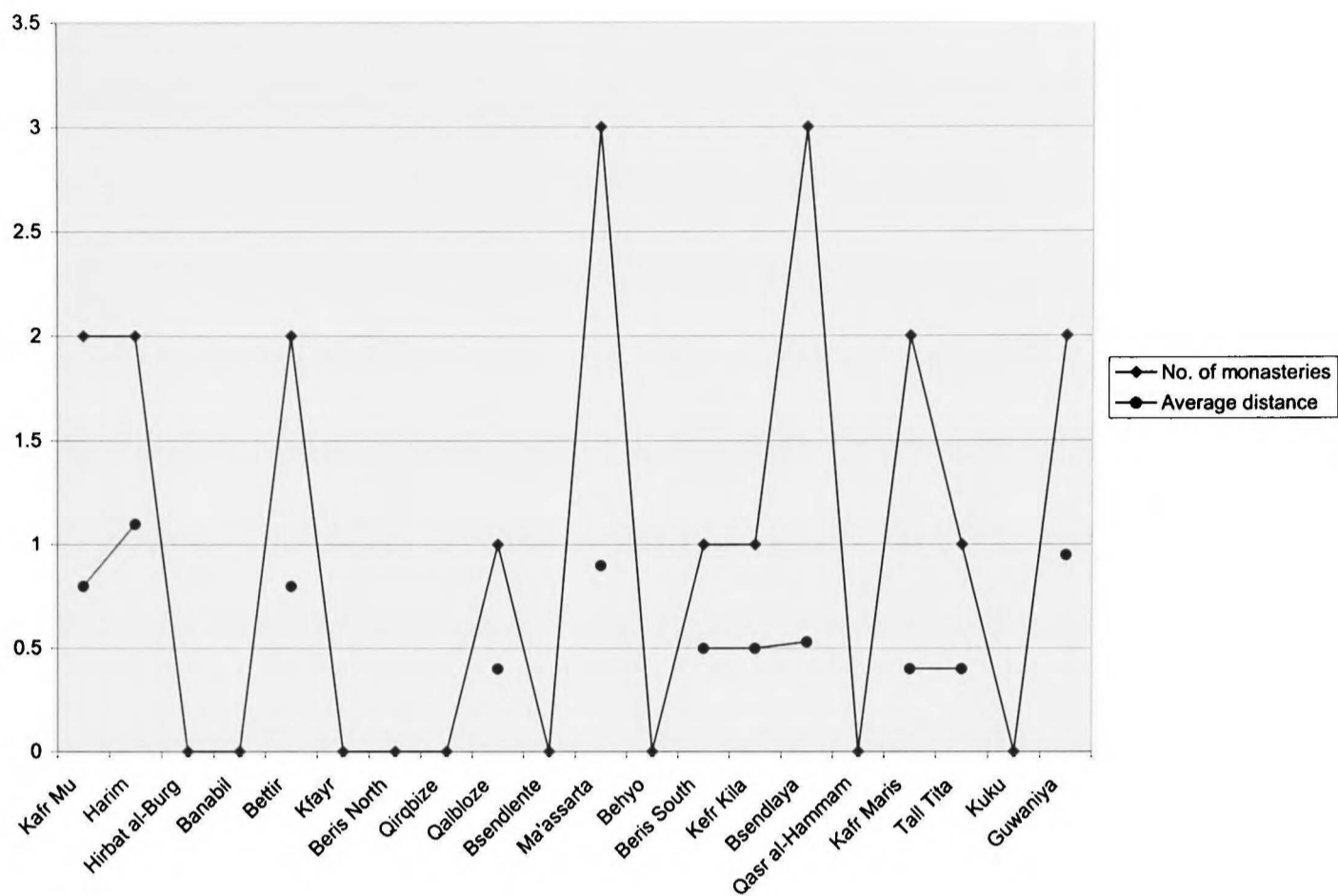


Illustration IV: The 'band': number of monasteries per village and the distances (in km) between

Tchalenko (1953: I, 176) and Tate (1992: 339) suggested some agricultural function of the ruins at Dayr Šem'ūn [M.1009], An-Naqūz [M.1008], Ad-Dayr (Ṭell Tītā) [M.994] and Maḡārat Qaṣr ad-Dayr (Ḡuwānīya) [M.988]. In the light of Peña's more recent archaeological documentation, a similar function, I suggest, may be assumed elsewhere: at al-Mintara [M.1020] and Qaṣr Anṭar [M.1018]. Together with the villages *Hirbat al-Burḡ*, *Bettir*, *Qirqbīze* and *Behyō* – '*villages nés d'une propriété unique*' (Tchalenko 1953: I, 384) –, by the sixth century the 'intercalary' monasteries would have entirely controlled the *ḡabal*'s most eastern terrain. Similar assumptions may be made with regards to the land west of the villages with *Qaṣr al-Ġarbī A* [M.1012], situated in a sub-urban location at 0.9 km and with striking evidence of a

sundial [Ill.1012/1] and an olive-press, and at Qaṣr al-Ġarbī B [M.1014], which could have been an agricultural dependency of Qaṣr al-Ġarbī A [M.1012]. Qaṣr al-Ġarbī B [M.1014] had a tower⁵⁰ from where it was possible to overlook the entire terrain. The ridge west of Bšendlāyā was similarly occupied by monastic communities, and two inscriptions near Ġuwānīya⁵¹, now ca. 800 m apart, served to mark the limits to which an asylum (ἀσυλία) extended, i.e. the right of security of person or property against seizure attached to altars, temples and Christian shrines. Whether St. Stephen's in Ġuwānīya belonged to the Church or a monastery, is unknown.

A final look at the 'Christian' topography of northern Ġabal al-A'lā⁵² confronts the village *martyria* at Kfayr (Tchalenko 1953: I, 335), Qirqbīze (*ibid.*, 167. 327. 330) and Beḥyō (*ibid.*, 167. 348) with the monasteries where pilgrimage is attested in one or the other way. The evidence of graffiti at the 'campo santo' of Qaṣr al-Ġarbī A [M.1012] and of a stylite at Dayr al-Malik [M.1004]⁵³ west of Bšendlāyā, clearly draw the epicentre of suburban shrines served by the monastic communities towards the centre of Ġabal al-A'lā. The location of other suburban monasteries allegedly related to shrines speaks in favour of this hypothesis. Furthermore, two conclusions may possibly be drawn from the opposition Kfayr – Qirqbīze – Beḥyō and the monasteries in the central massif. Firstly, in Kfayr, Qirqbīze and Beḥyō – which are among the first villages of the *ġabal* when approaching from Ḥārim – no evidence

⁵⁰ On the towers, cf. sect. II.2.3.

⁵¹ IGLS 618 and 620 (= PAES, III B, no. 28 and 29).

⁵² On the transition towards Christianity in the mountain as attested by the inscriptions, cf. Trombley (1993: II, 301-311).

⁵³ Only one other stylite is known from the mountain: at Dayr Ḥayr Abū 'Amūd [M.980], east of Waṣṭānīya in the southern *ġabal*.

of a single (suburban) monastery can be shown⁵⁴. This observation poses a particular challenge to the future identification of 'urban' (village-centre) monasteries in Ġabal al-A'lā, since – by analogy with other shrines - monks could have served these *martyria* and their monasteries could have entirely 'absorbed' the local monastic pool. If this was the case, their sources of (landed) subsistence still have to be shown⁵⁵. Secondly, those monasteries where pilgrimage is attested were either endowed with presses (Dayr al-Malik) or surrounded by agricultural estates (Qaṣr al-Ġarbī B)⁵⁶. Only the three 'isolated' monasteries west of Ma'ssarta have not yet been studied archaeologically, nor their terrain investigated.

As 'monastic landscapes' have to date primarily been studied in micro-regions that bear little representation of the 'real world' – Egypt with its very particular *orei*, *erēmoi* and *pan-erēmoi* (Skēthis [M.348], Kellia [M.360] etc.), Sinai and the Judean Desert – the Syrian Limestone Massif represents the 'real world'. The accounts by Libanius, John Chrysostom, Theodoret, Isaac of Antioch *et al.* also suggest that the monks of the Massif could well have been interconnected with the villages, the cities and the 'world beyond'. This archaeological case-study, however, aimed at highlighting a settlement pattern in Ġabal al-A'lā⁵⁷, which gives rise to the thought that in the late antique village of Ġabal al-A'lā monastery and village

⁵⁴ Indicated by '0' of the alternate pattern in ill. IV.

⁵⁵ Cf. below, sect. II.2.2.7 (Qaṣr al-Banāt).

⁵⁶ Cf. sect. III.1.4.4.2-4 (presses) and sect. III.2 (landholdings). The only site not yet mentioned is as-Siġn [M.1006] whose terraced terrain has briefly been described in Schachner (2005: 181 fig. 11 and 184 fn. 3).

⁵⁷ Similar conclusions could be drawn for Ġabal Barīša and the Massif north of Dānā (Ġabal Ḥalaka, Ġabal Sim'ān).

functioned within a framework of mutual dependence whose details are presumably still buried in the ground. This dependence was economic and spiritual.

11.1.2 Perilous environments

In a chapter on 'territories of grace', Horden and Purcell (2000: 403-460, esp. 404) noted the important role that has been accorded to space and locality in the examination of religious behaviour in the Mediterranean in the scholarly literature of the last decades. The simplest relationship between space and the holy was expressed by a map of localities having particular religious associations, a distinctive degree of connection with the divine: churches, holy springs, or the tombs of the (Islamic) 'saints'. Horden and Purcell did not mention monasteries. This omission is significant as it reflects the general state of monasteries in the ongoing discussion of sacred space, despite the fact that not only were monasteries the guardians of blessings (*eulogiae*), holy waters and relics (of monks, saints and venerated men), but the privileged environment where one could witness, in 'live performance', the virtues of stylites and holy men.⁵⁸

As sacred spaces, monasteries exercised influence on the religious behaviour of their surrounding worlds. I will show in the following section that the 'pre-monastic history of sacredness' of certain locations not only influenced later monastic settings, but also contributed to the influence and prestige of these monasteries. This was the case in perilous environments such as high places and visible mountains, woodland

⁵⁸ On pilgrimage and the holy man, cf. sect. IV.2.

regions, marshlands, wastelands and mining regions, as these were environments where one could have fulfilled both religious-symbolic and economic demands.

II.1.2.1 *High places and visible mountains*

In the conceptualization of locality and space, substantial areas may be defined by places visible from afar. Not coincidentally, these places were often of great religious significance, as is particularly the case of the high-place sanctuaries. In the Levant these had an astonishing continuity from antiquity to Islamic times. The present observations focus on the ill-known, but important contribution by monks and monasteries in the conversion and administration of then-Christian shrines. This is exemplified by five Syrian (no. I-V in the following, from west to east; no. II-V in the Limestone Massif), one Arabian (no. VI) and one Palestinian site (no. VII):

I. Mount Kasios, situated 65 km south-west of Antioch, was the highest mountain in northern Syria (1,728 m). It was consecrated to the Olympian Zeus in antiquity (Djobadze 1986: 3-6). Recent research gives more reason to suggest that the temple of Zeus was not on the summit of the Byzantine Κάσιος, but may lie under the church of Saint Barlaam, the Christian miracle-worker who destroyed the statue of Zeus⁵⁹. Barlaam's church and monastic foundation [M.1282] on Mount Kasios served as a shrine for Christian pilgrimage until AD 1939.

II. An inscription (AD 367/368) commemorates the restoration of the temple of Zeus Koryphaios on the highest summit ('al-Ḥoṣn', 847 m) of Ġabal

⁵⁹ *Life of St. Barlaam* (4th-c.) (MSS); reference in Djobadze (1986: 4 fn. 21 and 5 fn. 25).

Duwaylī (Froment 1930: 289; Tchalenko 1953: I, 59 and III, 120; Peña *et al.* 2003: 39-53). This site was turned into a fortress during the Middle Ages. Recently, hints at a Christian (monastic?) presence near al-Ḥoṣn have been found (Peña 2003: 44). The visibility on the summit is 360 degrees. A pagan sanctuary has also been found at Hirbat Bazazīya, 4 km north of al-Ḥoṣn, on a promontory that overlooks the Antiochene plain. Some Christian graffiti/engravings equally attest to Christian dwellers, and the ruins yield a roller-type press and an impressive *columbarium* (?). East and west of the summit there is evidence of (ancient?) mines (Peña *et al.* 2003: 56-59).

III. Dayr al-Ḥoṣn (not to be confused with no. II) was a medieval fortress (AD 1121), situated on the slopes of Ġabal Barīša one kilometre south-east of Sarmadā (thus 'Qal'at Sarmadā'). Cahen and Tchalenko have pointed to the fortress as being a former monastery (Mār Stephanos [M.1106]; Cahen 1940: 329; Tchalenko 1953: I, 123 and III, 104) whose influence on the micro-region may be proven by agricultural dependencies (Peña 1980: 242-243)⁶⁰. The epigraphic record in the plain of Dānā suggests quite strongly that Christianization began there not before ca. AD 480. The only exception was Sarmadā (Trombley 1994: II, 266).

IV. Ġabal Sayḥ Barakāt (Κορυφή; not to be confused with no. I) majestically dominates the crossroads of various mountains and the Plain of Dānā in the northern Syrian Limestone Massif. The hilltop temple of Zeus Madbachos was subject to fifth-

⁶⁰ Cf. sect. II.2.2.7.

century Christian polemics – notably by Theodoret (Tchalenko 1953: I, 103-105. 224; Callot – Marcillet-Janbert 1984: 187-192) – and the sacredness of the summit continued well into the twentieth when Muslims and Yazīdīs still undertook pilgrimage to the ‘holy mount’ (Lescot 1938: 249). As textual references attest to a post-pagan Christian ‘intermezzo’ in its surroundings⁶¹, the exact date of the temple conversion still needs to be shown. The location of the monastery-shrine of Symeon the Stylite (the Elder; d. 459) at Telanissos/Qal‘at Simā‘n [M.1226] – situated only a few miles north of Ġabal Sayḥ Barakāt – is by no means coincidental⁶², nor is the location of one of the earliest and most influential monasteries [M.1190] near Ṭell ‘Adē, situated on the slopes of Ġabal Sayḥ Barakāt. The visibility on the summit, again, is 360 degrees.

V. Qal‘at Kalōta marks the site of a second-century temple that overlooks the east and north of Ġabal Simā‘n. Tchalenko (1953: I, 247 and III, 124) described its transformation into a church and a fortress, but omits the evidence of presses and of three Christian sarcophagi which may have constituted a collective tomb. After the abandonment of the temple, Qal‘at Kalōta may have continued to serve as a Christian monastery [M.1234]. The Qal‘a is situated ca. 600 m west of the homonymous fifth- and sixth-century village. The visibility on the summit is 360 degrees.

VI. Dayr an-Naṣrānī (‘Christian’) [M.848], the sixth-century Ġassānid

⁶¹ On the literature on this issue (pre-AD 1953), cf. Tchalenko (1953: I, 145-146).

⁶² For a map of Ġabal Sayḥ Barakāt, cf. III.1180/1; a photograph, III.1226/1.

monastery of the martyrs Sergius and Bacchus, whose cult had spread among the Arabs of the eastern frontier, is situated on a high conical hill and had previously been a military post and a pagan high place with a shrine or an altar (Trombley 1993: II, 331-332). With a visibility of 360 degrees, the summit was under the control of the Syrian army in 2002.

VII. The last site to consider is currently under excavation, but merits examination here. A recent publication on Ġabal Hārūn near Petra by Lindner (2004: 199-201) hypothesizes the previous existence of a Nabataean temple near the late antique monastery [M.590]. Among the high place sanctuaries mentioned (no. I-VII) the evidence from Ġabal Hārūn illustrates a highly astonishing continuity of sacredness in a given space. Together with some textual documentation the archaeology of the monastery reveals one of the most elaborate buildings ever built on a hilltop site. Furthermore, the mosque on the summit yields Byzantine inscriptions and *opus sectile*, a fourteenth-century tomb of a son of a *ṣulṭān* and graffiti of Jewish pilgrims from the thirteenth to the eighteenth centuries. With a mosque on the very summit sacredness continues to the present day. Again, the visibility is 360 degrees.

In conclusion: seven high places and monasteries, five of them in Syria: all seven sites were chosen for their physical setting and the conditions of visibility. These monasteries were all built upon former temples. They 'modified' and

Christianized a pre-existing sacred space⁶³. In doing so, the monks adopted the high place idea. In view of the symbolic parallels⁶⁴ and the location of origin (North Syria) one feels tempted also to consider the stylite's column as a genuine adaptation – for a Christian purpose – of the pagan high place ideal. In the way that the high place, the tower and the look-out all influence behaviour by 'lines of sight', the column created 'lines of sight', 'of sound' and of 'living sacredness': Symeon's pillar near Telanissos/Dayr Sim'ān was the prototype of a highly successful series of Christian 'high places' to come⁶⁵. It directly faced Ġabal Sayḥ Barakāt and was visible from more than 270 degrees [III.1226/1].

Despite the high place location, these monasteries (no. I-VII) cannot simply be considered as sacred places that were dissociated from economic means. It is known that throughout antiquity the temples and sanctuaries of Egypt (Bowman 1986: 96), Syria and elsewhere were endowed with considerable amounts of land. The same came to be true of the monasteries⁶⁶. Libanius' fourth-century polemic directly refers to the monks in Antiochene who confiscated both sacred and private properties⁶⁷, and a sermon of Jacob of Sarūġ (d. 521) relates similar acts of 'monastic' confiscation during the fifth and sixth centuries in Osrhoene (Trombley

⁶³ The literature on monks and temple conversion in Syria is abundant. For a bibliography, cf. Trombley (1993); on Libanius and the Syrian temples, Liebeschuetz (1972: 238).

⁶⁴ Cf. the introduction to Doran (1992).

⁶⁵ These and other observations will be presented in my paper currently in preparation: 'The archaeology of the stylite', (presumably) in *The Religion of the 'Rest': Heresy, Apathy and Popular Piety in Late Antiquity*, edd. W. Bowden and A. Gutteridge (*Late Antique Archaeology* 4) (Leiden – Boston 2006).

⁶⁶ Cf. sect. II.2.

⁶⁷ *Oratio* XXX, 11; Harmand (1955).

2000: xl). Even if none of the high-place presses⁶⁸, *columbaria* and mines referred to in no. I-VII have been dated, these provide evidence of the economic impact of sanctuaries – and later high-place monasteries – on the regional economic behaviour in ancient times.

II.1.2.2 **Woodland regions**

The relationship between monks, their settlement and the sacredness inherent to woodland regions, is still insufficiently understood. For the Syrian monk, one learns, productive arboriculture could also mean the exploitation of sacred groves. Theodoret relates that when Thaleaios took up residence in coastal Syrian Gabala no less than 500 olive and fig trees had been destroyed by demons (L.124, 21, 1). The cenobites and their economic dealings in wood are also (and better) shown in the papyri of Egypt, for example in texts from Dayr al-Balā'iza [M.174], Apa Kolluthos [M.220] and Serenus [M.314]. At Dayr al-Balā'iza, wood from the monastery prepared for shipping had perished (P.Bala'izah 223), and at the other monasteries *acacia nilotica* and *erica* had been trans-shipped (P.Ryl. II 338; CPR X 52). These monasteries had some harbour facilities, and at Apa Jeremiah [M.334] no less than three or four brothers 'load[ed] the wood' (I.QU III 13; IV 227). Monastic ownership and exploitation of land and forests can also be traced in Mesopotamia where the endowment – by imperial decree – of the village of Nardo in Ingilene, the territory of which was rich in timber, was shared in the latter part of the fifth century by two

⁶⁸ On presses related to Ġabal Sayḥ Barakāt, cf. Tchalenko (1953: I, 42 fn. 2).

Amidene monasteries (L.419, XIX).

II.1.2.3 *Marshlands and the mining regions*

Among the products of littoral marshes, reeds – used for the making of baskets and mats – and salt had a special role. I have shown in a previous section that living in the *pan-erēmos* Skēthis actually meant inhabiting the fringe of the marshes⁶⁹, and below it will be shown that the exploitation of resources found in the marshes, organic and mineral, was on the daily agenda of the monks who lived on lakes, fluvial⁷⁰ and maritime⁷¹ shores.

Horden and Purcell (2000: 425) have not only noted the sacredness of space to be encountered in antiquity near marshes (e.g. of Lake Koloe, Lydia), but also the veneration of salt deposits by modern men. Salt was – as it is today – of greatest significance for the essential role it played in nutrition⁷², burial⁷³ and the transformation of perishable organic material into substances suitable for storage and redistribution. The preservation of food was also a major concern of the cenobitic communities, which is shown by the evidence of *preserved* organic

⁶⁹ Cf. sect. II.1.1.1 and II.1.1.2.1; even more explicitly, L.101B, Karion, 2: 'She [the former wife of the holy Karion] waited in the marsh land, at a distance of the old man. (There was a marsh beside Skēthis, and they had built churches and wells there)' (Ward 1975: 100-101).

⁷⁰ Practically most of Egypt, the monasteries near Jericho and on the river Orontes, on the western slopes of Ġabal Waṣṭānī.

⁷¹ E.g. Ennaton [M.374] (Alexandria), Rhōsos in Cilicia II (L.124, X, 3) etc.

⁷² Even though 'bread, salt and hyssop' was a *topos* in hagiographic writing, the mention of salt underlines the vital importance of the mineral for the human régime; monastic requests for salt are frequent in the papyri, e.g. in Wādī Sargā [M. 172]: O.Sarga 92. 164. 186. 188.

⁷³ In Egypt, the use of halites and carbonites in the preservation of bodies in monastic contexts has not yet been studied, let alone sufficiently understood; bodies have been found in Dayr al-Madīna [M.064] and the cemetery of Dayr Epiphanius [M.068]. A Coptic homily found at Thebes (Winlock *et al.* 1926: I, 48) alludes to preservation with salts.

matter⁷⁴ in those monasteries where major amounts of salt were stored⁷⁵. Such observation is in line with the evidence of collection and of marketing of the mineral resource. Situated in Wādī Muwayliḥ (the 'Salt Valley') deep in the Libyan Desert, Samuel's monastery [M.302] was not incidentally given the epithet 'of Qalamūn', 'of the reeds'. Samuel's location was more than well chosen⁷⁶, could feed man and beast, and yielded – from the seventh to the fifteenth century – unimaginable revenues for the community of the monks (L.339, 26. 28; L.601, fol. 71b; L.664, 314). In 2003, salt was still extracted from the pits in the valley [Ill.302/1] – a sample taken by Shortland and Tite proved that the shiny substance was basically edible salt (halite)⁷⁷. Documentation is much poorer for Wādī n-Naṭrūn, where the real extent of the monks' involvement in salt- and natron-extraction cannot yet be ascertained to a satisfactory extent⁷⁸.

⁷⁴ E.g. pickled fish (ΤΑΡΙΧΕ, ΤΑΡΙΧΙΟΝ, ΨΑΔΑ) which – though forbidden as food in some communities (Layton 2002: 45) – is well attested at various sites: Wādī Sarḡā [M. 172]: O.Sarga 92; Dayr al-Balā'iza [M.174]: P.Bala'izah 206. 259. 311; Dayr Anbā Abullū' [M.190]: Clédat (1999: no. 55-62) (= plate XIII); Apa Anouph [M.194]: CPR XX 12. 20; Apa Geōrgios [M.202 or 096]: CPR XX 10.

⁷⁵ So at Dayr Apa Epiphanius [M.068]: O.CrumST 255; in Wādī Sarḡā [M.172]: Apa John, 'of the pickle store (ΜΑ ΠΙ[.]ΧΙΡ)'; at Dayr Apa Jeremiah [M.334]: monks John, 'salt-seller' (QU III 89), and Phoibamun, 'father of the salt-house' (ΙΩΤ ΝΤΕΡΙ ΝΕΧΙΡ) (QU IV 319) – compare with QU IV 287 from the same site; furthermore installations for salt-processing have been found at Dayr Anbā Hadrā [M.028] and at Dayr Anbā Abullū' (Bāwīṭ) [M.190] there is also 8th-c. (?) evidence that tax (ΠΑΚΤΕ, *pactum*) was paid in salt.

⁷⁶ 'Thermalquelle von über 30° C, salzhaltiges Wasser, für den Menschen nicht durchaus ungeniessbar [...] Tamarix- and Nitraria-Sträucher, Calligonum: ungeheurer Vorrat an Brennholz, im Gegensatz zum Holzmangel der Plateauflächen der Libyschen Wüste [...] Alhagi-Büsche und Zygophyllum album (in Chatiē, 'Strauchregion') als willkommenes Futter' (Schweinfurth 1886: 112-113). The monastery is currently being restored.

⁷⁷ Personal communication. Shortland and Tite (Research Laboratory for Archaeology and the History of Art, University of Oxford) were so kind as to follow up my advise to take samples not only in Wādī Muwayliḥ, but also further westwards, in Wādī ar-Rayyān – these yielded the same result.

⁷⁸ Passages that refer to this issue (e.g. L.101B, Agathon, 12; Makarius, 31; L.334B, p. 112) suggest that the monks and the natron-workers in Skēthis were on intimate terms through miraculous healing and economic exchange; when Sicard visited Wādī n-Naṭrūn during the 18th c., a monk from Baramūs

Monasteries also exploited the anhydrite salt deposits of Syria, such as on the littoral of Lake Ġabbūl. There is evidence of a monastery (of Mār Isaac) at Gabbula (and of commercial exploitation of the deposits during the sixth century AD)⁷⁹, the later patriarch of the Church in Syria, Athanasios I. Gammālā (AD 595-631) had proved as a young monk ascetic endurance by carrying off salt (*malḥā*) from Gabbula to his monastery near Qennešrē [M.1406] (L.468, 50; L.472, X, 14). Evidence of salt extraction also comes from Koṭb (mod. Tuzluca < Turk. *tuz*, 'salt') in ancient Armenia⁸⁰ where in AD 631 the emperor Heraclius put the local *catholicos* in charge of a salt mine⁸¹.

The attraction exercised by the marshlands is in strong contrast to the evidence of the monks' involvement in the 'less pleasant' exploitation of iron ores. John of Ephesus' *Life of Caesaria*, a wealthy patron who built and completed monasteries, is a document that has no parallels: having accepted for herself the severity and hardship of mining, Caesaria bought a wealthy gold-mine (χρυσωρυξείον). This mine Caesaria entrusted to the inmates of two monastic foundations inhabited by women and men (L.419, LIV).

II.1.2.4 'Tax exempt and waterless': agri deserti

The analysis of monastic holdings and imperial taxation clearly attests to

Monastery [M.348] had just collected the salt ('*sel blanc*') for the community (Martin 1982: II, 25). On salt versus natron and latest research undertaken in the salt valley, cf. Shortland *et al.* (2005).

⁷⁹ L.473, VIII, 5 and Mouterde (1945 : texte, 190-191).

⁸⁰ Situated in the province of Čakatkc (Hewsen 1992: 211).

⁸¹ *The Armenian History attributed to Sebeos*, XLI; tr. Thomson (1999: I, 91).

monks and monasteries taking possession of, or reclaiming, *agri deserti* – the emperor Valentinian ordered monks to dwell in *deserta loca ac vastae solitudines* as early as in AD 390⁸². In the overall picture, however, this practice is documented only to a minimal extent⁸³. Exempt from imperial taxation, during the earliest phase of monasticism in Egypt, *agri deserti* were indeed the most inhabited lands⁸⁴, whereas in a later period the mention of wasteland is hardly to be found⁸⁵. One explanation of the causes for such observation may be found in the legal arrangement of *emphyteusis*, which is well attested in the monastic world. Through *emphyteusis* a man was permitted to acquire uncultivated waste land in perpetual tenure for himself and his heirs, subject to the obligation of cultivation and the payment of a fixed rent. In most of the documents that relate to emphyteutic arrangements, the monastery was the lessor rather than the lessee⁸⁶. Although there is increased evidence for flight from Islamic taxation (including the monks) after the Conquest, the practise of forced lease (*entagia*, 'Zwangspacht') of *agri deserti* (*mawāt*) by monasteries has not been shown (Morelli 2000).

Conclusions

The choice of monastic location was a delicate issue as the requirements of

⁸² L.282, 16, 3, 1; De Giovanni (1984).

⁸³ Apart from Whittaker (1976: 137, 153-154) – with reference to the Limestone Massif – literature on the subject of *agri deserti* is absent. On landholdings and imperial taxation, cf. sect. II.2.1 and VI.3.7.

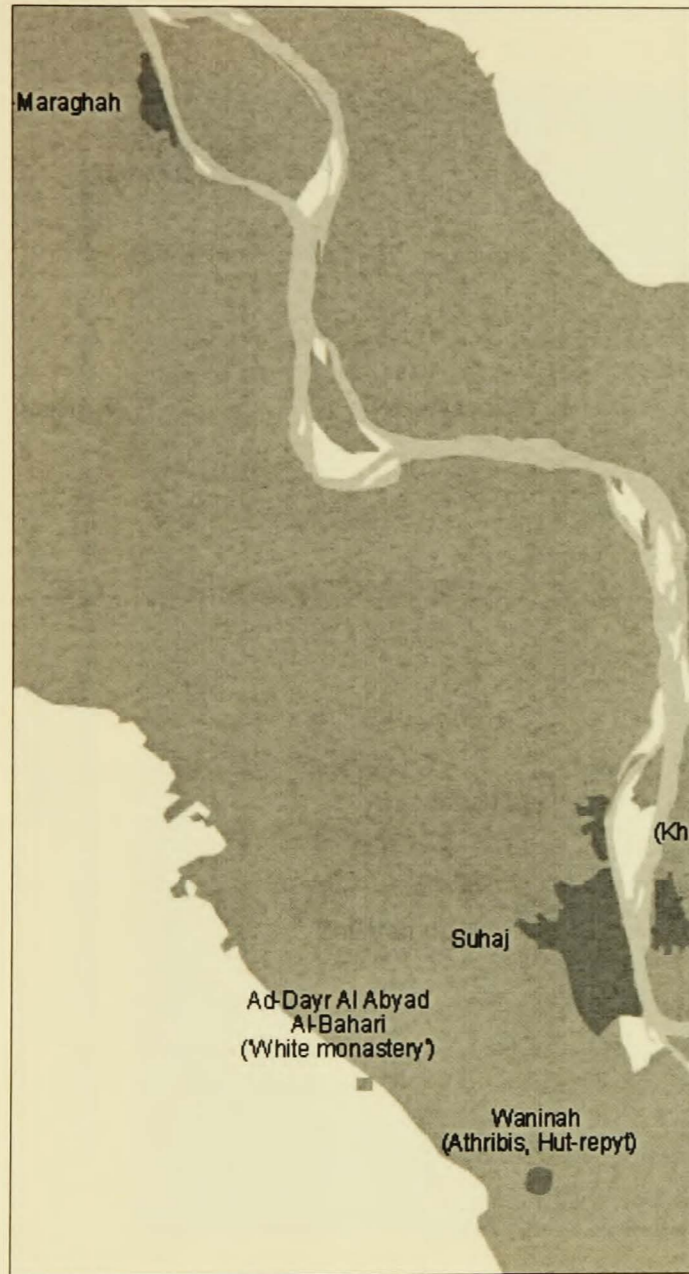
⁸⁴ Antony (d. 356), Rule XVIII: '*Terram vectigalibus subjectam ne semines, et societates cum dominis ne contrahas*' (Breydy 1996: 400).

⁸⁵ Notably at Dayr Apa Phoibammōn II [M.070], in AD 634: P.Lond. I 77; Apa Patois [M.157], in AD 616: P.Lond. II 483 ('tax-exempt and waterless').

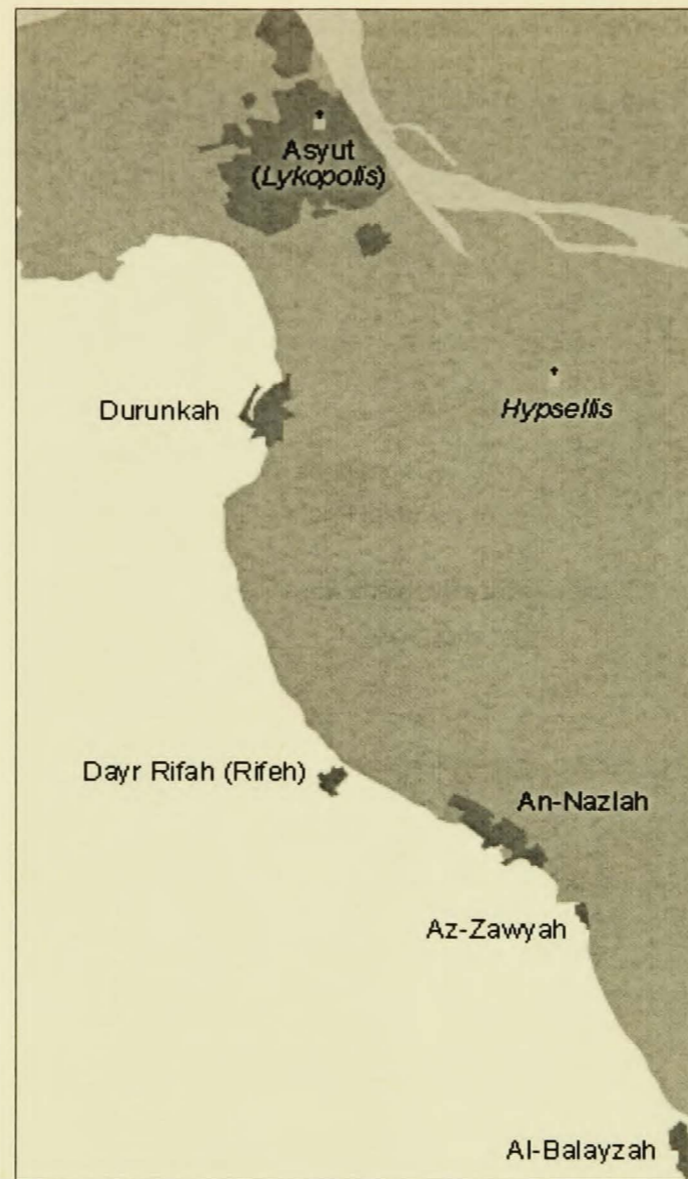
⁸⁶ Bury (1923: I, 57-58), Dennett (1950: 52). On *emphyteusis*, cf. sect. II.2.1.1.

separation initially conflicted with the need of survival in the 'real world'. Quantitative archaeology and the critical revision of the early texts on *erēmos* and *oros* suggest that either location was perfectly habitable to ancient men. 'The success of the story', Goehring writes in *The Encroaching Desert*, 'rather than the dominance of the practice established the desert hermit as the literary icon of Early Egyptian monasticism' (1993: 281). Settlement patterns during the following centuries suggest a framework of mutual dependence between the village, the monastery and various organic and mineral resources. However, the two micro-regions of Sinai and the Judean Desert present us with an exception. Due to their remoteness and geo-climatical conditions these constituted separate and genuinely monastic worlds.

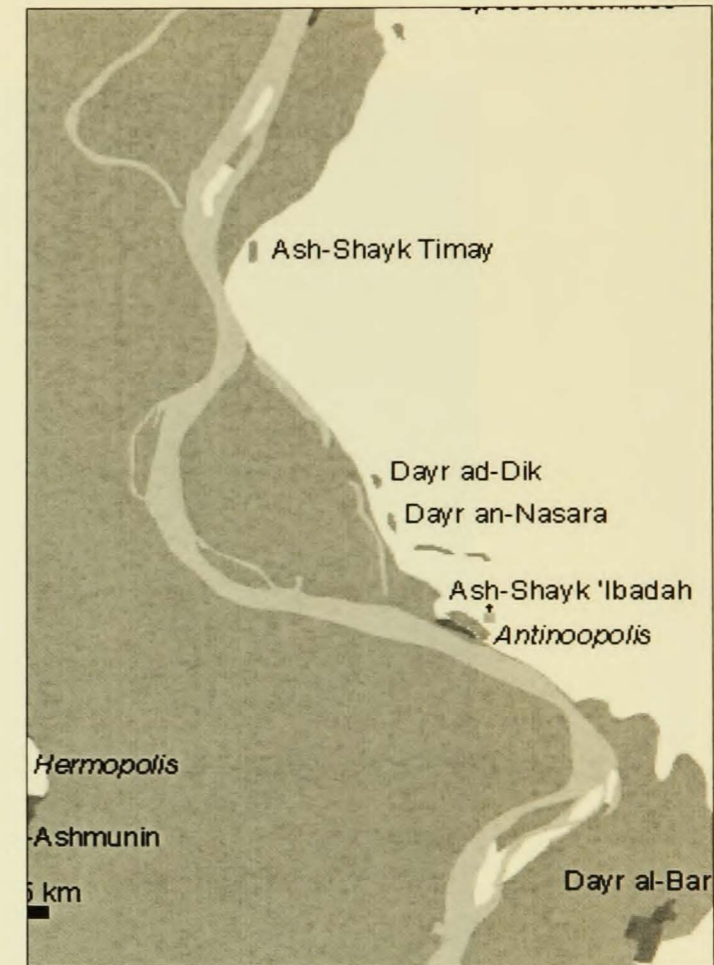
Finally, this chapter has shown the striking compatibility between perilous environments and monastic ideals. The appropriation of pagan high places provided monasteries with both symbolic and economic means. Woodlands, marshlands and wastelands formed easy-to-get, rentable and 'monastically sustainable' environments. By the late fifth and sixth centuries monasteries not only formed 'haloes' around the villages and the cities and, though less attested, reclaimed unsettled locations, presumably also with the ulterior motive of some economic gain.



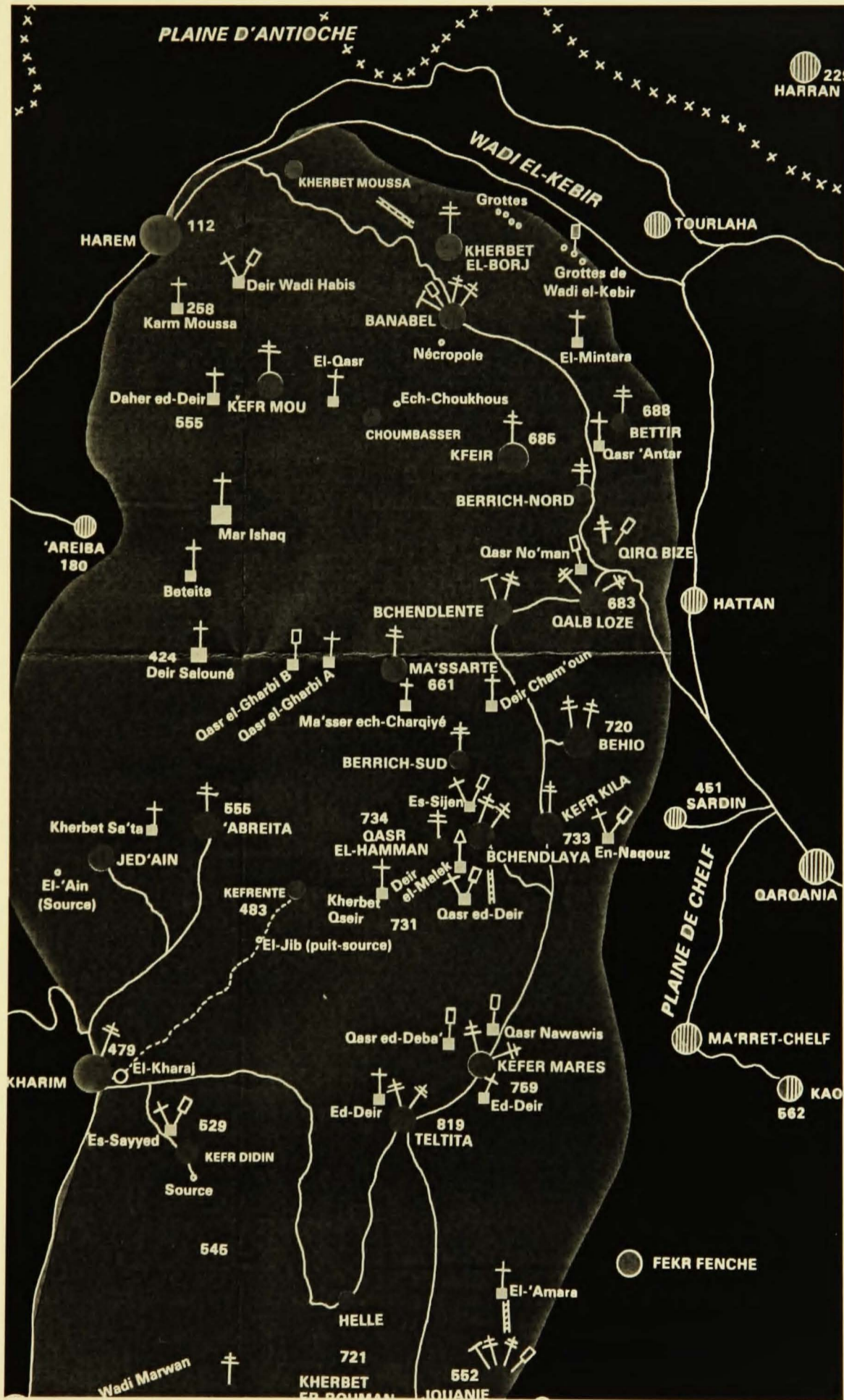
No. 1 Suhāġ (Aḥmīm) and surroundings: Dayr Anbā Šinūda ('White monastery') [M.122]



No. 2 Asyūṭ (Lycopolis) and surroundings: Dayr Rīfa [M.178] and Dayr al-Balā'iza [M.174]; Wādī Sarġā [M.172] is situated south of Balā'iza (not on the map)



No. 3 Hermopolis Magna (al-Ašmunayn), Antinoopolis (Antinoë) and surroundings: Dayr ad-Dīk [M.226] and Dayr an-Našārā [M.228]; Dayr Anbā Abullū'/Bāwīṭ [M.190] is situated south-west of Hermopolis Magna (al-Ašmunayn) (not on the map)



Northern Ġabal al-A'lā: village settlements (●) and monasteries (■)
 (based on Peña 1990)

'Although active working of agricultural land was incompatible with devoting one's time to prayer, receiving rents from leased land or (for the really wealthy) land managed by a steward did not interfere with basket-weaving, mortification and prayer. To be sure, it was also a form of trusting in worldly wealth rather than in God, allowing the appearance rather than the reality of renunciation and poverty. But we can hardly doubt that it was common enough.'

(Bagnall 2001: 22)

11.2 Rural monasteries and the question of landownership

For pious establishments the acquisition of property and estates has been an 'unavoidable reality' throughout history. The issue, however, used to be controversial as acquisition could also be seen as a form of trusting in worldly wealth rather than in God¹, so that during the sixth century the time had come for the state and the Church authorities to interfere. However, property and estates enabled monks and monasteries to fulfil their 'earthly' vocation by generating previously unseen resources, which could be re-distributed to society, to the sick and the poor.

11.2.1 The legal framework

11.2.1.1 *Imperial law*

Though the spread of monasticism is well attested from the fourth century onwards, the earliest regulations, often fiscal in nature, were issued for churches rather than the monasteries. Churches enjoyed certain privileges, paid regular land-tax, but were exempt from additional payments. In AD 423 they were made liable for the repair of roads and bridges, and only in AD 470 do we find the first imperial

¹ Cf. quotation on top of page.

law against the alienation of ecclesiastic property (*ius alienandi*). This law was issued by the emperor Leo (457-474) for Constantinople, whereas its obligatory nature was extended to the Empire only by Justinian. Justinian (527-565), as Kaplan noted, had only a limited interest in the regulation of monastic affairs². These are the key paragraphs in the Justinianic codification relating to monks, monasteries and the ownership of estates:

Codex Iustinianus I, 2, 24 (AD 530; L.280) and *Novella* 7 (AD 535; L.181) lay down the interdiction of alienation of property (*praedia urbana et rustica*).

Codex Iustinianus I, 3 (AD 529) recommends that all monasteries should be endowed with material fortune and exercise power over their belongings.

Novella 65 regulates church/monastic property of vineyards, cult buildings, blocks of rented flats and workshops in cities and towns.

Novella 76 (AD 538) and 123 (AD 546, chap. 38) stipulate that private property becomes communal property for those who enter a monastic community *after* the release of *Novella* 5 (AD 535).

Novella 117 (chap. 9, 10 and 13), 134 (chap. 12) stipulate that monasteries inherit property from laymen in certain situations such as divorce.

Novella 120 (AD 544) regulates alienation of property and *emphyteusis*. Alienation of built property (to seculars) was strictly forbidden, whereas exchange of goods between monasteries was allowed (chap. 7). *Emphyteusis* was considered a legal agreement as long as the majority of the monks agreed (chap. 1 and 6).

Most relevant to this thesis was Justinian's embodiment, in AD 544, of the emphyteutic loan (*Novella* 120, chap. 6)³. *Emphyteusis* was beneficial both to the state and the monasteries which could make long-term rental agreements and 'alienate' property without the property being sold. While the emphyteutic agreement had already been in use on the Egyptian *oikoi* (Gasco 1985: 8-9;

² Jones (1964: 896-898), Kaplan (1997: 125). On monasteries and imperial legislation, cf. Pfanmüller (1902), Knecht (1905) and Alivisatos (1913); more recently, Joannou (1972), on the period AD 311-476, Kaplan (1976), on landholdings (5th to 6th c., with a useful gazetteer of relevant texts), and Barone Adesi (1990). Charanis (1948) and Papagianni (2002) add little to this question, but deal with the issue up to the Komnenian period.

³ Kaplan (1992: 163-168). However, traces of the emphyteutic agreement in imperial legislation can be identified as early as under Zeno (AD 474-491).

Wipszycka 1972: 53-54), it was only ca. AD 544 that it was made an empire-wide standard. No legislative measures with regard to monastic property can be traced between Justinian and the time when the Muslim authorities had their system of *ḡimmī*-taxation imposed. Islamic taxation brought about changes for the communities and its process is illustrated in the sources from Egypt⁴ and Mesopotamia⁵. The more serious changes, however, were to come only after AD 750, under the 'Abbāsīd caliphate.

II.2.1.2 Canon law

In his book *Propriétés de la couronne et de l'Église* Kaplan rightly noticed the relative silence on estate issues observed both by the Church councils and in canon law⁶, despite the wide-spread concerns of the monastic authorities⁷. Remarkably, however, the monastic *Rules* (by Rabbūlā *et al.*)⁸ avoid this issue, too. Only one set of seventh to eighth-century *Rules* from Mesopotamia limit the *individual* ownership

⁴ E.g. L.662, L.666; Dennett (1950), Morimoto (1981), Boud'hors (1996), Worp (1999), Morelli (2000), Gonis (2004). Cf. also chap. II.1.2.4, III.1.3.4.5 and VI.3.7.

⁵ E.g. L.465, L.471, L.472; Robinson (2000).

⁶ 'Tout se passe comme si le pouvoir civil était seul compétant en cette matière, du moins jusqu'au VI^e siècle.' (Kaplan 1976: 17).

⁷ E.g. L.233, XVII, 7 (Gaza, 4th c.); L.115, 58, 5; 86, 3 and L.414, p. 332 (Antiochene, 4th to 5th c.); L.701, 5-6 (Elišē, AD 451): 'I see the entire world [the brethren] overtaken by earthly belongings [...] and we have been made tax-exempt, taxes that we would have been able to pay without sin. But we have subjected ourselves to possessions [...] our estates in the country reproach us so that we will not take a share in the heavenly heritage'; 'improportionality' of monastic property expressed in non-Christian polemics: Libanius, *Oratio* XXX, 11. 31. 48 (Harmand 1955); Zosimus (5th-6th c.): 'the so-called monks [...] on the pretext of sharing all with the poor they have, so to speak, reduced all to poverty' (Ridley 1982: v. 23).

⁸ Cf. sect. I.5.6. and II.3.2.

of land within a monastic community⁹.

11.2.2 Landed estates in the texts and in archaeology

The inadequacy of attention given by law becomes the more evident as one compares this information with the evidence on the ground. 'Monastic land' may either constitute the immediate surroundings of the monastic core (i.e., still within the monastery) or be situated in a dislocated position but be related to the monastery by legal, economic or spiritual bonds ('estates', 'monastic farms', 'affiliate monasteries'). The latter type is well attested in the papyri, whereas the former is the easiest for an archaeologist to identify. Plates **IV-IX** summarize the evidence. The following sections aim at synthesizing these plates and at presenting selective analyses. It goes without saying that landholdings, *emphyteusis* and the cultivation of agricultural surfaces played a significant role in the monastic economy.

11.2.2.1 Egypt

The abundant number of texts that relate to monasteries and their landholdings in Egypt are a most valuable source to explore. These are listed in plate **IV**, whereupon the following conclusions have been drawn.

For certain monasteries, namely those also studied by excavation or survey¹⁰,

⁹ L.404, 2. 12; the chronicles of this period, however, reflect serious criticism from within some monastic communities (e.g. L.465, part IV, p. 242-262).

¹⁰ Notably Dayr Apa Phoibammōn II [M.070], Wādī Sarġā [M.172], Dayr al-Balā'iza [M.172], Dayr Anbā Abullū', near Bāwīṭ [M.190]; the monastery of Apa Sourous [M.162], at Aphroditō, has not yet been identified – cf. also pl. XIVa.

there is evidence of up to two dozen dependant sites. Many of these estates were 'irrigated' (and presumably situated on the *oros*)¹¹, and a high number were rented out by lease (*μισθώσις*, *ἔμφύτευμα*)¹². Sale of land is quasi absent and attested only twice after its imperial ban¹³. Purchase of land, too, is quasi absent; whereas it clearly emerges that donation ('D') played *the* significant role in the acquisition of land. It is striking to note the common smallness of the plots considered (many around 1 *aroura*)¹⁴ and the fragmentation of many estates.

The pre-AD 524¹⁵ tax-register of Aphroditō (P.Freer 08.45 a+b; pl. **IV. XIVa-XIVb**) lists eight (or nine) monasteries in various degrees of control of their surrounding land. The *total* surface of the estates of the monasteries Apa Sourous [M.162] (329.27 *arouras*), Smin [M.138] (43.3 *arouras*) and Apa Zēnobios (65.96 *arouras*) was above the average of site-related holdings in the documented monastic world. Zuckerman (2004: 226-233), in his recent study of the Aphroditō cadaster, has again underlined the importance of religious establishments – churches and monasteries – as owners of land. Together, the monasteries owned approximately one third of the taxable land. However, the fragmentation of the monastic estates was a striking reality, with maxima of the individual surfaces at Apa Sourous (19.75 *arouras*); the average surface per holding was 7.4936 *arouras* at Apa

¹¹ Cf. above, sect. II.1.1.1.

¹² Eleven (to 14) out of the 25 documents relative to a lease of monastic land date to the 6th c. AD and 3 to the 8th c. AD; other *emphyteuma*-contracts not in this table, location not identified, are CPR IV 128 (Hermopolis), CPR IV 151, P.Lond.Copt. I 1013 (Hermopolis), P.Lond.Copt. I 1015, PSI III 176 (Oxyrhynchus), P.Ryl.Copt. 174 (Hermopolis), P.Ryl.Copt. 176 (Hermopolis).

¹³ Apa Dios [M.134], AD 534; Dayr an-Naqlūn [M.308], ca. AD 550.

¹⁴ One *aroura* equals approx. 2,755 m².

¹⁵ Zuckerman (2004) suggests a new dating, namely AD 525/526.

Sourous, 4.8125 *arouras* at Smin and 12.44 *arouras* at Apa Zēnobios. From an economic point of view estate fragmentation must have had a harmful effect. Furthermore the cadaster indicates that different persons were in charge of these holdings, but their relationship with the monastery – tenants, employees (?) – is largely unclear. Taxation ('Tax' in the plates) is best attested at Dayr Apa Phoibammōn and at a number of sites in Middle Egypt, from Psinepoīs [M.168] to Kōm al Nānā [M.192]. The tables also indicate some degree of economic specialisation, with a particular focus on wine.

11.2.2.2 *Sinai*

The evidence from Sinai is purely archaeological. The advantage for the analysis of landholdings in Sinai is that the mountain represents a confined region where enormous efforts had been made to prevent soil erosion and to catch and store water throughout the year. Data on the cultivated surface in Sinai is now available for 67.2% of the monastic establishments (pl. **V**): in Sinai, no plot was smaller than 100 m² (= 0.03 *arouras*), and the largest individual plot was 9,900 m² (3.59 *arouras*). The average of cultivated surfaces is 2,806.51 m² (1.02 *arouras*). Major exceptions can be observed at those sites involved in the provisioning of pilgrims, such as Dayr Rumḥān [M.420] (9,900 m²), Dayr Antūš [M.422] (5,860 m²) and Ġabal ad-Dayr [M.480] (7,200 m²), with cultivable surfaces that exceeded this average by two to three times. 'F' and 'T' in the table indicate the evidence of fences and terraces and attest to the enormous efforts of the reclamation of land that had been made.

In the absence of textual sources (the 'standard reality' beyond Egypt) it is far more delicate to identify 'monastic farms' or 'affiliate estates'. Dahari suggested that the following monasteries could have had agricultural (or other) dependencies: (later) St. Catherine [M.476], with Ġabal ad-Dayr West [M.478] and Dayr Tarkiba [M.504]; Dayr Rummāna [M.494], with Dayr Šoḥat [M.496]; and Siġillīya Church Site [M.514], with al-Karm [M.518] and the Palm Grove Site [M.516]. Through affiliation St. Catherine's agricultural resources would have increased from none (?) to 8,130 m², Dayr Rummāna's to 8,300 m², and Siġillīya Church Site' from 3,420 m² to 7,750 m²; these numbers fall into the range between 6,000 and 10,000 m², the average agricultural surface of the larger coenobia on the Holy Mount.

11.2.2.3 *Jerusalem and surroundings*

Similar observations can be made with regard to the (still) low number of monasteries studied in the outskirts of ancient Jerusalem (pl. VI), where sites were mainly agricultural in character, as one infers from the installations for water storage and the evidence of the press. There, the average surface suitable for cultivation amounts to 26,290 m²; given the climate in the micro-region, such numbers (compare to sect. 11.2.2.1-2) indicate the possibility for production on a larger scale. Furthermore, the excavators suggest that Ramot [M.652] was affiliated with Ra's aṭ-Ṭawīl [M.650] (Arav 1990: 319-320) which, too, was a small coenobium with agricultural and industrial installations, and extensive terraces surrounded by an enclosure wall. The total agricultural surface would have been 52,580 m² or 5.2580 hectares! *Prima vista* this number seems outstanding. But a closer look reveals the

proximity of the number to the Aphroditōpolitan average of 2.07 ha (7.4936 *arouras*) at Apa Sourous and 1.33 ha (4.8125 *arouras*) at Smin. All in all, these plots were rather small.

II.2.2.4 *Bethlehem and surroundings*

Numerous presses in the monasteries around Bethlehem are indicators of ancient agricultural enterprise (pl. VII). Unfortunately, archaeology has not yet provided any numbers on which a comparison of agricultural surfaces could be based.

II.2.2.5 *The Judean Desert and Western Samaria*

As in Sinai, in the orographic desert of Judæa enormous efforts were made to reclaim land in late antiquity. In the Judean Desert at 9 (out of 68) monasteries the cultivated surface can be assessed (pl. VIII). The average agricultural surface is 10,142.86 m² and equals the upper range of the Sinaitic *coenobia*. Comparison with other regions is hardly permissible, for only Sinai shares some of the geo-climatical conditions in Judæa. However, there seem to be distinctive features at 'Ayn as-Sahārī [M.674] and at Marda [M.792]. With 25 m² on two terraces, 'Ayn as-Sahārī represents the absolute minimum of the required agricultural resource¹⁶.

Farmhouses attached to monasteries are attested at al-Qaṣr [M.784/B] and at

¹⁶ Cf. L.419, V. Koder (1993: 27-33. 69) quotes parallels to be found in the 10th-c. *Geoponika*: these show that under pre-industrial conditions and in a central European climate 35-40 m² of garden was the minimum required for the subsistence of a single man (Kopetz 1957: 11). The difference of geo-climatic conditions, however, discards this parallel.

Euthymius' monastery [M.788]. The latter, we infer from the sources, had a whole network of affiliated sites [III.788/1]. Furthermore the *Lives* of Cyriacus [L.136] and Euthymius [L.137] refer to landed donations and to a joint economy with the monastery of Theoctistus [M.704]. The monastery of Theodosius [M.692] disposed of two estates near Phaesalis (?), Kourōnē and Antikourēnē, which had been given to the monastery in gratitude for a victory (L.146, 85).

The last site to mention is Dayr Qal'a [M.800] in Western Samaria. Unfortunately Dayr Qal'a is the only monastery in Samaria whose land available for cultivation has been assessed (pl. IX). With 25,000 m³ and immeasurable water storage devices, the productivity of the monastery would have been enormous.

11.2.2.6 Southern Syria

In Southern Syria the evidence of monastic holdings is extremely thin. This partly results from the limited attention given specifically to monasteries by archaeological surveys and partly due to the limited prospection of the surrounding terrains¹⁷. However, recent work undertaken by Villeneuve *et al.* at Dayr Umm 'Uwaynī [III.842/1] and Dayr aš-Ša'īr [M.844] reveals the potential for further discoveries by matching aerial prospection with survey on the ground. Dayr an-Našrānī [M.848], discussed in section 11.1.2.1 (no. VI), is still surrounded by fertile ground.

¹⁷ After the pioneering work by Butler (1919a, 1919b, 1929 *etc.*) the issue of monastic archaeology has been addressed only selectively by F. Villeneuve (1985: 118-121). On the complete list of the monasteries, incorporating Nöideke (1875), cf. vol. 2, sect. C.5.

II.2.2.7 Northern Syria

In the Syrian Limestone Massif¹⁸, Tchalenko and Tate have followed a thorough approach to village and estate identification, whereby the two scholars considered monasteries as 'landscape lemmata' to a considerable, but yet insufficient extent. Landownership in the Massif had been considered on the basis of the topographical settings ('suburban', isolated), the evidence of related, agricultural installations, inscriptions and aerial photographs. Their conclusions are summarized in table 4: no less that 34 monasteries in the Massif can presumably be considered as having influenced, through alleged ownership, the economic behaviour of their surrounding land.

Ġabal ...	No.	Monastery	Site ID	Tchalenko 1953 'Couvent comme exploitation agricole'	Tate 1992 'Couvent situé au centre d'un domaine' ¹⁹
Zāwiya	1	Dayr Šinšarāḥ	M.920		x (*)
	2	Dayr Dabbāna	M.922		x (*)
	3	Dayr Subbāṭ	M.924		x (*)
	4	Ad-Dayr	M.926		x (*)
	5	Dār al-Kabīra	---		x
Al-A 'lā	6	Al-Ġūwāniya	M.988		x
	7	An-Naqūz (Qaṣr ad-Dayr)	M.1008	x	x
	8	Dayr Šem'ūn	M.1009		x
Barīša	9	Qal'at Dayr Sītā	M.1050		x
	10	Qaṣr al-Banāt (Dayr Bānqūsā)	M.1054		x
	11	Ad-Dawwār	M.1058		x
	12	Dayr Deḥes	M.1080		x
	13	Dayr Bāšakūḥ	M.1088		x
	14	Mār Sābā	M.1094		x
	15	Duwayriḥ	M.1096		x

¹⁸ On the southern edge of this region near Apamea is the *kōmē* Nikertai; with its '*bâtiment à finalité agricole*' ('Site 12') and a likely dependency ('Site 13'), the monastery of Nikertai [M.902/B] could well have been identified with the one referred to by Theodoret, who attests to a fifth-century presence of 400 monks (L.124, III, 4). The only substantial coin hoard from a rural monastic context has been found in its vicinity.

¹⁹ Sites indicated with an asterisk (*) indicate that Tate classified these sites as village monasteries ('*situés dans une agglomération*'), whereas I consider them as monasteries on the outskirts, and presumably also '*au centre d'un domaine*'.

	16	Brayġ	M.1136	x	
	17	Dayrūnī	M.1138		x
	18	Qaṣr al-Mudahhar	M.1146		x
Ḥalaka and Plain of Dānā	19	Dayr'amān	M.1164		x (*)
	20	Dayr Ṭurmanīn	M.1180	x	
	21	Dayr Ṭell 'Adē	M.1190	x	
	22	Burġ as-Sab'	M.1192	x	
	23	Kfellūsīn	M.1204		x
	24	Qaṣr al-Banāt (Mār Bizā)	M.1206	x	x
	25	Sitt ar-Rūm	M.1210	x	x (*)
Sim'ān	26	Burġke	M.1228		x
	27	Bānastūr	M.1230		x
	28	Burġ Ḥaydar	M.1232	x	x (*)
	29	Burġ al-Qās	M.1236		x
	30	Qaṣr Brād	M.1240	x	x
	31	Bardhān	M.1250		x
	32	Kafr Lab (Kaprollaba)	M.1252		x
	33	Šiḥ ad-Dayr (Šāder)	M.1256		x
	34	Bārūmān ²⁰	---		x

Table 4: Monasteries as landowners and centres of agricultural estates

Table 4 could be augmented by further sites in Ġabal al-A'lā²¹; ad-Duwayr [M.1060] in Ġabal Barīša; Dayr Sim'ān SW [M.1120] and Qal'at Kalōta [M.1234]²² in Ġabal Sim'ān. Furthermore, a small number of inscriptions attest to the legal boundaries of monasteries and churches in the Limestone Massif: IGLS 530 (AD 588), near Qaṣr al-Banāt [M.1206] (table 4, no. 24), limits the territory of the *Bizzikoi/Kaprobaradaioi*. The isolated location of the monastery in fertile surroundings [III.1206/2] raises the question as to the community constituting an agricultural and pastoral²³ dependency under some authority at Qirqbīze²⁴ in Ġabal al-A'lā or at

²⁰ Dayrā Mār Rūmanā: the monastery restored by Procopius (L.161, V, ix, 27)?

²¹ Cf. sect. II.1.1.2.5 and table 2.

²² Cf. sect. II.1.2.1 (no. V).

²³ Given the location, internal disposition and the orientation towards the Roman roads.

²⁴ No monastery, but a *martyrion* has been found in this village; cf. above, sect. II.1.1.2.5. Qirqbīze is situated 11.2 km south-west of Qaṣr al-Banāt.

Brād²⁵. It is the only inscription that refers explicitly to a monastery. In IGLS 618 and 620 – from al-Ġūwānīya [M.988] (no. 6) – and PAES III B, 1195 – near Bānastūr [M.1239] (no. 27) – the identification of church versus monastery is less clear²⁶. Furthermore, the northern and southern *ġabals* had been subject to tetrarchic imperial cadastration to separate *ager* from *saltus*, traces of which can still be found (Tchalenko 1953: I, 130-132 and III, 6-11. 51; Tate 1992: 229-238). The boundary walls of most monasteries – if they ever existed – have in most cases disappeared²⁷.

Tchalenko and Tate made a great contribution to the identification of monastic holdings, but refinement through the consideration of presses, mills and water storage devices still needs to be made. An attempt to do so underlies chapter III.

However, the overall picture we gain shows that only a few monasteries were built at a 'substantial' distance from villages or other settlements (e.g. Brayġ [M.1136] (no. 16)) and that by the sixth century entire areas may have been in monastic hands. This has been shown for Ġabal al-A'lā²⁸ and may hold true for the

²⁵ Kaprobaradaioi < Syriac *kafrā* ('village') + Brād; Brād is situated 26 km north-east of Qaṣr al-Banāt, and had at least two suburban monasteries: Qaṣr Brād [M.1240] (no. 30) and a second monastery, unpublished, in the north (Tchalenko 1953: III, 89).

²⁶ PAES III B, 298 (Salamīya) and 350 (Ḥamā) are comparable markers, for they refer to the limits of Christian sanctuaries (monasteries?); similarly, CIL 13640 (Al-Faradīn) in Pisidia.

²⁷ Examples still visible on the ground: Dayr Šinšarāḥ [III.920/1] (no. 1), ad-Dayr/al-Bāra [III.926/1] (no. 4), Dayr al-Malik [III.1004/5] (upright pillar walls); al-Brayġ [III.1136/1] (no. 16), Dayr Ṭurmanīn [M.1180], Dayr Tell 'Adē [III.1190/2] (no. 21). In the present thesis walls are only considered with regard to their significance for the delimitation of productive space. Monastic walls had a number of functions which need to be treated elsewhere, such as fortification (e.g. M.020, M.476) or the merely symbolic separation from 'the world': though focusing on Egypt, this issue can be found discussed more profoundly above, in sect. I.1.1 and I.1.2.

²⁸ Cf. sect. II.1.1.2.5.

'bands' Bānqūsā – Kaukanāyā²⁹ and Burğ Nimra – Sarfūd. Similar observations can be made in the Plain of Dānā where Dayr Ṭell 'Adē [M.1190] (no. 21), 'a hot-bed for new (monastic) foundations' (Vööbus 1958-1988: II, 243-244), could have given rise to a number of affiliate sites: Burğ as-Sab' [M.1192] (no. 22), Dayr Aḥṣān, Dārt 'Azze and Dayr Ṭūrmanīn [M.1180] (no. 20). Two of these sites were clearly holdings, the other two have not been explored. This 'cooperative idea' had again been argued by Peña (1980: 242-243) who interpreted some of the towers ([Burğ] Ġābir [M.1112], Burğ 'Abdallāh [M.1108] and Burğ Nassir [M.1118]) as agricultural dependencies of the Qal'a monastery (Dayr al-Ḥosn) near Sarmadā [M.1106]³⁰.

II.2.2.8 Mesopotamia

The reality of life and settlement in Mesopotamia can partly be reconstructed from the chronicles and *Lives* that attest to the highly developed agricultural economy of the monasteries³¹. The *Life* of Jacob [L.432] suggests that the early fifth-century monastery near Ṣalāḥ was a landowner who, presumably, owned the village too. Just in the way as the early founder of the monastery of Mār Gabriel [M.1440] was directed by the 'Coldness of Water'³², so was Ananias, the re-founder of Deyrulzaferan (Dayrā d-Kurkmā, 'Saffron Monastery') in AD 793: the location was chosen (presumably in the AD 530s) for its well-watered position and the fertility of its

²⁹ Namely Qaṣr al-Banāt [M.1054] (no. 10); Qal'at al-Burğ [M.1056]; Ad-Dawwār [M.1058] (no. 11) and Ad-Duwayr [M.1060].

³⁰ Cf. sect. II.1.2.1 (no. 3).

³¹ Cf. sect. III.1.4 (on olive oil) and III.1.5 (on wine).

³² Cf. above, sect. II.1.1.1.

soil. In the surroundings there were cliffs suitable for hermits' abodes³³. Elsewhere, the distinction between an 'upper' and a 'lower' monastery – as referred to in the sixth-century *Life of Aḥā*³⁴ – may suggest a functional division between the residential and agricultural zones.

In northern Mesopotamia monastic dependencies are also attested in the 'difficult and dense mountainous area called *Sebastia*' where Symeon (of Kefar 'Abdīn) and his brethren ran an agricultural farm (L.441, p. 421). During the eighth century we encounter two substantial, but distant dependencies of the monastic community of Mār Gabriel [M.1440], one in the Singar Mountain (some 120 km south-east; Brock 1979: 178), the other in the Plain of Bēt 'Arabāyē near the ruined Persian city of Serwān (Brock 1979: 175-176; Palmer 1990: 163). In this latter region Symeon 'of the Olives' (d.734) later planted his olive-trees³⁵. Not yet published – but excerpted – is a passage of an early eighteenth-century version of the *Life of Mār Gabriel* [L.436], a passage of which refers to the period pre-AD 580 and lists in a remarkable manner the possessions of the monastery in land and in men:

'The monastery had camels and mules and horses on which they brought flour from the mills which they possessed in Mount Singara and in the Valley of Gehenna [east of Ba Sebrīna/Haberli] and in the city of Sarwān, and in the city of Nisibis and in Harmošo (?). In Mount Singara was a[nother] monastery called after Mār Gabriel and monks who lived there by the ploughs. Serfs who belonged to this monastery could collect the food and the seed and everything and would grind the flour and send it with the (other) serfs to the monastery. They would also tend the vineyards that the monastery possessed there. Peasants and hired men worked (here) too. The monastery also possessed parks and lands and gardens in the city of Nisibis and in Sarwān and in the region of Ḥezū [see L.437, 2 and 5, 10] and in all the region of Ḥesno (Ḥesno d-Kēfo)

³³ L.472, XII, 5; cf. also vol. 2, sect. C.5.

³⁴ Reference is being made to a partial translation of the *Life* in Vööbus (1956: 11 fn. 9) and Palmer (1990: 96); the monastery was situated near Nisibis, in southern Ṭūr 'Abdīn.

³⁵ Symeon's enterprise will be discussed in the section on olive oil (III.1.4).

and indeed in every region and village, with which there is no need to bore the audience. This monastery also had mills and vineyards and houses and lands and 'vows' [i.e. endowments prompted by religious motives] beyond all reckoning. Moreover Anastasius the king [AD 491-518], he (who built) the great temple, gave to this monastery seven villages, the names of which all begin with the letter koph: Kafar 'Arab, Kafar 'Ālo, Kafar Ḥewār, Kafar Šoma', Kafar Nīnāk^h, Kafro, Ḥībar together with their land. It also has many cities, villages and places each of which has its own name, given by 'vows' to this monastery. Behold, they are written in another book which is in the monastery.' (Palmer 1982: 121-122)

The parallels with the eighth-century *Life of Symeon* [L.442] are striking. The identity of the sources still needs to be shown.

Conclusion

Papyrological, textual or archaeological: the evidence of monastic landownership and the acquisition of monastic land (primarily through inheritance and donation, rarely through purchase or sale) attests to monasteries, at least during the sixth century, having withdrawn substantial parts of the *oikoumenē* from the civilian world. Through agricultural investment, as shown in the following sections, some of their profit may have been returned. Secondly, we observe a striking degree of estate fragmentation (up to 44 individual plots). Unfortunately, these can be traced only in Egypt, as textual documentation (papyri) on this issue is absent for most parts of the Levant. Thirdly, the *total* agricultural surface per monastery (and individual plot) is comparatively small (also in comparison with the holdings of city-dwellers in Hermopolis and Antinoopolis Magna) – some figures are summarized below:

Section	Total surface per monastery	No. of plots	Surface per plot
Egypt/Aphroditō			

average, based on all monasteries	II.2.2.1	14.88 ha	8.33	1.7866 ha
average, without Apa Sourous		5.46 ha	3.9	1.4 ha
Apa Sourous [M.162] – largest		91 ha	44	2.07 ha
Sinai				
average	II.2.2.2	0.28 ha		0.28 ha (?)
Dayr Rumhān – largest		0.99 ha	1+ (?)	0.99 ha (?)
Jerusalem				
average	II.2.2.3	2.63 ha		2.63 ha (?)
Ramot [M.652] - Ra's aṭ-Ṭawīl [M.650] – largest		5.25 ha	1+ (?)	5.25 ha (?)
Judean Desert				
average	II.2.2.5	10.14 ha		10.14 ha (?)
'Ayn Aneva [M.792B] – largest		79 ha	1+ (?)	79 ha (?)
North Syrian Limestone Massif				
Dayr Dēhès [M.1080]	III.1.4.3 ³⁶	≥ 34.08 ha	1+ (?)	≥ 34.08 ha (?)
Mesopotamia/Ṭūr 'Abdīn				
Symeon 'of the Olives'		82.75 ha	1+ (?)	82.75 ha

Fourthly – and in view of the evidence of agricultural installations – the questions arise whether, in certain cases, monasteries had actually withdrawn their land from the local communities, and if not, inversely, the communities, providing a pool of labour, benefited from (and grew due to) the proximity to the more 'entrepreneurial' monasteries. In no case, however, has it been possible to have these hypotheses confirmed.

³⁶ Cf. below.

II.2.3 Digression: The function of the tower (*pyrgos*, *būrgā*, *al-burġ*)

'First of all he [Saba] built a tower on the hill on the northern edge of the gorge after the bend, in order to take possession of the land while it was still unoccupied'³⁷: if Sabas erected a tower to announce the presence of a monastery and to establish ownership of the land, the following digression seems necessary, in particular as towers could become valuable pieces of evidence in the assessment of potentially monastic land. Elsewhere, the author of this passage, Cyril of Scythopolis, reports that in AD 485 a demarcation was built between the monasteries of Theoctistus [M.704] and Euthymius [M.788], and that a tower, 'Paul's tower' overlooked the divided estates (L.136, 7, 226). As a divider, 'Paul's tower' had monastic estates on either side. As the academic debate on monastic towers has preponderantly been concerned with their defensive function, some towers³⁸ should be re-considered in a trans-regional perspective before some wider conclusions can be drawn.

Incorporated into the surrounding walls or overlooking the entrance gate, the monastic towers of the Judean Desert were the first to attract scholarly research.

³⁷ L.139, XVI. The monastery in question is Dayr Mār Saba [M.684] in Palestine.

³⁸ Monastic towers in *Egypt*: Dayr Apa Epiphanius [M.068]: KRU 75 and Ill.068/2; Dayr Apa Phoibammūn II [M.070]: KRU 65 and O.Crum 310 (the former is still visible on Ill.070/1 and 2); Dayr al-Balā'iza [M.164]: P.Balā'izah 303B; Dayr Anbā Abullū' [M.190]: BL Or. 6202 (pl. 45-49 and 50-54); Skēthis/Wādī n-Naṭrūn: Moses the Black (Bagnall 2001: 238; Innemée 1999), the other towers are of a later date; Kellia [M.360]: Descoudres (1998); *Palaestina I (Jerusalem and the Judean Desert)*: Festugière (1963), Hirschfeld (1992: 171-176), Patrich (1995: 118-121), Kloner (2003: 62-62); *Western Samaria*: Dayr Qal'a [M.800]; *Syria I and II*: Tchalenko (1953: I, 30-33), Peña (1980), with a post-1980 update in vol. 3, sect. C.5; *Osrhoene*: Mār Ya'qōb Nafšātā [M.1420]; *Mesopotamia*: Dayr Mār Gabriel [M.1440]; Mār Yoḥannan Ṭayyāyā: Bell - Mango (1982: pl. 226).

Festugière and Patrich stated the 'primarily defensive character' (Festugière 1963: 91; Patrich 1995: 126), but this has been contested as from 1992³⁹. Archaeologically, there is no clear criterion on how to identify 'primarily defensive' towers as stated by Festugière and Patrich or frequently attested in the Galatian villas of the fourth century AD⁴⁰. A defensive character can be assumed on architectural and historical grounds for some towers in fourth to fifth-century Egypt⁴¹, and again later during the ninth century AD⁴². At a first glance one would be tempted to think of parallels with the 'Judas-style'⁴³, fifth- and sixth century towers in northern Syria. But, again, these first need to be set into context (table 5) before further conclusions may eventually be drawn:

Tower	Site ID	Visibility	Press (sect. III.1.4.4.3; sect. III.1.5, pl. XV)	Estate (ex table 4)	Monastery attached	Dependency of ...	Pilgrimage
Dayr Šinšarāh	M.920			x	x		?
Burġ 'Abdallāh	M.1108	360°	x			Dayr al-Ḥosn [M.1106]	
Burġ Ġamūr	M.1132	360°	x		x		
Dāna	M.1170	360°	x		x		?
Kafr Hawwār	M.1200		?		?		
Kfellusīn	M.1204			x	?		
Burġke	M.1228			x	x		x

³⁹ E.g. Hirschfeld (1992: 171): 'Dwelling towers and border towers (to demarcate boundaries) – no mention of defense'.

⁴⁰ Gregory of Nyssa (d. ca. 386), *Epistula* 20, 9: πύργων προβολαί, 'projecting towers' (Rossiter 1989: 105-106).

⁴¹ Moses the Black, in Skēthis/Wādī n-Naṭrūn (cf. above, fn. 38). On the fifth century, a period of particular insecurity in the Libyan Desert, cf. Leipoldt (1902), Evelyn-White – Hauser (1926-1933: I, 150-167. 241-243. 297-298).

⁴² BL Or. 6202 (pl. 45-90 and 50-54) mentions a watchtower (ογρωψ) at Bāwīṭ [M.190], situated near the northern boundary. As the term ογρωψ clearly refers to the concept of 'guard', the assumption of a defensive tower, in a ninth-century context, seems justified.

⁴³ The 'Judas' is a door viewer or peephole, often situated above the entrance door. Cf. Tchalenko (1953: I, 247-248): 'postes de guet'.

Bānastūr	M.1230	< 360°		x	x		x
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Table 5: [up] 'Judas-style' towers in the Limestone Massif
[down] 'Non-Judas style' towers (ex Peña 1980)

An-Naqūz	M.1008	360°	x	x	x		x
Dayr Dehes	M.1080	360°	x	x	x		x
Burġ Ġābir	M.1112		x			Dayr al-Ḥosn [M.1106]	
Burġ Nimra	M.1114		x		x		
Burġ Suwayd B	M.1124	360°	x		x		
Burġ Yahyā	M.1130	360°	x		x		
Tell 'Aqribīn	M.1160	360°	x			[Tell 'Aqribīn]	
Dayr'amān	M.1164	360°	?	?	x		
Burġ Kfelludīn	M.1202		x				
Qaṣr al-Banāt	M.1206	360°	?	x	x		x
Burġ al-Qās	M.1236		x	x	?		
Qaṣr Brād	M.1240	360°	x	x	x		x (stylite)

The juxtaposition of various elements in table 5 shows that all (but one?) towers in the Limestone Massif – with or without Judas – were related to presses or to landed estates. Furthermore, the table illustrates the overriding importance of visibility and the frequent attachment of towers to monasteries. Pilgrimage, attested by graffiti or some type of guest-house, plays an important role in their identification, in particular as/where elements of fortification have *not* been found⁴⁴: the 'hermit's light in the tower' was a theme described by the poet Imru'u l-Qays (d. 540) (Butler 1919b: 235).

The function and orientation of the Judas need further investigation, as many (but not all) are placed above the doors. If communication was the primary

⁴⁴ E.g. Bānastūr [M.1230]: the site is situated on a slope or hollow so that the entire surroundings would *not* have been seen; Palmer (1990: 102-105) closely examined the 'hermit's tower' of Mār Gabriel Monastery [Ill.1440/1] on the crest of the hill: the study of the interior revealed the very characteristics of a three-floor hermit's tower, elsewhere, unfortunately, such investigations of the interior have not been made.

purpose⁴⁵, the orientation of the entire towers needs to be re-assessed. Could it be that the Judas served as a type of *maqṣūra* for the hermit, where he, though hidden and on analogy with the stylite⁴⁶, could on certain occasions be addressed? In absence of further documentation, these are the limits as to tower identification. However, considering table 5, it seems fair to assume some function related to dwelling (by a recluse or hermit, or a smaller community) and of the symbolic – rather than the defensive – control of the land⁴⁷. This archaeological observation brings us back to the actions taken by Saba and to a more anthropological approach to nature where the act of (monumental) construction in itself created a different landscape and, in this case, a sacred place. Furthermore, it is remarkable to find many monasteries with towers situated on elevated terrain, where the element of the tower would not have substantially added to the visibility of/from the plain⁴⁸. This leads to two further, final considerations in which the element of monumentality can clearly be seen.

Firstly, we hear that tower-dwellers were a common sight in the landscape of

⁴⁵ Cf. Peña (1980: 147). Only the Judas at Burğ Ğamūr [M.1132] and Dānā [M.1170] face the interior, whereas the orientation of the tower at Bānastūr [M.1230] is fully 'out of symmetry'.

⁴⁶ Balconies/ramps to address the stylite are well attested in the monasteries at Kafr Daryan [M.1104] and St. Symeon the Younger [M.1280], situated on the Wondrous Mount.

⁴⁷ In *A new stylite at Androna in Syria* Mango (forthcoming) has highlighted the symbolic similarities between the stylite's column and the tower (shown by textual evidence), notably at Ḥapsenās in Ṭūr 'Abdīn; cf. my consideration in sect. II.1.2.1. Ḥapsenās, however, visited on 14 September 2005, constitutes a column *sui generis*, in particular as it is the only stylite's column that could be climbed from inside. In North Syria, a column and a tower are attested in two influential monasteries: at Dayr Sim'ān NW [M.1222] and Qaṣr Brād [M.1240]. At Qaṣr Brād, the function of the tower [III.1240/4] remains unknown.

⁴⁸ E.g. in *Egypt*: Dayr Apa Phoibammōn II [M.070]; Dayr al-Balā'iza [M.164]; *Palaestina I*: Hirbat ad-Dayr [M.666]; Sabas [M.684]; Theoctistus [M.704]; Dayr Qal'a [M.800]; *Syria I and II*: Qaṣr ad-Dayr [M.1002]; an-Naqūz [M.1008]; al-Brayğ [M.1136], Dayr Ṭell 'Adē [M.1190], Burğ as-Sab' [M.1192], Qaṣr Brād [M.1240] etc.; *Mesopotamia*: Dayr Mār Gabriel [M.1440].

late antique Mesopotamia⁴⁹ and it is little surprising to find monks living in funerary towers, a type which had been favoured as a pre-Christian Aramaic burial place⁵⁰. The intentional imitation of the dead by the forms of their dwellings – also attested in Egypt by the ‘*cellule-tombeau*’ (Torp 1955-1957: 537 fn. 2; Torp 1981: 8) – is a *topos* in the hagiographic genre: ‘buried’ in his ‘tomb’, the pious monk underwent his mortification while living, which he carried out with consistency (Vööbus 1958-1988: I, 151-155. 169; II, 19-35). A striking parallel takes this hypothesis further to Osrhoene, where Jacob of Sarūḡ (d. 521) mentions the monastery of (another) Jacob south of Edessa (Deyr Yakup [M.1420]). Jacob refers to the monastery as *nafšātā*, a ‘funerary tower’ (Olinder 1952: 43, line 20; the tower is still in place) or place of rest (‘for the soul (*nafšā*)’). Placed to be visible over and from a wide area⁵¹, the symbolic appropriation of the land by means of a tower would thus have been given a sacred character and the surrounding land would have been turned into sacred space.

Secondly, the prestigious character of monastic towers has not yet been appreciated to a satisfactory extent: as the superior of his monastic community Saba lived in a tower⁵² and a similar function of dwelling has been attributed by Tchalenko (1953: I, 31) to the ‘dwelling [-tower] of the superior’ at Dayr Sim‘ān NW

⁴⁹ E.g. L.419, XIII. On monastic towers (*būrgā*) for recluses within cenobitic communities (not watch-towers!), cf. Vööbus (1958-1988: II, 272-273; literary evidence).

⁵⁰ Palmer (1990: 100). Smaller versions of the Palmyrene towers are found in Ṭūr ‘Abdīn in Northern Mesopotamia, e.g. at Mār Baršawmā near Ba Sebrīna (Bell - Mango 1982: 101 and pl. 106) and Ḥāḥ (*ibid.*, 117 and pl. 126. 149).

⁵¹ Deyr Yakup, situated in Nemrut Dağ, majestically overlooks the Edessene plain. Similarly, on the visibility of contemporaneous tombs in the Limestone Massif, cf. Tchalenko (1953: I, 36).

⁵² L.139, XVIII; Popovića 1997: 10-11.

[M.1222]. Apart from the residential function of towers, the issue of representation needs further study. It has briefly been addressed for Egypt by Descoudres (1998: 74-76). Only if we re-consider the location (within the landscape), orientation, dimensions and interior organisation and representativeness of monastic towers, can their function and influence on the religious behaviour of their surroundings be finally assessed. This is the more urgent as some towers were situated in perfectly plain environment, measuring 23 m in height, and 25 metres square (Qaṣr al-Banāt [III.1206/1])⁵³!

In conclusion, the observation made upon the symbolic appropriation of land and the 'sacralization' of space by no means excludes the agricultural character (as attested in table 5) and the benefits of 'towered' monastic sites: as Dar (1986: 110) noted in his work on Samaria, the origin and planning of certain towers could well be connected with vine and olive cultivation, and their related industries. As darkness is important for wine production, the interior of towers also provided reasonable conditions for the fermentation process (darkness, cool temperature) while the carbon dioxides could evaporate through the walls. This view is entirely agricultural. To make the connection: Burġ Yaḥyā [M.1130] in Ġabal Barīša was a monastic tower with no less than three presses, one with a roller and a lever-type press installed in the ground floor⁵⁴.

⁵³ For comparison: an-Naqūz [M.1008]: 5 m²; Qaṣr Brād [M.1240]: 15 m².

⁵⁴ Cf. sect. III.1.5, plate XV (fieldwork data, WP02.27).

Epilogue

Home to souls (*nafšātā*) and home to hermits, towers had changed the behaviour and memory of their surrounding worlds. Precisely for this reason, a monastic tower from Mesopotamia and an Arabic poem adorn the frontispiece of *Amurath to Amurath*, written in 1911 by Gertrude Bell:

قال لبيد بن ربيعة
 بلبننا وما تبلى النجوم الطوالع . وتبقى الجبال بعدنا والمصانع

*'We wither away but they wane not, the stars that above us rise;
 The mountains remain after us, and the strong towers when we are gone.'*

(Labīd ibn Rabī'a)

Monastery	ID	Location	Document	Notes	Size	Type	
Dayr Apa Phoibammōn I	M.056	?	P.Col. inv. 261	relationship with monastery unclear	2 <i>arouras</i>		
Dayr Apa Phoibammōn II	M.070	?	BKU I 48	field tilled, shared taxation		Tax)	
		?	KRU 65	'village, χωρίον, fields (ωρε), meadows (ροί), crop'			
		? (Safte)	KRU 107			1 <i>nōh</i>	D
		?	KRU 108				D
		?	KRU 109				D
		?	KRU 110		date palm-tree(s)		D
		?	KRU 111		date palm-tree(s)		D
		?	P.Lond. I 77		wasteland		
		?	O.Brit.Mus.Copt. 12		irrigated land	(1 <i>aroura</i>)	
		Rumau	O.Crum 138				Tax
		Ūba	O.Crum 139				
		?	O.Crum 140				Tax
		?	O.Crum 185				
		'Eponychos'	O.Crum 206		ploughed field		Tax
		Patšment	O.Crum 303				Tax
		?	O.Crum 304				
		'Mnke'	O.Crum 307				
		?	O.Crum 308				
?	O.Crum Ad 3				D		
?	O.CrumST 60				D		
Dayr Apa Phoibammōn II (?)		?	O.Medin.HabuCopt .81	ploughed field			
Apa Paul	M.080	?	KRU 106			D	
Apa Pesynthios	M.084	'Plēin'	O.Brit.Mus.Copt. 66/2			D	
Georgiōs	M.096	?	P.Ryl.Copt. 181	rented out		Tax	
Tabennēsē (?)	M.100	?	BKU I 36	fields tilled			
Dayr Anbā Šinūda	M.122	various	P.Cair.Masp. 67312	III πάντα τὰ ἀκίνητα πράγματα		D	
		Phthla	P.Ross.Georg III 48	rented out			
Apa Dios	M.134	?	P.Cair.Masp. I 67117	sold	¼ <i>aroura</i>	Tax	
Zmin (Aphroditō)	M.138	?	P.Cair.Masp. 67170; P.Lond. 1690	II rented out, later rented; V 3 <i>arouras</i> bought	3 <i>arouras</i>		
Abba Michael	M.140	Pisraēlios [M.156]	P.Cair.Masp. I 67118	affiliate monastery			
		?	P.Cair.Masp. 67141	II outlying structures, animal husbandry			
Apa Apollōs (Aphroditō)	M.144	Phthla	P.Apa Apollos 11				
		?	P.Apa Apollos 12			D+	
		?	P.Apa Apollos 15	tenant farms?			
		?	P.Apa Apollos 25	tenant farms?			
		?	P.Cair.Masp. 67176r	II			(D) ¹
Apa Sabouērios (Aphroditō)	M.148	?	P.Cair.Masp. I 67080				
Enōch	M.150	?	P.Cair.Masp. 67242	II rented out			
Genealios	M.152	?	P.Hamb. I 68	irrigated land, rented out			
Apa Patois	M.157	?	P.Lond. II 483	land for sowing, wasteland	12 ½ +		

¹ Land acquired through admission to monastic community.

					5 arouras	
Psentusēs (Aphroditō)	M.158	?	P.Mich. XIII 667	rented out		
Satibous (Aphroditō)	M.160		P.Cair.Masp. I 67097	pasture land, rented out		
Apa Sourous (Aphroditō)	M.162	? (2 plots)	P.Cair.Masp. II 67133	cultivated land, rented out		
		monastery owns various other landholdings; cf. pl. XIVa; other monastic estates at Aphroditō mentioned in P.Lond. IV 1412-1417. 1419. 1420. 1424. 1430. 1432-1434. 1436. 1442. 1444. 1445. 56. 1458. 1459. 1460. 1468. 1471. 1474. 1481. 1552/3. 1571. 1594. 1597 (AD 698-722), P.Lond. V 1680 ...				
Psinepoīs	M.168	?	P.Cair.Masp. I 67021			Tax
?	-	? (Aphroditō)	P.Vat.Aphrod. 11			
Ianbar	-	?	CPR IV 82	wine		
Wādī Sarġā	M.172	?	O.Sarga 108	irrigated land		
		?	O.Sarga 110	wine		
		various	O.Sarga 124	wine		
		Pšnbre	O.Sarga 131	wheat		
		Touhō	O.Sarga 133	wine		
		Planenhoire	O.Sarga 139	wine		
		'southern meadow'	O.Sarga 134	dried dates		
		Tiloġ	O.Sarga 135	wine		
		?	O.Sarga 146	vegetable garden		
		Tahrouġ	O.Sarga 153	garden		
		'big garden'		garden		
		'southern vineyard'	O.Sarga 178	wine		
		Theman	O.Sarga 194			
		Thallou	O.Sarga 211	wine		
		Takwutes	O.Sarga 213	wine		
		Nemhate		wine		
		Sanhūr	O.Sarga 219	wine		
		Tōw	O.Sarga 232	wine		
		Samalūṭ	O.Sarga 239	wine		
		Tahomō	O.Sarga 344	wheat (?)		Tax
		Nesieu	O.Sarga 345	wine		
			O.Sarga 346-354	wine		
		'field of the vineyard'/Tešnē	O.Sarga 355			
		Ampelou	O.Sarga 356-357	wine		
		Notinou	O.Sarga 358	wine		
		Pšnbre	O.Sarga 360-362	wine, wheat		
		Paa	O.Sarga 365	wheat		
Dayr Balā'iza Wādī Sarġā [M.172]	M.174	Tešnē	P.Balaizah 115			
			O.Sarga 355			
		?	P.Balaizah 158	fields		
		?	P.Balaizah 249	"send the young camel south"		
		Pektēs	P.Balaizah 291			Tax
		Pateron				Tax
		Pšonte		embolē in barley (?)		Tax
		Nerēbe		wine		Tax
			P.Balaizah 321	wheat		Tax
Tūnā al-Ġabal	M.198	Tbōte	P.Horak 10	irrigated land with ox-enclosure	5 1/3 + 2 arouras	
Apa Mēna	M.182	?	SB Kopt. I 50			
Dayr Anbā Abullū'	M.190	Ṭmou[-]mou	BL Or. 6201 B268A	related village (?)		Tax
		Tiloġ	BM EA 75318	wine		Tax

	Monastery	ID	Cultivated Surface	Total Enclosure Surface	Irrigation	Press	Notes
Raifhu	Ra's Ra'īya	M.400		n/a			
	Bi'r Abū Suwayra	M.402					
	Bi'r Me'ar	M.404	n/a T		WC		
Wādī Muwayġid	Wādī Fra'īya	M.406	2.100 m ² T				
	Al-Ma'in	M.408	n/a	n/a			on pilgrimage route (way-station)
	Šaqīf ad-Dayr	M.410	n/a		1R, WC		
	Dayr Umm Arad	M.412	650 m ²				
	Al-Hirba (Dayr Muwayġid)	M.414	250 m ² T	n/a	WC		on pilgrimage route
	Farš Habaš	M.416	1.850 m ² T				
	Dayr Umm Butma	M.418	n/a				
	Ġabal Umm Šomer	Dayr Rumhān	M.420	9.900 m ²		1R, WC	
Dayr Antūš		M.422	5.860 m ²		WC	x (wine)	on pilgrimage route
Wādī Ġibāl, Ġabal Bāb	Ġabal Huzayma	M.424	n/a				on pilgrimage route (way-station)
	'Ayn Naġīla	M.426	5.400 m ² F/T	n/a	1R	x (wine, III.426/1-2)	
	Ma'in ar-Ra'iyān	M.428	1.100 + 1.800 m ²			x (wine)	
	Wādī Ġibāl Farmhouse	M.430	n/a F		1R, WC		
Al-Leġa	Dayr al-Arba'in	M.432	n/a	54.000 m ²	3R, WC		
	St. Onophrius' Cave	M.434	550 m ² F				on pilgrimage route
	Wādī Abū Hayman	M.436	480 m ² F				
Ġabal Sufsa (Mount Horeb)	Ġabal Mūsā	M.438					
	St. Elija's Valley	M.440	5.000 m ²		1R		
	Wādī Šrayġ	M.442	3.350 m ² F		WC		
	Complex 12	M.444	750 m ² T				
	Complex 18	M.446	650 m ² F				
	Complex 50	M.448	2.700 m ² T		2R, WC		
	Complex 70	M.450	1.550 m ² F/T		WC		
	Complex 83	M.452	642 m ² T				
	Complex 100	M.454	8.000 m ² F/T				
	Complex 210	M.456	400-600 m ² T		2R, WC		
	Complex 220	M.458	1.450 m ² F		1R, WC	III.458/1	
	Complex 230	M.460	280 m ² T		2R, WC		
	Complex 240	M.462	250 m ² T		1R, WC		
	Complex 290	M.464	2.500 m ² F/T				prayer niche
	Complex 320	M.466	3.500 m ²		WC		
Ar-Rāha, Ar-Rabba Plains	Wādī Umm Sardī	M.468	1.500 m ²		1R		
	Dayr Rabba	M.470	3.150 m ²		1R, WC	?	
	Al-Bustān Church	M.472	n/a		1R		
	Abū Silla	M.474	n/a				on pilgrimage route
Ġabal ad-Dayr	St. Catherine	M.476			1R (150 m ³)		on pilgrimage route
	Ġabal ad-Dayr	M.480	7.200 m ² T (17 plots)				on pilgrimage route
Wādī at-Ṭlah	Dayr Tala'a	M.482					olive-oil (modern)
	Dayr Foġar	M.484	n/a			?	(wine)
	Dayr al-Fuqarā'	M.486			1R, WC	?	(wine)
	Farš Šamma'a	M.488	650 m ² F				
	Al-Miliq	M.490	1.160 m ²			x	(oil)
	Dayr at-Ṭlah	M.492	7.200 m ²				
Wādī Abū Ġayrus	Dayr Rummāna	M.494	6.500 m ² (6 plots)		1R, WC		
	Dayr Šoḡat	M.496	1.800 m ²				
Fre'a Moutal	Wādī Inšel al-Asfal	M.498	5.400 m ²				
	Dayr Abū Mgār	M.500	1.320 + 700 m ² F/T			?	(wine)

n	Dayr Rummāna	M.502	4.500 + 1.350 m ²		(many cisterns)		
	<i>Dayr Tarkiba</i>	M.504	1.800 + 1.175 m ² T		2R, WC		
Pharan Oasis	Dayr Banāt	M.506					
	Pharan Tell Maḥrad	M.508		525 m ²			
	Ġabal Taḥūna	M.510					on pilgrimage route
	Pharan Dayr Ṣaġīr	M.512					on pilgrimage route
Wādī Siġilliya	Siġilliya Church Site	M.514	3.420 m ² T	4.500 m ²			
	<i>Palm Grove Site</i>	M.516	2.700 m ²		1R, WC		
	Al-Karm	M.518	1.450 m ² T		1R, WC	x (wine)	pilgrimage (?)
	Dayr Siġilliya	M.520	100 m ² T		1R, WC		

Landholdings in Sinai: summary

Legenda: F ... fenced; T ... terraced; R ... cistern/reservoir; WC ... water conduct(s); *Italic* indicates that the location was an affiliated estate rather than a monastery itself, **bold** that it was a coenobium rather than a *laura* or hermitage

Monastery	ID	Cultivated Surface	Total Enclosure Surface	Irrigation	Press	Notes
Nea Church Complex	M.640					
Dominus Flevit	M.642			1R (>500 m ³ , Ill.642/1)	1 (wine)	
Dayr Ġazzālī	M.646		875 m ²	2R	4 (wine, Ill.646/1), 1 (oil)	guest-house
Ra's aḡ-Ṭawīl	M.650	12.580 m ² F	>25.000 m ²	1R	1 (wine)	
Ramot	M.652	40.000 m ² F		2R	1 (wine), >1 (oil)	

Landholdings around Jerusalem: summary

Legenda: F ... fenced; T ... terraced; R ... cistern/reservoir; WC ... water conduct(s); *Italic* indicates that the location was an affiliated estate rather than a monastery itself

Monastery	ID	Cultivated Surface	Total Enclosure Surface	Irrigation	Press	Notes
<i>Hirbat Abū Ġunaym</i>	M.610	n/a	455 m ²	>1C		
<i>Hirbat Dayr al-'Amūd</i>	M.612			1C, 4R, WC	? (oil)	
<i>Hirbat Ġūzūm</i>	M.614		900 m ²	1C		
<i>Hirbat Lūqā</i>	M.616					
<i>Hirbat Mazmuriya</i>	M.618			1C, WC	1 (wine?)	
<i>Hirbat Siyār al-Ġanam</i>	M.620		7.500 m ²	2C (>1300 m ³)	1 (wine), 1 (oil, III.620/2-3)	guest-house (?)
<i>Hirbat Umm at-Tala'a</i>	M.622			>1C		
<i>Kanīsat ar-Ra'wāt</i>	M.624		1.250 m ²	1C		
<i>Ramat Raḥel</i>	M.626		4.600 m ²		1 (wine, oil)	
<i>St. Theodor (Bi'r al-Quff)</i>	M.628		1.500 m ²	1C (~350 m ³)	3 (wine)	
<i>St. Theognius</i>	M.630		1.400 m ²	2C		

Landholdings around Bethlehem: summary

Legenda: F ... fenced; T ... terraced; C ... cistern; R ... reservoir; WC ... water conduct(s); *Italic* indicates that the location was an affiliated estate rather than a monastery itself

Monastery	ID	Cultivated Surface	Total Enclosure Surface	Irrigation	Press	Notes
Hirbat al-Qunaytira	M.660	1.800 m ² T	1.500 m ²	1C, 1R	1 (oil, III.660/2)	
Caparbaricha	M.661				1 (wine, III.661/1)	
Hirbat al-Qaṣr	M.662	n/a T	1.250 m ²	6C	1 (oil)	
Nea Laura	M.663	n/a T	600.000 m ²	12C, 1R (>500 m ³), WC	1 (wine)	
Severianus	M.664	n/a T	600 m ²	1C		
Hirbat ad-Dayr	M.666	30.000 m ² T	4.400 m ²	C (several), 1R, WC (III.666/2)	1 (oil, III.666/3)	guest-house (?)
Wādī al-Ḥammām	M.667					
Hirbat at-Tīna	M.668	n/a	560 m ²	2C		
Hirbat Umm al-'Amūd	M.670	n/a		1R	1 (oil)	
Hirbat Rabi'a	M.672		360 m ²			
'Ayn as-Saḥarī	M.674	ca. 25 m ² T	n/a	1R		
Souka	M.676	18.000 m ² T	450.000 m ²	28C, >3R (>6.000 m ³ , III.676/1)		guest-house
Theognius	M.680			2C		
Hirbat Yuhzūm	M.682		600 m ²	1C		
Sabas	M.684	various	400.000 m ²	14C, >3R, WC		guest-house
Heptastomos	M.684B	n/a F	250.000 m ²	2R (>700 m ³ , III.684B/1)		
Zannus	M.686		700 m ²			
Mikron	M.688	n/a T		3C, WC (?)		
Castellion	M.690		1.200 m ²	1C (?), WC		2 guest-houses
Theodosius	M.692		9.000 m ²	>1C, 1R (>3.750 m ³), WC		nosokomium
Spelaion	M.694	n/a T		1C, 3R (>580m ³ , III.684/1), WC		guest-house (III.694/2)
Eustathius	M.696	n/a	1.300 m ²		1 (wine)	
Scholarius	M.698	n/a	2.550 m ²	2C		
Jeremias	M.700	various	27.000 m ²	3C (1/group), WC		
Martyrius	M.702	9.900 m ² T (III.702/1+3)	6.400 m ²	6C (>30.000m ³), WC		guest-house, bath
Theoctistus	M.704		2.200 m ²	1C		
Pantaleimon	M.706		600 m ²	WC		
St. Peter	M.708		3.600 m ²	1R (875 m ²)		guest-house (? , III.708/1)
Hirbat Handūma	M.710	n/a	2.500 m ²	1C (200 m ³), WC		
Gabriel	M.712		286 m ²	1C		
Gerasimus	M.714		380.000 m ²	>1C, WC		
Aeliotes	M.716	7.800 m ²		1R, WC		guest-house (?)
Elias	M.718	n/a F		2R (vaulted), WC		
Jericho St. Andrew	M.722					piscina
'Nestorian Hermitage'	M.724					
Pyrgoi	M.728		1.750 m ²	1R		
St. Adam	M.730		1.440 m ²	1C (III.730/1)		guest-house
Qalamūn	M.732		240.000 m ²	1C		
Pharan	M.734		30.000 m ²	1R (>600 m ³)		
St. John the Baptist	M.736			1R, WC		2 guest-houses
Wādī Muḡār	M.738		2.200 m ²	2R (>180 m ³), WC		

Pege	M.740	1.000 m ² T	30.000 m ²			
Petrus	M.742					
- Site 'J'	M.744		3.750 m ²			
Sapsas	M.746			>1C		
Peter	M.748		650 m ²			
Soubiba/Bessarians	M.750		2.250 m ²			
Penthucia	M.752					guest-house (?)
Soubiba/Syrians	M.754		1.600 m ²	1C		
Choziba	M.756	n/a T	1.800 + 15.000 m ²	C (several)		guest-house (?)
Galgala	M.758			1R, WC		
Chorembe	M.760					
Nuṣayb Nuwayṣira	M.762		1.200 m ²	1C		
Firminus	M.764		1.200.000 m ²			
'Ayn Yūnis	M.766					
Az-Zahāliq	M.768		2.500 m ²	1C		
Douka	M.770					
- 347 Site	M.772		n/a			baptistry
Hallat ad-Danabīya	M.774	n/a T	220.000 m ²	10C (2-80 m ³), WC		two-level <i>laura</i>
Qaṭṭar	M.776			1R		
Hirbat al-Kiliya	M.778	n/a T	2.000 m ²	2C		
- 189 Site	M.780			1C, WC		
Hirbat Umm Zakum	M.782		n/a			
Al-Qaṣr	M.784, M.784B		225 m ²	1C	2 (wine), 1 (oil)	
Phasaelis	M.786			1C, WC		
Euthymius	M.788	2.500 m ² T	3.500 m ²	3R (>2.600 m ³), WC		guest-house
Hirbat Umm al-Qaryatayn	M.790		480 m ²	1C		
Marda	M.792	790.000 m ² T ('Ayn Aneva)	80.000 m ²	3C, WC ('Ayn Aneva)		

Landholdings in the Judean Desert: summary

Legenda: F ... fenced; T ... terraced; C ... cistern; R ... reservoir; WC ... water conduct(s); *Italic* indicates that the location was an affiliated estate rather than a monastery itself

Monastery	ID	Cultivated Surface	Total Enclosure Surface	Irrigation	Press	Notes
Dayr Qal'a	M.800	25.000 m ² T	25.000 m ²	5R (>4.700 m ³ , III.800/2)		guest-house?
Hirbat al-Bira	M.802	n/a T			1 (wine)	
Hirbat Hudriya	M.804	n/a T			1 (oil, III.804/2)	
Hirbat ad-Dayr	M.806		900 m ²	1R	1 (wine?)	
Hirbat Dayr Arab	M.808		2.250 m ²	1R (III. 808/1)		
Hirbat Dayr Dakla	M.810				1 (wine)	
Hirbat Dayr Sim'an	M.812		1.600 m ²	1R		
Horvat Zihrin	M.814					
Mevo Modi'in	M.816		430 m ²	>2C	1 (wine), 1 (oil)	

Landholdings in Western Samaria: summary

Legenda: F ... fenced; T ... terraced; R ... cistern/reservoir; WC ... water conduct(s); *Italic* indicates that the location was an affiliated estate rather than a monastery itself

'In addition to the care of their souls, the monks, and in particular the young [monks], have to take on physical burden, to remember the world of the Apostle: 'We worked night and day in order not to be a burden to anyone' [1Thes. 2: 9] and 'You yourselves know that these hands of mine have supplied my own needs and the needs of my companions' [Acts 20: 34]. It would truly be strange if we did not meet our physical demands through our manual work (ergocheiron), but remained lazy and inactive [...], while the people of the world work hard with their hands to nourish women and children, to offer to God their beginnings, to do as much good as they can and to pay their taxes [to the state]. [...] Even more so as the Apostle orders that the lazy should not eat [2Thess. 3: 10-12].'

(Cyril of Scythopolis, *Life of Euthymius*, IX [L.137])

II.3 Fathers in controversy: between Messalianism and entrepreneurism

II.3.1 A world of extremes

In his article *Le Travail manuel dans le monachisme ancien: contestation et valorisation*, Guillaumont (1979) sums up the fundamental, constant dilemma of ancient monasticism, namely how to combine prayer and work. Part of the answer may be given when considering archaeology, whereas the other part may only be revealed by the texts. Only the extremes are clearly defined; they have been substantiated by the Bible itself:

'Therefore I tell you, do not worry about your life, what you will eat or drink; or about your body, what you will wear. Is not life more important than food, and the body more important than clothes? Look at the birds of the air; they do not sow or reap or store away in barns, and yet your heavenly Father feeds them. Are you not much more valuable than they? Who of you by worrying can add a single hour to his life?' (Matt. 6: 26-27 [-34]).

'Then Jesus said to his disciples: "Therefore I tell you, do not worry about your life, what you will eat; or about your body, what you will wear. Life is more than food, and the body more than clothes. Consider the ravens: They do not sow or reap, they have no storeroom or barn; yet God feeds them. And how much more valuable you are than birds! Who of you by worrying can add a single hour to his life? Since you cannot do this very little thing, why do you worry about the rest?" (Luke 12, 22-26 [-31]).

'So I say to you: Ask and it will be given to you; seek and you will find; knock and the door will be opened to you. For everyone who asks receives; he who seeks finds; and to him who knocks, the door will be opened' (Luke 11, 9-10).

'Pray continually' (1Thess. 5: 17).

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'You yourselves know that these hands of mine have supplied my own needs and the needs of my companions' (Acts 20: 34).

'Surely you remember, brothers, our toil and hardship; we worked night and day in order not to be a burden to anyone while we preached the gospel of God to you' (1Thes. 2: 9).

'For even when we were with you, we gave you this rule: "If a man will not work, he shall not eat." We hear that some among you are idle. They are not busy; they are busy bodies. Such people we command and urge in the Lord Jesus Christ to settle down and earn the bread they eat' (2Thess. 3: 10-12).

This section takes the textual evidence further and investigates the entire, continuous spectrum of *monastic* attitudes between the extremes. One such extreme is represented by the Messalians (*msallyōnē*, 'the praying ones'), also known as Euchitai (εὐχομαι, 'to pray'). These were the monks who opted for prayer and, like the Manichaeans¹, they entirely withdrew from work. Messalianism appears to have originated soon after AD 350 and its adherents could be found in Syria, Asia Minor (Gregory of Nyssa²), Thrace and, later, in Egypt (Makarius/Simeon) respectively². Research on the Messalians has widely been focused on the heretical, dogmatic element (e.g. Canivet 1961; Van Esbroeck 1998: 75-76; Escolan 1999: 91-123). The movement was banned in AD 431. Its economic effects have not yet been addressed.

John Chrysostom, an Antiochene, holds opposing views. Chrysostom's writings favour the 'pro-labour movement', and it was Chrysostom who developed – as the first in ecclesiastical history – a coherent and systematic 'theology of work':

¹ On Manichaean monasticism, cf. Vööbus (1958-1988: I, 109-137).

² Cf. below.

Chrysostom viewed work and manual labour as *pharmaka*, as remedies in the History of Salvation and as a universal law³. Antioch, his area of activity until AD 398, was situated in western North Syria and west of Osrhoene, and it is here in the following century that Theodoret eulogized the many Messalian⁴ and non-Messalian⁵ holy men. Their co-existence symbolizes the ongoing co-existence, in the monastic milieu, of both extremes.

II.3.2 From resistance to approval

A survey of the texts that reflect attitudes towards manual labour is summarized below. Table 6 is meant to list the principal sources in a regional and chronological order and marks key statements pronounced towards and between the extremes.

	Region	Monastery	ID	Sources (chronological)	Pro (work)	Contra (work)	Comments
1	Egypt	--	--	Ammonas Episcopus	E L.105, XLI; L.450, VIII	L.105, IV (novices)	continuous prayer
2		[Dayr Anbā Anṭūniyūs]	[M.318]	Antonius Magnus Abbas	E L.602, LXIII. LXXIII D L.134, 3, 6; 82, 4		
3		Tabennēsē	M.100	Horsiesius	E L.303, 62		agricultural work
4		--	--	Pseudo- Makarius	E L.157, 10, 6	L.451, Aeg. ep. 2. 3	
5		--	--	Historia Monachorum in Ægypto	E	L.102, I, 62	
6		--	--		D	L.102, I, 32. 58; XVIII, 2	
7		--	--	Sokrates	D L.162, IV, 23		
8		[Nitria]	[M.362]	Palladius – 'Enanišō	E L.123, XLVII, 2	L.421, Counsels, XV, 74 (Abbā Poemen)	against agricultural work

³ Seipel (1907: 131), Daloz (1959). On *pharmakon*, cf. *Adversus Iudeos*, 8, 2 (Migne 1857: XLVIII, 929) and *In Priscillam et Aquilam*, 1, 5 (Migne 1857: LI, 194).

⁴ E.g. L.124, IV, 10 (Eusebius).

⁵ E.g. L.124, X (Theodorus).

9		--	--	Cassianus	D	L.207, X, 20		
10		Skēthis	[M.358]	Apophtegmata Patrum	D	L.101, I, 13; I, 32; IV, 1; V, 18; V, 22; V, 53; VI, 15; VI, 19; VI, 21; VI, 28; VII, 16; L.301, 27. 83 ⁶		prayer
11		Dayr Anbā Šinūda	M.122	Shenoute	E	L.309, p. 254-255. 263. 264. 270. 277. 280		
12		Dayr Abū Mūsā	M.108	Moïses of Abydos	E	<i>Life</i> , p. 700 ⁷		nuns; prayer
13	Palestine	--	--	Sophronius	E	L.233, 3, 6; 17, 7		
14		--	--	Evagrius Ponticus	E	L.110, 49		continuous prayer
15					E	L.110, 57		<i>spoudē peri to ergon ametrētos</i>
16		--	--	Jerome	E	L.250, 125, 11 (<i>ad Rusticum</i>)		
17					D	L.231, 20, 2 (<i>Paula</i>)		
18		Euthymius	M.788	Cyril of Scythopolis	D	L.137, VI. IX (novice)		
19		Sabas	M.684		D	L.138, V (novice)		
20		--	--	Barsanuphius	E	L.106, 143		prayer
21		--	--	Dorotheus	E		L.108, <i>Instructio</i> II, 32	<i>apatheia</i>
22		--	--	Isaias Gazaeus 560	E	L.304, <i>Codex A</i> , fragm. III, 118 col. A	L.304, <i>Codex A</i> , fragm. I, 6 col. B	
23					E	L.416, 1 (?)		
24					E	L.604, col. 1134B. 1134 D; L.605, IV. XI		prayer
25		--	--	Ioannes Climacus	E	L.116, 13.14. 20	L.116, 13. 27	
26		Sabas	M.684	Leontius Damascenus	D	L.631, XI, 16 (occasional work); XX, 3		prayer
27	Cappadocia	--	--	Basilius Caesariensis	E	L.107, p. 21. 33; <i>Long Rules</i> , XXXVII. XLII; L.154, XXII. XXVI. LXXXI. CCLIV		
28	Mesopotamia	--	--	Pseudo-Ephrem	E		<i>Hymni et Sermones</i> , V, 6	

⁶ Other quotations from the *Apophtegmata Patrum* (ed. Migne 1857), relevant to the present issue and promoting manual labour against the wandering lifestyle, are given in Caner (2002: 20. 40. 41. 43).

⁷ Ed. Amélineau (1888); Cauwenbergh (1914: 152).

29	--	--	John Chrysostom	E	<i>In Priscillam et Aquilam</i> , 1, 5; <i>In Matthaeum homiliae</i> , 8, 5; 68, 3; <i>In Ioannem homiliae</i> , XLIV, 1; <i>Quaestiones in Genesim</i> , I, Interr. 7; <i>In Psalmos</i> , 103, 23; <i>De Providentia</i> , 1 ⁸		
30				D	L.462, XXXVI (p. 171)		
31	--	--	Theodore of Mopsuestia	E	(various) ⁹		
32	--	--	(anonymous)	E	L.401, VI		<i>Īhīdāyē</i>
33	--	--	Rabbūlā	E	L.423, XVI		
34	--	--	Theodoret	D	L.124, VIII, 3; X, 3	L.124, IV, 10-11 (Messalians); XXVI, 7-8 (Mār Bassus) ¹⁰	
35	--	--	Isaac of Antioch	E		L.414 ¹¹	
36	--	--	Philoxenus	E	L.452, 77		prayer
37				D		L452, 77	
38	--	--	Ioannes Bar Aphthonia	D	L.433, 5 (novice)		
39	--	--	John of Ephesus	D	L.419, XXXVI. XXXVIII. LI	L.419, V	
40	--	--	Dadišō' Qaṭṭrāyā	E	L.409, I. IX; L.415, Discourse V		prayer
41	--	--	Gregorius Bar Habraeus	E	<i>Ethicon</i> , Memrā II, chap. 5 ('on manual labour') ¹²		

Table 6: Attitudes towards work and manual labour and work (selection)

'E' indicates exhortation, 'D' description.

Remarkably, table 6 shows a clear numerical dominance with regard to both the types of 'exhortation' and 'description' of the 'pro-labour movement' (column 'Pro (work)') over those monastic representatives who argued against it (particularly no. 4, 21, 28, 34, 35 and 39). Manual labour was widely approved and fostered in the

⁸ Migne (1857: LI, 193; LVII, 88 ; LVIII, 643; LIX, 248-249; LXXX, 87 A-B; LXXX, 1701 D; LXXXIII, 568 C).

⁹ Cf. Daloz (1959: 158).

¹⁰ Bassus deliberately relied only on divine grace; cf. also Brown (1989: 336-337), Escolan (1999: 187).

¹¹ See also Vööbus (1958-1988: I, 155 and II, 148-150); Brock (1973: 17).

¹² Bedjan (1898).

monastic world!

On the other hand, the opponents of the 'pro-labour movement' are few in number and can be attributed either to a(n early,) solitary – e.g. Pseudo-Makarius (table 6, no. 4), Pseudo-Ephrem (no. 28), Simeon and Sergius the Recluses (L.419, V = no. 39) – or a later rigorous cenobitic movement – e.g. Dorotheus (no. 21) – within the monastic world. Their *Leitmotive* can easily be identified: *apatheia*, a concept fostered by Dorotheus (d. 560/580)¹³, and *amor creatoris* and *labor coelestis*, propagated by Pseudo-Ephrem: '*Venite, relinquamus laborem terrae ('amlā d-ar'ā) et assumamus laborem coelestem; venite relinquamus amorem pecuniae (reḥmat kesfā) et assumamus amorem creatoris [...] Qui nihil possedit omnia possidet'*.

It is still an open question whether the shift towards the wide-spread approval of manual labour after the fourth century was a spiritual – as hypothesized by Cassian (L.207, II, 14) – or a pragmatic move in the wake of emergent cenobitism. The latter impression can particularly be gained from the poems of Isaac of Antioch (d. ca. 460) (table 6, no. 35) in which Isaac castigates the agricultural and commercial activities of the emergent large monasteries in his days. For Isaac this development meant a denial of the true ascetic ideals: '*The sun blushed*', he regrets, '*to see monks who had turned into merchants*' (Bedjan 1890-1897: I, 41). Isaac, like John Chrysostom (d. 404) (no. 29), lived, half a century later, in the surroundings of Antioch. He held an opposite opinion.

¹³ On *apatheia* and *monachikē hyperēphania* ('monastic pride'), cf. Prévile (1963: 78).

In Osrhoene, Rabbūlā (d. 435) (table 6, no. 33) expressed similar concerns. His disapproval resembles that of Saba near Gaza (no. 13), namely not to miss the times appointed for worship under the pretext of occupation and work. Their disapproval was conditional and not a matter of absolute principle.

Next to Chrysostom, three more monks stand for a fuller 'theology' of manual labour and work: Evagrius Ponticus, Isaias Gazaeus and Ammonas. For Evagrius Ponticus (d. 399), the *spoudē peri to ergon* – which had to be *ametrētos* and 'hand-in-hand with humility, contrition, tears and an unlimited desire for the Divine' – constituted the supreme state of the soul (table 6, no. 15). In *De gradibus vitae monasticae* Isaias Gazaeus (d. 491) similarly divides the monastic career into three grades, namely the stages of the body, the mind, and the spirit. Work would presumably have been appropriate for the lowest grade (stage of the body; no. 23). Similar thoughts may underlie the arrangements made in some monasteries to have the manual work performed by the novices (no. 18, 19, 38 and chap. V.2). Ammonas, who, as a bishop, fostered both the virtues of manual labour ('*amlā pagrānāyā*) and the labour of the heart ('*amlā d-lebbā*), represents the opposite strand of thinking according to which the novices, more than the others, had to be spared from work (no. 1). And John Climacus (d. ca. 649), in Step 20 of his *Ladder*, gives work an intermediate standing: 'Some', he writes, 'keep nightlong vigil, their hands raised in prayer like spirits free of burden. Others sing the psalms or read, while some, out of weakness, bravely fight sleep by working with their hands [...] the

second do what is appropriate for a monk, and the third travel the lowliest road' (no. 25). Where *Rules*¹⁴ deal explicitly with the issue of work and manual labour, they rarely give the reasons on which their prescriptions were made. Seen in a 'global' perspective, the principal risk which derives from manual labour was the negative impact it could have on prayer and spiritual work¹⁵. One solution was to propose tasks that could be performed together with prayer (table 6, no. 1, 10, 12, 14, 20, 24, 26, 36, 40), but there is also evidence of the opposite effect, as 'some use prayer and psalmody as an excuse for neglecting their work' (no. 27)¹⁶.

II.3.3 The purpose of manual labour

The purpose of work and manual labour varies from author to author and in table 6 the following motives can be discerned:

- Type '2Thes. 3: 10-12' ('If a man will not work, he shall not eat'): no. 2 (L.134, 3, 6), 4 (L.157, 10, 6), 12, 13 (L.233, 3, 6), 27 (L.154, XXII. XXVI) and L.145, IX (Porphyrius).
- Type 'Acts 20: 34' – to provide for one's own/the companions' needs:

¹⁴ In chronological order (and those concerned with work also listed in table 6): in Egypt, L.602 (Antony), L.208 (Pachomius), L.303 (Horsiesius), L.308/09 (Shenoute), a pseudo-Shenoutian set of rules, MS BM Add. 17.216 fol. 43r, the only preserved *Rules* for nuns (Fiey 1965: 284); in Palestine, L.605 (Isaias), L.230, XXIII (Melania); in Syria, L.124, XXVI, 8 (Bassus); IV, 5 (Eusebius); III, 3-4 (Marcianus); V, 3-4 (Publius); X, 3 (Theodosius); in Osrhoene and Mesopotamia, L.401-L.413; in Cappadocia, L.204 (Basil) etc. Though presumably still in force during the later periods, apart from the *Rules* from Mesopotamia, no monastic *Rule* dates to later than the 5th century.

¹⁵ A very unique chain of cause and effect is portrayed in Climacus' *Ladder*: 'Tedium loves to be involved in hospitality and urges the monk to undertake manual labour so as to enable him to give alms. It reminds those at prayer of some job to be done and searches out any plausible excuse to drag him from prayer'. Accordingly, tedium was a kind of 'total death for the monk'. Later on Climacus ends in logical stalemate by arguing that 'the tyrant of tedium can only be battered by hard manual labour and brought to book by the blessings to come' [L.116, 13].

¹⁶ Long *Rules*, XXXVII.

no. 2 (L.134, 3, 6), 6 (e. g. L.102, I, 32. 58), 8 (L.123, XLVII, 2), 11 (p. 254-255), 18 (L.137, IX), 34 (L.124, X, 3), 39 (L.419, XXXVI) and L.131, 14 (Pachomius); L.145, IX (Porphyrius); L.436, 3 (Mār Gabriel).

- Type '1Thes. 2: 9' – to provide acts of charity: no. 1 (L.105, XLI), 2 (L.134, 3, 6), 6 (e. g. L.102, I, 62; XVIII, 2), 8, 18 (L.137, VI), 27 (*Long Rules*, XLII), 39 (L.419, XXXVIII), 40 and L.131, 6. 14 (Pachomius); L.145, IX (Porphyrius).
- Against the dependence on alms: no. 10 (e. g. L.101, VI, 28), 18 (L.137, VI. IX), 34 (L.124, X, 3), 39 (L.419, LI), 40.
- Against idleness: no. 1, 25 (L.116, 13)¹⁷, 26 (L.631, XX, 3), 27 (*Long Rules*, XLII) and L.207, II, 14 (Cassianus).
- Against the desires of the flesh (e. g. gluttony): no. 25 (L.116, 14. 20).
Against fornication: no. 10 (e. g. L.101, V, 18), 24 (L.605, IV) and L.409, cxxxv (Mār Abraham).

¹⁷ Cf. above (fn. 15).

PRODUCTION

Chapter III

In a hundred pages, chapters I and II have set the framework within which to consider monastic production and productivity. Production is therefore our subject for chapter III. Subdivided into agriculture (sect. III.1) and manufacture (sect. III.2), monastic production can be assessed in a number of ways¹. Likewise for the other agents of the ancient economy (individuals, villages etc.), the evidence of production is heavily biased by agriculture. Accordingly, as will be shown in the following sections, it continues being a promising sphere for archaeological activity. Agriculture was performed by individual monks and by entire monasteries.

Manufacture, on the other side, is better documented by the texts (above all, the papyri) than by archaeology, which makes manufacture a more speculative issue in the monasteries. However, together, textual and archaeological documentation unveil ancient monastic production as a wide-spread and complex reality. A core chapter of this thesis, this reality will be traced on the 200 pages that follow now. Section VI.2 (jointly with vol. 2, sect. C.5), on specialisation versus generalisation, will later confront various types of production and productivity.

The sections on agriculture (III.1) consider animal husbandry, beer, bread and cereals, oil and wine; those on manufacture (III.2) basketry, glass, leather goods, pottery² and textiles.

¹ Cf. also above, sect. I.2, and sect. VI.1.2.

² The production of pottery flasks (*eulogiae*) is not part of this thesis, but will be considered elsewhere.

III.1 Agriculture

III.1.1 Animal Husbandry

In some monasteries, animal husbandry was a controversial issue from earliest times. The early *Rules* from Syria and Mesopotamia (Mār Bassus, Rabbūlā *et al.*) explicitly forbade the keeping of animals, for *'no monk shall possess the goods of sheep and of goats or of horses and mules or of other animals, except one donkey (for those) who need it, or one yoke of oxen, (for those) who seed (the field)'*¹. After Rabbūlā (d. AD 435) this issue was again raised in seventh/eighth and thirteenth century Syro-Mesopotamia². On the other hand, in the rest of the *oikoumenē* the papyri and *Lives* of the monks mention animals and their stables as essential parts of late antique monasteries.

The variety and complexity of keeping animals in various monasteries is well documented by the written sources³ and – though less frequently – by the evidence from archaeology, such as stables and other animal buildings, mangers and – though in most cases discarded – archaeobotanical remains.

¹ L.423, IX. This ban was repeated in a pseudo-Rabbūlian Canon [L.425, IV] and in Bār Hebraeus' (d. 1286) *Nomocanon* VII, 10 [L.412]. Vööbus (1958-1988: II, 154-155) considers Rabbūlā's *Canons* a *'proof of the vigor of the ancient ideals and the attempt to build a bulwark against the rising tides of the advanced form of cenobitism'* (on such reactionism, cf. also sect. II.3.2), whereas Escolan (1999: 188) calls Rabbūlā a *'laxiste'*. Mar Bassus's *Rule* (*ibid.* (no. 34)) is quoted by Theodoret, in the *Life* of Symeon.

² L.404, III: *'A monk who shall possess oxen, donkeys, sheep, and fowl like peasants, it is not permitted from God; that one who transgresses and possesses – his lot shall be with them and not with the holy monks'*; similarly, Bar Hebraeus: cf. above, fn. 1.

³ E. g., by site, Dayr Apa Phoibammōn II [M.070]: sheep, goats, camel, donkey [KRU 65/112, O.Crum 88]; Dayr al-Ġizāz [M.086]: various [O.Deir el-Gizāz, *Journal des Fouilles* 1]; Pistentius of Qift: oxen, camel [L.352, II]; Tabennēsē [M.100]: oxen, pigs, donkey [L.123, XXXII, 10; L.303, LIX and p. 90]; Dayr Anbā Ṣamū'īl [M.302]: (small) camel [L.339, XXVI]; Sabas [M.684]: camel, horses [L.139, XXVI, LXXXI]; Jacob: oxen, sheep, donkeys [L.432, p. 12]; Aḥā: oxen [L.430, p. 23-24]; Dayr Mār Gabriel [M.1440]: camels, mules, horses [L.436, early 18th-c. version, tr. Palmer (1982: 121-122)].

Thus, in Egypt, we find

- oxen at Dayr Apa Phoibammōn I [M.056] (O.Mon.Phoib. 10), Dayr Apa Epiphanius [M.068] (P.Epiph. 446), in Wādī Sarġā [M.172] (O.Sarga 108), at Tūnā al-Ġabal [M.198] (P.Horak 10), Dayr al-Ḥammām [M.306] (P.Fay.Copt. 17)⁴, in Ptolemais [M.312] (CPR X 8);
- pigs at Tabennēsē [M.100]⁵, in Wādī Sarġā (O.Sarga 107; P.Ryl.Copt. 158. 159);
- sheep at Abba Michael [M.140] (P.Cair.Masp. II 67141), Dayr al-Balā'iza [M.174] (P.Bala'izah 303B/07);
- camels at Apa Joannēs [M.076] (O.Crum Ad 30.), at Ġēme (O.Brit.Mus.Copt. I 76/1), Dayr Apa Epiphanius⁶, Dayr Apa Phoibammōn II [M.070] (O.Crum 218/19/22), at Tabennēsē [M.100] (O.Mich.Copt. 7), Abba Michael [M.140] (P.Cair.Masp. II 67141), in Wādī Sarġā [M.172] (O.Sarga 93. 94. 110), at Dayr al-Balā'iza [M.174] (P.Bala'izah 249. (303B.) 321), Dayr Apa Jeremiah [M.334] (O.QU IV 375);
- donkeys (and asses) at Dayr Apa Epiphanius (P.Epiph. 408), Dayr Apa Phoibammōn II (O.Crum 229), in Wādī Sarġā (O.Sarga 98), Apa Mēna [M.182] (P.Bala'izah 119), Abū Mīnā [M.378]⁷;
- horses at Dayr al-Balā'iza [M.174] (P.Balā'izah 249).

Stables are mentioned at Phoibammōn (Antinoopolis?) [M.240] (P.Cair.Masp. III 67299), Dayr Anbā Šinūda [M.122] (P.Cair.Masp. III 67312), Tūnā al-Ġabal [M.198] (P.Horak 10), Abbas Andreas [M.264] (P.Oxy. I 146) and Dayr al-Ḥammām [M.306]

⁴ The dossier of this monastery has not yet been fully explored.

⁵ Cf. sect. III.2.3.3.

⁶ P.Epiph. 84, a camel-loan. The camel, however, seems to belong to Phoibammōn/Plōs, a camel-driver and layman.

⁷ O.Mena 8; the situation seems similar to the situation referred to in fn. 6.

(P.Fay.Copt. 17). By matching this hagiographic and papyrological evidence with archaeology in table 7 we are able to recognize, by reading horizontally, the enormous complexity and the variety of animal husbandry at various monastic sites:

Monastery	ID	Oxen	Pigs	Sheep	Goats	Camels	Donkeys	Horses	Stables	Fish	Birds	Bees
Dayr Apa Phoibammōn I	M.056	x										
[Ĝeme]	--					x						
Dayr Apa Epiphanius	M.068	x				x	x					
Dayr Apa Phoibammōn II	M.070			x	x	x	x					
Apa Joannēs	M.076					x						
[Qitt]	--	x				x						
Tabennēsē	M.100	x	x			x	x					
Dayr Anbā Šinūda	M.122								x (στάβλον)	x	x	
Abba Michael	M.140			x	x	x						
Wādī Sarġā	M.172	x	x			x	x					
Dayr al-Balā'iza	M.174			x		x		x			x	
Tūnā al-Ĝabal	M.198	x							x (βοοστάσιον)			
Apa Mēna	M.182						x					
Dayr Anbā Abullū'	M.190					x						x
Phoibammōn	M.240								x			
Abbas Andreas	M.264								x (στάβλ(ον))			
Dayr Anbā Šamū'il	M.302					x						
Dayr al-Ḥammām	M.306	x							x			
Ptolemais	M.312	x										
Dayr Apa Jeremiah	M.334					x				x		
Abū Mīnā	M.378						x					
Šabas	M.584					x		x				
Šalāḥ (Jacob)	--	x		x			x					
Mār Aḥā	--	x								x		
Dayr Mār Gabriel	M.1440					x	x	x				

Table 7: Animal husbandry attested by the written sources

Grey indicates textual evidence of stables at the site, diagonal lines evidence of stables on (also/exclusively) archaeological grounds.

However, comparatively little is known about the use of these animals. As

suggested by parallels in later periods and the few textual references to their use, it emerges that – ‘in general’ – oxen, camels and donkeys were preferably used for ploughing, transport and powering water-lifting devices⁸. Pigs, sheep, fish, birds⁹ and bees¹⁰ mainly served for raw materials (leather, wool, fertilizer)¹¹ and, with reservations¹², as nutritional supplies.

III.1.1.1 *Fish-breeding*

Largely unnoticed by scholars of the ancient economy is the wide-spread breeding of fish, for which there is evidence at various monastic sites: when Theodoret eulogizes the distinguished hospitality of the monk and bishop Abrahamēs, hospitality meant the offering of ‘first-class bread, wine and of fish’. Abrahamēs, however, as a monk and host, had no share in this comfort himself (L.124, XVII, 7). Elsewhere, there is evidence of prohibition, such as in the writings of Shenoute (d. 466) who, as an archimandrite, forbade fish (ΤΑΡΙΧΙΟΝ)¹³, baked fish (ΤΒΤ ΕΠΟΡΕ) and pickled anchovies (or *garum*?, ΧΙΡ ΝΤΒΤ) for the members of his community (Layton 2002: 45). Leaving aside the controversial issue of actual

⁸ E.g. P.Horak 10, O.Sarga 108. The use of animal-power in the operation of *sāqiyas* and rotary kernel-crushers (in oil-production) can also be inferred from the traces of harness, circular paving and traces of excrements which occasionally can still be found (e.g. Dayr ar-Rūmī [M.060], Dayr Apa Jeremiah [M.334]).

⁹ E.g. at Dayr al-Balā'iza (P.Balā'izah 309) and Dayr Anbā Šinūda under Besa (Van Cauwenbergh 1914: 141). Astonishingly, to date only a few monastic *columbaria* have been identified; these are attested at Hīrbat Siyār al-Ġanam [M.620] and in the vicinity of St. Theodore [M.626]. In the case of the latter the relationship with the monastery remains unclear.

¹⁰ P.Vindob. K 11375 (Bāwīṭ); this evidence is unique. The bee-keeper, however, a villager of Tbate, seems not to have been a monk.

¹¹ The use of the skins (leather, wool etc.) is dealt with in sect. III.2.3 and III.2.5. A unique account of 58 sheep, yielding 365 pounds of wool, distinguished by gender, period of birth and colour, is given in P.Cair.Masp. II 67141 (Abba Michael).

¹² Cf. below.

¹³ On pickled fish, cf. also sect. II.1.2.3, fn. 74.

consumption, the breeding of fish (husbandry) must have been a common monastic activity: Matthew, one reads, was a priest and fisherman in the province of Isnā', and lived a monastic life in virtue and poverty (L.666, XVII). At Dayr Anbā Abullū' [M.190], the monks Paul and Shenoute, when signing a document, scribbled their profession: 'fishermen' (BL Or. 6204 (pl. 40-44)). At Dayr Apa Jeremiah an inscription commemorates a certain ΚΗΤΩΜΕΤΡΕΣ, a profession that could be related to a (Nile-) fishing activity (Wietheger-Fluck 1995: 284). John Rufus informs us of a spiritual brother of Peter (the Iberian) near Bēt Ṭafša (north of Jerusalem), who was an expert in fishing (L.448, 98). And, finally, two Syriac Lives from Mesopotamia provide evidence of fish-ponds being dug at the monasteries of Benjamin ('*un véritable aquarium*') and of Aḥā [M.1442]¹⁴. Such fish-ponds were not only common in town houses and rural villas all around the Mediterranean (cf. Ward-Perkins 1986; Rossiter 1989; Higginbotham 1997), but also in the monasteries¹⁵. Fishing, it has been suggested, also provided a source of livelihood for the monasteries situated along the Sea of Galilee¹⁶, although whether it was actually eaten is not known¹⁷. During the tenth century aš-Šābušfī visited ar-Raqqā (former Callinicum) where he still witnessed the fishing nets of the monastery of Mār Zakkay [M.1400] opened out in

¹⁴ L.430, p. 23-24 and Scheil (1897: fn. 1).

¹⁵ Archaeological evidence of ponds can be found at Dayr Abū Qarqūra [M.330] and the church of St. Andrew, near Jericho [Ill.722/1].

¹⁶ E. g. at Gergesa/al-Kūrsī [M.828]; cf. Urman (1985: 93).

¹⁷ Fish, it emerges from the silence in the texts, may have been the only animal (cf. above, sect. III.1.1 and table 7) bred for monastic consumption. Though controversial in itself (cf. the objection by Shenoute), such consumption may well be justified by the symbolism of the fish (the Apostles were often referred to as 'fishers of men', the followers of Christianity *pisciculi*; the sacramental fish, with wine and a basket of bread, represents the Eucharist and the Last Supper in Christian art), which is substantiated by the New Testament itself: Mark 1: 17; Matt. 12: 40; 14: 17; Luke 5: 6; 24: 42; John 21: 6; 1Cor. 15: 39.

the river Baliḥ (L.606, XXVII). The spacious refectory of this monastery, recently excavated, will be dealt with elsewhere.

III.1.1.2 *Stables and mangers: the archaeological evidence*

From an archaeological point of view, stables and mangers are the most propitious indicators of animal husbandry at a given site, but one should also keep in mind that animals fed in mangers (presumably draught and pack animals) represented only one part of the possible livestock of the monasteries. Sheep and goats, like in modern times, are unlikely to have been accommodated there.

However, stables (and mangers) are extremely well documented in the monasteries of the Judean Desert¹⁸, and their arrangements provide some information about the husbandry and the actual use of these animals: at Sabas [M.684], the stable was situated inside the upper gate, whereas at Hirbat ad Dayr [III.666/5] the stable was located outside. In either case the proximity of the stable to the gate suggests a function of shelter for pack-animals (rather than other economically useful beasts). On the other hand, the evidence of two stables – both situated near the gate – at Martyrius' [M.702] is particularly interesting, for it illustrates the functional division of animal shelter for various groups: the smaller stable served the monastic community and was situated *inside* the wall, whereas the bigger

¹⁸ Namely at St. Theodore [M.628], Hirbat ad-Dayr [M.666], Hirbat at-Tina [M.668], Sabas [M.684], Castellion [M.690], Eustathius [M.696] (?), Scholarius [M.698], Martyrius [M.702], Theoctistus [M.704] (?), Gabriel [M.712] and Hirbat al-Kilīya [M.778] (?).

stable served the guest-house and was, accordingly, situated *outside* the wall¹⁹. Due to the agricultural/'industrial' character of many monasteries around Jerusalem²⁰, the stables at Dominus Flevit [M.642], Dayr Ġazzālī [M.646] and Ra's aṭ-Ṭawīl [M.650] most likely also gave shelter to pack-animals.

In the *Inventaires* of archaeological remains in North Syria – where Tate later identified mangers in no less than 500 rooms (Tate 1992; Foss 1995: 219)²¹ – Peña (1983: 55) mentions the '*grands mangeoires de pierre*' at the monasteries of Kūsik [M.1090; S.104], Dayr Bašakūḥ [M.1088], Brayġ [M.1136; P.200/21] and Ad-Duwayr [M.1060]. A close look at Peña's *Inventaires* and the analysis of field-data obtained in 2002 and 2003 allow us to add a number of late antique monasteries in the Limestone Massif where mangers and related structures (e. g. eyelets to fix animals) can still be found (table 8). This evidence is particularly important as some of these sites are dealt with elsewhere in this thesis, in connection with the production of olive oil and wine. Finally, an important observation as to the function can be made at the monasteries of Iskandar [M.1044] and at Bānastūr [M.1230]: each of these monasteries had a guest-house, with living quarters on the first, and stables (for the pack-animals) on the ground floors. This pattern would later be repeated in other monasteries²² and in the architecture of Islamic caravanserais.

Monastery	ID	Illustration
Kefert Aqab III	M.962	--

¹⁹ Hirschfeld (1992: 198 fig. 109) and III.702/2.

²⁰ Cf. sections III.1.4 and III.1.5.

²¹ Most of these units were parts of village houses rather than monasteries.

²² Cf. sect. IV.2.2.

Ad-Dayr (Tell Tifā)	M.994	P.208/24
Hirbat Quṣayr	M.1000	--
Qaṣr ad-Dayr	M.1002	S.358
Dayr Iskandar	M.1044	Peña 1983: 171 fig. 23
Dayr Bānqūsā	M.1054	S.99
Ad-Dawwār	M.1058	P.203/4A; S.96; S.150
Dayr Bab'iyān	M.1082	--
Dayr Burġ 'Abdallāh	M.1110	--
Dayr Babiṣqa A	M.1140	P.200/23-24
Dayr Tūrmanīn	M.1180	S.424
Dayr Sim'ān NW	M.1122	[WP02.350/52]
Bānastūr	M.1230	Peña 1980 : 379 fig. 22
Qaṣr Brād	M.1240	[WP02.385]
Bardhān	M.1250	--

Table 8: Mangers and related structures in the monasteries of the Limestone Massif (selection, widely based on personal observation)

As in late antiquity, today the north Syrian Limestone Massif is again home and grazing-ground to shepherds, sheep and goats: these animals, living in 'hypæthral' accommodation, do not leave any archaeological remains. One feels tempted to associate this reality with another poem by Isaac of Antioch, in which the priest and archimandrite looked, with considerable concern, upon the growing number of monastic flocks (Bickell 1873: I, 19. 38 ; Vööbus 1958-1988: II, 148). The (very limited) excavations at the village of Déhès in Ġabal Barīša, on the other hand, confirm the keeping of such animals in ancient terrain: at Déhès (the village, not the homonymous monastery [M.1080]), bones of animals were found among the archaeological remains: these attest to oxen (the only species absent today), sheep and goats (Sodini *et al.* 1980: 303). But, as it is impossible to assess any numbers, it remains an open question whether there had ever been any large-scale animal husbandry, whether monastic or non-monastic.

Unfortunately, as to monastic sites, archaeo-botanical remains of animals and their subsistence have rarely been preserved or scientifically analyzed . Unless

there is direct evidence of stables, mangers, animal bones²³, excrement²⁴ or organic remains (weeds, wild plants, wild grasses, wild legumes etc.), it is practically impossible to prove cattle-breeding, the *pastio agrestis*, in ancient times.

²³ The evidence of animal bones in monastic contexts is extremely rare. On fish-bones (notably cat-fish, Nile-fish) at Dayr Apa Phoibammōn I [M.056], cf. Bachatly (1961-1981: III, 55-56).

²⁴ Cf. above (n. 8).

III.1.2 Beer

In antiquity, beer, made of barley (ζῆθος, κούρμι; Byz. φουκάς, 'Arabian' beer), wheat, oats, millet (βωτε?) or dates was a staple drink in the Eastern Mediterranean and particularly in the Egyptian land¹. Praised for the simplicity of brewing and for the thirst-quenching qualities beer proves under the burning sun, brewing finds its expression in the Mishnah (*Pesachim* 3:1) and in the writings of Zosimos, an alchemist from Panopolis (mod. Asyūṭ) around ca. AD 300 (Gruner 1814). However, the documentation on beer – in images, texts and papyri – suddenly ends after that period², presumably barley having been given up in favour of wheat in view of the demographic expansion and the overall shortage of arable land (Bagnall 1993: 25. 32)³. This lacuna, which extends as far as the Islamic period, is the more regrettable as beer had (had?) such an importance in Egyptian society that brewing was regulated under the Ptolemies and even a tax, the so-called *zytēra*, had been imposed (P.Cair.Zen. 176, 30; P.Tebt. I, 40). With the rise of Christianity and monasticism, the question of the monastic involvement in brewing inevitably arises, but has to remain open as there is not a single late antique document preserved on the issue of monks and beer in the east. What is more, brewing, as far as we can

¹ Cf. Lutz (1922), Lucas (1928: 1-3), Forbes (1993: III, 130-134), Samuel (2000).

² Note that this observation is biased by the evidence from the large estates, which in the documentation dominate the scene. The subsistence part of the peasant economy has rarely been recorded.

³ Different, Van Minnen (2001: 1268-1270. 1273-1276) who argues that by that time beer had been replaced by wine as a recreational drink as a consequence of 'dietary Hellenization' and of the changes (from barley to wheat) in the agricultural régime.

judge at present, does not feature at all among the monastic activities⁴. With regard to its monastic consumption, however, St. Augustine (d. 430) reports that beer (*cervisia*) was actually served (in addition to wine) to some monks of advanced age⁵. The relationship between monks and beer in late antiquity awaits thorough investigation. Bremmer (1988: 4-5) tried to explain, little convincingly, the refusal of beer (if any) by Christian ascetics as a consequence of its very ordinary and recreational character.

Nonetheless, it is remarkable to note that three monasteries in Egypt were actually erected close to or on top of former, dynastic temples and brewery sites: Dayr Apa Phoibammōn II [M.070]⁶, Dayr Rīfa [M. 178]⁷, and Kawm an-Nānā [M.192]⁸. A connection between brewing and the monasteries, however, cannot be made. This is the more regrettable as in the west, during the Middle Ages, monasteries became important centres of brewing. Their large-scale production and cleanliness contributed greatly to modern brewing techniques (King 1947).

⁴ Literary and documentary: neither does any of the documents in vol. 2, sect. C relate to a cereal (other than barley) used for the production of beer; beer – but not brewing, and only in non-monastic contexts – is still attested sporadically until the 7th c.; cf. Drexhage (1997) and P.Eirene 33 (7th c.).

⁵ Pseudo-Augustinus, *Sermo ad fratres in eremo commorantes*, XXVIII (Migne 1844: XL, 1286).

⁶ 11th dynasty; Winlock, *The Bulletin of the Metropolitan Museum of Art* (1918-1920).

⁷ 18th dynasty; Petrie (1907: 23).

⁸ Kemp (1995: 9). The sites of Kawm an-Nānā and Dayr al-Madīna have recently provided important archaeological evidence for ancient Egyptian brewing practices. Both date to the New Kingdom (1550-1070 BC), the cereals found are barley and emmer (Samuel 1995; 1996).

'The importance of bread is evident throughout the Empire. The annona was merely the expression of this need, felt by both urban and rural populations, as well as by monastic communities.'

(Morrisson – Sodini 2002: 196)

III.1.3 Bread and cereals

III.1.3.1 Bread in the monastic diet

The aim of the monastic diet is the deliberate attempt at setting oneself outside the norm by restraint, the principle being not to refuse absorbing food altogether but to satisfy one's hunger progressively less (Rousselle 1983: 213; Devos 1986: 79; Regnault 1990: 92-93)¹. The literature often suggests that in early monasticism the minimal culinary régime consisted of bread, salt and water: bread was such a basic commodity that, according to Wipszycka (1996: 351), it was the *'véritable obsession qu'était le souci du pain quotidien'* that characterized the Egyptian monks at that time². Thus, bread was not only the staple food of the masses in the Mediterranean, but also in the monasteries.

Such a conclusion is substantiated by a plethora of ancient texts³, some early ones also highlight the particular virtue of refraining from food altogether, in exchange for grass⁴. During the fifth and sixth centuries (following the rise of the

¹ On motives other than diet for food deprivation in monasteries, involuntary ('institutionalized punishment meted out for infractions'), voluntary, or routine (weekly and seasonal fasts), cf. Layton (2002: 52-54). On the 'norm' in antiquity, Grimm (1996) and Dauphin (1999).

² On the Egyptian as 'notorious bread-eaters' (*artophagoi*) during the 2nd/3rd centuries, cf. Athenaeus, *Deipnosophistae*, X, 67 (Kaibel 1887).

³ In particular, L.163, I, 11. 13 ; VI, 29-30; L.145, X; L.233, XI; on regional syntheses, cf. Vööbus (1958-1988: I, 84-85; II, 262-264), Canivet (1977: 216-217), Rousseau (1985: 84-85), Patrich (1995: 207-210), Harlow (2001).

⁴ L.163, I, 33; Abou Zayd (1993: 31-32. 245-253).

cenobitic movement), these restraints seem to have been loosened and more variety of foodstuffs entered the monastic régime⁵. However, the literary accounts and the number of transactions in cereals⁶ attest to the continuous dominance of bread in the nutrition of monks, hermits and holy men.

III.1.3.2 *Types of bread and the archaeo-botanical evidence*

The 'bread' of the monks, whereof the texts speak, is commonly described by generic terms such as *artos*, a cake or loaf of wheat-bread, and *maza*, barley-bread (Liddell - Scott 1996: 250. 1072 ss.vv.); in Coptic by οεικ (e.g. O.Sarga 186) and εααεε (κακε, Theban), a 'baked loaf' or 'cake' presumably made of specially prepared cereals (Winlock – Crum 1926: I, 146; Crum 1939: 843 s.v.)⁷. *Artos* (and also *psōmion*) were bread-types of superior quality made from fine wheat flour (σίτος, σόχο; *Triticum aestivum*), could be 'white and pure' (καθαρός) or 'hot' (θερμός) for its fresh qualities (L.138, 211). Euphemia, a holy woman near Constantina (Ἰελλᾶ, mod. Viranşehir), served 'fine wheaten bread' (*lahmā da-smīdā*) to her visitors and the poor (L.419, XII); and George of Sykeon remarked that on one occasion the holy (wheaten) bread of oblation in his monastery had turned stale (L.141, 127).

⁵ Cf. Winlock (1926: 61), Dembinska (1985), Devos (1986), Hirschfeld (1992: 82-91), Harlow (2001) and sect. III.1.4., fn. 2. Lentils, for soups and stews, were the other foodstuff of the holy men (on the evidence of *Lens esculenta* Moench. at Dayr Apa Phoibammōn I [M.056], cf. Bachatly (1961-1981: III, 19-20. 34)). However, several *Canons* and complaints in the monastery of Shenoute [M.122] prove that in many communities the monastic menu was far from elaborate. In Shenoute's monastery the inmates ate herbaceous vegetables, the gourd family, legumes, bread (made of wheat and barley), sweet fruit, vinegar, olives and, presumably, oil. Lentils were missing entirely (Layton 2002: 37. 46).

⁶ Cf. below, sect. III.1.3.2.

⁷ Palladius met 'cake-makers/sellers' (πλακουντάριοι) on his visit to Nitria [M.362] (L.123/421, VII).

The bulk of bread, however, was of low-quality, 'coarse' bread (ἄρτος ῥυπαρός), made from barley (κριθή, εἰωτ, ἰωτ; *Hordeum vulgare*) or wheat mixed with barley that had undergone minimum sifting. Since barley has a low gluten content, this bread has an unappealing aspect and an unpleasant taste. Cheap and inferior, barley bread was the bread of the poor and was used for animal fodder, and as such it was an ideal constituent of the 'true' ascetic nutritional regime⁸. Hilarion (d. 371), we hear, supposedly lived on six ounces a day for four years (L.233, 11). Basil and his companions lived on slices of 'very coarse' bread and on sour wine, 'so that the senses were not dulled by gluttony, and did not indulge in excess' (L.154, XLI, 1). However unpleasant the taste, one has to admit that bread made from barley has identical nutritional values with wheaten bread (Dauphin 1999: 45).

A third type of bread baked by monks and monasteries was the so-called 'desert bread'. Made from the core of palms, ground, dried and mixed with barley flour, 'desert bread' was rich in fats and sugar and yielded proteins and the vitamins A, B and B₂ (Dembinska 1985: 435).

The fourth type attested in the monastic milieu was made from millet. Such bread is reported in the *Life* of Julian Sābā in fourth-century Mesopotamia (Vööbus 1958-1988: II, 264).

⁸ Cf. the evidence at Dayr Apa Epiphanius [M.068] (Winlock-Crum 1926: I, 146), Wādī Sarḡā [M.172] (O.Sarga 107) and Dayr Anbā Šinūda [M.122] (Layton 2002: 33). Shenoute's *Canon IX* suggests that bread was baked only at given times (once a year). Before consumption it used to be soaked (ποεικ εταβεε) (Layton 2002: 33. 45).

Further evidence of the ingredients comes from archaeo-botanical analysis (table 9), now available for a small number of monasteries. These analyses partly confirm the picture drawn by the sources, as wheat, barley and millet are attested in a whole variety of species and sub-species. Nonetheless, we do not know the absolute quantities, nor do we know if these cereals had ever been intended to be milled and baked. In most cases it is also uncertain in which context the cereals were found.

Site	ID	<i>Triticum aestivum</i>	<i>Triticum dicoccum</i>	<i>Triticum durum</i>	<i>Hordeum vulgare</i>	<i>Sorghum bicolor</i> Moench.	Bibliography
Dayr Apa Phoibammōn I (unknown contexts)	M.056		x		x		Bachatly 1961-1981: III, 4-5
Dayr Apa Epiphanius (cell A)	M.068				x		Winlock - Crum 1926: I, 61
Cyriacus	M.066					x	Winlock - Crum 1926: I, 61
Kawm al-Nānā (various contexts) ⁹	M.192	x		x	?	? ¹⁰	Smith 2003: 38-40
[Šelōmi]	M.826	x (no details published)			x	?	Dauphin - Kingsley 2003: 65
St. Symeon the Younger ('unit 23')	M.1280	x (no details published)					Djobadze 1986: 19. 24

Table 9: Archaeo-botanical evidence (anno 2005) of cereals at monastic sites

⁹ As some remains were found in the vicinity of stables (north-east of tower), a use as animal fodder should be considered.

¹⁰ Imported?

III.1.3.3 Working for one's daily bread

III.1.3.3.1 Monastic bakers

As the beneficiaries of private and public donations of grain¹¹ and in the light of the evidence of millstones, bakeries and ovens among the archaeological remains, it becomes clear that cereals were transformed into bread (i.e. milled and baked) in many monasteries¹². A ban on baking is reported only in Antiochene¹³. As to 'professional' bakers, table 10 makes it equally clear that these were present in all larger monasteries. Accordingly, at the *coenobium* at Tabennēsē in Egypt [M.100] baking and kneading were regulated by no less than 16 *Precepts*¹⁴. Elsewhere, where the monastic bakers failed to meet the standards, they were likely to be replaced (L.352, XXV). And CPR VIII 37 attests to some kind of centralized purchase of the ingredients by five bakers (ἀρτοκόποι) from five different monasteries. The total delivery they received was 53 *artabas* of wheat.

Site	ID	Bakeries/ovens	Bakers	Mills	Granaries	Description	Sources Bibliography	Illustration
Dayr Anbā Hadrā	M.020	x				large communal oven		Monneret de Villard 1927: fig. 77-79

¹¹ Cf. sect. III.1.3.4.1, III.1.3.4.5 and pl. X. Dayr Anbā Šinūda [M.122] even received grain supplies 'from Heaven' (Behlmer 1996: episode 5).

¹² Cf. also Hirschfeld (1996: 146), Layton (2002: 33). At Shenoute's monastery only possibly the cereals were also milled.

¹³ Notably by Mār Bassus at Burġ as-Sab' [M.1192], who forbade his monks to mill grain [L.124, XXVI]. The reason for this ban is unknown. Severus of Antioch, *Homily XXX*, later resumed such prohibition 'not to harvest nor bake bread in the monastery' (Vööbus 1958-1988: II, 157).

¹⁴ L.303, XXXIX-LIV. In the beginnings of the Pachomian *koinōnia*, the monastery of Tabennēsē, with accomplished bakers amongst its brethren, supplied the other communities, before bakeries were instituted everywhere.

Dayr Muṣṭafā Kāšif	M.038			x	x	millstone and granaries (?) in 'Lehmziegelruine'		III.038/3
Dayr Apa Pholbammō n I	M.056		x ¹		x ^A	Ousēph (Joseph): baker (ΝΗΜΡΕ); silo	I.Phoibammō n I 125	(Bachatly 1961-1981: I, pl. XIX, B
Dayr al-Madīna	M.064				x	2 large granaries, 6 silos		
Dayr Cyriacus	M.066	x (?)			x	burial place 'F' used as an underground granary		Winlock 1926: I, 52 fig. 11, A (mud grain-bin)
Dayr Apa Epiphanius	M.068	x (2)			x	granary chambers in the towers (storing 21 μαλαε of grain) and in cell A; mud grain-bins <i>in situ</i>	P.Epiph. 532 / Winlock – Crum 1926: I, 52-55	III.068/3 (baking ovens)
				x			bakers paid periodical visits and used the clay ovens which were found in the settlement	Winlock – Crum 1926: 162 fn. 15. 163
Apa Paulos	M.080	x		x		millstone (ΠΥΛΗΘΩΝΕ) set up in the workshop (ΠΚΑΣΤΗΡΙΟΝ, i.e., bakery) of a monastery	CLT 4	
		x				donation of a bakery (ΜΑΝΤΩΚ) (situated in Ğēme)	KRU 106	
Isnā'	---	x (4) ¹⁵				domestic bread ovens (AD 500-650)	Depraetere 2002: 154-155	Sauneron 1972: II, plates
Tabennēsē	M.100	x				'baker's shop'	L.123, XXX	
			x			Mār Awgin (m. 363): baker at Tabennēsē, before moving to Nisibis	Budge 1893: cxxv	
Dayr Anbā Šinūda	M.122	x		x		mention of a mill and a bakery	Behlmer 1996: 15-16	
		x				four ovens, supplying the bread for 20.000 refugees (for 3 months), during a Blemmyes attack	L.630 V, 397	
		x		x		during a famine, prayer bring wheat to the monks, for six months: 'we took it to the mill', and brought it to the bakery	Behlmer 1996: episode 1	
					x	ground surface 650 m ² , double-storeyed?		III.122/1 (granary)
[Apa Dios]	M.134		x			Syros: baker (ἀρτοκόπος), receives grain-delivery		CPR VIII 37
Wādī Sargā	M.172		x			Anoup: baker (ΠΑΜΡΕ)		O.Sarga 55. 56
						Joseph: baker		O.Sarga 110
				(x)		wheat for grinding (σογο ἵσικε)		O.Sarga 92
Dayr Balā'iza	M.174			x		wheat as a wage for the mill (σογο νηεκε νεμογ ¹)		P.Balā'iza 310
Dayr Anbā Abullū'	M.190	x				'great bakery'		
[Helladios]	M.204		x			Kornelios: baker, receives grain-delivery		CPR VIII 37
[Herminos]	M.206		x			Hermes: baker, receives grain-delivery		CPR VIII 37
[Neilammōn]	M.210		x			Kelelythios: baker, receives grain-delivery		CPR VIII 37

¹⁵ Hermitages I/G, 4/J, 7/L, 9/B, 9/R.

Dayr Baršā	M.222	x					
[Ibeke]	M.250			x		'head of the mill' (μυλονάρχης)	P.Cair.Masp. II 67139
[Abba Kopteus]	M.266	x (3)			x (2)	'milling-bakery' (μυλοκριβάνιον)	P.Oxy. XVI, 1890
Dayr Naqlūn	M.308	x (1 +)				'four central' (Wipszycka 1996: 380); bread-oven in hermitage 1	III.308/1 (hermitage 1)
Dayr Apa Jeremiah	M.334	x	x			George: 'father of the bakery' (ΙΩΤ ΜΠΜΔ ΝΤΩΧ)	Quibell 1909: 101; Wietheger, 1992: no. 392
				x			Nahru, Kosma (monks): bakers (ΔΜΡΕ)
Skēthis	(M.358)	x (2)				two bakeries (only), 4th c. AD	L.101B, Theodore of Pherme, VII. XVIII
					x		ḫāhūna (grain-mill), an important building during the Middle Ages
Kellia	M.360	x (9) ¹⁶				domestic bread ovens (7th-8th c.)	Egloff 1977: I, 167-169; Depraetere, 2002: 151-153
Nitria	M.362	x (7)				seven bakeries, one possibly assigned to each group of monks	L.123, VII
Ennaton	M.374		x			Abba Theonas: baker (ἀρτοκοπάδιος)	I.Lefebvre1905 3
Dayr Abū Mīnā	M.378	x					
St. Catherine	M.476	x				ovens (as part of the guest-house)	Forsyth 1965: pl. XXII (ovens)
Hirbat Siyār al-Ġanam	M.620	x			x	units 43-44 and 69	Corbo 1955: 41 (photo 51) (millstones)
Ramat Raḥel	M.626	x				complex A: circular oven (bread)	
Ra's aṭ-Ṭawīl	M.650	x (?)				large round kiln: bread oven?	Gibson 1985-1986: 71
Nea Laura	M.663	x				bakery (ἀρτοκοπεῖον), built (in the first phase of construction)	L.139, XXXVI
Hirbat ad-Dayr	M.666	x				oven, floor surface: 4.5 m ²	III.666/3 and Hirschfeld 1999: 75 fig. 118 (baking oven)
					x		
Souka (Chariton)	M.676		(x)			Cyriacus: baker (on basis of a temporary appointment)	L.136, VII
Sabas	M.684	x			x	bakery (μαγκιπεῖον), built (in a second phase of construction) by Gelasius and Theodoulos	L.139, XXXII. LXXXII
Spelaion	M.694	x					
Jeremias	M.700	x				bakery, located in nucleus	Patrich 1990: 298. 300

¹⁶ Ri 27, QR 262/28, QR 247/15, QR 195/23, QR 195/10, QR 195/48, QR 195/30, QR 195/18, QR 306/11-12.

Choziba	M.756	x				oven		Hirschfeld 1996: 149 fig. 6 (oven)
Euthymius	M.788	x				bakery (μαγκιπειῶν) built (in the first phase of construction)	L.137, XIV-XVI	
Mount Nebo	M.830	x		x	x	units 93, 103-105: mills, granary, oven		Bagatti 1971: 321 fig. 184 and 322 fig. 186 (mill and granary)
Dayr Fenche	M.1046			x		grain mill		III.1046/1
Dayr Bašakūh	M.1088			x		grain mill		III.1088/1
Dayr Babišqa A	M.1140			x	(?)	grain mill (?)		
St. Barlaam	M.1282			x		grindstones and mills (Greek and Georgian bread stamps)	Djobadze 1986: 24	
Dayr Mār Gabriel	M.1440	x				kneading-trough: large-scale centralized bread-production (AD 775)	Palmer 1990: 214	
Dayr Mār Ahā	M.1442			x		mill, built after foundation	L.430 ES	

Table 10: Monastic bakeries – the evidence, textual and archaeological, of bakers, granaries, mills and ovens

III.1.3.3.2 The bakeries

Bakeries, mills and ovens feature frequently in the papyri and hagiographic texts (cf. table 10). The 'milling-bakery' (μυλοκριβάνιον) of the monastery of Apa Koptreus [M.266] near Oxyrhynchus was perhaps the 'state-of-the-art' monastic bread-baking establishment: the bakery had 'three baking-ovens (κρίβανοι), two mills (μυλῶνες), and a stone for crushing the grain (λίθος σιτοκοπικός) with a mortar (θυεῖα); a cover-stone (λίθος στεγικός) with a mortar, and all the other receptacles and fixtures or possessions appertaining to the said bakery'¹⁷. However, this 'milling-bakery' was rented out by the monastery to two laymen, Aurēlios Apphuas and Abraham who were bakers and master-millers from the Oxyrhynchite nome.

The mills were often driven by a donkey or ass (L.135, XLII, 5). As a bishop and

¹⁷ P.Oxy. XVI, 1890 (AD 508). On grain-mills in antiquity, cf. Moritz (1958).

monastic superior, Symeon 'of the Olives' (d. 734) in Mesopotamia bought no less than five mills (L.442 S, 133).

Ovens, the easiest installations to identify, can still be found at a dozen of monasteries. The earliest reference to a monastic oven (or a simple fire in the sand) dates to the time of the ascetic Ammonius who 'never tasted anything, with the exception of bread that had been prepared by means of fire'¹⁸. In a comprehensive study, Depraetere has shown that the domestic bread oven in Egypt, monastic or non-monastic, still had to wait for its most important technological improvement viz. the separation between the combustion and the baking spaces by the introduction of the baking plate¹⁹. The moment for this innovation must still have been before the seventh century as in the monastery of Epiphanius [III.068/3] two bread ovens were found demonstrating this separation of space. The same technology is attested in the sixth-century (?) oven at Hirbat ad-Dayr in the Judean Desert [III.666/3], where the oven was sophisticatedly integrated into a complex for baking and pressing on the lower floor, and dining (the refectory) on the upper floor. Shenoute's monastery [M.122], during the fifth century, had four baking ovens. The type of construction is unknown.

Even though the location of the mill and the oven(s) is not subject to any

¹⁸ L.163, VI, 30; occasionally, the availability of fuel may have posed a restriction to cooking or baking with fire; this concern is described in the fourth-century *History of Abba Or in Nitria* [M.362], who conscientiously replaced with his hands the shrubs with a marsh so that 'plentiful supply of wood in the desert' would grow (L.102, II, 2).

¹⁹ Depraetere (2002: 131); on other bread ovens not considered by Depraetere, cf. Walters (1974: 206-209).

particular *Rule*, their spatial distribution follows some pattern or practical concern. In the *coenobia*, both mills and ovens used to be located in some sort of domestic sector, whereas in the Egyptian and Palestinian *laurae* the mill and the oven constituted an important part of the monastic core (referred to as 'main service area', 'centre économique'). This core used to be a compound of kitchen, bakery, food storeroom and, occasionally, a dining room²⁰. In Kellia [M.360] and Isnā', on the other hand, baking was a less centralized activity; ovens used to be installed against the wall of the courtyard of the individual complexes/cells. In Dayr an-Naqlūn [M.308], in al-Fayyūm, archaeology attests to some 'semi-centralized' arrangement of one central oven and smaller ovens in the individual cells²¹. Centralized bread-production (and delivery to the brethren) is also attested in the *laura* of Anbā Šamū'īl [M.302] (L.339, XXXVI) and in the monastery of Mār Gabriel [M.1440], near Qarṭamīn (Palmer 1990: 214).

III.1.3.3.3 Storage facilities

Bread storage capacities depend both on the daily demand and on the rate at which fresh bread was supplied. Roughly speaking, the sources suggest that in most monasteries bread used to be baked on some periodical basis, e.g. yearly (?) at Dayr Anbā Šinūda [M.122]²² and at Dayr Apa Epiphanius [M.068] (Winlock 1926: I,

²⁰ Cf. vol. 2, sect. C.5 and, on Egypt, Wipszycka (1996: 379-380); on Palestine, Hirschfeld (1992: 19), Patrich (1995: 63, 108, 115).

²¹ Wipszycka (1996: 380). Such a bread-baking oven has been discovered in hermitage 1 [III.308/1].

²² In Shenoute's congregation (2 male, 1 female monasteries) each congregation had its own food storage facilities, since the yearly supply of bread (οεικ τρομπε), baked in the main men's monastery, was to be taken to the other two monasteries at the yearly baking time (Layton 2002).

162-163) – the reason for bread to be consumed soaked –, or weekly, as indicated by the *Lives of Cyril of Scythopolis* (Hirschfeld 1996). Once baked, the bread used to be stored in ‘bread containers’ (ἀρτηθήκαι) in the individual cell or close to the kitchen and dining room. A separate building, a ‘bread-pantry’, is attested in the monastery of Euthymius [M.788], and in centralized food-dispensaries (bread and other foodstuffs) at many of the Egyptian and Palestinian monasteries.

III.1.3.3.4 Shortage and surplus production

Self-sufficiency in the provision of bread was the order of the day. This is illustrated by the *Lives*, monastic *Rules* and the importance of storage facilities at various sites. Monks and monasteries *offered* bread²³, but *received* bread only occasionally²⁴.

Where there were no domestic bread supplies (less attested in the cenobitic milieu), exchange was the common means to meet the demands. The monks of Sinai, for example, used to trade dates for wheat from Egypt, brought by the Saracens from their Raithu base (Solzbacher 1989: 211; Dahari 2000: 139); in Skēthis [M.348], Makarius bartered his handiwork (basketry) for bread to the natron workers and involved the ‘Little Strangers’ in this economic affair (L.101B, Makarius, XXXIII; L.334 B, p. 111).

²³ The literature on ‘feeding the poor’ is abundant; examples are L.102, I, 32. 58/L.133A, CXXII/L.135, XVIII, 1/L.154, CXCVIII/L.419, XII/L.206, XVIII, 11/L.152, instr. 4, XLI/L.340, XXIV. Cf. also sect. II.3.

²⁴ E.g. Antony, who received bread from his fellow travellers while dwelling along on the Nile and from the Saracens when living at Pispir. At Pispir in the Eastern Desert bread was the ‘cause of trouble and hardship’ to several of his brethren. The saint, however, having sowed on a small plot of suitable land, rejoiced for not being troublesome to anyone anymore [L.134, 50].

As a staple food, shortages of bread posed a vital threat to the monastic communities as can be seen in areas such as Skēthis (Wadī n-Naṭrūn) until recent times. Thus, crop failure and enemy devastation were perceived as particularly drastic by the larger communities (e.g. of Pachomius and Shenoute): in a sermon, Theodore²⁵ referred to the unusual situation when the Pachomian community had to turn to laymen to secure their provisions of bread (L.310, 40). To secure the supplies, enormous granaries have been identified at Dayr Anbā Šinūda [III.122/1] – where bread was baked yearly – to support the many monks as well as the poor. Nonetheless, shortages struck the community under Besa, before AD 474 (Kuhn 1954-1955).

When a surplus could be secured, bread used to be sold off or given to other communities (e.g. at Shenoute's)²⁶, to guests²⁷, and to the poor respectively²⁸. In cenobitic contexts (and in contrast to the *Lives* of individual men), the exchange pattern 'bread for x' is rare to non-existent, which may be explained by the strong internal demands. Palladius reports that in fourth-century Nitria [M.362] seven bakeries could supply the needs of the monks of Nitria *plus* 600 anchorites who lived further down in the desert, in Kellia [M.360] (L.123, VII). 300 years later, when Kellia had expanded and Nitria ceased to exist, the hermitages in Kellia disposed of ovens

²⁵ Lefort (1956: 40); Theodore (d. 368), Pachomius' successor in AD 346, was the superior of the Pachomian community of 7.000 brethren in the Lower and Upper Thebaid (Bautz 1970-: VI, 1413-1419 s.v. Pachomius).

²⁶ Cf. above, fn. 22.

²⁷ A generous offer of bread, wine and oil to 400 pilgrims is attested at Euthymius' monastery [M.788] (L.137, 17).

²⁸ Cf. above, fn. 23.

of their own.

Monastic bread supplies to the non-monastic are recorded in P.Oxy. XVI 1952 (6th c.), where the 'honourable house' (of the Apions?) orders the archimandrite of the *Homoousios*-monastery [M.286] near Oxyrhynchus 'to pay' 600 loaves of bread to a village called Tarouthinou. The mechanisms of exchange and the relationship between the 'honourable house' and the monastery are not known. On the other hand, the 'ship-loads' of cereals, harvested by the brethren and dispatched to feed the poor in Alexandria, illustrate institutionalized monastic philanthropy: their produce, one can read, made it '*rare for anyone in need to be found living near the monasteries*' (L.102, XVIII, 2).

'Thanks to the labours of the community²⁹ he (i.e. Serapion) successfully administered a considerable rural economy, for at harvest time all of them came as a body and brought him their own produce, which each had obtained as his harvest wage, filling each year twelve artabas, or about forty modii, as we would say. Through Serapion they provided this grain for the relief of the poor, so that there was nobody in that district who was destitute any longer.'

(*Apophtegmata Patrum*, XVIII, 1 [L.101B, Serapion])

III.1.3.4 Cereals

Many articles have been written on cereals and their supplies ('grain supplies'), from Egypt, Sicily and other regions of the Mediterranean, in the late antique and Byzantine worlds (Teall 1959, Schneider 1983, Dupont 1992, Garnsey 1998 *etc.*). These articles show, amongst others, that cereals were often in shortage, which particularly affected the urban masses, for whom bread was the staple food. The pressure to secure the supplies of cereals at the outset of the period considered is well illustrated by the *Price Edict* of Diocletian (Mitchell 1947). Issued in AD 301, the *Edict* fixed the prices for wheat from Egypt, where prices were often half of those elsewhere in the Roman world.

The present section, however, considers one aspect widely 'forgotten', namely the growing and treatment of cereals by the late antique monasteries.

III.1.3.4.1 Modes of acquisition

A survey of the texts – literary and documentary – on cereals in the late antique monasteries leads to the important discovery that *growing* cereals was a common monastic activity, but came only third to other types of cereal acquisition,

²⁹ The *Historia Monachorum in Ægypto* describes Serapion as the head of 10,000 monks in the Arsinoite nome (al-Fayyūm). Sozomen speaks of 1,000 men (L.163, VI, 28).

such as purchase and exchange, and to donations and grants (pl. X). Whereas growing cereals was propagated as a means of self-sufficiency as early as by St. Antony (d. 357), the few references to monks and growing only date to the sixth and seventh centuries. For example, John Moschus relates that there was a community (in the plain) near Nisibis who 'sowed and reaped' much barley and shared this harvest with other monasteries (L.118, 232 (Mioni 1)). At that time Northern Mesopotamia, the al-Ġazīra, was at the centre of tireless praise for its agricultural 'productivity'. In AD 766/767, the *Chronicle* of Zuqnīn reports, there was such an abundance of wheat that 25 or even 30 *grībā* were sold for only one *dīnār*, and one *zūz* was the price for thirty *qfīzā*³⁰. The growing of cereals and, in particular, of wheat is also attested in Egypt, the ancient granary *par excellence*. When Samuel founded his community in Wādī Muwayliḥ ('Qalamūn') [M.302], the brethren sowed 'a quantity of cereals and other varieties of seeds' around the springs, and with God's blessing the brothers – 320 in number – spent two whole years living on their produce without going to Egypt, namely to the valley, for anything (L.339, XXVI). In O.Sarga 365, on Mesorē 24 of a third indiction, camels delivered 104 *artabas* plus 52 *thallia* of wheat from Paa to the community in Wādī Sarġā [M.172]. However, the relationship between the monastery and Paa – a monastic estate (?) – is unknown³¹. In the early

³⁰ L.465, part IV, p. 242. 252; *grībā* (Arab. *ġarīb*), a measure of capacity equal to four or ten *qfīzā*, depending on times and countries. The term also refers to the field sown with this measure (Lane 1863: I, 403). At the time of the chronicler, the value of 1 *grībā* was 10 *qfīzā* (Harrak 1999: 186).

³¹ Adjoining the inundated land south of modern Asyūṭ, Wādī Sarġā (nowadays a military zone) and Dayr Balā'iza [M.174] are the monasteries with the most complete documentation of the business of cereals. Nine documents from Wādī Sarġā may classify as delivery notes ('DN') and attest to daily delivery quota between 4 *oipe* and 238 *artabas*. Hyphenated abbreviations in this section refer to plate X.

700's the wealth of bishops, monks and churches must have been excessive, for when Ušāma confiscated their land on behalf of the caliph, the prices fell on the markets and one *artaba* of wheat was sold for as little as 0.025 *dīnārs* (L.666, XVII (Alexander II)).

The mention of cereals being bought (pl. **X**, 'PC') is equally rare in the sources³², whereas the exchange pattern 'cereals for x'³³ prevails in most documents. The variable 'x' could be a service rendered by the brothers (as shown in Serapion's account, and labelled as 'work') and occurs second in number to the payments in cereals to the monasteries ('P+'), often for the rent of a piece of monastic land. Wage-labour and the letting out of land and agricultural farm machinery³⁴ were ways to have the monks occupied, the estates cultivated, and the monastic granaries supplied with wheat and barley³⁵. Where payment in cereals ('P+'/'P-') was partial (and labelled as such), the remainder amount used to be settled in lentils, dates, wine, oil, textiles, gold, fodder and grazing rights.

Grants and donations of cereals to monasteries (pl. **X**, 'D+') emerge as the other common source of monastic livelihood, even though the dependency on donations undermined the claim to monastic self-sufficiency. Despite the vast

³² P.Ryl.Copt. 253; eventually (purchase), Mār Iuḥannan Ṭayāyā, being sent with two brethren to get cereals from the village below the monastery (Gamālā) (L.433B, p. 205-207).

³³ On 'bread for x', cf. above, p. 139.

³⁴ E.g. the two irrigators of the monastery of Genealios (P.Hamb. I 68 [M.152]).

³⁵ On separate payment, in wheat and barley, to a monastery ('P+'), cf. P.Hamb. I 68; payment by a monastery ('P-'), in wheat and barley, is attested twice. In both cases the superior paid 25/4 *artabas* of wheat/barely to a contractor (SB Copt. I 51 [M.182]), or to a contractor and monk (O.Sarga 161).

expenses incurring from the charitable involvement of the monks, the monastic 'model economy' of Pachomius at Tabennēsē [M.100] seems to have been modelled on an autarchic concept whose infringement (and thus, the fall-back on donations) has left some record in the hagiographic texts (L.131, XXXIX). The situation was worse in the Judean Desert, where dry farming was more difficult and wheat donations by pilgrims were a necessity of the day (L.139, XLV).

Where wealth and agricultural enterprise were accumulated in the hands of élites (e.g. in Egypt)³⁶, some élite families stand out from the documentary records for their generous patronage towards the clerics, *apotaktikoi*³⁷ and the *coenobia*. Special care was given to the *coenobia* by Ammonios, a nobleman from Aphroditō who endowed various monasteries (M.136/66) with barley³⁸ and wheat (up to 413 *artabas*). Equally important are the accounts of the Apion estates near Oxyrhynchus, which attest to an utmost generosity of the aristocratic family towards the monks and the monasteries. With respect to cereals the Apions were business partners (P.Oxy. XVI 1917. 2019; M.276) and patrons to several monasteries (M.264/70/78/80/94). In AD 566, the monastery of Abbas Andreas [M.264] was the beneficiary of as many as 1,112 *artabas* of cereals from the Apion estates. A

³⁶ On these élites, cf. Banaji (2001), Mazza (2001), Sarris (2004a, 2004b). An instance of holding back cereals is reported under Anastasius (491-518) in Mesopotamia, during the Persian wars, when Mār John of the monastery of Qarṭamīn repeatedly urged the élites to release the amounts of cereals deposited in their stores (L.472, IX, 7).

³⁷ *Apotaktikoi*, i.e. anchorites, were the explicit addressees of grain donations in two documents, P.Oxy. XVIII 2195 (Oxyrhynchus) and P.Naqlun I 7 (Dayr an-Naqlūn [M.308]). The identity of Ama Rebekka (donation by the monastery of Abba Michael [M140]) is unknown.

³⁸ M.162; Another donation of barley is attested at the monastery of Oryr (P.Lond. V 1906 [M.394]). The location is unknown.

donation *in perpetuo* to an unknown monastery was subject of the last will of Aurelios Pankab/Panouphis, another fifth-/sixth century patron and testator from Aphroditō (P.Cair.Masp. III 67324).

III.1.3.4.2 Refinement and standardization

The process of refinement and threshing is badly documented in the monasteries. The only known monk to have worked on a threshing floor (?) was John, a monk and grain-peeler (πτιςτης) at Apa Jeremiah near Saqqāra (I.QU IV 239). The excavations at Dayr Apa Epiphanius [M.068] in Thebes, on the other hand, uncovered (the only) identifiable monastic threshing-machine, a so-called *nūraġ*, operated, according to the excavators, in ca. AD 600 [III.068/4]. Close to the *nūraġ* they also found woven sieves for cleaning the cereals³⁹. This discovery is the more significant as wheat (coyo) was an important means of payment in this area during the sixth and seventh centuries (e.g. M.068/70/76). Threshing by laymen (villagers, rather than monks) is referred to in a letter to Pisentius (d. 632) who, as a monk and bishop, was requested to take care of the village's economic affairs (L.342, XXIII).

Beyond Egypt and the fertile plains of al-Ġazīra, there is further archaeological evidence of granaries in Syria, and of monastic granaries in the fertile plains of southern Ḥawrān: the '*aire à battre*' in the monastery aš-Ša'īr [M.844], according to Villeneuve (1985: 119), could well have been a threshing floor.

³⁹ Winlock (1926: I, 61-63) and P.Epiph. 314 (sieves). Such sieves could hardly do more than eliminate large pieces of bran and unground or half-ground grains from the floor (Moritz 1958: 159-163).

As to standardization, using the right cereal measures was of vital importance for taxation and business transactions in the ancient economy. Four measures of capacity feature predominantly in the monastic documents, namely the *artaba*, the *holokottinos*, the *maaġe* (μαλλχε) and the *oipe* (οιπε)⁴⁰. As in late antiquity, churches and monasteries took over tasks previously carried out by the state, such that bishops and stewards also took into safe keeping the measures for cereals. This concern is reflected in the *Treatise on Weights and Measures* by Epiphanius (ed. Dean 1935), the bishop of Constantia (Salamis, Cyprus) from AD 367-402, and by the introduction of various *metra*, one of them being the – ill-known – so-called *monastēriakon*⁴¹. The papyri explicitly attest to the various measures being used in sixth-century Egypt, likewise in the monasteries of Sourous [M.162] near Aphroditō (P.Cair.Masp. II 67133), and of Anbā Abullū' [M.190] near Bāwīṭ (SB VI 9051). In both instances it was a monk who received and weighed, μέτρῳ (ῥορ[ι]κῳ), a certain amount of grain. P.Gron. 8 demonstrates the same task being carried out by a monastery on behalf of the non-monastic world. In the latter document, a local authority (σιτόλογος) acknowledges the receipt of wheat by Petros/Neilammōn, a villager of an unnamed *epoikion*, after the grain had been weighed μέτρ(ῳ) δ[οχικῳ] μον[αστηρίου]. P.Hamb. I 68 relates that in Aphroditō monastic land, for which a rent (in wheat and barley) had been stipulated, used to be measured yearly, μέτρῳ τοῦ ὄρους. Here standardization of quantities was obtained through the

⁴⁰ During the sixth century, 1 *artaba* corresponded to 38.808 litres and 19.404 litres (= ½ *artaba*) to 1 *oipe* (Crum 1922: 24-25; Duncan-Jones 1979: 351).

⁴¹ Grenfell (1897: 90). Attested from the sixth century and used predominantly for wine, 1 *metron* corresponds to ca. 8.200 litres (Schilbach 1970: 113).

parallel use of measures of capacity (for the cereal) and units of square measure (for the arable land). At Dayr Apa Jeremiah near Saqqāra [M.334] there were bakers (cf. table 10), a 'keeper of the oipe-measure' (I.QU IV 227) and a sitometrician (I.QU IV 287) in the monastic community.

III.1.3.4.3 Storage facilities: granaries

The storage of cereals was vital to secure food provisions for the course of the year. Accordingly, the construction of granaries was of primary concern to the founders and to those in charge of the economic affairs. Theodore of Sykeon (d. 613) ordered a fellow-brother and carpenter to build wooden containers to store the cereals of his monastery (L.141, 69), and Isaac of Antioch records that, shortly before AD 500, in Syria cereals used to be stored in the granaries of the monasteries for up to two years (*ʿbūrā d-šantā wa-d-tarteyn*)⁴². Similarly, Peter the Iberian had granaries built in the monasteries near Jerusalem (L.448, 46-47), presumably also in response to the city's (fifth-century) monastic and pilgrimage boom. By that time, the granary, a common feature in farmhouse architecture, had also become a common feature of many monasteries – independent of agricultural enterprise⁴³.

⁴² L.414, XXXVII; Isaac again regrets this development. Half a century earlier Rabbūlā (d. 435) had forbidden the monks near Edessa to get involved into the business of cereals, which was 'of the secular world' (L.423, 10; L.424, 10).

⁴³ In the Judean Desert, cereals used to be brought by the Saracens on camel-back from the Dead Sea [L.139, 81] and Transjordan, after the cargo had been shipped over the Sea by boat (Spanier 1987: 65-66). The monastery of Choziba [M.756] even had its permanent 'buying manager' stationed in Transjordan (Arabia), whose task it was to buy the grain for the Judean monasteries (L.132, 25).

The transactions listed in plate X⁴⁴ and the archaeological remains confirm the picture of monastic granaries, yielding all sizes and structural varieties. During an inspection of a Pachomian monastery in Aphroditō [M.154] by a monastic agent from Alexandria, the monastery came under serious criticism when less than 10 *artabas* of wheat could only be found in the monastic stores (P.Fouad I. 87). The shortage resulted from mal-administration. According to the ostraka, major granaries must have existed in Wādī Sarġā [M.172] and Dayr al-Balā'iza [M.174]⁴⁵, and Shenoute's fifth-century monastery near Aḥmīm [M.122] was characterized by one of the most complex economies, suitable to meet the enormous internal and external nutritional demands⁴⁶: wheat and barley were provided by aristocratic lessees of the monastic holdings at Phthla (P.Ross.Georg III 48) and stored in the most cleverly devised granary [III.122/1] (Grossmann 1991: 55-60; Grossmann 2002: 293-294), built on an antique model of brick-paving and the arrangement of a central corridor with adjacent rooms⁴⁷. With a floor area of 1,300 m² on two floors (compared to 229.5 m² in aṭ-Ṭūba) and the architectural precautions to keep vermins out, the building at Dayr Anbā Šinūda was, beyond doubt, the monastic granary 'of the day'. Archaeological remains also attest to the storage of cereals in various other places, from the monasteries of Cyriacus [M.066], Apa Epiphanius

⁴⁴ In particular, from Dayr Apa Epiphanius [M.068], Wādī Sarġā [M.172], Dayr Balā'iza [M.174] and Dayr Anbā Šamū'īl [M.308].

⁴⁵ The community at Dayr Balā'iza, it has been hypothesized, could have contained up to 1,000 men (Grossmann 1993: 201).

⁴⁶ Cf. above. The Arabic *Life* of Shenute relates to 2,200 monks and 1,800 nuns (Layton 2002: 27 fn. 12).

⁴⁷ Cf. Rickman (1971); parallels for the late antique 'corridor arrangement' can still be found in an oblong *horreum* (4th c.) at aṭ-Ṭūba in Ġabal aš-Šbayṭ (Mouterde 1945: I, 197-200; II, pl. CVI) and at Dara. The latter dates to AD 508 (Mango 2000: ill. 8).

[M.068] (Winlock 1926: I, 51-53), Apa Jeremiah [M.334]⁴⁸ (Saqqāra) and the pilgrimage shrine Abū Mīnā [M.378] (Grossmann 2002: 294 and fig. 105) to Sinai [M.476] (Grossmann 1990: 32 fig. 1), the Judean Desert⁴⁹, Osrhoene and Mesopotamia⁵⁰. Abū Mīnā and St. Catherine were pilgrimage centres, where bread provisions were not only of vital importance to the monks, but also to their pilgrims and guests.

Granaries of the 'beehive type' (still common today in the plain of Chalcis and al-Ġazīra) have not yet been identified in any of the monasteries. The 'silo type', for storage of cereals in pits, was the most common found at the Egyptian monasteries⁵¹. At Dayr Muṣṭafa Kāšif ('Lehmziegelruine') in Ḥarġa Oasis, a silo, mill and an oven are still visible side by side [Ill.038/3]. The mud grain-bins and their bedding⁵² in the window-less ground floor of the 'First Tower' at Dayr Apa Epiphanius [M.068] complement the rich evidence of the economy in cereals at that important monastery.

III.1.3.4.4 Exporting cereals

The '*véritable obsession qu'était le souci du pain*' of the monks may explain

⁴⁸ Units 1763, 1764 and 725 ('store-rooms').

⁴⁹ Particularly, at Ḥirbat ad-Dayr [M.666], with a floor area of 5.5 m² (Hirschfeld 1999: 79 fig. 124); further east, in Transjordan, on Mount Nebo (Ill.830/2).

⁵⁰ *Horion* (*horreum*), built in AD 542 by a local bishop at Constantina/Viranşehir (Kiepert 1890: I, 405 no. 5; Mango 2000: ill. 9). At that time, storing cereals was considered of major importance in the region of Edessa (mod. Şanlıurfa) and Amida (Diyarbakır). Joshua the Stylite, in his *Chronicle*, wrote on the siege of Amida by the Persians in AD 502. During that calamity, many of the Edessenes, who conveyed grain down to Amida, died (Trombley – Watt 2000: chap. 82).

⁵¹ E.g., at Dayr Muṣṭafa Kāšif [M.038], Dayr Apa Phoibammōn I [M.056], Dayr al-Madīna (six silos) and Dayr al-Baḥīt [Ill.072/2].

⁵² Winlock (1926: I, 33 fig. 3 and 52 fig. 11), referred to in P.Epiph. 532. Wheat-bins in the granary also feature in the account of the *Life of Theodore* (L.141, 104).

why exports of (surplus) cereals represent a type of transaction almost absent from the documentary record. Apart from small-scale deliveries to dependant settlements and to dispersed branches of the communities⁵³, large-scale shipping of cereals is reported only occasionally, and if so, then related to the payment of the *annona* or *embolē*⁵⁴. Different was the situation of the Alexandrian Church, whose patriarch John V (d. ca. 619), nicknamed 'the Merciful' or 'the Almsgiver', sent ships of cereals to Jerusalem – to relieve fellow-Christians during the Persian siege⁵⁵ – and to the British Isles. The involvement of monks and monasteries in this operation is not explicitly stated but may be assumed, in particular, as during that period many monasteries (e.g. in the Fayyūm) were under patriarchal control⁵⁶. John's manager of these sea-borne operations was the dearly 'loved of God' Ctesippus, who at that time was in charge of the monasteries of the Ennaton [M.374].

III.1.3.4.5 Cereals and taxation: producing for the *annona* or *embolē*

Diocletian's institution of the *annona civica*, the *iugatio/capitatio*-based tax in kind (cereals, and later in money), was the major source of revenues for the early Byzantine state⁵⁷. With the increase of 'monastic folk' and of inalienable monastic estates during the fourth and fifth centuries, monks and monasteries had become a

⁵³ E.g. O.Crum 462, where the monastery of Apa Phoibammōn [M.070] supplies the hamlet Kalā m-Peko (once, regularly?) with 12 artabas of wheat.

⁵⁴ Cf. below.

⁵⁵ L.144, 9-10. On the grain trade of the Alexandrian church, cf. Hollerich (1982).

⁵⁶ On the monasteries in the Fayyūm, cf. Abbot (1937). During the fourth century, according to the above-mentioned *History of Serapion*, monks sent grain to Alexandria. The Fayyūm was Egypt's most prolific granary. John was the Melkite patriarch of Alexandria. As to the monasteries in that period, it often remains an open question who actually was in authority: the Melkite or the Monophysite patriarch.

⁵⁷ On the imperial government and the *annona civica*, cf. Ostrogorski (1963: 33-35), Jones (1964: III, 84, 486, 697, 899), Durliat (1990: 37-280; 1993), Evans (1996: 31-34).

new factor to be taken into account by imperial legislation, and an appropriate status had to be conferred⁵⁸. While the question of land tax can be answered within the Byzantine fiscal institution to some extent, the evidence of poll-tax seems too little for the Byzantine period, and too conflicting and contradictory for the years of early Islam⁵⁹. Some monasteries and churches, however, were put into a distinctively favourable position by being given the right of *autopragia*, i.e. the right to pay the taxes for their estates directly to the imperial government (so-called *agri excepti*), whereas others, such as the monasteries near Aphroditō⁶⁰, paid their contributions – as was the rule – to the municipal authorities, namely the *pagarch*. The question of monastic landownership becomes complicated by the fact that through the right of *autopragia* adjacent landowners and entire villages could perceive the financial advantage of submitting themselves and their property as clients to the patronage of a monastery in possession of *exceptus* land.

While monks seem to have been exempted from the poll-tax until the 690's⁶¹, exemptions from landed taxes were not the rule (Vööbus 1958-1988: III, 313. 365). Northern Mesopotamia, however, may have formed an exception, for it has been suggested (on the basis of the local *Chronicles*) that until the census in ca. AD 770

⁵⁸ Cf. sect. II.2.1, II.3.2, the admonitions by (Pseudo-)Antony: '*terram vectigalibus subjectam ne semines, et societates cum dominis ne contrahas*' (L.602, XVIII); (Pseudo-)Athanasius: '*none of the priests may concern himself with the matter of the land-tax [...] but rather may they give themselves unto the service of the altar*' (L.603, XXII); and Pistentius (d. AD 632), in *Letter 5*: '*we are inexperienced in these affairs (i.e., in the organization of taxes)*' (L.352, V).

⁵⁹ L.660, p. 478; L.680; cf. Mahmoud (1923), Dennett (1950), Fattal (1958), Tritton (1970), Landron (1994).

⁶⁰ Cf. above, sect. II.2.2.1.

⁶¹ L.436, XII; L.465, part IV, anno 691-692; L.472, XI, 7; L.666, XV, XVII, XVIII; Gonis (2000: 152 fn. 12).

some monasteries had been exempt from the land tax (Palmer 1990: 187). All in all, the question as to the taxability of the Mesopotamian monasteries is unsatisfactorily answered by the literature on the subject. Taxation is far better attested in seventh and eighth-century Egypt, and, in particular, in the Upper Thebaid, where the payees of monastic taxes were the *pagarch*, the imperial government, or the bishop in charge of the monasteries⁶². Plate X, again, visualized the tax-related transactions in kind and in money (labelled 'PTax') carried out in Egypt between the fourth and the seventh/eighth centuries. O.Crum 138 and 206, from the dossier of Apa Victor, the hegumen of Dayr Apa Phoibammōn II [M.070], shows the abbot in charge of financial affairs such as renting out monastic land and stipulating grain-deliveries, for taxation, in return. Similarly, lessees of monastic land are described as fulfilling their tax obligations during the sixth century⁶³. P.Fouad inv. 247 attests to the payment of 40 *artabas* of wheat to the pagarch of Aphroditō for the *embole* of the monastery/laura of Apa Apollōs [M.144]⁶⁴, and 30 *artabas* was the quantity due by the sixth-century monastery of Kolluthos [M.290], situated in the Oxyrhynchite nome (P.Oxy. XVI 1934).

A second type of payment of the *annona* is attested in the transactions of an influential layman on behalf of a monastery. P.Cair.Masp. II 67138 and 67139 are lists of expenses of Ammonius, the member of the sixth-century Aphroditō élite and

⁶² Wipszycka (1972: 122-130). The submission of *all* monasteries to the authority of the local bishop was a condition imposed by imperial law: cf. sect. I.5.6, on canonical law, and Knecht (1905: 58).

⁶³ P.Mich. XIII 667; the monastery (payee) is that of Psentusēs [M.158], near Aphroditō.

⁶⁴ This monastery is not listed in the land registry P.Freer 08.45 a+b (pl. XIVa).

patron of an unidentified monastery in the hamlet of Peto [M.166]. On behalf of the monastery, Ammonios paid the respective sum (in barley?) due. By analogy, the seventh-century *Life* of Theodotus portrays the *dux* of Mesopotamia at Dara as a patron of local monasteries; on one occasion the *dux* promised to pay the recently imposed tribute of the monastery of Mār Abay, situated near Qeleṭ⁶⁵.

Unquestionably, Pachomius's *Ur*-monastery at Tabennēsē [M.100] set the standards for cenobitic life in Egypt during the fourth century. For this reason SB XIV 11972 (AD 367/368), relative to the grain-tax payable for the estates (*epoikia*?) of the monastery after the death of the founder⁶⁶, is of particular interest. SB XIV 11972 lists the tax-payments of Pachomius' monastery, and the 'compatibility' of the spiritual with imperial law. River-borne transport of the monastic *embolē* is not only the subject of SB XIV 11972, but also of P.Cair.Masp. III 67286 (AD 527/528)⁶⁷, in which agents of the monastery of the Metanoia [M.370] confirm to local *protokomētai* in the Antaeopolite nome the receipt of 5759 *artabas*⁶⁸ of the grain-tax (δημόσιος αἶτος) levied in their *kōmē*. This monastery, 'of the Metanoia' was the Alexandrian 'headquarter' of the Pachomian community and, in collecting the

⁶⁵ L.443, fol. 63b. The *Life* is unpublished, though an edition has long been announced. On Theodotus, cf. sect. I.5.7.

⁶⁶ Cf. Wipszycka (1975: 364-365); the legal status and the actual size of the estates are unknown. Pachomius, it seems, did not accept any acquisition of land, but after his death in AD 346 the process of acquisition became routine.

⁶⁷ And P.Cair.Masp. III 67347. P.Flor. III 298 (6th c.), P.Lond. III 995, 996 and 1152 (7th c.).

⁶⁸ 5759 *artabas* was a considerable quantity. For comparison: under Justinian, Egypt was bound to give up 8 million *artabas* of grain for the *annona civica*, or 8-12% of its total yield, which in cash amounted to about 800,000 *solidi* (Bowman 1986: 239); its *annona militaris* amounted to another 2% of all Egyptian production, and this military component seems relatively light; similarly, the amount paid by the monasteries (pl. X) seem modest compared to the amounts given up by the Church; the patriarch John (d. ca. 619), if his *Life* [L.144] is to be believed, accumulated gold worth 720,000 *solidi*, which is 90% of Egypt's annual *annona civica*.

grain-tax of its branches, it seems to have operated as the logical sea-borne outlet for the monastic trade. Furthermore, monasteries could also be the beneficiaries or payees of the *dēmosios sitos*, for *Novellae* 7 and 8 [L.181] in the Justinian Code explicitly regulates the donations of the *annona* to monasteries and religious sites⁶⁹.

For the period after the Islamic Conquest, the monastery near Balā'iza [M.174] disposes of the most detailed documentation of grain and taxation (*dēmosion, embolē, dapanē*⁷⁰), in cash and in kind, including the taxes from two related estates (?), namely Pektēs and Pšonte. Little surprisingly, the editor of the seventh-eighth century dossier (P.Bala'izah) argues that it was under the pressure of high taxation after the Islamic Conquest that the wealthy monastery – as did others – finally disappeared (Kahle 1954: I, 42). At Apa Mēna [M.182], enormous quantities of grain (ΔΗΜΟΣΙΟΝ, 400/106 *holokottinoi*) were still stipulated as the vital security between brothers and their superiors on assuming office in troubled times (SB Kopt. I 50).

Concluding remark

The '*véritable obsession*' of monastic communities, from Thebais to Mesopotamian, was less an obsession rather than a rational necessity to secure the physical survival of many monasteries. Shortages of food-provisions constituted a recurring threat to the vitality of monastic society. It remains an open question if this

⁶⁹ A similar donation of 200 *modii* of grain (annually), by the emperor Maurice, is related in the *Life of Theodore* [L.141, 54]; cf. sect. VI.3.6, table 23.

⁷⁰ A tax levied to cover the expenses of the local officials and others (Kahle 1954: I, 43-44).

threat was aggravated by the (partial) abstinence of the monks from more profitable enterprise on arable land, the shortage of arable land, the fulfilment of their philanthropic vocation, demographic expansion, or the burden of imperial and caliphal taxation on the communities and their estates. Throughout the period considered, bread was food and grain was money. But despite the enormous efforts to manage their provisions, the diet of the monks, widely based on bread, was 'just enough'.

Document	Type	Site	ID	From	To	Type of cereal	Quantity	Purpose	Type	
SB XVI 12432	demand for payment	[Apa Patermouthios]	M.058	Petros (lessee)	Apa Sabinos [of M.058]	wheat (σίτος)	2 <i>artabas</i>	rent (?)	P+	
P.Epiph. 301	letter	Dayr Apa Epiphanius	M.068		Apa Joseph (?)	corn/wheat (κογο)	1 <i>oipe</i>	unknown	P+	
P.Epiph. 631	account (list of grain)						corn/wheat (κογο)	[various]	unknown	
O.Crum 138	contract of cultivation	Dayr Apa Phoibammōn II	M.070	Abraham, Anatolios	Apa Biktor	[not specified]	½ <i>holokottinos</i>	remuneration for taxation of piece of monastic land	P+/Tax	
O.Crum 200	deed of security				(son of) Sourous		wheat (?)	4 (?) <i>artabas</i>	payment (partial) for work	P-
O.Crum 206	contract of cultivation			Jacob/Ko[...]	Apa Biktor		corn/wheat (κογο)	3½ <i>artabas</i>	remuneration for taxation of piece of monastic land	P+/Tax
O.Crum 307	contract of cultivation			Germanos, Isak	Biktor (hegumen)		corn/wheat (κογο)	8 <i>artabas</i>	rent (partial) for piece of monastic land	P+
O.Crum 407/408	receipt			Mēna/Dorotheos (monk)	[the congregation]		[not specified]	1 <i>holokottinos</i>	corn-tax	P+/PTax
O.Crum 462	account				Kalē m-Peko		corn/wheat (κογο)	12 <i>artabas</i>	delivery to hamlet dependent on the monastery	DN-
O.Crum Ad 30	account			[Apa Joannēs]	M.076	from/to (?)		corn/wheat (κογο)	20 <i>artabas</i>	payment (?)
						corn/wheat (κογο)	10 <i>artabas</i>	payment for camel	P-	
O.CrumST 128	account	?				corn/wheat (κογο)	[various]	delivery by camel	DN+	
SB XIV 11972	list of taxation	Tabennēsē	M.100				[various]	corn-tax	PTax	
P.Ross.Georg III 48	receipt	Dayr Anbā Šinūda	M.122	Aurelius Phoibammōn /Triadelphos		wheat (σίτος), barley (κριθαί)	[missing]	rent for monastic landholdings in Phthla	P+	
PSI IV 284	receipt	[Apa Dios]	M.134	Phoibammōn Triadelphos	Psatos (steward)	corn/wheat (κογο)	14 <i>artabas</i>	rent for piece of monastic land	P+	
P.Cair.Masp. II 67139	list of expenses	[Psinabla]	M.136	Ammonios		wheat (σίτος)	100 <i>artabas</i>		P+/D+ (?)	
		?(Aphroditō)			unnamed monastery	wheat (σίτος)	413 <i>artabas</i>		P+/D+ (?)	
P.Cair.Masp. III 67324	will	?(Aphroditō)		Aurelios Pankab/Panouphis	unnamed monastery	wheat (σίτος)	[missing]	donation <i>in perpetuo</i>	D+	

		[Abba Michael]	M.140		Ama Rebekka (?)	wheat (σῖτος)		Rebekka as the beneficiary of wheat donations {Barison, 1938 #3547, no. XXII p. 146}	D-		
P.Fouad inv. 247	receipt	Dayr Apa Apollōs	M.144		Flavius Jo(h)annēs (pagarch)	wheat (σῖτος)	40 <i>artabas</i>	corn-tax	PTax		
O.Amst. I 91	receipt	[Apa Papnouthios]	M.146	Paamios		corn/wheat		unknown	P+		
P.Hamb. I 68	tenancy agreement	[Genealios]	M.152			wheat (σῖτος) + barley (φορικός)	4 + 1 <i>artabas/aroura</i>	rent for piece of monastic land	P+		
						wheat (σῖτος)	13 <i>artabas</i>	rent for 2 monastic irrigators	P+		
P.Fouad I 87	letter	['Near Stratonikis']	M.154			wheat (σῖτος)	10 <i>artabas</i>	10 <i>artabas</i> as "minimal stock" in monastic stores			
P.Mich. XIII 667	tenancy agreement	[Psentusēs]	M.158	Aurelius Phoibammōn/Triadelphos		wheat (σῖτος)	20 <i>artabas</i>	rent (partial) for piece of monastic land	P+		
P.Cair.Masp. II 67139	list of expenses	[Apa Sourous]	M.162	Ammonios		barley			P+/D+ (?)		
P.Cair.Masp. II 67133, P.Cair.Masp. I 67087 and 67110				Flavius Dioscoros	Ammonios (monk)	wheat (σῖτος)	92 <i>artabas</i>	rent for piece of monastic land	P+		
P.Cair.Masp. II 67138	list of expenses	[Peto]	M.166			?		corn-tax (?), paid by Ammonios	D+/PTax		
P.Cair.Masp. II 67139	list of expenses					barley (κριθαί)	22 <i>artabas</i>	corn-tax, paid by Ammonios	PTax		
O.Sarga 86	letter	Wādī Sarḡā	M.172	Theōna	Papa George	corn/wheat (κογο)	10 <i>μαλαε</i>	payment for two nets	P+		
O.Sarga 92	letter				Papnoute	corn/wheat for grinding (κογο ἱσικε)	4 <i>oipe</i>	request for foodstuff	DN		
O.Sarga 131	account					from/to (?) Pšnbrre		wheat (σῖτος)	238 + 150 (?) <i>artabas</i>	delivery	DN
O.Sarga 161	contract of employment					Daniel (hegumen)	Apa Paul (carpenter)	corn/wheat (κογο) + barley (ἰωτ)	25 + 4 <i>artabas</i>	payment (partial) for work	P-
O.Sarga 187	receipt					Enoch	Papnoute	corn/wheat (κογο)	36 sacks = 85 <i>artabas</i>	unknown	DN (?)
O.Sarga 189	receipt					Esaias		corn/wheat (κογο)	24 sacks = ca. 57 (?) <i>artabas</i>	unknown	DN (?)

O.Sarga 190	receipt					corn/wheat (coγo)	148 <i>artabas</i>	unknown	DN (?)		
O.Sarga 191	receipt					barley (ιωτ)	19 <i>artabas</i> less 2 <i>oipe</i>	unknown	DN (?)		
O.Sarga 205-208	receipts					wheat (ci[τοc])	[various]		DN (?)		
O.Sarga 360	receipt					wheat (ci[τοc])		delivered from Pšibrre			
O.Sarga 365	receipt of φορά					wheat (ci[τοc])	104 <i>artabas</i> , 52 <i>thallia</i>	delivery (by camel) from Paa, a related monastic estate (?)	DN		
O.Sarga 366-368	receipts of φορά					wheat (ci[τοc]) + barley (?) (O.Sarga 367)	[various]		DN		
P.Ryl.Copt. 124	receipt for tax-payment				Ama Sophia [M.248]			corn-tax (δημόσιον)	PTax		
P.Balā'izah 103	repayment of a debt	Dayr Balā'iza	M.174	ΔΙΚΑΙΟΝ of the monastery	Apa Ammone, brethren	corn/wheat (coγo)	10 <i>artabas</i>	repayment for 1 <i>solidus</i> , paid for corn-tax (δημόσιον)	PTax		
P.Balā'izah 290	account					[corn/wheat (coγo)]		½ <i>solidus</i>	corn-tax (δαπάνη) paid in money ("for wheat")	PTax	
P.Balā'izah 291	account					?		[1+? <i>solidi</i>]	corn-tax (δημόσιον) of Pektēs + ἐμβολή (barley?) of Pšonte, related monastic estateS (?)	PTax	
P.Balā'izah 296	account					?		[missing]	corn-tax (ἐμβολή)	PTax	
P.Balā'izah 301	account					?		[≥ 10 <i>solidi</i>]	corn-tax	PTax	
P.Balā'izah 303B	account (list of grain)							corn/wheat (coγo)	[missing]	unknown	
P.Balā'izah 310	account (list of foodstuff)							corn/wheat (coγo)	5 <i>artabas</i> + ? <i>oipe</i>	unknown	
P.Balā'izah 318	account (list of grain)							corn/wheat (coγo)	[various]	unknown	
P.Balā'izah 319/320	account (list of grain)							corn/wheat (coγo), ΔΡΑΚΕ	[various]		
P.Balā'izah 321	account (list of grain)					from/to (?) Nerēbe or Dayr Rīfa [M.178]		corn/wheat (coγo)	[various]	unknown; delivery by camel	DN
SB Kopt. I 50	contract for hegumen	[Apa Mēna]	M.182	Apa Shenute (hegumen)	(the congregation)		400 <i>holokottinoi</i>	security for corn-tax (ΔΗΜΟΣΙΟΝ), in case he leaves the monastery without permission	PTax		
SB Kopt. I 51	contract of employment			Apa Isaak (hegumen)	Leōn (contractor)	wheat (coγo) + barley (ειωτ)		25 + 4 <i>artabas</i>	yearly payment (partial) for work	P-	

SB VI 9051	contract of sale	Dayr Anbā Abullū'	M.190	Phoibammōn (hegumen)	Aurēlios Mathias/Theodōros	corn/wheat (κορυ)	3½ <i>artabas</i>	repayment due "in time of harvest, in the month of Paoni"	P+	
BM EA 75332	loan agreement			Anoup, Klothe (village headmen)	Kōsma	wheat (σῖτος)	10 <i>artabas</i>	repayment (partial) of a loan of 1 <i>solidus</i>	P+	
P.Oxy. LV 3804	account (Apions)	[Abbas Andreas]	M.264	Apion estate			1012 + 100 <i>artabas</i>	unknown	P+/D+ (?)	
P.Oxy. XVI 1913	account	[Apa Apollō]	M.270	Apion estate (?)		wheat (σῖτος)	400 <i>artabas</i>	unknown	P+/D+ (?)	
P.Oxy. XVI 1917	account	[Apa Tittos]	M.276	Pamun (steward)	Flavius Apion II (?)	wheat (σῖτος)	24 <i>artabas</i>	unknown	P-	
P.Oxy. XVI 2019	account	?		Apa Nakios (steward)	Flavius Apion II	wheat (σῖτος)	[various]	unknown	P-	
P.Oxy. XVI 1913	account	[Bekry]	M.280	Apion estate (?)		wheat (σῖτος)	20 <i>artabas</i>	unknown	P+/D+ (?)	
P.Oxy. XVI 1934	receipt for tax-payment	[Kolluthos]	M.290	Phoibammōn (steward)	Pamuthios (village scribe)		30 <i>artabas</i>	corn-tax (ἐμβολή)	PTax	
P.Oxy. XVI 1913	account	[Prychthis]	M.294	Apion estate (?)		wheat (σῖτος)	20 <i>artabas</i>	unknown	P+/D+ (?)	
P.Oxy. XVI 1912	account (Apions)	[Salomōn]	M.296		[Appheu (M. 278)]	wheat (σῖτος)		unknown	P-/D+ (?)	
P.Oxy. VI 994		(Oxyrhynchus)		Justos (monk)	Phoibammōn (comes)	wheat (σῖτος)	12 <i>artabas</i>	demand for payment	P-	
P.Oxy. XVIII 2195		(Oxyrhynchus)		Apion estate (?)	[various clerics and <i>apotaktikoi</i>]	wheat (σῖτος)	[various]	unknown	D+	
PSI I 89	receipt	(Oxyrhynchus)		Abba Hermē	[pronoētēs]	wheat (σῖτος)		"customary donation of wheat"	D- (?)	
PSI V 480	letter	?			unnamed monastery	wheat (σῖτος)		donation	D+	
P.Hyvernat inv. 75.19	account (list of grain)	Dayr Anbā Šamū'il of Qalamūn	M.302					unknown		
P.Naqlūn I 7	account (list of grain)	Dayr an-Naqlūn	M.308	large estate in al-Fayyūm (?)		wheat (σῖτος)	[various]	donations to <i>laura</i> of an-Naqlūn	D+	
CPR X 52	account	[Serenus]	M.314	farmers of Boutō		wheat (σῖτος)	5 <i>artabas</i>	payment for 1 <i>erica</i> (wood)	P+	
P.Lond. III 995, 996, 1152	receipt	Metanoia	M.370		Metanoia (Canopus)	wheat (σῖτος)	[various]	corn-tax: annual delivery (by boat)	DN/PTax	
P.Cair.Masp. II 67139	list of expenses						wheat (σῖτος)	314 <i>modii</i>	corn-tax, paid by (?) Ammonios (Aphroditō)	PTax
P.Cair.Masp. III 67286	receipt				Anastasios, Ischuriōn (monks in Antaeopolis)	[<i>protokomētai</i> of Aphroditō]	wheat (δημόσιος σῖτος)	5759 <i>artabas</i>		DN/PTax

unidentified location:

P.Lond. V 1906		[Oryz]	M.394			barley (κριθή)	5 (?) <i>artabas</i>	donation	D+
P.Ryl.Copt. 196	agreement as to a debt	?			Theodore/Leontios	corn/wheat (κογο)	60 <i>artabas</i> (at a value of 12 1/8 <i>solidi</i>)	repayment stipulated	P-
P.Ryl.Copt. 253	account	?				corn/wheat (κογο)		purchase of wheat	PC
P.Vat.Aphro d. 11	receipt	(Aphroditō?)				wheat (σίτος), barley (κριθαί)		rent for piece of monastic land	P+
O.Bahria 6	demand for payment			Plolos	Euphrantios (soldier)	wheat (σίτος)	1 <i>artaba</i>	repayment of a debt	P-

Monasteries and grain transactions: summary

Legenda: D+/D- ... donation to/by the monastery/monk; DN+/DN- ... delivery to/from the monastery; P+/P- ... payment to/by the monastery; PC ... purchase

'Let this be said [...] considering the 'norm' of the Orient [...] amongst the Egyptians, who share a special concern about work, there is not this rota of weeks, in order not to disturb the regular routine of the brothers. The care of the cellar and of the kitchen are entrusted to a very experienced brother who performs this task diligently as long as his forces and age allow him to do so [...] the olives, the small fish in brine, which they call maenomenia – for them, this is the supreme pleasure.'

(Cassianus, *De institutis coenobiorum*, IV, 22 [L.207])

III.1.4 Oil

In antiquity, olives and olive-oil were basic ingredients of the monastic and Mediterranean diets¹, with olive-oil also functioning as a common fuel. As to the monasteries, olive-oil was an important commodity for auto-consumption², charitable offerings to visitors, refugees, the sick and the poor. Some ascetics used to abstain from oil (likewise from wine and bread) in order to mark the arduity of monastic life³.

On the other hand, the growing of olives used to be a profitable venture, as shown, for example, by the Syro-Roman *Lawbook* of Diocletian for Syria, which was in force until the fifth century. Diocletian's *Lawbook* stipulates that 1.1 *iugera* (or 220 *perticae*) of mature olives were equivalent to 2.25 *iugera* of mountain olives, or 5 *iugera* of a vineyard or 20 *iugera* of best arable land⁴. By the sixth century, the

¹ Table olives (usually the larger one) were part of the daily diet, and continue to be so till today; these are referred to as $\chi\alpha\epsilon\iota\tau$ in Coptic (e.g. P.Lond. VI 1922; measured in *artabas*) or 'sweet olives' ($\kappa\lambda\omicron\kappa\epsilon\lambda\acute{\epsilon}\alpha\varsigma$) in Greek (P.Lond. VI 1918; measured in *knidia*). Specific varieties are discussed by Decker (2001: 229-230).

² Cf. Dalby (2003), Dauphin (1999), Dauphin (2000-2001), Layton (2002), and sect. III.1.3.1; on fuel, Amouretti (1986: 190), Palmer (1990: 164), Mossakowska (1994).

³ Cf. Canivet (1977: 216-217) on Syria, or Nonnos, the bishop of Antioch in AD 400 (Brock – Ashbrook-Harvey 1989: 53). Ascetic abstinence from oil seems to have been less rigorous than abstinence from wine (Vööbus 1958-1988: I, 84).

⁴ Riccobono (1940: II, 795-796 (§121)), Jones (1953: 49); the Mishnah (*Pe'ah* 8, 5; ed. Danby 1933) states that oil was twice as expensive as wine. On the *Lawbook*, cf. also Vööbus (1982), Selb – Kaufhold (2002).

spiritual conflict brought about by the monastic consumption of oil seems to have been solved in some parts of *Oriens* with regard to the potential for caritative ventures that derived from the cultivation of olive-trees: after Jerusalem had been taken by the Persians, John 'the Almsgiver' (d. ca. 619) sent monastic assistance in money, cereals, oil and wine⁵. A century later, Symeon 'of the Olives' planted no less than 12,000 olive-trees. His *Life* relates that due to this achievement '*the oil requirements for all the churches and monasteries [of Ṭūr 'Abdīn, for lighting] could be met*' [L.442, 131]. In fulfilment of a divine duty, the groves also enabled Symeon to finance hostels, baths, churches, monasteries and scribes (Brock 1979)⁶. In Nisibis he built, amongst others, a mosque for the Muslims (ṭayōyē) to pray (L.436, 25).

III.1.4.1 *Setting up an olive-grove*

Olive-trees feature rarely in the written sources. One such instance is reported from Mesopotamia where a monk, Symeon (of Kafr 'Abdīn), entrusted with the setup of a monastic farm in the 'difficult and dense mountains' of Sebastia, planted trees and gardens, olives and vines. Symeon's *Life* states that this setup was an arduous task (L.441, p. 421-422). The homonymous monk Symeon ('of the Olives')⁷, also bought agricultural land for the 'monastery of the column'⁸, along with sources of

⁵ L.144, 9. This oil could have come from al-Fayyūm (Arsinoite nome), where the patriarch had affiliate monasteries (cf. L.666). Al-Fayyūm has been the centre in Egypt for oil-production, and continues to do so to the present day (Morelli 1996: 149-150).

⁶ Cf. sect. IV.1.

⁷ The *Life* of Mār Gabriel (d. 648) [L.436, 25] specifies the (financial) background of Symeon: he was '*the son of a certain distinguished notable named Mundar, of the village of Ḥapsenus*'.

⁸ The identity of this monastery is unknown; a stylite called Tuthael is listed as a monk of Symeon's monastery (Mār Gabriel [M.1440]) in Ṭūr 'Abdīn. Tuthael lived at the time of Mār Samuel (d. 410) (L.437, 12).

water, where later he planted 12,000 olive-trees from cuttings and protected them with a high stone wall and a palisade of reeds, hiring agricultural workers to look after the trees. After five years these began to bear fruit (L.442, p. 175): both *Lives* emphasize the abundance of water in Ṭūr 'Abdīn. Symeon 'of the Olives' bought olives from cuttings – which may explain why the trees bore fruit after only five years⁹ – and erected an enclosure of stones and reeds. When setting up an olive-grove it was a common practice first to erect an enclosure – in the *Geoponika* (10, 6, 1) both walls and hedges around trees of olives are specified¹⁰.

Other factors to consider were the optimization of light, wind and the exploitation of the soil. In antiquity, the spacing of trees followed some distinctive rules (e.g. in the *Geoponika*, *Mishnah* etc.). Today, in Galilee olive trees are planted at an average distance of 10 metres (Frankel 1999: 37; Decker 2001a: 230-231. 242-243). Aerial images from modern north Syrian Ḡabal Barīša attest to 145 trees per hectare, respectively to a distance of 8.3 m between the olive-trees¹¹.

III.1.4.2 *The olive-tree*

The domesticated olive (*Olea europea L. Sativa*) grows almost exclusively in the subtropical climate characteristic of the Mediterranean and it is characterized

⁹ As opposed to ca. 15 years, observed today in the Syrian Limestone Massif (Tchalenko 1953: I, 70).

¹⁰ Quoted after Decker (2001a: 235).

¹¹ Reference is being made to a series of aerial photographs, inventorized as TAIR-*** in the Tchalenko Archive, Institute of Archaeology, Oxford, UK. The (average) number of 145 olive-trees per hectare has been estimated on the basis of TAIR-028 and in comparison with Tchalenko (1953: II, pl. CXXXVI, 30) in a test-area in the north-western outskirts of the oil-producing village of Déhès. Intercultivation with crops is not attested. The image was taken between 1938 and 1941.

by its enormous adaptability to various (including extremely arid) soils. Olives grow particularly well on calcareous soils – such as in the 'monastic areas' of the Judean Desert and the Syrian Limestone Massif. Restrictions to olive-farming apply due to annual precipitation – the olive requires a minimum of ca. 100-150 mm and grows best at a precipitation of 400-700 mm per year – and the average temperature. The temperature should range between 16 and 22 °C (Mattingly 1996: 214-215), whereas temperatures below –7 °C (young) and –11 °C (old trees) often lead to their death. This makes the olive a plant more sensitive to environmental conditions (and to biological enemies, such as insects and plant disease) than it is the case of the grapevine. However, olives grow in most parts of Egypt¹² and *Oriens*, and there is historical evidence of growing olives as far inland as to Melitēnē (Jones 1954: XII, 2, 1).

III.1.4.3 *Harvesting, workforce and profitability*

Alongside the vintage, the olive-harvest was one of the most labour-intensive tasks of the agricultural year. As with the present day first fruits appeared by June and matured through July and August, harvest took place from September (and August, as in medieval Amarna) through November, lasting up to two and a half months. The task of hand-picking was an extremely labour-intensive and the most delicate task. Palmer (1990: 110 fn. 196) suggests that in Ṭūr 'Abdīn in Mesopotamia the task of hand-picking could have been entrusted to the monks, who also

¹² In various publications the climate and soils of Egypt have been regarded as unsuitable for the cultivation of olive trees. This view calls for revision, as olive groves and presses for olive have been attested all along the Nile; cf. pl. XI and Morelli (1996).

transported the olives to the monasteries (notably Dayr Mār Gabriel [M.1440]) and pressed them there. Other monks and monastic superiors (e.g. Jacob of Ṣalāḥ, in Ṭūr 'Abdīn; Theodotus, near Amida (mod. Diyarbakır)) recruited brothers, slaves and maid-servants to bring their land under cultivation (L.443, fol. 67a.1; L.432, p. 12), but their role in the oil-harvest remains unclear. Basing his assumption on the evidence of Symeon 'of the Olives' (cf. below), Decker (2001a: 246) somewhat loosely hypothesizes 'windfall profits' derived from monastic labour in Ṭūr 'Abdīn. However, considering the evidence with rigour, this hypothesis is impossible to confirm.

Unfortunately, there is no such monk 'of the Olives' attested in Egypt or Palestine. Some documents, however, do refer to the harvest and the monastic role: P.Mich.Copt. 20 (ca. AD 500-550) stipulates the repayment of 30 *sextarii* of oil (ⲛⲉⲧ) to Apa Enōch near Hermopolis Magna on Choiak 15, which roughly coincides with the beginning of the olive-harvest along the Nile (Morelli 1996: 41; Wilfong 1999: 233). Similarly, a delivery of jars to an oil-press is attested at Dayr Apa Jeremiah [M.334] on Mesorē 27 (O.QU IV 396), and Hōr, one of the camel-drivers in Wādī Sarġā [M.172] delivered his oil (ⲛⲉⲧ) cargo at the monastery on Phaophi 1 (O.Sarga 213). Again, 'windfall profits' cannot be proved in any of these monasteries.

The remoteness of oil-related holdings emerges as a distinct characteristic in the Egyptian papyri (pl. XI) – e.g. Nemhate, presumably a dependency of Wādī

Sarġā¹³. Both the papyri from Wādī Sarġā and Bāwīt [M.190] raise the issue of remote estates (cf. pl. **XI**; sect. III.1.5, pl. **XII**): with regard to their civil status (monk versus layman), none of the camel-drivers, though known by their names, can be identified¹⁴.

Attempts have been made to calculate the potential outputs of monastic groves: based on the number of trees, by Decker (Symeon 'of the Olives', Țūr 'Abdīn); and press-specifications by Frankel (Hirbat Bayt Loya [M.820]); Seligmann (Pisgat Ze'ev East A [M.648]) and Biscop (Dayr Déhès [M.1080]). The yearly output achieved by Symeon 'of the Olives', according to Decker (2001a: 243-244), would have been 49.434 litres of olive-oil (88,981 *sextarii* = 46,200 kg)¹⁵. At Hirbat Bayt Loya in Judea, a total of five presses are associated with the monastery, one press of which, with a vat volume of 446.5 l, would have yielded an annual output of 4,620 litres (4,317.76 l) of olive-oil¹⁶. Numbers have also been calculated for Pisgat Ze'ev East A, which is considered a monastic agricultural estate north-west of the Hierosolymitan Damascus Gate. The estate had a large cistern, presses for wine and one press for olive oil. Using the volume of the vat as a basis and applying the same logarithm suggested by Mattingly, the press at Pisgat Ze'ev would have yielded a

¹³ Remote estates are also attested in Palestine and Mesopotamia: Marda – 'Ayn 'Aneva [M.792/B], Dayr Mār Gabriel [M.1440] etc. Cf. above, sect. II.2.2.5 and II.2.2.8.

¹⁴ Cf. also Horsiesius (Dayr Anbā Šinūda [M.122]), *On Farming*: 'Those who go out to work at the head of the brothers shall observe the time at which they must leave and the time at which they must return' [L.303, 55], Emmel (1993: 1205). Cf. also sect. V.2.

¹⁵ Assuming an average yield of 3.85 kg (4.12 l) of olive-oil per tree. Amouretti (1993: 553-556) and Brun generally operate with higher numbers; the conversion [volume]:[mass] is based on the specific gravity of olive oil (934.6 kg/m³), and one *sextarius* is rated at 0.5 litres.

¹⁶ Frankel (1990: 298), Mattingly (1988: 192). The excavators concluded a total of 5,940 litres, based on a pressing season of 90 days. For the purpose of comparison (cf. below), I have reduced this data to 70 days.

daily output of 64.2 litres (60 kg), or 4,494 litres (4,200 kg) over a harvest/pressing-period of 70 days (Seligman 1999: 165). Similarly, Biscop (1997: 23-24) calculated the daily output of the '*huilerie orientale*' at Dayr Déhès in Ğabal Barīša: up to 120 litres (112.2 kg), respectively 8,400 litres (7,850.5 kg) in 70 days. The *total* capacity of the presses at Dayr Déhès would have been 20,000 to 25,000 litres (18,691.6 to 23,364 kg) per year.

Dayr Déhès, the monastery situated south-west of the homonymous village, is the sample to take further by plugging these numbers into my data on olive spacing around Déhès with 0.69 hectares per 100 trees¹⁷. Accepting Decker's (rather) conservative lower output figure of 3.85 kg (4.12 l) per single tree (on which his calculations on Symeon were based) – as opposed to Biscop¹⁸ and Peña, whose figures reflect the conditions in the neighbouring Ğabal al-A'lā today¹⁹ – one hectare in Ğabal Barīša (Déhès) would have yielded approximately 597.33 litres (or, based on Peña: 1,160 to 1,740 l) per year. Extrapolating these figures to the orchard surface required, one would expect that the monastery near Déhès needed at least 33.48 to 41.85 ha (Peña: 11.49 to 21.55 ha) of olive trees, Pisgat Ze'ev East A – if we assume similar conditions – 7.5 ha (Peña: 2.58 to 3.874 ha), and the monastery of Symeon 'of the Olives' only 82.75 ha (Peña: 28.41 to 42.62 ha)²⁰. 82.75 hectares would have been the size of the largest olive-grove (and comparable to the 'Ayn

¹⁷ Cf. above, p.158.

¹⁸ Biscop does not state the yield per olive-tree, nor does he give the number of trees per unit of square measure, on which his calculation of the yield per hectare (2,000 kg/ha) was based.

¹⁹ Namely, 8-12 litres per tree (Peña 1990: 26).

²⁰ As opposed to 100 to 400 ha (Decker 2001a: 243).

Aneva [M.792B] monastic estate)²¹, it corresponding to a field of 909 metres square. Even though these figures are estimates and finally do not reflect the micro-climatic, geomorphologic and agro-technical factors that may additionally have affected the annual yield, they offer a relative, quantitative understanding of monastic pressing. The output proportions of the monastic farms considered, namely Dayr Déhès in Ğabal Barīša, Pisgat Ze'ev East north of Jerusalem, and Symeon's monastery in Mesopotamian Ṭūr 'Abdīn, would thus have been 5 : 1 : 11.

The assessment of the requirements for subsistence ('auto-consumption' versus surplus) is a similarly delicate task that can, roughly speaking, be broken down into table olives and olive oil. Subsistence has also been taken into consideration by Decker, but should, in the case of Dayr Déhès, be re-considered against the background of contemporary data from neighbouring Ğabal al-A'lā²². Amouretti's assessment of the ancient Mediterranean diet concludes that the average requirement per person and year of olive-oil was between 15 litres in a rural, and 28.5 litres in an urban household (1986: 181-183. 195-196). On the other hand, in the 1980's the requirement of a seven-person family in Ğabal al-A'lā was around 200 litres in addition to 60 kg of table olives per year (Peña 1990: 26); and seven is the approximate number of inmates suggested by Peña for some of the smaller North Syrian monasteries. Thomas of Marga, on the other hand, describes a ninth-century solitary monk in Mesopotamia who filled an olive-grove next to his cell: his trees

²¹ Cf. above, sect. II.2.2.5.

²² Ğabal al-A'lā is situated approx. 6-7 km west of Ğabal Barīša, the mountain range that shelters the village and the monastery of Déhès (cf. map VIII). The micro-climatic, geomorphologic and agro-technical conditions can be considered the same.

yielded an output of 30 litres and were sufficient for auto-consumption and occasionally giving a share to his visitors.

Dayr Déhès, to conclude this section, was by no means a small monastery. If one assumes a population of 30 monks (on analogy to Peña 1983), its monks would have consumed approximately 1,800 kg of table olives and – at the minimal rate of 15 litres per person – 450 litres (420.56 kg) of olive oil. Rating one kilogramme of (table) olives at 0.2 litres of olive-oil (i.e. 360 l) (according to Biscop 1997: 23), one would have to add another 0.60 ha (Decker) or 0.21 to 0.31 ha (Peña) to the minimal surface of the monastic olive-grove. After such revision, the figures for Dayr Déhès would range from 34.08 to 42.45 ha (based on Decker), and from 11.70 to 21.86 ha (Peña) respectively. Still these numbers leave aside the unknown demand for olives for fuel. What is more, these reflections allow us to assess the extent of surplus production, by dividing the domestic consumption (450 l) by the total of oil produced (20,000 to 25,000 l). This quotient, namely 0.018 to 0.0225, clearly indicates that only a minor part (namely 1.8% to 2.2%) of the oil was produced for the monastery, whereas 97.8% to 98.2% (19,550 to 24,550 l) could potentially be processed elsewhere. Widening the limits of tolerance to compensate errors, the outcome is still impressive: it shows that at Dayr Déhès, the surplus of olive-oil amounted to over 90%.

III.1.4.4 *Presses and the regions of production*

III.1.4.4.1 Egypt

In contrast to other types of information (estates etc.), the evidence of

presses in Egypt is limited. Presses are known from three monasteries, two of which figure in plate **XI**: the monastery of the Oasitai [M.167], which rented out 1/3 of an 'oil-factory' (ἐλαιουργίον) situated in the monastery-owned *diakonia* at Aphroditō. The document (P.Flor. III 285, AD 552) relates that the *diakonia* housed the press, a cistern and a building for accommodation. The legal status of the other two thirds of the 'factory' are unknown. Elsewhere, in P.Freer 08.45 a+b, the so-called 'Aphroditō cadaster' (cf. pl. **XIVa**, II, 55-57), the same Oasitai were given legal co-ownership with Apa Sourous [M.162] of 5.5625 *arouras* of arable land. At the same time, they represented the only Aphroditōpolitan monastery void of its own land (exclusive landownership). On the other hand, the monastery of Apa Sourous had 18.2188 *arouras* of orchards, which makes 5.6% of the monastery's taxable land. Though Aphroditō was a centre of *elaiourgia* during the sixth century (Gascoy 1990), the types of oil produced (olive-oil, most likely, versus vegetable oil) are unknown. Olive groves are frequently attested in the region of Panopolis/Aḥmīm.

Rich documentation of olive-oil comes from Dayr Anbā Abullū' [M.190]. In P.Mich.Copt. 20 (ca. AD 500-550) a certain Biktōr agreed to repay – by Choiak 15 – 30 *sextarii* of oil (NH₂) to Apa Enōch, who had a volumetric tool. Clackson (2000: no. 36) suggests that Biktōr's debt may represent his payment for the use of a grove or oil-press or other property that belonged to the monastery. P.Athen.Xyla 10 (AD 553) is an important document as to the organization of labour, in particular as it refers to

a monastic 'milling-bakery'²³ and an 'oil-factory' that had been rented out. The document also mentions Apa Phibi, presumably a monk, who is described as the 'head of the oil-production' (ἄρχων ἐλαιωργός). Given Chaiak 15, i.e. the beginning of the olive harvest, as a term of delivery, at Dayr Anbā Abullū' the Coptic term NH2 must have designated olive-oil. In a later period, another document from Anbā Abullū' mentions *lachanon*-oil (BM EA 75332, 7th/8 c.).

Archaeological and textual documentation only meet on one single occasion, namely at Dayr Apa Jeremiah [M.334]. The textual evidence from the monastery (again, pl. XI) is in Coptic, and NH2 occurs again as the liquid substance concerned. Viktor, a tomb-stone commemorates, was a monk at Apa Jeremiah 'who belongs to the oil-press (ΠΔ ΝΡΝΕ2)' (I.QU III 132). There is little reason not to believe that Viktor's oil-press was the monumental press in the monastery's south-eastern compound [III. 334/1-2]. The evidence of two enormous rotary crushers ('mill 1' and 'mill 2') further suggests the ancient production of olive oil.

O.QU IV 396, from the same monastery, raises more serious questions as it reports, *expressis verbis*, the delivery, on Mesorē 27, of 'large vessels' (ΝΟ6 ΝΛΔ2Η) and 'small vessels' (ΚΟΥἱ ΝΛΔ2Η) to the oil-press (ΠΔΡΝΕ2) of the monastery. Not only have Bell and Crum proposed the equation of the Greek term *knidion* with (ΛΔΚΟΟΤΕ and) ΛΔ2Ε in the Coptic tongue, but also noted the distinction made between 'Ø' (=

²³ Sect. III.1.3.3.2.

'large' (?); *knidia*) and 'small' (*mikra knidia*)²⁴. This dichotomy can also be found in O.QU IV 396, where $\lambda\lambda\alpha\epsilon$ may correspond to the large and small *knidia*. On the other hand, Bailey (1998: 129) suggests the equation of *knidion* (= $\lambda\lambda\kappa\omicron\omicron\tau\epsilon$ = $\lambda\lambda\alpha\epsilon$) = amphora of the type Carthage Late Roman 7. Carthage Late Roman (referred to as LR7 in the following) is a hyperonym for a large variety of Egyptian vessels, many of which were characterized by internal coating and a ventilation hole ('the typical wine jar'). If the analogies made at Dayr Apa Jeremiah withstand further confutation, the evidence from the monastery would confirm that amphorae of the type LR7, 'large' and 'small', were also used to contain olive oil. LR7 is well attested at the site, as is the type Carthage Late Roman 1 (LR1, Egloff 164), one container of which was found at Dayr an-Naqlūn [M.308]. The latter was filled with 'first-class sacred oil' (ἔλαιον ἅγιον πρωτεῖον) (P.Naqlun I 13). And $\mu\eta\alpha$, one infers from the evidence of these monasteries, was used as a term to denote olive oil.

III.1.4.4.2 Oriens (excluding the Limestone Massif)

The evidence of presses in Oriens is entirely based on archaeology. Generally, monastic presses testify to small-scale operations and occur in most locations where conditions allowed olives to grow (above all, all along the Mediterranean shore): roughly speaking, the pattern of monastic press distribution fits into the wider picture of the non-monastic ancient economy (cf. Decker 2001a: 248). Table 11 summarizes the data of monastic presses in Egypt and Oriens (except Northern Syria) and highlights major concentrations of related sites in Judea, Samaria and the Western

²⁴ On the background to the following discussion, cf. sect. III.2.4 (Pottery).

Galilee. Jerusalem and the monasteries in its surroundings produced olive-oil throughout the Byzantine and early Umayyad periods, as had already been noticed by Adomnanus (L.292, XXVI) and the Venerable Bede (d. 735) who, on their way to the *loca Lazari*, noted the vast olive grove all around a monastery in Bethany: *monasterium grande in campo quodam Bethaniae magna olivarum silva circumdato* (L.292, VI, 3). These remarks are in line with the archaeological evidence of monastic presses at Ramot [M.652], Dayr Ġazzālī [M.646] and Pisgat Ze'ev East A [M.648] in the hinterland of Jerusalem²⁵. Similar concentrations of presses can be found along the road from Jerusalem to Bethlehem and Tekoa (Hirbat Siyār al-Ġanam [M.620], St. Theodore (Bi'r al-Quṭṭ) [M.628], Hirbat Umm al-'Amūd [M.670]), a region for which Whittaker (1976: 154-155) stated a real 'olive boom'. Further east, in the Judean Desert, the percentage of monasteries that produced olive-oil is relatively low. In view of the enormous efforts of terracing and irrigation in the Judean Desert²⁶, the conditions of climate and soil need to be further addressed. Late antique pilgrims also noted the olive groves and palm-trees of Samaria (L.291, 9, 1); a lever-and-screw press, with a rotary crusher, has been excavated at Mevo Modi'in [M.816].

In *The Economy of Roman Palestine*, based, amongst others, on the Rabbinic literature of that period, Safrai (1994: 394-395) highlighted the importance of Galilee

²⁵ This observation is particularly significant insofar as it has repeatedly been stated that the number of olive-presses in the region was generally low (Gibson 1985: 149; Edelstein 2000: 62). On Kloner's (2003: 50*-58*) survey of over forty monasteries (?) of the Byzantine and early Islamic periods, cf. sect. III.1.5.3.

²⁶ Cf. above, sect. II.1.1.2.3.

as a producer of quality olive-oil, and its capability to generate surplus for export. The monasteries in that region, near Šelōmi [M.826] and Gergesa (al-Kūrṣī) [M.828], mirror this economic orientation, Gergesa (a major pilgrimage centre) with its screw-press, and Šelōmi with an economy entirely based on the exploitation of olive-trees. The evidence from Šelōmi is convincing, and is based on archaeological excavation, epigraphy, pottery analysis and flotation technique. Besides, Šelōmi is the first monastery where the hypothesis of an economy tending towards olive-monoculture has been put to the palaeo-botanic test (Dauphin 2003: 67).

Monastery	ID	Type	Surface	Vat volume	Crusher type	Estimated output	Illustration	
Dayr Anbā Hadrā	M.020	Thebais II			rotary		III.020/4	
Dayr Muṣṭafā Kāšif	M.038	Thebais II (al-Harġa Oasis)			rotary		III.038/2	
Dayr Apa Jeremiah	M.334	Arcadia Heptanomis	rigid-frame screw		rotary, animal-powered		III.334/1-2	
St. Catherine	M.476	Palaestina III - Sinai	a press is mentioned in Dahari (2000: 161)					
Oboda, South Church complex	M.568	Palaestina III - Negev						
Hirbat Siyār al-Ġannam	M.610	Palaestina I - Bethlehem	lever-and-weights		rotary		III.610/2-3	
St. Theodore (Bi'r al-Quff)	M.628		lever-and-?				III.628/1	
Dayr Ġazzālī, unit 4	M.646	Palaestina I - Jerusalem			rotary		Avner (2000: fig. 3) and III.646/1 (weight)	
Pisgat Ze'ev East A	M.648		(lever-and-)screw		rotary	60-240 kg/day ²⁷		
[Ramot]	M.652							
Hirbat al-Qunayṭira	M.660	Palaestina I -	lever-and-?					

²⁷ Cf. above, sect. III.1.4.3.

Hirbat ad-Dayr	M.666	Judean Desert				rotary		III.666/3
Hirbat al-Qaşr	M.662		lever(-and-screw)			rotary		III.662/1
Hirbat Umm al-'Amūd	M.670		lever-and-screw			rotary		
Mevo Modi'in	M.816	Western Samaria and Galilee	lever(-and-screw)			rotary		
[Ḥorvat Beit Loya]	M.820		lever-and-screw, screw		1.00 m ³	rotary	60 kg / pressing	
'Ayn al-Ġadīda	M.822		lever-and-screw					
[Tiberias, area B]	M.824					rotary		
Gergesa (al-Kūrsī)	M.828		screw			rotary		III.828/3
Ḥorvat Ḥermešit, area 2	---		lever(-and-screw)			rotary, animal-powered? ²⁸		
Mār Awgen	---	Mesopotamia - Ṭūr 'Abdīn						Bell - Mango (1982: pl. 200)

Table 11: Monastic olive-press, the archaeological evidence (excl. Northern Syria)

Monastic presses have been less documented in Cilicia, Isauria²⁹, Cyprus, Euphratensis, Osrhoene and Mesopotamia. This scarcity is the more unfortunate as the north-eastern Mediterranean was a major supplier of late antique olive-oil (Decker 2001a; Kingsley – Decker 2001). In Cyprus, the evidence of oleiculture has been collected by Hadjisavvas for whom large installations owned by the Church were active in parallel with small presses (1992: 84. 122). Such installations were found in close association with the churches at Amathus (mod. Agia Varvara) and

²⁸ Mangers found at the site.

²⁹ Actually, only few monasteries have been studied in Cilicia I, II and Isauria, none of which housed a press; however, presses have been identified attached to churches at Hacıhamzalı and Siraköy (Hild 1990: 265. 413).

Kato Paphos (Chrysopolitissa)³⁰. Hadjisavvas addresses the issue of the Church being particularly active in economic affairs, but does not make any attempt to distinguish between the churches and the – presumably overbuilt – late antique monasteries. Such evidence is in sharp contrast to the texts on Symeon 'of the Olives', his olive-based philanthropic endeavour, and to the *Lives* from Northern Mesopotamia. In AD 691-692 Northern Mesopotamia was subject to the first Umayyad census (*ta'dīl*), which ordered all belongings, including the vineyards and olive-plantations, to be registered under a father's name (L.465, *anno* 691-692). This taxation of the monks coincides chronologically with the fiscal reorganization of the caliphal empire, and, according to 'Abd al-Ḥakam, 'by God the ahl al-*ḍ*imma were made responsible for the ḡizya of those of them who had become monks' (Dennett 1950: 81-83).

III.1.4.4.3 The North Syrian Limestone Massif

Throughout late antiquity the North Syrian Limestone Massif was a territorially important component of the hinterland of Antioch (and to some extent of Apamea) (cf. Liebeschuetz 1972: 72-73. 79-81). Even though the literary sources are virtually silent about its economy, the abundance of rock-cut presses still attest to large-scale exploitation of olive-trees and vines. In his pioneering work, *Villages antiques de la Syrie du nord*, Tchalenko (1953) argued that monoculture of olives was the key to the stunning wealth and prosperity reflected by the architecture in the Massif³¹.

³⁰ A complex of lever-and-screw press, crusher and a cistern (Hadjisavvas 1992: 45-51). The calculated output for a 70 days pressing period amounts to 2,411.11 litres (2,253.37 kg) of olive-oil.

³¹ Tchalenko's evidence was largely archaeological and may further be supplemented by the *Life of Symeon Stylites (the Elder, m. AD 459)*, which illustrates that the production of oil was an important feature of the economy in and south-west of Ḡabal Sim'ān [L.133, 27]. Similarly, a sanctuary

This thesis was rightly contested by Tate (1992), Callot (1984) and Decker (2001a: 264-269), who took the issue of presses further so that a mixed, Mediterranean character of the Limestone Massif economy could be proposed. Since the identification (olive-press versus grape-press)³² and the total number of presses in the Massif have not yet been clarified, the evidence of pottery is inadequate and archaeo-botanical data absent, the academic debate on pressing still ought to continue, even more so as there are 700 to 800 villages, 45 of which, in Tate's (1992: 243) survey, yielded the number of 245 presses of various types. If we consider that many more presses may have been removed or lie hidden, a total of up to ten-thousand press installations may be hypothesized (Decker 2001a: 267).

As to the monasteries and monastic estates in the Limestone Massif, over 120 in number, their presses and cisterns have not yet been quantified. Many of them were the subject of personal fieldwork undertaken in 2002 and 2003³³ - the evidence is summarized in section plate **XV**. However, caution needs to be taken with regard to data quantification, as often there were no clear-cut boundaries in monument identification³⁴ and that by that time most had fallen into an increasingly dilapidated state. Conceived as a one-man venture, the selection of sites was guided by previous surveys and conditioned by GPS-supported routeing, drinking

inscription (PAES, III B, no. 1170; AD 244) at Kafr Nābo, situated in the same *ḡabal* (7.7 km north-east of Telanissos/Dayr Sim'ān) is the only explicit reference to olive production: it mentions an olive mill (ἐλαιοτρόπιον).

³² Cf. below.

³³ I owe sincere gratitude to my funding bodies, St. John's College, Oxford, the Institute of Archaeology, the British Council in Damascus, and the family of Muḥammad Abū Nāḡī in Sarmadā, who offered me unlimited hospitality and occasional shelter during these days.

³⁴ Cf. above, sect. I.1.2.

water, daylight hours and walking time. An institutional survey, able to overcome these restrictions, remains a major *desideratum* for the years to come. Before proceeding with the issue of olive-oil, one needs to make a digression on press technology.

III.1.4.4.4 Digression: press technology

Press technology is an issue that has been extensively discussed in most recent literature (Amouretti 1984, 1993; Mattingly 1988, 1993; Frankel 1994, 1997, 1999; Eitam 1996). Press-types known in the Byzantine period are the lever-and-weights, the lever-and-drum and the lever-and-screw presses, rigid-frame direct pressure presses (rotary and fixed screw presses) and the single fixed screw press. Frankel (1999: 117) notes that screw presses had not been introduced into the Levantine oileries before the late Roman period, nor had the invention of rotary olive crushers happened before Hellenistic times. The single fixed screw press, in which the rotating nut exerts pressure directly, was used, according to Frankel, only for wine (1997: 75. 82). The evidence of the presses in table **11** and plate **XV** not only highlights the importance of lever-component presses in *Oriens*³⁵, but also in the context of the late antique monasteries.

For the time being, it remains an open question whether the presses, found in thousands in Northern Syria, and in dozens in the monasteries of the Limestone Massif, were installations for the extraction of olive-oil or wine. Frankel, in his typology,

³⁵ Cf. Decker (2001a: appendix II), where lever-and-screw presses amount to 55%.

argues that the lever-and-screw presses with clearly recognizable press-beds are suitable to exercise maximum force per square unit and should thus be recognized as presses for olive-oil. The argument gets further support from the archaeological evidence of an adjacent rotary olive-crushing device (*trapetum*) at Pisgat Ze'ev East A [M.648], Hirbat Bayt Loya [M.820] etc. The same can be said about the lever-and-weights presses equipped with clearly recognizable press-beds and associated with olive-crushers ('type 1'). However, lever-and-weights presses with large pressing platforms/treading floors ('type 2'), according to Frankel, are only to be found in the wineries. Presses that lack a lever are also characteristic of wineries. Among these is the simplest, but most common type of presses, namely those installations with large pressing platforms and bell-shaped vats (Frankel 1999: 89).

In response to Frankel, controversy arose as to the interpretation of the rollers in presses, which occur in connection with Frankel 'type 2': in northern Syria, these are attested at Beḥyo in Ġabal al-A'lā (De Vogüé 1865-1877: 127 pl. 113; Tchalenko 1953: 360-373 and pl. CXVIII-CXX)³⁶, Ksayḡbe, Iṣrūq, Qirqbīze, Brād (Callot 1984: pl. 8-11), Ḥāss and Sarfūd³⁷, at Dayr al-Malik ('press III', III.1004/1) and Qaṣr ad-Dayr (III.1002/1). These monasteries are situated west and south-west of Bšendlāyā (Tchalenko 1953: I, 364; Peña *et al.* 1990: 69-71; Tate 1992a: 289-290)³⁸, an ancient

³⁶ Tchalenko identified in this village 27 press-installations of the roller type.

³⁷ Tchalenko (1953: I, 391-392) classifies Ḥāss as an important centre for the production of olive oil; Ḥāss is situated on the western slopes of Ġabal Zāwīya, Sarfūd on the slopes west of Sarmadā. The press at Sarfūd is illustrated in Callot (1984: pl. 120-121).

³⁸ In addition to the evidence from the monasteries near Bšendlāyā, other complexes of roller-type presses are situated at 36° 33' 30" E/36° 08' 39" N, 36° 33' 23" E/36° 08' 33" (cf. III.1004/2-4) and at Qaṣr Ḥammām (Peña *et al.* 1990: 178).

village situated 3 km south of Behyo. Tchalenko's and Callot's interpretation of rollers as parts of olive-presses is in line with the evidence of rollers being used to crush olives today (Dauphin 1999: fig. 8)³⁹. This hypothesis, however, has more and more been challenged by the 'winery theory', analogies for which can be found in Mareotis in Egypt⁴⁰ and in a rather unnoticed press-type, namely the Egyptian presses with rollers and 'lion-head spouts': these have been excavated in various contexts between Abū Mīnā [III.378/4] and Axūm in Ethiopia. Their evidence is particularly valuable as it emerges clearly – from the context – that these installations were used for the pressing of wine (Kreucker 1913: II, 74-77; Kaufmann 1921: fig. 165; Adams 1966: 271-272; Abd el-Aziz Negm 1999: 67 fig. 3; El-Ashmawi 1999: 63 fig. 10)!

Occasionally, ancient authors report objections being raised to the crushing of olive kernels, which could easily have happened in a rotary crusher and must definitely have happened under the enormous pressure of a roller device. These objections, however, have recently been invalidated by trial tasting which has shown only minimal differences in the olive-oil taste (Tyree – Stefanoubaki 1996: 176).

III.1.4.5 *Types of oil*

Types of oil can best be distinguished in Egypt, where oils were made either from castor, radish, safflower, sesame, flax – crops grown on arable land – or from

³⁹ Similarly, Camps-Fabrer (1953: 40), on Roman Africa.

⁴⁰ Rodziewicz (1999: 32-33 fig. 2-3) classifies 14 sixth to seventh-century wineries from Mareotis in 6 basic types ('types 1-6') and 2 composite types ('types 7-8', with various subtypes), all of which had a (roller-type?) crushing/pressing device; 'types 3 to 7' had a screw.

olives. Relevant to the farmer, crops grew on arable, and olives on artificially irrigated land. With this in mind, the late antique period in Egypt is characterized by a gradual shift in production and diet from crop-based to olive oil⁴¹. The reasons therefore may be multiple. Actually, they could reflect the shortage of arable land fostered by demographic growth and tax obligations, to supply cereals for the *annona*⁴²: after castor, safflower and reddish had got in disuse by the fifth to ninth centuries, it was oil made from olives for which, in Egypt, there was the highest demand (Van Minnen 2001). This is the background against which to consider the evidence from 14 monasteries where 22 documents attest to oil-related activities of various kinds (pl. XI).

The documentary record of these monasteries is clearly dominated by the two Greek and Coptic terms *elaion* and ⲛⲉⲗ. Reil (1913: 137), Bagnall (1993: 30) and Mossakowska (1994: 119) have shown that in the Egyptian papyri *elaion* was by no means a term that exclusively designated olive-oil⁴³, as did Sandy (1994: 119) for Demotic, and Till (1951: 80) and Krauss (1999) for the Coptic term ⲛⲉⲗ. Krauss' argument strongly emphasizes the growing importance of olive oil both in Egyptian production and diet, and the high likelihood of ⲛⲉⲗ, as from a certain period, actually designating olive-oil. ⲛⲉⲗ ⲙ̅ⲙⲉ, 'genuine oil', which is attested in Wādī Sargā [M.172] (P.Sarga 21), would thus refer to (real) olive-oil (Krauss 1999: 298). This

⁴¹ On analogy to the disappearance of beer? Cf. above, sect. III.1.2.

⁴² On the *annona/embolē*, cf. above, sect. III.1.3.4.5.

⁴³ Bagnall suggests that in Egypt *elaion* generally designates *lachanospermon*, whereas only an attribute allows to identify *elaion* as olive oil; cf. also Rathbone (1991: 215-216).

'genuine oil' is also attested in the monastery of Shenoute [M.122] on the occasion of fifth-century Berber invasions wherewith Shenoute's congregation was able to offer relief⁴⁴. Shenoute's monasteries are shown on plate II (no. 1), situated on the dividing line between flooded, arable (dark grey) and non-flooded, irrigable land (bright grey), the home for olives and wine.

Much less documented are castor oil, 'vegetable (*lachanon*) oil' and 'garden-oil'. Castor oil was used in antiquity for nutritional purposes and lighting (Mossakowska 1994: 128-130). On the other hand, it has not yet been ascertained what actually constituted 'vegetable (*lachanon*) oil' (Morelli 1996: 6-7). Sesame (but not sesame-based oil) is attested as part of a rent paid to a monastery in P.Horak 10, whereas flax-based oils do not feature in the monastic documentation at all.

Concluding remarks

The previous sections have shown that some monasteries in Syria and Mesopotamia, and presumably in Palestine, were capable of producing a surplus of olive-oil, whereas the Egyptian monasteries seem rather concerned with the daily struggle to stock up with provisions (P.Fouad. I 87). This observation results from the documents that deal with small-scale transactions in Egypt (pl. XI), and which testify to small quantities exchanged in response to daily demands. On the other hand, the high output numbers from Palestine, Syria and Mesopotamia may actually distort our

⁴⁴ Leipoldt (1902: 131-133); the assumption of νεζ ἄμε, 'genuine oil' = olive-oil at Dayr Anbā Šinūdā is also being supported by an *encomium* on Šenoute's uncle Bgoul who, as the hegumen of (the later) Šenoute's monastery, ordered the planting of olive-trees and vines (L.332, p. 231).

perception by giving accounts of the total, annual yields.

The evidence of monastic oil-production also contributes to the understanding of the ancient economies of Egypt and the Levant. In the beginning Egypt, it is commonly believed, had a general shortage of olive-oil, for olives were not cultivated to a great extent in the country, but there were alternative vegetable oils (grown on arable land). This need for olive-oil imports could further be shown by the excavations in Kellia [M.360] (Egloff 1977: 109-111. 190) and at Hermopolis Magna, where large numbers of late Roman oil- and wine-jars (type LR1) had been found. This type is attested as far south as at Qusṭul and Ballāna (Emery 1938: II, pl. III, 6; Bailey 1998: 118. 121), and the graffiti on LR1-jars found at Dayr an-Naqlūn [M.308]⁴⁵ and on the shipwreck sunk near Yassı Ada (Van Alfen 1996: 202) show that it was also oil (in addition to wine) that was shipped in this north-eastern Mediterranean jar. In summary, the evidence of monastic presses in Egypt, of a pottery workshop (LR1?) at Saqqāra [M.334], the etymology of the Coptic word ⲛⲉⲗ, 'olive-oil', and the evidence of desiccated olive-leaves from fourth to sixth-century monastic levels near Kōm al Nānā [M.192] (Samuel 1995: 28; Smith 2003) show that there was sufficient land (often irrigated) available in Egypt for the cultivation of olives, and that monasteries contributed to the production of olive-oil. But olive-oil continued to be shipped to Egypt from the north-eastern Mediterranean (Northern Syria, Cilicia, Rhodes and Cyprus) and from Palestine. Hirbat Siyār al-Ġanam ('Shepherds' Field') [M.620], situated near Bethlehem, was only one of those

⁴⁵ Cf. above, p. 167.

monasteries where enormous investments for olive-processing had been made: for Whittaker (1976: 155) the monastery was on of the many economic beneficiaries of the late antique 'olive boom'. Whittaker even suggests that the monastery was able to export oil to Egypt in Jerome's (d. 420) time⁴⁶. At that period, foreign trade accounted for 35% of all trade in Roman Palestine (Safrai 1994: 401).

However, the best evidence of monastic oil-production comes from Symeon 'of the Olives' and his *Life* in northern Mesopotamia, from Dayr Dēhēs in Ġabal Barīša, Hirbat Bayt Loya in Judea and Pisgat Ze'ev East A north of Jerusalem. Though all of these monasteries may have achieved considerable surplus, we are still ill-informed about the role of these monasteries in the local and regional economies. Furthermore, the set-up of groves was a major investment (both in money and time), as was chiselling a press. As corporate units, monasteries may have had higher assets (and people's credit) than individual investors (i.e. the peasants), it is understandable why some monasteries also became the shelter to a collective press. Under such conditions (only referred to, with suspicion, by Rabbūlā), the 'net yield' would not only have been diminished by the fresh oil distributed for payment (to the pressmen), but parts of the 'monastic output', on analogy with the wine at Abū Mīnā⁴⁷, would not have been monastic at all.

In Egypt, the only monastery producing oil to feed a large congregation was

⁴⁶ In AD 1106, the Russian abbot Daniel still reported that 'there was a fine monastery in Shepherds' Field which had been destroyed by the infidels [Muslims], situated in the midst of a beautiful plain where the fields were very fertile and where the olives were very abundant. The *laura* of Sabas [M.684] (still) owned land there at the foot of the mountain, on the Bethlehem side' (Wilson 1895: 42).

⁴⁷ Cf. sect. III.1.5.2.1.

Dayr Apa Jeremiah [M.334]. The specifications of its press(es) are still unknown.

Site	ID	Document	Type	From	To	Type of oil	Quantity	Provenience	Note
Mani ¹	M.040	P.Kell. IV 96	(agricultural) account	[Petros (monk)]		[olives (ἐλαί(ας))] ?			
[Thebes]		O.Crum 347	letter/request	Leontios ('his father')	Pekōs (deacon)	'garden-oil' (νεζ νεωμ)	2 jars (ἄγγειον)		
						'vegetable (gourd)-oil' (νοζ νελοσ)	1 jar		
Dayr Apa Epiphanius	M.068	P.Epiph. 534	account	Constantine , Jacob (monks?)		[ricinus (τηκμς) – oil (?)]	16 <i>masāḡe</i>		
Dayr Apa Phoibammōn II	M.070	O.Crum 212			'holy lord and father'	νεζ			note of delivery
Zmin	M.138	P.Cair.Masp . II 67170	rental agreement			[olives (ἐλαιοι)]			olives let out to monastery
Genealios	M.152	P.Hamb. I 68	rental agreement	[tenant]	[monastery]	oilve-oil (ἐλαιον)			(partial) payment for rent
"Near Stratonikis"	M.154	P.Fouad I 87	letter			olive-oil (ἐλαίνος)	'not even a single drop'		assessment of mal-administration
Metanoia	M.370								
Oasitai	M.167	P.Flor. III 285	list			oilve-oil (ἐλαιον)			'(olive-)oil factory/press' (ἐλαιουργίον)]
Wādī Sargā	M.172	P.Sarga 21	medical formula			'genuine oil' (νεζ μμε)			olive oil mentioned next to wine
		O.Sarga 91	letter			νεζ	ζ σαλιτε (κόλλαθον ?)		'fill their <i>kollathon</i> (?) with oil'
		O.Sarga 92	letter	Papnoute	[his Father]	νεζ	1 jar (<i>lakon</i>)		request for oil
		O.Sarga 181	order for payment	Apa Mēna (acting on behalf of Apa Papnoute, steward)	Papa John	νηζ	1 can (χι)		
		O.Sarga	receipt	Hōr (camel-			νεζ	1 <i>lakkon</i>	Nemhate (?)

¹ *Topos Mani*, listed also in I. 320 as a tenant owing olives and in I. 513 owing dates, must be a corporate entity/monastery (?) paying rent on leased land.

		213		driver)					
Dayr Balā'iza	M.174	P.Bala'izah 303B	account			NE2			
						[olives (χοειτ)]			
Dayr Anbā Abullū'	M.190	P.Mich.Cop t. 20	sale of oil for future delivery (?)	Biktōr/Mathi as	Apa Enōch (monk	NH2	30 <i>sextarii</i> 'accordi ng to Enōch's measure (ηπεκφι)'		repayment of a debt (?); Choiak 15
		P.Athen.Xyl a 10	money-loan	[Apa Phibi (head of the oil- production (ἄρχων ἔλαι ωργός))]		oilve-oil (ἔλαιον)			
		BM EA 75332	loan agreement	Anoup, Klothe (headmen)	Kōsma (monk)	'vegetable (<i>lachanon</i>)-oil' (λαχ)	13 (or 13½) ounces		(partial) repayment
		P.Vindob. K 11375	tax-payment (?)	[bee- keeper]		NH2	1 <i>xestēs</i>		
		I.Berlin I 4788		[Apa Mena (oil-maker) (ψαρηε)]		NH2			
Dayr an-Naqlūn	M.308	P.Naqlun I 13	amphora inscription			'sacred oil' (ἔλαιον ἅγιον), of first quality (πρωτίον)	29 <i>xestai</i>		
Dayr Apa Jeremiah	M.334	O.QU IV 396	delivery of vessels (?)			NE2			oil-press (παρηε); Mesorē 27
		I.QU III 132		[Viktor (monk), 'who belongs to the oil-press (πα ηρηε)']		NE2			

Oil in the papyri and ostraka: summary

'Wine had, in fact, been not only tolerated by the Founder of Christianity, but even, if one may so say, patronized, and raised to a dignity of the highest religious import.'

(Palgrave 1865: I, 428)¹

III.1.5 Wine

III.1.5.1 Introduction

Though for monks and ascetics the consumption of wine was controversial (for its intoxicating qualities), it can be regarded as a widespread reality in many monasteries, and its production – evidenced, above all, by the vineyards and the presses – was an important factor in economic life. The 'universal' demand for wine is reflected in a plethora of literary texts and in the documents summarized in plate **XII**: not only was wine consumed regularly in the monasteries, it was requested during the divine liturgy and on the occasion of feasts (P.Bala'izah 291; I.MIFAO111 chap. LV); it was offered to local bishops² and charitable institutions (O.Crum 250); wages were paid to vintage-workers, press-men and craftsmen, and debts were repaid in wine; and shepherds were paid off not to pester monastic domains³. Bequests, too, were made to monasteries in wine.

Apart from the monasteries, there is explicit mention that wine was also available in the *laurae* and hermitages from Kellia [M.360] (L.123, VII, 4) to Anzetēnē, where a hermit called Adday grew vines with the explicit purpose of providing for

¹ Back from a journey through central and eastern Arabia in 1865.

² On the managerial official (*oikonomos*) answerable for his acts to the appropriate bishop, cf. sect. V.2.1.

³ P.Apa Apollos 11 and O.Sarga 106, the latter illustrating that shepherds could be considered troublesome people, criminals sometimes, or merely ill-behaved (Crum 1922: 98 fn. 1).

the poor⁴. On the other hand, other sources, such as the fifth-century *Church Histories* of Sokrates (L.162) and Sozomen (L.163), portray, in an idealized manner, the monks and ascetics of Egypt, Syria and Mesopotamia as true abstainers of oil and wine⁵. It is beyond doubt that such monks existed, but their accounts apply to only one part of monastic society. In general, the restrictions on the consumption of oil⁶ seem to have been stricter than those on the consumption of wine (Canivet 1977: 216-217).

III.1.5.1.1 Disapproval

The documents of disapproval for the cultivation of vines are key sources to identify both places of monastic production and the quantities of the juice produced. Though 'dignified' by the ultimate aim to generate revenues wherewith to provide for the poor, the issue of wine-production was controversial throughout the period concerned. In early fifth-century Mesopotamia, for example, Rabbūlā stipulated that *'the priests and deacons and the bnay qyāmā ('Sons of the Covenant') were not to become watchmen of granaries and vineyards or hirelings for the laymen'* (L.424, 25). Three centuries later such concerns still persisted in some of the Mesopotamian monasteries, where *'it was not lawful for a monk to take secular affairs and charge in the village and become a supervisor of the granaries and of the wine-presses; if he dared, he was left by the Messiah, who had not*

⁴ On Adday, cf. below.

⁵ On similar perspectives (abstention), cf. L.334B, p. 109; L.701, 2, and various articles published in ARAM 17 (forthcoming).

⁶ Cf. above, sect. III.1.4.

divided the possession of the brothers' (L.404, 10). These Canons reflect long-term concerns of the authorities rather than an immediate response⁷.

The longevity of such concerns is also made evident by an Arabic manuscript of *Rules* attributed to Antony (d. 356) and issued for the monastery of Naqlūn [M.308] (Timm 1984-1992: II, 762): *Rule* 19 stipulates that the monks of the monastery should keep away from any environment where there was the pressing of grapes (Breydy 1996). Note that all regulations considered refer to the work at the press, and not in the vineyard, the place of the vines.

III.1.5.2 *The vineyard*

Vineyards occur in various texts and literary genres. They feature as rather 'fixed modules' of many monasteries throughout Egypt and *Oriens* from earliest times. The earliest mention can be found in the *Life* of Hilarion (d. 371) who, while wandering beyond *Gaza statibus diebus ante vindemiam*, 'on fixed days before the vintage', cursed the vineyards for provoking negligence in prayer among his fellow-monks. But after Hilarion's blessing, one such vineyard near Gaza produced no less than 300 (instead of 100) jars (*lagenae*)⁸.

The acquisition of land and the planting of vines are the subject of a series of

⁷ The opposition between the life of the cultivator and that of the monk was an important strain in the early ascetical philosophy of Syria and Northern Mesopotamia, and is also found in the *Life* of Barṣawmā, fol. 78 a.2-b.1, who cursed the vines planted by 'mourners' saying that their mind should not be occupied with plants (Palmer 1990: 110). Barṣawmā's attitude represents the extreme. On some corrections, in line with the archaeological record, by Philoxenos (485-523) and others, cf. Peña (1980: 129-134).

⁸ L.223, XVII, 7. On the vineyards near Gaza, cf. Mayerson (1985: 75-76).

Lives from Northern Mesopotamia: of Jacob (of Ṣalāḥ; d. 421) (L.432, p. 12), Benjamin (d. 466)⁹, Symeon (of Kfar ʿAbdīn) (L.441, p. 422) and Aḥā¹⁰ (d. 560). John of Ephesus (d. 586) gives the informative account of Adday who lived near a village called *Pardaysō* ('Paradise'), near modern Hanzīṭ in northern Mesopotamia. Adday was a monk and *chorepiskopos* who, together with his brethren, '*put in about twenty thousand [vines], and a like number also in the second [year], and the third [year]; and the vineyard reached a great size on the mountains*'. Adday's vineyard soon produced so much wine that the monk ran short of vessels, '*the reason being the Cappodocians who previously came there to buy the wine*'. According to the *Life*, Adday's return was 40 to 50 *denarii* wherewith he bought clothes and other items which he could distribute to the poor (L.419, VIII). However, returns of 40 to 50 *denarii* must also have provoked dispute!

The literary corpus of Isaac of Antioch (d. ca. 460) reflects the changes of monastic life in the hinterland of the capital city of Antioch. In the hymn 'On Penitence' Isaac recalls the 'good old days' when monasteries were still 'poor and scorned' (*msarqō wa-mqallal*) and expresses his objection to the granaries (*awlodē*) and the [wine-]cellars (*aqḫrē*) of the monks in later times (L.414, XXXVII). Similarly, to Eḫšē the Armenian (ca. 450-500) the acquisition of land and vineyards even meant an absolute disgrace (L.701, VI). As natural disasters and political calamities often had devastating effects on monastic land (and the vineyards), their accounts also

⁹ L. 435, p. 262. On Benjamin's monastery (Mār Hānānyā), cf. Scheil (1897: 262-263).

¹⁰ L.430, p. 24. No less than twenty brothers worked in Aḥā's agricultural enterprise.

prove useful for the identification of vines. The *Life of Aḥā* refers to one such disaster in AD 560 near Nisibis: 'on April 18', the *Life* relates, 'by God's command, a great gale accompanied by heavy hail-stones smote the monastery of Bnoyel and all the region of Ṭūr 'Abdīn. Everything was crushed and blighted – trees, vineyards and crops – and all the product of that region was lost' (Vööbus 1956: 11 fn. 9; Palmer 1990: 96). Two centuries later, again in Mesopotamia, al-Manṣūr, discharging the duties of the caliphal office (754-775), registered the properties of the monasteries, churches and shrines. In the chronographical reflection of these events, this led to serious internal criticism of excessive living standards and the amounts of their vines (L.465, p. 259-261).

This textual evidence from Syria and Mesopotamia calls for comparison with Egypt where, in papyri and ostraka, the best information on wine and its production can still be gained. The best documented monasteries were all situated near Aphroditō (though unidentified on the ground) and, in the Hermopolite nome (Dayr Anbā Abullū' [M.190]). P.Freer 08.45 a+b (pre-AD 524), published by Gascou (1987) and referred to in section II.2.2.1, lists the fiscal obligations of various landowners in the *kōmē* of Aphroditō. The census document (*dēmosia apographē*) is a long list of names, both physical and moral, that includes religious institutions such as five churches, three *euktēria*, eight (or nine) *monastēria* and one hospice (*xeneōn*). The text does not give the precise amounts to be paid to the local authorities (at Antaeopolis, to which the *kōmē* belonged), but lists the surface of taxable land. This land is categorized into arable land, rushes, vineyards and orchards.

As to the monasteries (pl. **XIVa-b**), the monastery (?) of Ap(a) [...] ¹¹ owned 13.375 *arouras* of arable land, and 0.125 *arouras* of vineyards. The vineyard, making up 1% of the entire holding, rarely equals anything more than a tiniest plot. The monastery of the Oasitai [M.167] had legal co-ownership with Apa Sourous [M.162], to which the duty of taxation applied. The monasteries of Porbis and Apa Senouthēs (Shenoute) [M.122] had no vineyards at all. The monastery of Smin [M.138] owned a total of 43.315 *arouras*, 11% of which, distributed over (at least) four locations, were plots for the cultivation of vines. Apa Sourous [M.162], the most eminent monastery in the Aphroditō cadastre, features 44 times. The monastery was liable for at least 25 dissociated locations, two to four of which were related to the production of wine. With a total of 329.7188 *arouras*, the 5.6875 *arouras* of vineyards amount to no more than 1.7%. The last monasteries to mention are Ama Termouthia, with a micro-plot of 0.1875 *arouras*; Apa Zēnobios, a middle-size holding of 65.9569 *arouras*, whose one or two vineyards amount to 9.4%. In total, one counts 487.8781 *arouras* of taxable monastic land in and around Aphroditō, 16.875 (= 3.5%) of which were used for the cultivation of vines. In conclusion, these numbers reflect a high degree of inequality between various holdings (namely in favour of Apa Sourous and Apa Zēnobios) and attest to a relatively low percentage of the vineyards in the total surface of taxable agricultural land. This percentage of 3.5 roughly equals the percentage of the orchards (3.7%), whereas rushes subject to taxation amount to only 0.2%. The percentages of 92.6 (arable land), 0.2 (rushes), 7.2 (vineyards and orchards) not only

¹¹ Name incomplete.

reflect nutritional patterns, but also the specific Egyptian conditions of limited human habitat between the *ǧabals* east and west of the Nile.

Ninety-four undated ostraka from the monastery of Anbā Abullū' near Bāwīt, edited posthumously by Clédat *et al.* (1999) (pl. XIII), prove highly informative about ancient monastic production of wine. These texts refer to the period of vintage (namely Thōth, i.e. mid-July to mid-August), the quality of the wine ('old wine', 'new wine' etc.) and to various types of containers and transportation by camel or boat. Complemented in 2000 by Clackson's *Coptic and Greek Texts relating to the Hermopolite Monastery of Apa Apollo*, these documents point out a highly complex economy of wine and some pickled substance (*tarichē*). In the corpus, the order of wine is the subject of more than 50 ostraka (type 'incipit $\omega\iota\iota\kappa\epsilon\ \bar{\nu}\epsilon\Delta$ '). Furthermore, wine occurs as an item in various accounts (*logoi*), and, from the seventh century onwards, it served as a commodity to meet the obligations imposed by the state (taxes). Though the texts do not explicitly mark any of the vineyards as monastic, they suggest a particularly close relationship between the vineyards and the monastic core. The vineyards of the monastery were thus located at Pmanle, Pmanpaēse, Pmanallou, Pmanrane, Pmankyriakos, Pmannohe, Pōrf and Tiloǧ. The quantities of the daily cargo range from 5 *lahē* (a liquid measure, presumably the Greek *knidion*)¹² to 180 *lakootē* (a liquid measure well attested in Middle Egypt, somehow bigger than the *knidion*). The estates at Pmanle, Pmanpaēse, Pmanallou

¹² Cf. above, sect. III.1.4.4.1 and sect. III.2.4.4. The possible volume of one *knidion* had been rated at 4.5 litres.

and Pmanrane also yielded a top-quality product, namely 'old wine' (HP̄ ΔC). Tiloğ, the remotest estate of the Hermopolitan monastery, was situated in eastern al-Fayyūm (Calderini 1935: IV, 413-414). Even though it could easily be reached by water, it was on camel-back that on Thōth 5 of a twelfth Indiction Paul, the camel-driver, delivered jars (*poke*) to the monastery, presumably filled with wine (pl. XIII, no. 35).

Documentary evidence of vineyards and wine-related estates is available for the monasteries in Wādī Sarğā [M.172] and near Balā'iza [M.174] (cf. pl. XII). At Dayr Balā'iza, eight texts relate to wine being used for various purposes – including payments and the *prophora* – whereas the aspect of production cannot be clarified. This is in contrast to the documents from Wādī Sarğā, which unveil in-depth information on the issue of wine: in convoys of camels 'ordinary wine' (OINOC), 'old wine' (HP̄ ΔC) and 'boiled wine' (ΥΨΗΜΔ) were shipped to the monastery from the various estates. These estates of Wādī Sarğā were located at Touhō, Planenhoire, 'the southern vineyard', Thallou, Takwutes, Nemhate, Sanhūr, 'the field of Nesieu', Nesieu, 'the field of the vineyard of Paroou', Ampelou ('the Vineyard') and Notinou. The last dependency of Wādī Sarğā was again at Tiloğ, a location already discussed on the previous page (Dayr Anbā Abullū'). In O.Sarga 135 the estate at Tiloğ provided 320 jars (CKEY€). The (empty?) containers were shipped by water instead of camel-back. Furthermore, the textual and archaeological evidence from Wādī Sarğā allows us to reconstruct that at that time 24 *knidia* constituted one camel-

load (O.Sarga 211. 370)¹³: this shows the enormous capacity of the camel for transport (ca. 108 l), carrying 12 jars or *knidia* on either side.

III.1.5.2.1 The vintage

Vintage is a labour-intensive activity that still employs day-labourers to day. In the Levant, vintage preparations started in late August, in order to be out to the vineyards during the months of September and October (Decker 2001a: 199), whereas in Egypt the picking of grapes started earlier, namely *before Mesorē 20* (August 26; pl. **XII** and O.Sarga 168). It reached its peak during mid-Thōth (ca. September 25) and continued at least until Paophi 1 (October 11-12).

O.Mena 1-3 and Wortmann (1971: no. 16-26) refer to the payment of the *klērikoi* employed at the press(es) of Abū Mīnā [M.378], which at that time was Egypt's most important pilgrimage shrine. The question arises (and remains open) whether these *klērikoi* were some kind of officials or actually monks who belonged to the monastery. Whatever the answer, the documents published by Wortmann (fifth to sixth century) illustrate the complexity and importance of wine in the ancient Abū Mīnā economy: no. 1-15 document payments to (lay) vintage workers (in contrast to the *klērikoi*), no. 16-26 (the so-called '*klērikoi*-ostraka') refer to the press, and no. 27-56 deal with the delivery of the fermented juice. At Abū Mīnā the vintage started on August 16 (O.Mena 8) and the transport of grapes to the communal press is attested during the months of Mesorē and Thōth. The deliveries from the winery started on

¹³ And 133 *knidia* 6 camel-loads respectively (O.Sarga 373).

October 28. Furthermore, the texts inform us that Abū Mīnā had (at least) two remote estates (Tēneti, Sēsana; O.Mena 6-7). Its winery produced at least four different types of wine (Wortmann 1971: 52).

More recently, Fantoni (1991) summarized the evidence of another set of Greek ostraka for which, based on the stratigraphy of a press (cf. Müller-Wiener 1983: 468), Fantoni proposed a post-AD 619 – pre-641 date. This corpus of ostraka yields the most significant details: accordingly, the communal press at Abū Mīnā was used by 400-500 wine-growers, and their harvest was picked over a period of 12 to 14 days. The growers picked the grapes by themselves, some delivered as many as fifteen baskets per single day. Consequently, the capacity of the press would have been of the order of 250 baskets per day. These baskets were transported by camel and donkey (the majority), and one basket had an approximate 30 kilos capacity. Donkeys could carry two baskets and camels four.

Fantoni estimated the annual yield at 60,000 litres, which would have required a vineyard area of about 15 hectares. At Abū Mīnā a good deal of the fermented liquid could have been drunk by the pilgrims who visited the shrine. Water, evidently more plentiful in antiquity before the deforestation of the North African littoral and the resulting reduction of rainfall, was supplied chiefly from cisterns and wells¹⁴. An edition of these documents has not yet been made.

¹⁴ On the scarcity of water at Abū Mīnā and the transport of water from Lake Maryūt, cf. Drescher (1946: 123-125), Jaritz (1993: 304).

This unedited corpus yields important information that is unparalleled elsewhere: namely, that the press or presses must have been situated near the monastery or within the sanctuary; that they were used by 400 to 500 men, each of whom picked a quantity of up to 450 kg per day. Consequently, the press must have had a capacity of 7,500 litres per day! Since donkeys had an average cargo capacity of ca. 60 kg and camels of 120 kg, 70 camels loaded with 24 amphorae of the type Carthage Late Roman 7 (LR7, total volume ca. 108 l)¹⁵ would have been needed to remove the wine produced from the press every day. Furthermore, Fantoni suggests that in late antique Mareotis one could yield up to 4,000 litres of wine from one hectare of vines. If we may assume similar conditions in Middle and Upper Egypt, the monasteries near Aphroditō could have produced, based on the size of their vineyards (pl. **XIVb**), 4,750 litres (Smin), 5,688 litres (Apa Sourous), 188 litres (Ama Termouthia) and 6,125 litres (Apa Zēnobios) per year. This makes an average of 4,187.75 litres per monastery per year. Still, these outputs are still well below the output generated at Abū Mīnā in a single day: consequently, some type of 'industrial conditions' at the shrine of St. Menas must be inferred.

To conclude this section one ought to return once more to the *klērikoi* and the *apostasarios* in O.Mena 1-3 (O.Mena 1-10 presumably also date to the sixth century and may reflect a situation prior to AD 619). Drerup, who first edited these documents in 1908, considered the *klērikoi* some 'Oberaufsicht bei der Weingewinnung' and the *apostasarios* the 'Kellermeister' or *maître de chai*. The

¹⁵ Cf. above, sect. III.1.5.2.

term *apostasarios* somehow recalls the notion of the *apokrisarios* Thomas, a sixth-century monastic agent from the Wondrous Mountain [M.1280] who went to Constantinople to settle, amongst others, secular affairs¹⁶. Wortmann (1971: 47) agrees with Drerup on the translation 'Kellermeister', and specifies that the *klērikoi* must have been 'wohl nicht Geistliche, sondern im Dienst der Kirche stehende, nichtpriesterlicher Arbeiter'. The hierarchy in pay and in number of the *apostasarios*, the *klērikoi* and the vintage workers (*patētai*) suggests that the 'im Dienste der Kirche stehenden, nichtpriesterlichen Arbeiter' could well have been foremen¹⁷ who worked on behalf of the shrine or the monastery, and the *apokrisarios* would have been the manager of the entire agricultural affair.

III.1.5.3 The wine-press

Where there are no papyri, rock-cut presses constitute the main source to build upon our research on wine. This is the case in the Levant¹⁸. Wine-presses are still *in situ*, literally in thousands, all over *Oriens*, from Sinai to Mesopotamia.

In Sinai, the archaeological evidence of presses confirms that vines are more adaptable to environmental conditions than olives and that grapevine can survive severe winter frosts reaching to $-18\text{ }^{\circ}\text{C}$. Sinai, as outlined in a previous chapter, had extremely low annual precipitation (ca. 65 mm), but the systems of run-off water

¹⁶ L.133A, CCXXXII. Pargoire (1905: 60) on *apokrisarios*: 'les clerics, pour vivre, exercent en certaines circonstances des professions libérales où même des métiers manuels'.

¹⁷ Comparable to the supervisors who oversaw the transferral of grapes from the panniers to the receptacles at the press (*Geoponika* VI, 11).

¹⁸ The Nessana papyri (P.Nessana) do not deal with monasteries and the issue of wine, and the papyri of Petra have just been found.

collection and the fertility of the soil still made it possible to cultivate orchards and vines. This observation is in line with wine-presses that have been identified at no less than four monasteries (cf. pl. **V**): at Dayr Antūš [M.422], al-Karm ('the Vineyard') [III.518/1], °Ayn Nağīla [III.426/1-2] and Ma°in ar-Ra°iyān [M.428]. Moreover, Dayr Antūš and al-Karm were places related to perennial springs and to the path from Raithu (mod. aḏ-Ṭūr) to St. Catherine monastery. At Dayr Antūš the excavated pottery has been collected, but lacks all imports. Differently, at al-Karm there is abundant evidence of imported amphorae between the sixth and seventh centuries (Calderon 2000: 208). It remains an open question whether these amphorae contained wine, shipped from or to Egypt, and supplemented the local production on Sinai.

It is sufficiently known that the hinterland of Gaza was the region from where, filled in 'Gaza amphorae' (type Carthage Late Roman 4, 'LR4'), wine was shipped to the Mediterranean and beyond (Bailey 1996: 79-80; Bavay *et al.* 2000: 58-59; Kingsley 2001; Ballet 2003: 124). The assessment of the role of the monasteries in wine production is hampered by the fact that the monasteries in the region have hardly been studied and the vineyards and presses, praised by Peter the Iberian (L.448, p. 96) and Procopius of Gaza (Garzya – Loenertz 1963: 43), have not yet been identified. Mayerson (1985) produced a comprehensive appraisal of the wine and the vineyards of Gaza, but, as to the monasteries, little can be added to the

evidence from the *Life of Hilarion* (corporate or cooperative ventures etc.)¹⁹.

Given the number of monasteries considered in Jerusalem, the Judean Desert and Western Samaria (cf. pl. **V-VIII**), it comes as a surprise to see that only a few monasteries, namely Caparbaricha [III.661/1], Eustathius [M.696] and (presumably) the Nea Laura [III.663/1]), are archaeologically associated with the production of wine. Large efforts of terracing and irrigation were made at the Nea Laura. The Nea Laura had a 'vineyard' of 2,500 m² (Hirschfeld 1992: 204). The treading surfaces/vats measure 3 m² (6.8 m³) at Caparbarisha and 2.5 m² (6 m³) at Eusthatius²⁰.

Jerusalem (pl. **VI**), on the other hand, was surrounded by wine-producing monasteries: Ramot [M.652], Ra's aṭ-Ṭawīl [M.650], in whose surrounding area Gibson and Edelstein (1985: 145) counted no less than 50 presses within 10 km² (²¹), Dayr Ġazzālī [III.646/1] and Pisgat Ze'ev East A [III.648/2], which could also have been an estate owned by Ra's aṭ-Ṭawīl or Dayr Ġazzālī (Seligman 1999: 161). Pisgat Ze'ev East A had two large presses with 8.7 m³ of vat volume, and 8.5 m³ respectively. Rollers²² have not been found in these presses. The dimensions of the floors, too, hint at large-scale agricultural activities.

Similar conditions, highly propitious to vine-growing, can be found in the

¹⁹ Cf. above, p. 182.

²⁰ Estimated data. For comparison, the surfaces/vat volumes in Sinai measure 5 m² (2.6 m³) at Dayr Antūš and 1.32 m² (1 m³) at Al-Karm.

²¹ A more recent survey by the *Israel Antiquities Authority* confirms that wine-production was a major factor in the economy of Greater Jerusalem throughout antiquity. North-west of the city, 263 presses have been recorded, but their components (treading floors, vats, pressing devices) have not yet been analyzed (Kloner 2003: 64*).

²² On rollers and press-technology, cf. above, sect. III.1.4.4.4.

surrounding area of Bethlehem (pl. **VII**). Wine-presses are attested in the monasteries Ramat Raḥel ('complex A') [M.626], Hirbat Mazmurīya [M.618], Hirbat Siyār al-Ġanam ('Shepherds' Field', direct screw press) [III.620/2] and Bi'r al-Quṭṭ (St. Theodor) (2-3 presses ('units 6-7')) [III.628/1]. 'Unit 6' at Bi'r al-Quṭṭ is characterized by a particularly large treading-floor.

Similar conditions – plus higher annual precipitation – also made wine a business in four of the nine monasteries of Western Samaria (pl. **IX**). These are Hirbat al-Bi'ra [M.802], Hirbat ad-Dayr [M.806], Hirbat Dayr Daḥla [M.810] and Mevo Modi'īn ('unit 122') [M.816]. The press specifications have not been disclosed to date.

It has been shown in section **III.1.4.4.4**, on rollers and press-technology, that the need of press identification (olives versus grapes) is an issue that urgently needs to be pursued further in the north-eastern Mediterranean and in the north Syrian Limestone Massif in particular, where a large number of installations traditionally believed to be olive-presses may in fact be wineries (e.g. Beḥyo, Ksayḡbe, Iṣrūq, Qirqbāze, Brād, Ḥāss and Sarfūd). This need intensifies as there is now growing evidence in the north-eastern Mediterranean of pottery sherds and slag/kilns (?) to produce the widely distributed amphora type Carthage Late Roman 1 (LR1)²³, which Decker (2001a-b) puts forward as the main proof for the engagement of the Limestone Massif in wine-production and trade. Elsewhere, in section III.1.4.4.1 and in

²³ On this type of amphora, cf. sect. III.2.4.4.

line with Bailey (1996: 121), I have raised possible objections to this assumption by showing that LR1 was a type by no means used for the storage and transport of wine alone. Considering the fact that none of the villages in Limestone Massif has extensively been excavated (very limited excavations were undertaken in Déhès in 1980) and that there is not sufficient evidence of amphorae at all, there is strong reasons to believe that – for the time being – we have ended in stalemate as to the use of pottery typology to demystify the question of North Syrian wine. Consequently, one will have to exploit other types of evidence, such as palaeobotanical remains, toponyms (e.g. Karm Mūsā [M.1026], ‘Vineyard of Moses’ in northern Ġabal al-A‘ā) and references in minor texts. For example, Kafr Kermīn in Ġabal Srīr²⁴ was famous for its wines (Peña 1980: 283). These were exported to the East at that time.

My field trips in 2002 and 2003 to the Limestone Massif aimed at recording agricultural installations associated with the late antique monasteries. Special focus was given to the presses which, listed in plate **XV**, were recorded with regard to their type, dimensions, spatial context (millstones, cisterns) and photographs²⁵. Many of the presses recorded fall in the categories associated with the pressing of grapes: the simple pressing-platform with bell-shaped vats (‘type 1’), the single fixed screw press (‘type 2’), the lever-and-weights press with a large pressing-platform (‘type 3’) and the press with a roller-type crushing device (‘type 4’). As the majority of

²⁴ A monastery, Ṭell Nawwāz, is attested south-west of the village; cf. sect. C.5.

²⁵ The abbreviations P.xxx (B&W prints) and S.xxx (slides) in plate XV are classification numbers in my personal image archive. Not all of these images are reproduced as III.xxx/x in sect. C.5.

monastic presses in the Limestone Massif fall in the categories of 'type 1' and (presumably) 'type 2', a major engagement of the monks and monasteries in the pressing of grapes must be inferred. 'Type 4' has predominantly been identified in the western *ġabals*, namely in Ġabal al-A'lā and, *en masse*, in Ġabal Duwaylī (Peña et al. 2003: 14-26, 32-38, 56-59, 76-78). At Karm Mūsā and Kafr Kermīn (cf. above) cisterns, but no presses have yet be found.

Vineyards, amphorae and presses: a recapitulative survey

Considering the evidence of vineyards in Egypt, of potters, potteries, (coated) pots²⁶ – in particular, the type Carthage Late Roman 7 (LR7) – and presses within, a clear pattern emerges of wine being produced in many monasteries. In Egypt, the best documented monasteries as to wine-production were located near Aphroditō (Apa Sourous [M.162]) and in the Lycopolite and Hermopolite nomes (Wādī Sarġā [M.172], Dayr Anbā Abullū' [M.190]). The documentation of daily deliveries to Wādī Sarġā and Dayr Anbā Abullū' suggests enormous peaks in daily production during vintage time.

But, table **12** (and pl. **XII**) illustrate(s) that vine-growing was a major 'business' in many more monasteries of Egypt, ranging from Dayr Anbā Hadrā [M.020] near Elephantine – with a high-capacity, double-storeyed wine-press *in situ* [III.020/5]²⁷ – to Western Thebes and the Hermopolite nome. At Kōm an-Nānā [M.192], south of

²⁶ Pots, potters and potteries are dealt with in sect. III.2.4.

²⁷ Monneret de Villard (1926). Two colour photographs of this press have been published in Schachner (2005: fig. 2a-b).

Amarna, wine is not only attested by texts (O.Kōm al-Nānā TA94KN/AC52 [8410] 30336), but also by archaeo-botanical remains (Harlow 2001; Smith 2003). Further discussion is needed to ascertain the more recent evidence from John Kolobus [M.346B] in Wādī n-Naṭrūn and the involvement of monks in the well-organized production at Abū Mīnā [M.378], the Mareotic pilgrimage shrine.

Monastery	Vineyard(s)	Potter(s) (III.2.4.1)	Workshop (III.2.4.2)	Amphorae PRODUCED (III.2.4)	Amphorae BOUGHT	Amphorae RECEIVED	TOTAL	Amphorae COATED (III.2.4.3)	Press(es)
Dayr Anbā Hadrā			x ^A	?					x ^A
Isisberg				?					
Dayr al-Fahūrī			x ^A	?					
Isnā'								x (LR7)	
Dayr Apa Epiphanius		x						x (LR7)	
[Thebes]			x ^T (shared)						
Dayr Anbā Šinūda		x							
Apa Sourous	x (≥ 25)		x ^T			x ²⁸	2.400/ye or		
Wādī Sarḡā	X (≥ 12?)	x (monastic?)	x ^T					? (LR7)	
Dayr Anbā Abullū'	x (≥ 8?)	x							
'Northern Rock'					x		400		
[Hermopolis Magna]					x		2.400		
Ensou			x ^T (shared)						
Dayr an-Naqlūn								x (LR7)	
Dayr Apa Jeremiah		x	x ^A	x (LR1?)				? (LR1, LR7)	
John Kolobus			? ^A					? (E167)	
Kellia								x (LR7)	
Abū Mīnā	(x)		? ^A					? (LR1, LR4, LR5/6, LR8)	(x ^A)

²⁸ In repayment of a rent.

Table 12: Summary of vineyards, pots, potters, potteries and presses attested at major monastic sites ('T' = textual evidence, 'A' = archaeological evidence). Pots, potters and potteries will be dealt with in sect. III.2.4.

Beyond Egypt, it seems, wine was produced by monasteries wherever there were suitable conditions for vines. From Sinai to Mesopotamia our understanding of the ancient economy is widely based on archaeology and the (often controversial) press-remains. In terms of production, Jerusalem stands out as an enormous consumer-city (locals and pilgrims) whose demands may well have triggered the monastic and non-monastic production in its surrounding hills. In Syria hundreds of presses, many of them monastic, still lie untouched on the ground. And, one must infer from the disapproval of vineyards and wine that wine was available and must have been produced. The textual evidence is particularly strong for Egypt and Mesopotamia. Since Mesopotamia is the region less studied by archaeology it would be a rewarding project to survey some of these monasteries and their presses before their vestiges – very soon – disappear²⁹.

²⁹ Threat to the archaeological heritage in these regions is immediate, both by the reclamation of land by individuals and the GAP (*Güneydoğu Anadolu Projesi*), 'the integrated social and economic development effort focusing on sustainable human development through the utilization and mobilization of land, water and human resources in the region'. GAP includes 19 hydroelectric energy projects, some of which being about to flood archaeological remains (<http://www.gapturkiye.gen.tr/english/index.html>).

Site	ID	Document	Type	From	To	Type of wine	Quantity	Purpose	Provenience	Note
Dayr Anbā Hadrā (?)	M.020	<i>Corpus Papyrorum Raineri</i> inv. copt. 18, 49, 50, 209, 418, 543, 729, 1254, 1261, 1306, 1315, 1350, 1354, 1768, 3192, 4002; inv. ar. 442 (724-743 AD), 1151 (796 AD), 11416 (820-821 AD) and 2035 (887 AD): unpublished documents relative to wine-growing near Dayr Anbā Hadrā/Aswān								
Abba Aganēs	M.024	P.Grenf. I 90	acknowledgment of a debt	Flavius Psensoerius	John (notary)	οἶνος	5 jars	annual interest		measured μέτρῳ τοῦ εὐαγ οῦς μοναστηρίου
Dayr Apa Phoibammōn I [Thebes]	M.056	O.Mon.Phoib. 9	letter			HPΠ				enquiry about wine
		O.Brit.Mus.Copt. I 67/3	account	holy Apa [...]		HPΠ				(partial) request for wine
		O.Crum 250	letter	[hegumen]	[charitable institution]	'old wine' (HPΠ ΔΔC)	2 <i>diplai</i>			
Dayr Apa Epiphanius	M.068	P.Epiph. 90	acknowledgment of a debt	priest and monk (of the monastery)			50 jars (ΔΓΓΗΗ)	repayment		stipulation '[at the next] harvest, in 'baskets', as elsewhere'
		P.Epiph. 301	letter		Apa Joseph (?)	HPΠ	4 <i>diplai</i>			quantity valued at 40 še
		P.Epiph. 532	receipt			HPΠ				
Dayr Apa Phoibammōn II (?)	M.070	O.CrumST 46	wage-receipt	Apa John/Isak	Isak/Hatré, Apa Biktor (craftsmen)	HPΠ	30 jars (ΔΓΓΗΗ)			(partial) payment for work on a wooden construction
Apa Joannēs	M.076	O.Crum Ad 30	list of expenses			HPΠ				
Dayr Abū Mūsā	M.108	I.Crum1904	account (λόγος) of wine			HPΠ				given during the vintage (καρπός)
? (Aphroditō)		P.Cair.Masp. III 67324	will	Aurelios Pankab/Panophis	[monastery]	οἶνος				wine bestowed in <i>perpetuo</i>
Dayr Apa Apollōs	M.144	P.Apa Apollōs 7	letter (rent-dispute)	[tenant farmer]		[πιθε]				<i>misthosis</i> , rent in wine involved
Genealios	M.152	P.Hamb. I 68	rental contract		[monastery]		2 <i>phorai</i>			(partial) payment of

										rent	
"Near Stratiniķis"	M.154	P.Fouad I 87	letter			οἶνος	'not even a <i>knidion</i> '			assessment of mal-administration	
Metanoia	M.370										
Psentusēs	M.158	P.Mich. XIII 667	rental contract	Aurelius Phoibammōn/Triadelphos	[Psentūsēs]	'sweet wine' (οἶνος γλεῦκος)	fifty vessels /year				
?		BKU III 367		Apa Biktōr, 'the brothers'	Jōanēs 'from the mill'	ΗΡΠ	8 buckets (καδοῦς)				
? (Hermopolis)		P.Giss. I 56	rental contract		[monastery]					<i>misthosis</i> , rent in wine involved	
Ianbar	--	CPR IV 82	acknowledgement of a debt for wine	Pek[y] (monk and wine-grower)	Apa (?) Agena (tow-dealer)	wine (?)	[= 3 <i>holokottino</i> i]				
Dayr Balā'iza	M.174	P.Bala'izah 114	repayment of a debt	Jacob, George (monks)	Lampou (deacon?)	ΗΡΕΠ	? <i>lahē</i>				
		P.Bala'izah 116	repayment of a debt	[monk]	[monk]	ΗΡΕΠ	7 jars ([κα]τοῦς)			'at the time of the harvest (χ[ωλ]ε)'	
		P.Bala'izah 241	letter	[Apa] Helias (?)		ΗΡΕΠ				the context of the wine is unclear	
		P.Bala'izah 242	letter		'amīr	ΕΡΠ				tax-payment	
		P.Bala'izah 272	letter			ΗΡΠ				the context of the wine is unclear	
		P.Bala'izah 291	tax-account	[monastery]			ΗΡΠ	? <i>solidi</i>		Nerēbe	(probably) part of an account-book
		P.Bala'izah 312-317	wine-accounts	[name (of the community member) + number of <i>knidia</i>]			ΗΡΠ	'wine for the offering' (ΗΡΠ ΕΤΕΠΡΟΦΟΡΑ)	2/3 <i>solidi</i>		
		P.Bala'izah 322	account				ΗΡΠ	[various] <i>knidia</i>			wine listed among other items

Wādī Sarḡā	M.172	P.Sarga 21	medical formula			HPΠ!				wine mentioned next to olive oil (NE?)
		O.Sarga 89	letter	Stephen (steward)	Enoch	'[old] wine' (HPΠ [ΔC])	1 phoros			
		O.Sarga 90	letter			'old wine' (EPΠ ΔC)	2 phoros, 13 lakon			
		O.Sarga 91	letter			'old wine' (EPΠ ΔC)	2 hots			'fill their hots with old wine'
		O.Sarga 92	letter	Papnoute	[his Father]	EPΠ	2 phoroi			
		O.Sarga 93	letter			HPΠ	[3 camels]			request for '3 good camels for wine'
		O.Sarga 106	letter	[monastery]	shepherds	'little wine' (KOYI NHΠΠ)	3 hots			request for wine
		O.Sarga 110	letter		camel-drivers	'pure [wine]' (ZE N ΔKPA THN)	6 ?			request for payment (?)
		O.Sarga 121-125	accounts of wine	[number + φορ + [Δ + name of person responsible for payment +] Δ + name of camel-driver) + amount of wine]		OI	[various] phorai; orgon, phora, knidion (O.Sarga 123-125)		[various (O.Sarga 124)]	accounts of wine deliveries, by camel (in various convoys)
		O.Sarga 126-127	accounts of wine			OI	[various] knidia			'large knidia from jar (κΔΔ)'
O.Sarga 133	account of wine			HPΠ	10 'hands' (CIX), 6 ? = 700 ?		Touhō			

	O.Sarga 135	account			wine jars (αποφορ νηρη)/1 st ship: 51, 320 large vessels (νος σκευε)			Tiloğ	account of (wine) jars delivered by ship from Tiloğ
	O.Sarga 136	list of vessels (presumably containing wine)				[organon, kollathon, lakkon, 'small' kollathon, hots]			
	O.Sarga 137	account			'large vessels' (νος σκεουε)	'14. Likewise 300'			
	O.Sarga 139	account	John (camel- driver) (?)	[monastery] (?)	ηρη			Planenhoir e	
	O.Sarga 142	account			wine	? sorouton			
	O.Sarga 161	contract of employment	Daniel (archimandrite)	Apa Paul (carpenter)	ηρη	12 lahē 2 jars (καδους νηρη), 'accordin g to the vintage/vi neyard (μα νη)			(partial) payment for work
	O.Sarga 164	contract of employment	[monastery/A pa Enoch]	Psynhōr (salt- dealer)	ηρη	1 lakooote			(partial) payment for work
	O.Sarga 167	order for payment	Apa Mēna (acting on behalf of Apa Enoch)	Anoup (camel-driver)	ηρη	12 'small lahē', 8 phorai			
				Apa Agēne (head husbandman)		2 'small lahē'			
	O.Sarga 168			Irene (nun)	ηρη	20 'small lahē'			Mesorē 20

		O.Sarga 169		Apa Peter/Pargamos	HPΠ	11 'small lahē'			
		O.Sarga 170		Apa Pgōl	HPΠ	16 lahē			
		O.Sarga 171		John (smith)	HPΠ	3 phorai, 15 small lahē = large 3, small 15			
		O.Sarga 172		George (camel-driver)	HPΠ	8 phorai, [12] small [lahē]			
		O.Sarga 173		Pe[...] Makes	HPΠ	1 phoros, 1 lahē			
		O.Sarga 178		Apa Hōr	HPΠ	3 phoros		'the southern vineyard' (Ϟωμ Ἰ πρhc)	
		O.Sarga 180		[Apa] John		'unmixed (wine)' (ΔHKPΔTΩ [])	12 ?		
		O.Sarga 185		Apa Kolthe	PP				
		O.Sarga 186		Papnoute	EPΠ	2 phoros of sorouton (COPΟΥTON)			
						'new wine' (EPΠ ἸΔT)	10 phoros, 10 xestēs (?)		
		O.Sarga 193 and 199	invoices for wine	Apa Elias (camel-drive?)	OI				
		O.Sarga 209	receipt	Joseph (camel-driver)	OI		68 large measures (MEΓ)		Thōth 3, 1 st convoy
		O.Sarga 210	receipt	John		boiled wine (ΥΨΗΜΔ ¹) (KΔΔ)	24 phorai, 96 jars (KΔΔ)		Mesorē 23
		O.Sarga 211	receipt		OI		115 knidia		Thallou

		Athansasius (camel-driver)			1 'camel-load' = 24 <i>knidia</i>			Thōth 16, 4 th convoy
O.Sarga 212	receipt			01				
O.Sarga 213	receipt	Hōr (camel-driver)		01	30 large measures (μερ), 1 small (μικ)		Takwutes	Phaophi 1
					7 large measures (μερ)		Nemhate	
O.Sarga 214-224	receipts	[camel-drivers]		01			Sanhūr (O.Sarga 219)	
O.Sarga 225-244	receipts	Joannēs (camel-driver)	[Tōw (O.Sarga 232), Samalūṭ (O.Sarga 239)]	01				
O.Sarga 245-259	receipts	Loukas (camel-driver)		01				
O.Sarga 261-277	receipts	Macarius (camel-driver)		01				
O.Sarga 279-289	receipts	Kolluthos (camel-driver)		01				
O.Sarga 290-297	receipts	Joseph (camel-driver)		01				
O.Sarga 298-306	receipts	Mathias (camel-driver)		01; 'old wine' (πιν αc; O.Sarga 302)				
O.Sarga 307-313	receipts	Enoch (camel-driver)		01				
O.Sarga 314-316	receipts	Serenus (camel-driver)		01				
O.Sarga 317-319	receipts	Pamoun (camel-driver)		01				
O.Sarga 320-324	receipts	Paēse (camel-driver)		01				
O.Sarga 325-327	receipts	Cyriacus (camel-driver)		01				

	O.Sarga 328	receipt	Pmatoī (camel-driver)		οι				
	O.Sarga 329	receipt	Andreas (camel-driver)		οι				
	O.Sarga 330-340	receipts			οι				
	O.Sarga 341-343	receipts			οι				
	O.Sarga 344	tax-receipt	[monastery/A pa Germanus]		ΗΡΠΙ	15 <i>hots</i>			tax (ΔΗΜΟΣΙΟΝ) payment for the fields of Tahomō
	O.Sarga 345	receipt	Apa Mēna (from Touō Neaniskōn)		οι	124 <i>phorai</i>		'field (οργάνο) of Nesieu'	Thōth 1, 2 nd convoy
	O.Sarga 346-354	receipts	Apa Mēna		οι	[various]		Nesieu	
	O.Sarga 355	receipt	Horus		οι	26 <i>phorai</i>		'field of the vineyard (οργ/ ἀμπελοῦ) of Paroou'	5 th (?) convoy
	O.Sarga 356-358	receipts			οι	[various]		'Ampelou' (O.Sarga 355-357), Notinou (O.Sarga 358)	
	O.Sarga 366	receipt			wine (?)	46 <i>phorai</i>			
	O.Sarga 370	receipt	John (camel- driver)		wine (?)	100 'small <i>knidia</i> ' = 4 camel- loads (ΚΑΜΗΛΙΑΔ)			
	O.Sarga 327-373	receipts			οι	[various]			
	O.Sarga 373	receipt	Cyriacus (monk)		οι	133 ? = 6 camel- loads			
	O.Sarga 377	receipt			'pure [wine]' (ΚΑΘΑΡΟΝ)				

Apa Mēna	M.182	SB Kopt. I 51	contract of employment	[monastery/A pa Isaak]	Leōn	HPΠ	12 jars			(partial) payment of wage
Dayr Anbā Abullū'	M.190	BL Or. 6201 B187	tax-collection contract			HPEP				<i>pactum</i> (ΠΑΚΤΩΝ) payable in wine
		BM EA 10135 (B)	wine-account		[monk]	οΙΝΥ				
		BM EA 10460 (B)	wage-receipt	[monk]	[builder]	οινου				(partial) payment of wage (for one year)
		BM EA 75318	tax-collection contract						Tiloğ	location related to monastery known for its wine
		P.Vat.Aphrod. 13	list of requisitioned contributions (διανομαί)	[monastery]	[various, incl. the army/navy]	"boiled wine" (έψημα)				payment in view of the <i>cursus</i>
		P.HermitageCopt. 14	account of wine	[monastery]	[various]	'boiled wine' (έψημα)				payments effectuated by the monastery
		P.Vindob. K 11375	letter	Apa Petros (steward)	[bee-keeper]	Η[Ρ]Π	1 <i>lakote</i>			tax (άπαρχή) - payment
		I.MIFAO111 chap. LV	account (λόγος) of wine				? <i>lakote</i>			related to feast of Michael
Kōmal-Nānā	M.192	O.Kōm al-Nānā TA94KN/AC52 [8410] 30336	synetheia/wage-receipt	Phoibammōn (monk ?)	Ioannēs (wine-seller (?)) of Peğla)		2 jars			
"Northern Rock"	M.236	P.Prag I 45	contract of sale (?)/wage-receipt	[monastery/At hansios]	Aurelios Pathout/Apollōs (wine-grower)	'new wine (οἶνος νέος), best quality'	200 wine-jars (κάδοι)			jars rated at 4 <i>sextarii</i> each
Pouinkōreōs	M.252	P.Cair.Masp. II 67168	security (άσφάλεια)	[monastery]	Theodore (bishop in Pentapolis)	οἶνος	1500 <i>knidia</i>			sale in advance
?		P.Bad. IV 55		[merchant]	Ouain (hegumen)	οἶνος	? <i>pithoi</i>			

Dayr al-Ḥammām	M.306	P.Fay.Copt. 45	(merchants's) register of sale	[monastery ?]						
Dayr an-Naqlūn	M.308	P.Naqlun I 12	letter	Basileios (comes)	[monastery]		ḡ kouri			must returned in exchange for wine
		P.Naqlun I 10	account	[monastery]	Basileios (comes)	must (μούστον)				
					[monastery/a bbot]	'poor wine' (ὄξος)	6 kouri			(partial) delivery of items to an abbot
Serenus	M.314	CPR X 52	(2) letters	[monastery]			[jars]			wine being in danger of being 'lost' through evaporation because of the unavailability of jars into which to transfer it
Dayr ApaJeremiah	M.334	wine-inscription; cf. vol. 2, sect. C.5								
[Dayr] Abū Minā	M.378	O.Mena 1-10	instruction	[monastery (?)]	[vintage-workers]	οἶνος	[various] xestēs		Tēneti (O.Mena 6), Sēsana (O.Mena 7)	(partial) payment of wage

Monasteries and wine in the documentary sources: summary (cf. also pl. XIII and XIVa-b)

Estate (NTE-)	Type	No.	Date (day, month; year/indiccio n)	[Wine] (unless otherwise stated)	Quality	Quantity (ΛΔΚΟΟΤΕ/ΜΕΤΡΑ)	Convoys (φορά)	Camel-driver (ΖΙΤΗΝ-/ΔΙΑ)	Origin of camel-driver
Pmanle	ΨΙΝΕ ΝCΔ	1	17 th Thōth; 2 nd		'old'	56		Joseph	
Pmanle	ΨΙΝΕ ΝCΔ	2	15 th Thōth; 2 nd		'old'	8	10 th	John	
Pmanle	ΨΙΝΕ ΝCΔ	3	17 th Thōth; 2 nd		'old'	60	13 th	Phib	
Pmanle	ΨΙΝΕ ΝCΔ	4	17 th Thōth; 2 nd		'old'	120	1 st	Taurine	
Pmanle	ΨΙΝΕ ΝCΔ	5	15 th Thōth; 2 nd		'old'			Pamoun	
Pmanle	ΨΙΝΕ ΝCΔ	6	15 th Thōth; 2 nd		'old'	40	2 nd	Pous	
Pmanle	ΨΙΝΕ ΝCΔ	7	13 th Thōth; 2 nd			100 "small" ΛΔΖΗ/κνίδια	17 th	John, Pous	
Pmanle	ΨΙΝΕ ΝCΔ	8	17 th Thōth; 2 nd		'old'		10 th	Pamoun	
Pmanle	ΨΙΝΕ ΝCΔ	9	17 th Thōth; 2 nd		'old'	20	5 th	Constantin	
Pmanle	ΨΙΝΕ ΝCΔ	10	11 th Thōth; 2 nd			85 κνίδια	12 th	Apa Victor, camel-driver	
Pmanle	ΨΙΝΕ ΝCΔ	11	2 nd (?)		'old'	120			
Pmanpaēse	ΨΙΝΕ ΝCΔ	12	13 th Thōth; 2 nd			70 + 5 "small" ΛΔΖΗ/κνίδια		Phib	
Pmanpaēse	ΨΙΝΕ ΝCΔ	13	13 th Thōth; 2 nd			50 "small" ΛΔΖΗ/κνίδια		Pamoun	
Pmanpaēse	ΨΙΝΕ ΝCΔ	14	17 th Thōth; 2 nd			23 "small" ΛΔΖΗ/κνίδια		John	
Pmanpaēse	ΨΙΝΕ ΝCΔ	15	2 nd (?)		'old'	180		Victor	
Pmanpaēse	ΨΙΝΕ ΝCΔ	16	Thōth		'old'	? μέγαλα			
Pmanpaēse	ΨΙΝΕ ΝCΔ	17	12 th Thōth; 2 nd		['old']	60 μέγαλα	17 th	Daniel	
Pmanallou	ΨΙΝΕ ΝCΔ	18	10 th Thōth; 2 nd		'old'	8	7 th	Victor	
Pmanallou	ΨΙΝΕ ΝCΔ	19	2 nd (?)	+ one ἄσκος/σκεῦος (?)		36			
Pmanallou	ΨΙΝΕ ΝCΔ	20	17 th Thōth; 2 nd			59	4 th	Taurine	
Pmanrane	ΨΙΝΕ ΝCΔ	21	5 th Thōth; 2 nd		'old'	40	10 th	Pous	
Pmanrane	ΨΙΝΕ ΝCΔ	22	7 th Thōth; 2 nd		'old'	60	11 th	Pous	
Pmanrane	ΨΙΝΕ ΝCΔ	23	2 nd (?)		'old'	60			
Pmankuriakos	ΨΙΝΕ ΝCΔ	24	10 th Thōth; 2 nd			90 "small" ΛΔΖΗ/κνίδια		Apa Victor	
Pmankiriakos	ΨΙΝΕ ΝCΔ	25	10 th Thōth; 2 nd			75 "small" ΛΔΖΗ/κνίδια	9 th	Peter	
Pmannōhe	ΨΙΝΕ ΝCΔ	26	2 nd (?)			37		Pšoi, camel-driver	
Pm[an-]	ΨΙΝΕ ΝCΔ	27	2 nd (?)			5 "small" [ΛΔΖΗ]		Phib "the small"	
Pōrf	ΨΙΝΕ ΝCΔ	28	10 th Thōth; 2 nd			31	18 th	Phib "the small"	
Pate[...]	ΨΙΝΕ ΝCΔ	29	2 nd (?)			90	1 st		
P[...]	ΨΙΝΕ ΝCΔ	30	5 th ἔπαγόμενα; 2 nd (?)			60 (unit ?)	10 th		
P[...]	ΨΙΝΕ ΝCΔ	31	7 th Thōth; 2 nd (?)		'old'	60	10 th	Taurine	
?	ΨΙΝΕ ΝCΔ	32	11 th Thōth; 2 nd (?)		'old'	70	7 th	Constant[in]	
?	ΨΙΝΕ ΝCΔ	33	Thōth; 2 nd (?)					Matthias	
?	ΨΙΝΕ ΝCΔ	34	2 nd (?)			40		Pqōl, camel-driver	
Tiloč	ΨΙΝΕ ΝCΔ	35	5 th Thōth; 12 th	wine or wine-vessels		72 ποκε		Paul, camel-driver	
?	ΨΙΝΕ ΝCΔ	36	1 st Thōth; 12 th			120 μέγαλα		Paul, camel-driver	
Enoch (?)	ΨΙΝΕ ΝCΔ	37	21 st Thōth; 12 th			60		Pamoute (?)	

?	ΩΙΝΕ ΝCΔ	38	1 st Thōth; 12 th			60 μέγαλα		A[...], camel-driver	
?	ΩΙΝΕ ΝCΔ	39	13 th Thōth; 12 th			60	11 th		
?	ΩΙΝΕ ΝCΔ	40	21 st Thōth; 12 th					Paul, camel-driver	
?	ΩΙΝΕ ΝCΔ	41	5 th Thōth; 12 th (?)			6 (unit ?)		Pšoï	
?	TNOYT	42	4 th Thōth			80 μέγαλα	5 th	George	
?	TNOYT	43	6 th Thōth; 11 th			28	9 th		
?	TNOYT	44	22 nd Thōth			22 κογσιογ	12 th	Jacob	
?	TNOYT	45	21 st Thōth			32 + 24 μέγαλα			
?	TNOYT	46	Thōth					Apa Kur(e)	
?	TNOYT	47	7 th Thōth				29 th	Enoch	
?	TNOYT	48	8 th Thōth; 13 th			7 μέγαλα	7 th		
?		49				37 (unit ?)	19 th	John	
?		50				44 "small" ΛΔΚΟΟΤΕ		Mēna, camel-driver of Apa Enōš, steward	
?		51	9 th Mekhir	wine or wine- vessels		105 ΜΑΚΔΡΙC		Paphōt	
?		52	4 th Thōth; 6 th			26 (unit ?)	3 rd		
?		53				70 κοείC	1 st	Azarias, camel-driver	
?		54				60 μέγαλα (?)	6 th (?)	Apa Kire	
	ΩΙΝΕ ΝCΔ	55	15 th	TΔΡΙΧΕ		40 ΛΔΚΟΝ		Šinoute	Maïoum a
	ΩΙΝΕ ΝCΔ	56	20 th Phamenōth (Thursday); 15 th	TΔΡΙΧΕ		10 ΛΔΚΟΝ		Abraham	Tanqaš ou
	ΩΙΝΕ ΝCΔ	57	23 th Phamenōth (Sunday); 15 th	TΔΡΙΧΕ		4 οργον		Epiphane	Marēs
	ΩΙΝΕ ΝCΔ	58	19 th Phamenōth (Wednesday); 15 th	TΔΡΙΧΕ		25 ΛΔΚΟΝ + 15 ΚΟΛΔΘΕ		John	Paploou
	ΩΙΝΕ ΝCΔ	59	22 th Phamenōth; 15 th	TΔΡΙΧΕ		16 ΛΔΚΟΝ + 4 ΚΟΛΔΘΕ		Epiphane	Marēs
	ΩΙΝΕ ΝCΔ	60	18 th Phamenōth; 15 th	TΔΡΙΧΕ		18 ΛΔΚΟΝ + 12 ΚΟΛΔΘΕ		Sarapion	Paploou
	ΩΙΝΕ ΝCΔ	61		TΔΡΙΧΕ		10 ΛΔΚΟΝ + 2 ΚΟΛΔΘΕ		Heraki-	
	ΩΙΝΕ ΝCΔ	62	19 th Phamenōth (Wednesday); 15 th	TΔΡΙΧΕ		6 ΛΔΚΟΝ + 4 ΚΟΛΔΘΕ		Pehēou	
	ΩΙΝΕ ΝCΔ	63	11 th Pakhōn	COYO		11 σοογνε (=21½ artabas)		Patholomaio s Pistikos	
	ΩΙΝΕ ΝCΔ	64	14 th Thōth	wheat		45 (?) σοογνε (= 61 artabas)		Jerēmias Pistikos	
	ΩΙΝΕ ΝCΔ	65		COYO				Makare, camel-driver	
	ΩΙΝΕ ΝCΔ	66	8 th Thōth; 8 th	CIM (herbs)		5 σοογνε	20 th	Phoibamō	
Psobet	ΩΙΝΕ ΝCΔ	67	21 st Thōth	ΝΔΝΧΩΛ (onions)		8 σοογνε	1 st	Peloolle	
	ΩΙΝΕ ΝCΔ	68		?		? σοογνε		Ap[a Paul]	
Anoup (?)	ΩΙΝΕ ΝCΔ	69		?		50 (unit ?)			
	ΩΙΝΕ ΝCΔ	70		?		84 (unit ?) + 1 ΛΔΚΟΝ			
	ΛΟΓΟC	71		wine		98 μέγαλα	1 st	Panekhēros	

				--- (for the sailors)		2 μέγαλα	πλοῖον (boat)		
				wine		57 μέγαλα			Ριῆου
				--- (for the sailors)		8 μέγαλα			
				wine		4 (unit ?) + 16 COYCIΟΥ			
	λογος	72		wine		100 ΛΑΚΟΟΤΕ + 18 ΣΚΕΥΕ			
				wine		42 ΛΑΚΟΟΤΕ + 3 ΣΚΕΥΕ		John (?)	Hōb
	(account)	73		wine (?)			1 st		
							2 nd		
							3 rd	Ma[...]	
							4 th	Apa Kir[e ...]	
							5 th	Joseph	
							6 th	Sonsnaou, camel-driver	
							7 th	Makare, camel-driver	
							8 th	Apa Kire, camel-driver	
Pmannōhe (?)	(account)	74		wine		60 μέγαλα			
						120 μέγαλα			
						120 μέγαλα			
						81 μέγαλα			
						17 μέγαλα + 1 ΟΡΚΟΝ			
Pmanbēte (?)	(account)	75		wine vessels				(camel- drivers)	
	(account)	76		wine (?)					
	list of carriers	77						Victor	
								George	
								Apa Jacob, camel-driver	
		78		wine vessels					
	(account)	79		wine vessels or wine		111 (σκευε)		John	
						76 (σκευε)		Apa Kire	
Pmanranē	(letter)	81							
Pmanlouga									
Pmandllou									
		84		wine vessels (?)		? σκευε		Abraham (?)	
		86		fish (?)		? ΚΟΛΛΘΕ		camel-drivers (?)	
		90		wine		181 κνίδια			
		91		wine		? ΛΑ2Η			

Dayr Anbā Abullū'/Bāwīṭ [M.190]: the documentary evidence of wine and ΤΑΡΙΧΕ
ex Clédat *et al.* 1999

Monastery	ID	Expulsion (ἀπό ἐκβολῆς)	Reference	Location	Arable land (ἄρ.)	Rushes (ἄρ.)	Vineyar ds (ἄρ.)	Vergers (ἄρ.)	Total (ἄρ.)	Cultivated by (ὑπό)	Co-ownership with
Apa ...			II, 53		13 ¼ 1/8		[.] 1/8			?	
<i>Subtotal</i>					13.375 [99%]	--	≥ 0.125 [1%]	--	≥ 13.5		
Oasitai	M.167	see Apa Sourous (II, 55-57)									
<i>Subtotal</i>					--	--	--	--	--		
Porbis			I, 12		4 ½ (?)					Mousaios/Psimanō bet, farmer	
			IX, 282-283	Ψαυμαῦ	3 ¼ 1/16 1/64 (out of 10)					Hermauōs/Psachō s, farmer	Daniēl/Isakios et al.
			IX, 290	Φαλιλας	4						
<i>Subtotal</i>					11.8281 [100%]	--	--	--	11.8281		
Apa Se/inouthēs	M.122 (?)		I, 49-50		15 ¼					Isakos, notary; Iō[...], farmers	
		Hospital of Apa Dios	V, 144		4					Tsouroose/Hatrēs, farmer	
<i>Subtotal</i>					19.25 [100%]	--	--	--	19.25		
Smin	M.138 (?)		I, 46		¼ 1/8						
			III, 81	Πμουνακῶν	½ ¼ 1/8 1/16		1 ½			Palōs/Pataīs	
			III, 88	Χιχοῖς	2 ½ 1/8 1/16		½ ¼ 1/8			Phoibammōn/Mar turios (?)	
			V, 121		15					Palōs/Pataīs (, farmer)	
		Heirs of Dios/Truphiodōr os	V, 128		½						
			V, 135		1 ½						
			V, 152-153		5 ½			½ ¼ 1/16			
			VIII, 249-250	Μακαρίου Α ρποκρά καὶ Αλαπάνε	7 ¼ 1/32			¼ 1/16			Anouphis/Abraami os, sheperd, farmer
	VIII, 251-252	Ψοῖος Πανί σκος	4 ½ ¼ 1/32			1 ¼					
<i>Subtotal</i>					38.5625 [89%]	--	4.75 [11%]	--	43.3125		
Apa Sourous	M.162		I, 4-5		13 ½ 1/8 1/16					Psaiōs/Patermouth ēs, sheperd, farmer	Panolbios, councillor

		I, 23		2 ¼ 1/16					Phoibammōn/Hermauōs, grandson of Chōros	
		I, 31		6					Mousēs/Hermauōs, doctor, farmer	
	Heirs of Eleusinos	I, 32-33		2 ½ 1/8 1/16					Mousēs/Hermauōs (?)	
		I, 34		19 ½ ¼					Pekusis, farmer (?)	
		II, 39		4 ½ ¼ 1/16		½ ¼			Rachēl/Makarios	
		II, 55-57		5 ½ 1/16					Phoibammōn/M[...], farmer	Monastery of the Oasitai [M..167]
		II, 61-63	Ισακίου	8 (out of 16)					Sabinos/Psempno uthēs, farmer	Senouthēs/Psaïos
		II, 64	τῶν ἀπὸ Ἀνταίου	8 1/32						
		II, 65	Ψεκῆτος χαλκοτύπου	6					Rachēl/Makarios	
		II, 66	Ἀτρήτος ἐλαιουργοῦ	8 ½ 1/8 1/16					Phoibammōn/lōsēphios (, farmer)	
		II, 69	[...]τος ἐλαιουργοῦ	1						
		III, 97-98		19 ½ 3/64 (?) (out of 26 [,] 1/64)					Monastery of Tarouthis	Huinias Scholastikos
	Biktōr/Chargaus (from Apollinopolis Parva); Tasia (from Antaeopolis)	III, 99-101		?						
	?	III, 102-103		1 [,]						
	Panolbios	III, 104		2						
		IV, 116	Πασίρις	15					Iakubis/Maximos	
		IV, 117	Ἴδε[...]	11 ¼ 1/16					?	Psaïos, farmer
		IV, 118	Καρὺρ	5 ¼ 1/16					Phrurios, farmer	
		V, 136		½ 1/8 1/16 (out of 6 1/8 1/16)						Heirs of Hermias/Biktōr, et al.
		V, 150-151	Ψιλάμπων	5					Mousēs, prōtokōmētēs, farmer	
		V, 155		16					Chrēstē/lōannēs, Mousēs	

	V, 162		7					Paulos/Psinpourēs, farmer	
	V, 163		4 ½					Abraamios, priest, baker, farmer	
	V, 164	ἐν ἀφέσει	½ ¼ 1/32						
	VI, 176-177	Ψιντάσε	9 ½ 1/8 1/16					Abraamios/Kratistos, farmer	
	VI, 191-192	Φένις	11					Ierēmias/Kuros, farmer	
	VI, 193	Φαναώμ	10 ½					Isakos/Psempnout hēs, farmer	
	VI, 194	Ψιντεσορίου	3 ¼					Kallinikos/Apollōs	
	VI, 195	Οστρακίνης	1 ½					Abraamios/Kratistos, farmer	
Psenthaēsios/Psempnouthēs, priest, farmer	VI, 197-198		2						
	VI, 204	Αβάκτου (ab actis)	16 ¼		½ 1/8 1/16			Hellōs, priest	
	VII, 236	Ψιντάσε	8					Patermouthēs/Makarios	
	VII, 237-238	Ωρκαμῆς	18					Psatēs/Psaios, farmer	Theophilēs/Dioskoros
	VII, 239	Πατήις	4 ¼ 1/8		1 ¼			Phoibammōn/Iōannēs, farmer	
	VII, 240		1 1/8 1/16		3			Paēsis/Alēthios, farmer	
Hermias/Iōannēs, Rachēl	VII, 242-243		3 ¼ 1/16					Hellōs, priest, farmer	
	VIII, 247-248	τοῦ μοναστηρίου Ψιντάσε	6 ¼					Pauērias/Iōannēs, farmer	
	VIII, 263	Ρωμανός	15			2		Apollōs, priest	
	VIII, 269-271	Αβάκτου (ab actis)	2 1/8 1/32 1/64 (out of 13)			¼ 1/16 1/32 (out of 2)		Anouphis/Pnis, farmer	Hermias/Iōannēs et al.
	VIII, 272	ποιμῆν	2 1/2					Abraamios, priest, farmer	
	VIII, 273-274	ποιμῆν	½ 1/8 1/16 1/32 (out of 1 ¼ 1/8 1/16)					Abraamios/Psinthaēsios, farmer	Heirs of Limenios

		VIII, 277-278	ἐν τοποθεσί αἰς	7 ¼			13 ¼		Iōsēphis/Abraamio s, Apollōs, Phoibammōn/Pnis, farmers	
		IX, 285	Πια Κορτού τ	2 ½ 1/8			2 ½ 1/8			
<i>Subtotal</i>				≥ 305.8125 [92.7%] (294.8125 [92.5%])	---		5.6875 [1.7%] (5.6875 [1.8%])	18.2188 [5.6%] (18.2188 [5.7%])	≥ 329.7188 (318.7188)	
Tarouthis		see Apa Sourous (III, 97-104)								
		III, 105-107		½ [.] 1/8 1/16 (out of [.] ¼ 1/16)					monastery; Hermauōs/Ptolem aios	Apollōs/Dioskoros
<i>Subtotal</i>				≥ 0.6875 [100%]	--	--	--		≥ 0.6875	
Ama Termouthia		III, 76		3 ¼ 1/8		1/8 1/16	1/16		Iakubis/Maximos (?)	
<i>Subtotal</i>				3.375 [93.4%]	--		0.1875 [5%] 0.0625 [1.6%]		3.625	
Apa Zēnobios		II, 44-45		2 ½ ¼					sons (?)/Besariōn	Heirs of Anoubiōn/Kolosir eos et al.
		II, 51-52		?					?	
		II, 54		10 ½ ¼ 1/16					Hermauōs/Psueros, priest, farmer	
	Heirs of Rōmanos/Biktōr	II, 67		3					Rachēl/Makarios	
		V, 167		10					Mousēs/Hermauōs , doctor, farmer	
	Koleuchia/Prōm aōs, farmer	VII, 215-216	τοῦ ἀναχωρ ητοῦ	1 ½ ¼ 1/8						
		VII, 219-220	Σαλαδόκος	8 1/16 (out of 10 ½ ¼)					Pouōnsios	Biktōr/Promaōs, sheperd
		VII, 233-234	Πιλήμων	12 ¼ 1/8 1/16					Kuriakos/Biktōr, Biktōr/Anōmeridēs, farmers	
		VII, 235	Καλαῦ	4	½ ¼ 1/8	5 ½ 1/8 1/16			Iōannēs/Psatēs, Psatēs/Martēs, farmers	
		VII, 244		1/8 1/64					Iōannēs/Psaïos, deacon, farmer	

		VII, 245	Πρωμαῶς								
		VIII, 252-253	Παροῦβ Λεονίδου	$\frac{1}{2}$ $\frac{1}{8}$ $\frac{1}{16}$ (out of $1 \frac{1}{4}$ $\frac{1}{8}$)						Kallinikos/Apollōs	Thekla
		VIII, 265-266	Φερκῶ	$\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$ $\frac{1}{32}$ $\frac{1}{64}$ (out of $3 \frac{1}{2}$ $\frac{1}{8}$ $\frac{1}{16}$)						Psatēs/Pnis, farmer	Bēsas/Isakios et al.
		VIII, 275-276		$1 \frac{1}{4}$ $\frac{1}{8}$ (out of $5 \frac{1}{2}$)						Apollōs/Hērakleios	Heirs of Kallimachos/Apollōs et al.
		IX, 289		$1 \frac{1}{4}$ $\frac{1}{32}$		$\frac{1}{4}$ $\frac{1}{8}$ $\frac{1}{16}$				Kuriakos/Biktōr, farmer	
<i>Subtotal</i>				≥ 58.9562 [89.3%]	0.875 [1.3%]	6.125 [9.4%]	--		≥ 65.9569		
<i>Total</i>				≥ 451.8468 [92.6%]	0.875 [0.2%]	≥ 16.875 [3.5%]	18.2813 [3.7%]		487.8781		

The so-called Aphroditō-Cadaster (P.Freer 08.45 a+b): the evidence of the monasteries (cf. also pl. XIVb)

Monastery	Arable land (ἀρ.)	Rushes (ἀρ.)	Vineyards (ἀρ.)	Vergers (ἀρ.)	Total (ἀρ.)
Ap[α ... Subtotal	13.375 [99%]	--	≥ 0.125 [1%]	--	≥ 13.5
Oasital Subtotal	--	--	--	--	--
Porbis Subtotal	11.8281 [100%]	--	--	--	11.8281
Apa Se/inouthēs Subtotal	19.25 [100%]	--	--	--	19.25
Smin Subtotal	38.5625 [89%]	--	4.75 [11%]	--	43.3125
Apa Sourous Subtotal	≥ 305.8125 [92.7%] (294.8125 [92.5%])	--	5.6875 [1.7%] (5.6875 [1.8%])	18.2188 [5.6%] (18.2188 [5.7%])	≥ 329.7188 (318.7188)
Tarouthis Subtotal	≥ 0.6875 [100%]	--	--	--	≥ 0.6875
Ama Termouthia Subtotal	3.375 [93.4%]	--	0.1875 [5%]	0.0625 [1.6%]	3.625
Apa Zēnobios Subtotal	≥ 58.9562 [89.3%]	0.875 [1.3%]	6.125 [9.4%]	--	≥ 65.9569
Total	≥ 451.8468 [92.6%]	0.875 [0.2%]	≥ 16.875 [3.5%]	18.2813 [3.7%]	487.8781

The so-called Aphroditō-Cadaster (P.Freer 08.45 a+b): the evidence of the monasteries (summary)

WP02	Image	Direction	Monastery	ID	Treading floor Surface	Vat	prelum	Roller	Millstone	Cistern No. (type)	Volume	Note
2	P.200/2 P.200/4 S.5	SW SW NW	Burğ ʿAbdallāh	M.1108	10.24 m ²		x			1 (pear)	D=3.7 m	
3	P.200/6 S.8	NW NW	Dayr Burğ ʿAbdallāh	M.1110	12.24 m ²		x					'press I'
	P.200/7	SE			7.01 m ²							'press II'
	n/a	---			4.93 m ²							'press III'
	n/a	---			6.00 m ²							'press IV'
	S.9	NE			---						1 (covered)	136.5 m ³
5	P.200/9	N	---		6.67 m ²		x					
6	n/a		Burğ Maḥdūm Šarqī (?)	M.1116	n/a							
7	n/a		Burğ Maḥdūm	M.1120	5.04 m ²							
8	n/a		---		11.88 m ²							
9	P.200/11	SE	---		8.75 m ²	n/a						
11	P.200/13 S.14	W W	Burğ Ġāber	M.1112	---					2 (pear)	D=1.7 m, >1.9 m	
12	P.200/20	SW SW	Brayğ	M.1136	n/a							sector 'B'
	P.200/15 S.17	SW SW (ʿ)			---					1 (covered)	312 m ³	
15	P.200/26	NE	Dayr Babišqa A	M.1140	---					1 (covered)	64.13 m ³	
17	P.200/28 S.23	N N	Dayr Babišqa B	M.1142	6.25 m ²					1 (pear, 2 openings)	n/a	
	S.25	N			---			x (reused in modern wall)				
26	P.200/31	n/a	Dayr Sahūr	M.1134	5.52 m ²							
27	P.200/32 S.43	NE NE	Burğ Yahyā	M.1130	n/a		x					inside tower
	P.200/34	NW			9.75 m ²			? (see photo)				E of tower (seem linked)
28	P.200/35 S.47 S.48	NE NNW n/a	(near) Burğ Yahyā		13.32 m ²			x (in situ)				
					---		x			birka	n/a	
30	P.200/36 S.50	E NW	(near) Sarfūd	---	39.48 m ²		x		x			one of four enormous press installations
37	P.201/6	SW	Ad-Dayr (Kafr Daryān)	M.1104	---					1 (covered)	≥157.60 m ²	under building

43	P.201/10 S.60	N N	(near) Me'ez	---	n/a							one of many presses at Me'ez	
44	P.201/11 S.62	W NE	Qal'at at-Tuffāḥ	M.1100	n/a	n/a	x					'W press', note enormous vat	
45	P.201/12	E			12.47 m ²			x				'NW press'	
46	P.201/13	N			7.74 m ²			?				'SE press'	
					---						1 (pear), 1 (covered)	n/a	N of core
48	n/a		---		n/a								
49	n/a		---		---					1 (subterranean)	D=2 m	access by stairs	
52	S.67	N	Dayr Bab'iyān	M.1082	19.25 m ²							press or drying floor?	
					3.8 m ²	n/a	x						
58	P.201/20 S.73	N	Dayr Bašakūḥ	M.1088	not identified					x		found with manger	
63	P.201/25 S.80	S N	(near) Duwayrīḥ	---	1.54 + 3.3 m ²							2-floor installation	
66	P.201/26 S.82	E W	Aṣ-Ṣoma'at	M.1076	9.9 m ²						1 (pear)	n/a	
73	P.201/31 S.86	N N	Kaukanāya	---	---						1 (covered)	n/a (64 m ²)	
76	P.201/36	NW	Ad-Duwayr	M.1060	36 m ²							press or drying floor?	
	S.94	W			---							>1 (pear)	D=4 m
79	P.202/4	n/a	Dayr Banqūsa (Qaṣr al-Banāt)	M.1054	---						>1 (pear)	n/a	one of many cisterns
85	n/a		---		---						1 (slab)	n/a	
88	P.202/9	n/a	Kūsik	M.1090	n/a						>1 birkas	n/a	oral information (plough-man)
95	P.202/14 S.117	NE NE	Dār Qītā	---	n/a			x					
98	P.202/19 S.125	N N	Karm Mūsā	M.1026	---						?	n/a	system of canals and reservoir(s)
104	P.202/22 S.128	SE SE	Al-Qaṣr	M.1022	n/a						1 (pear)	n/a	water-canals
107	S.130	NE	Betṭir	---	n/a			x			1 (slab)	n/a (51.6)	

											m ²)				
108	n/a		Qaşr Antar	M.1018	6.45 m ²						1 (covered)	n/a (8.58 m ²)			
113	S.134	SE	Šinšarāḥ	M.920	---								water-canal		
188	S.338	n/a	Bšendlāyā	---	n/a				x				'industrial complex I'		
	S.341	n/a			n/a	n/a				x				'industrial complex II'	
	S.342	n/a			n/a				?	x				'industrial complex III'	
189	P.207/1 S.344	SW SW	Dayr al-Malik	M.1004	11.88 m ²	n/a			x						
193	S.352	SW	As-Siġn	M.1006	5.6 m ²				x						
196	n/a		Qaşr ad-Dayr	M.1002	11.55 m ²								'N press'		
	P.207/9 S.363	NW SE			11.78 m ²	n/a				x				'S press'	
203	P.207/11 S.369	NW NW	An-Naqūz	M.1008	9.0 m ²				x	x		1 (pear)			
		S.371				NE									>3
228	S.388		Tūrīn	M.956	7.84 m ²							several (pear), birkas	n/a	many cisterns and sarcophagi	
	S.391	NE			n/a										
231	S.395	S	Al-Kanīsa	M.966	---						1 (vaulted)	>480 m ³			
236	S.397	NE	Ḥirba Ṣaġīra	M.964	n/a				x						
237	S.398	NE			---							1 (slab)	87.5 m ³		
238	S.400	NE	Kafr 'Aqab III	M.962	---						x				
239	S.401	S			n/a (?)					?				detached building	
245	P.207/20 S.403	SE NE	Ḥirbat Būqā	M.944	---						x				
247	n/a				---								birka	n/a	
248	S.406	N			n/a										
257	S.411	N	Al-Qaşr	M.946	---						x				
260	P.207/21 S.417	NNW NNW	Dayr Ṭūrmanīn	M.1180	---							1 (open)	n/a	'cistern G'	
260	P.207/23 S.419	NW NW			---								1 (open)	5,540 m ³	cistern
262	S.421 S.422	W NE			---								>1 (pear?)	n/a	cistern (<i>'industrial area'</i>)
272	S.432	E	Burġ Ḥusayn (Ṭell 'Aqribīn)	M.1160	8.12 m ²				x						

273	n/a		(Ġabal Sīr)	---								
274	n/a											
275	P.207/30 S.433	E E	Kafr Kermīn	---						1 (pear)		
280	n/a		(near) Dayr'amān	---	6.76 m ²							
283	n/a		Dayr'amān	M.1164	n/a (?)					1 (covered)	n/a (175.5 m ²)	
292	P.207/34 S.448	SE	Burġ as-Sab'	M.1192	---				x (Ø=0.9 m)			
295	S.450	SE			---					1 (covered)		
296	S.445	NE			n/a		x					
304	P.207/35 S.452 S.454	SE SE N	Dayr ʿTell 'Adē	M.1190	---					1 (covered)	125.13 m ³	
322	P.208/2 S.464	n/a n/a	Sift ar-Rūm	M.1210	n/a		x		x (Ø=1.7 m)	>1 (pear)		subterranean press
324	n/a				n/a							
326	n/a				n/a (?)							subterranean press (?)
334	S.472	NE	Dayr Sim'ān SW	M.1220	---				x	1 (open)	>396 m ²	
335	S.476	WNW			---					1 (covered)		
337	S.475	S			---				?			
339	n/a				---					1 (vaulted)	n/a	
351	n/a		Dayr Sim'ān NW	M.1222	---					1 (covered)	n/a	
354	n/a				---					>1 (pear)		
366	n/a		Burġ Ḥaydar	M.1232	---					1 (covered?)	n/a (26 m ²)	
377	P.208/13 S.505	NE NE	Qaṣr Brad	M.1240	n/a		x	?				
378	n/a				---					birka (covered)	n/a	
380	P.208/15	n/a			31.85 m ²			?				
381	P.208/14	n/a			n/a		x	?				
391	P.208/17 P.208/18 S.508	SE NW NW	Qaṣr Nawāwis	M.998	10.2 m ²			x				
400 402	P.208/19		Kafr Māres	M.996	---					2 (covered)	n/a; 245 m ³	
401	S.513	W			>42 m ²							one of many presses
404	P.208/22 S.515	N NW	Ad-Dayr (ʿTell Tītā)	M.994	---				x	1 (pear)	n/a	

405	n/a				(?)			x		1	n/a	broken roller
413	n/a		Ṭell Ṭitā	---	n/a			x				
420	S.524	SW	Mār Sābā	M.1094	n/a		x					
n/a	De Vogüé 1865-1877, pl. 113				n/a		x					
423	n/a		Qal'at Dayr Sītā	M.1050	---					1 (covered)	n/a	
	n/a				---						1 (pear)	n/a
429	S.537	S	Deḥes	---	n/a		x		x			
430	S.540	ESE	Dayr Deḥes	M.1080	n/a		x					'E press'
(WP04.)483	S.1518	E	Qal'at Kalota	M.1234	19.68 m ²							

Presses, millstones and cisterns: data from fieldwork in 2002 and 2003 (summary)

Legenda: WPxx ... GPS waypoint (not published in this thesis); P.xxx/S.xxx ... photographic negative/slide (some published in vol. 2, sect. C.5); D ... diameter

III.2 Manufacture

'On one occasion five brethren came to visit a great old man and he asked [the first] one, saying: 'What kind of work are you performing?' And he said to him 'I twist palm-leaves into ropes, father;' and the old man said to him, 'God shall plait a crown for you, O my son.' Then he said to the second [...] 'I make mats' [...] 'I make sieves' [...] 'I can write' [...] 'I weave linen' [...]. Then the old man said 'If the twister of palm-leaf ropes be watchful with God He will plait a crown for him; mat-[making] requires strength because there is labour therein; and God must protect him of the thieves because he has to sell them in the villages; as to the scribe, he must be humble in heart, for there is business exaltation of spirit, as regards the linen weaver, I am not near [i.e. concerned] to speak, for he is a merchant and he trades. But if a man sees a brother afar off carrying palm-branches, or palm-leave mats, or sieves, he says, 'This man is a monk, for grass is the work of our hands and he is avoiding the burning of the fire;' and if he sees a man selling linen, he says straightway, 'Behold, the merchants have come, for the [selling of] linen is the work of this world, and it does not benefit many.'

(^cEnanīṣō^c, *Liber Paradisi*, Counsels of the Holy Men, XV, 51 [L.421])

III.2.1 Basketry

Mechanical and repetitive in character, for monks, basketwork and mat-making were the manual activities *par excellence*. Producing coiled basketry in one's cell was considered the optimum occupation to keep one's mind busy while not running the risk of distraction from prayer, the often referred-to *meletē*.

The 'plastic bag' of antiquity, baskets were commodities of everyday life for which there was continuous demand. The raw materials were widely available, and usually these were without cost: grasses, above all the tough varieties of *ḥalfā* (*Desmostachya bipinnata*, *Imperata cylindrica*), sedges, reeds, stalks (e.g. flax, *Linum usitatissimum*), twigs, leaves of the date and Doum palms (*Phoenix dactylifera*, *Hyphaene thebaica*) and, occasionally, leather.

III.2.1.1 *The raw materials*

III.2.1.1.1 Rushes and reeds

Wetland ecology distinguishes between marshes, swamps and bogs, and it is in the marshes where soft-stemmed herbaceous plants, including grasses, sedges and reeds find their preferred habitat¹. Wet meadow zone species thrive best in soils that undergo alternating wet and dry periods, while sedges and other small perennials tend to be located at the water's edge where they remain wet throughout the growing season. Emergent zone plants (e.g. bulrushes) are best suited to persistent flooding; just enough of the leaves need to remain above the water to photosynthesize sugars for the entire plant. Obviously Egypt, with the Nile and its wetland depressions (Wādī Muwayliḥ, al-Fayyūm, Skēthis/Wādī n-Naṭrūn), provides the best conditions for rushes and reeds, but similar conditions could be found on the shores of the rivers Jordan, Orontes, Euphrates and Tigris, and close to the Mediterranean Sea: thus, ideal conditions for basket-making were by no means exclusive to the Egyptians, but also available to their fellow brethren in Palestine, Syria and Mesopotamia². The best documentation of such use again comes from Egypt, where gathering reeds is attested as the collective enterprise of up to 120 Pachomian brothers on an island near Tabennēsē [M.100] (L.151, 19) and,

¹ On biodiversity, species pool and species density in freshwater wetlands, cf. Keddy (2000: 124-173. 138-173).

² On archaeological investigations as to hermits, monks and monasteries along the rivers Jordan, cf. Baramki (1935), Augustinovic (1951), Bar-Adon (1972), Netzer (1990), Hirschfeld (1991), Patrich (1993) (one monastery was called Qalamūn (κάλαμος, reed) [M.732]); Orontes, Peña (2003); Euphrates, Blanco (1998), Blanco – Séiquer (1998). Saba's supplies for basket-making (cf. below) were presumably shipped from the Jericho Plain.

presumably, near the monastery of Apa Epiphanius [M.068] at Ĝēme³. The request for 'high-quality' reeds (e.g. O.Sarga 105), palms and palm-fibre is a constant issue in the documents from Wādī Sarġā and Aphroditō (e.g. P.Hamb. I 68). However, until shortly, the best conditions could be found in the area of the 'Inner Desert', Skēthis (Wādī n-Naṭrūn) [M.348 *et al.*], where life has changed little in the course of the last two-thousand years. Still in 1940, *samār* (*Iuncus spinosus*), *ḥalfā* and *bardī*- (papyrus-plants) grew in abundance and were gathered for the making of baskets and mats⁴. Table 13 lists monastic basketry as reflected in the literary sources and serves as a reference for the following text. It illustrates the overall importance of Skēthis, followed by the *laurae* of Nitria and Kellia, in the late antique basketry trade.

Location Site [ID]	Period	Document	Product Materia	Personal ID	Quantity	Purpose	Note
Tabennēsē [M.100]	before 346	L.131, 6	horsehair bags	Pachomius		relief of the poor	instruction by Palamōn
		<i>Life of Pachomius</i> V ⁸⁵	reeds, palm-leaves			['... water the reeds, the palm-leaves and the fibres, to go on all night']	
		L.131, 28	mats				house of mat-workers established ⁶
		L.421, Tabenna, VI	mats		500	'... because I could not sit idle I began to plait a mat [...] How many mats have ye made? – Five hundred'	

³ P.Epiph. 532; O.Wilck. II 1224 (ca. 650-700) mentions χερσοθύια (rushes) in Western Thebes.

⁴ Panckoucke (1820-1826: XVII, 226), Fakhry (1940: 842). Occasionally, papyrus (*Cyperus papyrus*), a plant belonging to the sedge family, was also used for making baskets and mats (Lucas 1962: 137): in the sources from the monasteries, such use of papyrus is not documented at all.

⁵ Tr. Veilleux (1984: 31).

⁶ Cf. *Praefatio Hieronymi*, 6: '*fratres eiusdem artis in unam domum sub uno praeposito congregantur, verbi gratia: ut qui lina texunt sint pariter, qui mattas in unam reputentur familiam, sarcinatores, carpentarii, fullones, gallicarii seorsum a suis praepositis gubernentur, et per singulas ebdomadas ratiocinia operum suorum ad patrem monasterii referant*' (Boon 1932: 7-8).

		L.421. Tabenna, XIX	mats		2 vs. 1		the rule was that each monk should make one mat daily, while one monk made two
		L.691, 30 Babeh	fishing net	Abraham			disciple of Pachomius
				Abraham's disciple		relief of the poor	sale of Abraham's nets in exchange for beans
	ca. 346-368	L.151, 19	<i>thrya</i> ?; baskets (ψίαθος)	Theodore + 120 brethren (of Pbow) ...		'... gather a material that the Egyptians call <i>thrya</i> , used for making baskets'	Goehring 1985: 170
				Apa Viktor			head of the rope-makers
	4 th c.?	L.302, p. 105	bags, baskets				sack-weavers, basket-makers
Dayr Anbā Šinūda [M.122]	before 474	L.350, frag. 12, VIII	basketry?	Apa Zenobios (later abbot of the monastery ?)			taking care in manual work and in nourishment (whilst dwelling in the mountain)
Dayr Anbā Šinūda [M.122] (?)	late 5 th c.	L.331, Michigan 158, no. 45, p. 209	basketry, mosquito-nets	Abba Isaac			
Wādī Sarḡā [M.172] (?)	6 th /7 th c.	L.118, 161	baskets; palm-trees	Apa Samuel			plaiting palm-leaves; pruning the few palm-trees
Dayr Anbā Šamū'īl of Qalamūn [M.302]	7 th c.	L.339, IX. XVII	large baskets (σπίριδες)	Antonius (Magnus Abbas)		object of barter	
'Inner Desert' [M.318]	before 357	L.134, LIII, 1	basketry; palm-leaves	Antonius (Magnus Abbas), Makarius Magnus			plaiting, from evening to morning
		L.421, Counsels, XV, 209	baskets	Antonius (Magnus Abbas), Paul		'... he (Antonius) taught him to weave baskets, and some days later ordered him to undo them all'	

⁷ Id. τῶρε, 'willow' (?); cf. O.Sarga 141: κλισκε πῶρε, 'wicker basket' (Crum 1939: 424).

		L.209, XXIV, 9	ropes (σειρά); palm-leaves	Abba Daniel			mention of water for soaking (ὕδωρ τῶν βαίων)
Skēthis [M.348] (?)	4 th /5 th c.	L.101A, IV, 5	ropes (σειρά)	Abba Achillas			storage of ropes, cutting palm-leaves
		L.101A, IV, 10		[brethren]			sent to Skēthis to clean ropes
		L.101A, IV, 85	basketry; palm-leaves (θαλλία)	[novice]		to resist devil	plaiting of dry leaves
		L.101A, V, 27	baskets			to resist evil thoughts	cutting and plaiting of palm-leaves
		L.101A, VII, 34		Abba Poemen			plaiting palm-leaves, by night
		L.101B (Isidore), 5		John Kolobus		sale on the markets 'in Egypt'	
		L.343, p. 357-358	basketry			exchange for bread	
		L.343, 373		Dorotheus		sale in Alexandria	
		L.118, 194	ropes (σειρά); palm-leaves			'... all night long to support himself'	plaiting of palm-leaves
Skēthis [M.348] – Kellia [M.360] – Nitria [M.362]	4 th /5 th c.	L.123, II, 2	palm-fibres (θαλλοί)	Stephen of Lybia			plaiting palm-leaves, while being treated by a physician
		L.123, XXIV, 2	baskets (σπυρίδα)	Valente?			while working in darkness, needle for plaiting lost
		L.123, XXV, 2	palm-leaves	Abbā Ahīlā		'... between the evening and the morning I have twisted twenty branches, but in very truth I have no need for all this, only [I am afraid] lest God be angry with me, and He hide me, saying, 'Though thou wast able to work thou hast not done so;' therefore I toil and I work with all my might'	
		L.421, Counsels, XV, 146	ropes (sirae); palm-leaves	Paphnutius			storage of palm-leaves for ropes
		L.206, XVIII, 15	ropes	Longinus		relief of the poor	ropes sold to the sailors

		L.340, 19	basketry	Ammonas		ἵνα μὴ πάντοτε καταστάσῃ ὡς βαδιζῶμεν τὴν ὁδὸν τοῦ θεοῦ	
Nitria [M.362]	ca. 340-350	L.104, 1, 6	baskets	Arcadius			prayer and plaiting in the cell
Ennaton [M.374]		L.340, 25	baskets	John (soldier, monk)			disciple of Longinus
		L.340, 27					plaiting from dawn to the ninth hour
[Alexandria]		L.118, 73	basketry			'... to ward off despondency they were given great quantities of palm-leaves' (tr. p. 105)	
[Egypt]		L.116, IV		Barsanuphius			treatise why a master should train his disciple in plaiting
[Gaza]	4 th c.	L.106, XL		Theodosius (bishop, monk)			workshops of all handicrafts in the monastery
[Jerusalem]	before 540	L.146, 34	baskets	Saba		eulogiai given to every pilgrim on the feast of the Mother of God	
		L.146, 39	baskets (μαλάκια); palm-leaves		50		baskets/week exchanged on Saturday morning at κοινόβιον in exchange for palm-leaves
[near Jerusalem]	before 473	L.233, III, 6	baskets and fans (σπυρίδας καὶ ῥιπίδας)	Theodosius			
Sabas [M.684]	before 483	L.139, X	baskets	Aphrodisius	90	sale	receives palm-leaves and delivers 90 baskets/week to head of the guest-house
	after 483	L.139, XLIV	basketry	Stephanus Sabaites		to ward off boredom	Stephanus physically separates prayer and work
	8 th c.	L.631, XIII, 16 and XX, 3	baskets; palm-leaves	Anbā Cosma		to ward off boredom, 'the source of any evil'	
		L.631, XXXVIII, 3	baskets (fiscellae)	Hilarion		2 Thess. 3, 10: 'If a man will not work, he shall not eat.'	
[Rhōsos (Cilicia)]		L.124, X, 2-3	baskets	Ambā Biğīmī		sale	

[Euphrates]	4 th /5 th c.	L.691, 11 Kihak	basketry; palm- leaves	Mare		'... in order not to allow anything enter his mouth except from the labour of his hands'	plaiting palm-leaves
[Mesopotamia]		L.419, XXXVI	baskets (σπιρίδια), pairs of bellows etc.	Kašīš (bishop of Chios)		'... not to receive charity from anyone and not to reap enjoyment whatever from the labour of others'	
[Chios]	before 586	L.419, LI					

Table 13: Monastic Basketry in the literary sources

III.2.1.1.2 *Ḥalfā*

Growing in arid bioclimates and on dry sandy calcareous or gypsaceous soils, *ḥalfā*⁸, a tensile non-wood fibre, has been used successfully in making paper, baskets, ropes and mats to the present day (Heywood 1993). *Ḥalfā*-based wickerwork has been identified in the monastery of Apa Phoibammōn I [III.056/3] (Bachatly 1961-1981: III, 41-50), a remote *coenobium* in the dry *ḡabal* south of Hermonthis (mod. Armanṭ). Ancient use of *ḥalfā* is also attested at Dayr Apa Epiphanius [M.068]⁹ and in Elephantine (O.Louvre E 32584. E 32585), where several *mtōn*¹⁰ of the fibre (Copt. κΔΜ) form the object of a delivery to Psan, the steward of an unknown monastery¹¹.

III.2.1.1.3 Chaff

Cereal chaff has largely been ignored by the literature on ancient materials, despite its multipurpose use in roofing, bedding, fuel and animal fodder, as building

⁸ Note the common confusion in the sources between *ḥalfā* and esparto grass (*Stipa tenacissima*).

⁹ P.Epiph. 113 (request for ropes made of *ḥalfā*); 334 (order for *ḥalfā*) and 532 (payment for *ḥalfā* gathering).

¹⁰ A unit of measurement still unidentified.

¹¹ Possibly a nunnery (Bacot 2000: 39).

material, temper in pottery, in plaster, mud bricks, dung-cakes for fuel and basketry¹². Again at the monastery of Apa Epiphanius [M.068], a monk (?), working with linen and flax, is reported to have paid 11½ *carats* for the purchase of chaff (P.Epiph. 353). Sale of chaff is also documented near Nağ Hammādī, where a request was made to Sansnos, a monk, to sell off ten loads of the commodity (P.NagHamm. 68).

III.2.1.1.4 Flax

Documents from the monasteries in the mountain of Ĝēme (Thebes) and from Dayr al-Balā'iza [M.174] attest to flax being an important monastic commodity. This evidence is based on various texts such as P.Epiph. 85¹³, a contract of cultivation between Apa Petrōnios and two laymen (?), Arōn and Gedeōn, to undertake the tilling of two *arouras* of soil with flax on behalf of Petrōnios. Employment was fixed-term and the contract was stipulated in repayment of a debt of 2 *holokottinos*. Considerable quantities (e.g. 150 bundles)¹⁴ of flax are also documented as being delivered to (or within) Dayr Apa Epiphanius [M.068]. Flax was pressed in one of the towers at Dayr al-Balā'iza (P.Bala'izah 303B). O.Brit.Mus.Copt. I 83/2 (Thebes?) relates to repayment: indebted to Apa Dios, Phoibammōn, son of Victor, agrees to weave another material with flax, for the value of half a *trimesion*.

¹² Van der Veen (1999), Murray (2000). During the sixth century, cereal chaff was taxable as a crop in its own right (Johnson 1949: 232-233, 269, 276).

¹³ Other documents are P.Epiph. 337, 360; O.Crum 277, 341.

¹⁴ P.Epiph. 353, notably for spinning and bleaching. These bundles were labelled as 'finished', i.e. the heads had been removed and the plants been beaten to separate the fibre from the wooden parts of the stem.

However, in Middle and Lower Egypt¹⁵, the Greek evidence (as opposed to the Coptic documents from Upper Egypt) of flax-working suggests some degree of specialization and the close-to-total absence of monks in this trade (cf. Calderini 1925: 78-81). CPR XIV 5 (AD 530-533), a sale-in-advance contract from Arsinoë, portrays al-Fayyūm and the shores of Lake Qārūn as a(nother) excellent source of rushes, reeds and 'top quality flax' (λινοκαλάμη εὐαρέστη). In the document, in collaboration with a farmer, Pousi, a priest (but *not* monk)¹⁶ of the village Seueros acknowledges the receipt of payment for the flax they had delivered to a rope-worker (στιππουργός) resident in Antinoopolis/Arsinoë. Apart from Pousi's role as a middleman, nothing is known about the priest's involvement in the flax being grown. Similarly, the στιππουργοί Σχίθεως in P.Ryl. 374 (1st c. BC/AD) presumably refer to the flax-workers in Skēthis, where, from the fourth century onwards, monks had populated the shores¹⁷.

In conclusion, flax was a sought-after commodity easy to grow, but an active involvement of monks and monasteries in its production cannot be shown. Growing flax was also a major source of income in the plains of Cilicia¹⁸, and in some

¹⁵ I.e., as opposed to the Coptic evidence from Upper Egypt and the monasteries south of Asyūṭ.

¹⁶ Cf. also P.Giss. III, 103 (4th c.) (= Ghedini 1923: no. 24), which attests to a deacon in Harga Oasis (al-Hāriḡa) involved in the business of flax.

¹⁷ Cf. above, table 13. Flax (στιππειῖον, λινοκαλάμη) is *not* explicitly mentioned as being exploited by holy men. The identification of Σχίθις with the debris near Banī Salāma (eastern Wādī n-Naṭrūn) has recently been proposed in the context of making low-magnesia glass (Nenna 2000: 100). Banī Salāma lies on the northern shore of Lake Fazda and only few kilometres distant from the monasteries of the Syrians [M.344] and Anbā Bišūy [M.346].

¹⁸ Jones (1971: 191), the role of monasteries being entirely unknown.

monasteries in Egypt *after* the eighth century¹⁹.

III.2.1.1.5 Palm-fibre

Whereas *ḥalfā* was the preferred material in Upper Egypt, palm-fibre²⁰ dominates the records from northern Egypt and Palestine. Palm-fibre was easily available, and only in a few instances had to be bought²¹. The importance of the palm-tree as a prolific provider of food²² and leaves for plaiting is best illustrated in the Arabian peninsula where the integrity of palm-trees was even protected by common law²³. In Egypt, the most complex monastic palm economy is attested at the neighbouring monasteries of Wādī Sarġā [M.172] and Balā'iza [M.174], where documents repeatedly refer to monks who picked leaves (σοκβητ) (P.Bala'izah 229. 259). Deliveries of these leaves are also documented in Wādī Sarġā. For clearing out the branches, the monastery had all its camels employed (O.Sarga 94. 374). The monastery of Apa Epiphanius [M.068] owned 'be it village or χωρίον, Doum (?) - palms (ψΗΝΒΝΝΕ ΚΟΥΚ), cisterns or fields', and the monastery of Apa Phoibammōn II [M.070] received date palm-tree(s) (ΒΝΝΕ) by bequest. As palms are drought-resistant desert plants and grow on a variety of soils, they were important providers of fibre all over the Mediterranean and are attested from Middle Egypt to Syria and

¹⁹ E.g. Dayr Colluthus [M.098], near Caenopolis (mod. Qinā) (L.601, fol. 103b).

²⁰ A generic term, 'palm-fibre' in the sources may designate date-palm leaf, leaf-sheath fibre of the date-palm, shredded fruit stem of the date-palm and the leaf of the Doum-palm (Wendrich 2000: 255).

²¹ E.g. in Skēthis (L.101B, Or, 4). Different, Maximus and Domitius descended to the valley in order to pick the palm-leaves themselves (L.334B, p.135).

²² Notably dates and 'desert bread'; cf. above, sect. III.1.3.2.

²³ Cf. the violation of this convention by the prophet Muḥammad during the siege of the Jewish Banū Naḏīr (AD 625), and its reflection in Qur'ān 59: 5.

Palestine²⁴. According to John of Ephesus, Kašiš, the sixth-century bishop of Chios, operated a basketry business on a great scale and obtained his material from the Alexandrian ships which touched his isle (L.419, LI).

III.2.1.2 Workshops

The question of workshops is very unsatisfactorily answered both by the texts and by archaeology, in particular as the plaiting of fibres requires little to no equipment (an awl, needle or knife) which could have come down to the present day. The picture conveyed by the hagiographic sources portrays plaiting as an activity to be performed *en kelliq̄* ('in the cell'), that is in seclusion, and accompanied by prayer and *meletē*. Archaeology partly confirms this picture by showing that some types of tanks or basins, to soak the leaves, can be found in many cells. Theoretically, these basins could also have served as containers to store water for drinking or, as Grossmann (2002a) suggests, as spittoons. Soaking the leaves would be the other option, even more so as many sources speak – though vaguely – of palm-leaves and ropes being piled up in some cells (e.g. L.101A, IV, 10; VII, 34; L.206, XVIII, 15).

To date, workshops (in a strict sense) have only been identified in the *laura* of Kellia (Qlz 162; Qlz 14) where eyelets, *in situ*, once may have supported a matting-loom. This device consists of two pairs of handles sunk into the wall, at a height of 0.3

²⁴ On other examples in Egypt, cf. O.Sarga 104. 105 [M.172]; Dayr Ṣamū'īl of Qalamūn [M.302]; Skēthis, Nitria and Kellia. Plaiting was also a common task in the monasteries of the Judean Desert where Saba, the 'model', meticulously stocked his weekly palm-leaf supplies (L.139, X). In antiquity, date-palm was extremely common in Palestine (Sperber 1976: 131).

m above the floor [III.360/2]. Since the room in Qlz 14 has also been interpreted as a possible guesthouse and plaiting was an activity primarily performed during the summer and winter months, Makowiecka (1986: 108-109) suggested that this architectural unit could *additionally* have been used as a workshop, whereby two different functions, workshop and guest-house, would have complemented each other in a natural way.

Finally, the question arises concerning the character of the basketry workshops in the larger *coenobia*. Jerome speaks of an entire *domus* of monks at Tabennēsē [M.100], *qui mattas in unam reputentur familiam*²⁵. Where and how they produced their mats and baskets, we do not know.

Such 'units' (*domus, familiae*) of basket-makers are also known from the *coenobia* of Shenoute [M.122] and of Theodosius near Jerusalem (the monastery has not been identified). The *Life* of Theodosius describes 'all crafts' – basketry (?) – being performed in the monastery. And 'all crafts' also had their own workshops within the monastery (L.146, 13. 34). The five basins ('B1'-'B5') in the 'Küchenbereich' of the Thebaid monastery of Abū Fānā [III.244/2-3] illustrate the archaeologist's uncertainty when it comes to the interpretation of workshops for basketry: for these basins no less than four functions have been proposed! Buschhausen's (1996: 25-26), the excavator of Dayr Abū Fānā, offered a wide range of interpretations which ranges from soaking palm-leaves to dehydrating fruits, sugar-processing and the

²⁵ *Praefatio Hieronymi*, 6 (Boon 1932: 7) and L.123, XXXII, 9. 12. Victor, the *caput domus* of the mat-makers at Tabennēsē, is attested in L.302, p. 105.

production of pottery. The latter seems unlikely in the core of a monastery. To date, this is the limit of evidence for basketry workshops in monasteries.

One may still add Winlock and Crum's (1926: I, 72) identification of a rope-maker's workshop in Dayr Apa Epiphanius [M.068], around 'cell A'. In this case, the evidence is literary, and based on a letter asking three bundles of rope be sent from there (P.Epiph. 113).

III.2.1.3 *Know-how and training*

Despite the simplicity of the task²⁶, the written sources suggest some specialization of monks involved in the plaiting-craft. The need for training may be explained by spiritual demands, namely to keep, through automatization, attention to the manual performance to a minimal extent²⁷, or by commercial demands, namely to optimize the result. Again, it was Antony who set the example by teaching Paul, his disciple, how to weave²⁸. Pachomius, too, while sitting in Tabennēsē and stripping flax for the basket work, was taught by a young brother in charge during that week: *'Not so, father. Do not turn the thread this way, for Abba Theodore has taught us another way of weaving'*²⁹. Under Theodore, weaving must have been performed in a particular way.

²⁶ For a general introduction to plaiting, cf. Lucas (1962: 128-137), Bacot (2000: 39-40), Vomberg (2000: 36-37).

²⁷ Cf. the discourse in L.106, XL: *'Is it necessary to train one's disciple in basketry?'*

²⁸ L.209, XXIV, 9; some days later, Antony ordered Paul to undo the baskets which he had made.

²⁹ Quoted after Rousseau (1985: 112).

In Skēthis, where basketry was the primary monastic craft, some training is documented in the *Life of Macarius*. When two young men ('strangers') came down to Macarius, asking what craft they ought to perform, he replied: 'rope-making'. Then he took some leaves from the marsh and showed them the rudiments of weaving and how to handle the reeds³⁰.

There is no doubt that Egypt was the home of ancient basketry, and 'Egyptian baskets' and Egypt-based training in basket-making could bring in some social prestige. This is again exemplified by Kašiš, the aforementioned bishop of Chios, who used to make 'baskets and [...], which he had learned in Egypt', as John of Ephesus specifies (L.419, LI). In antiquity, 'Egyptian baskets' were not necessarily 'made in Egypt', but could be plaited anywhere locally, but in Egyptian style. This was the case in Palestine (Sperber 1976: 130-132).

III.2.1.4 *Timing*

Since weaving ideally ought to be accompanied by continuous prayer, it could be performed all day, from late Sunday to early Saturday, before the ready-made mats and baskets used to be exchanged for food and further supplies, often at the weekly *synagogē*. Remarkably, there is considerable evidence of plaiting performed during the night. Antony, again, set the example by plaiting 'from evening to morning' while talking about the redemption of souls (L.421, Counsels, XV, 209). At Tabennēsē, Palamōn instructed Pachomius to soak the reeds, the palm-

³⁰ L.101B, *Macarius*, 3 (Ward 1975: 134); these 'strangers' must have been Maximus and Domitius, who came from Syria, and learned basketry from the holy man (L.334B, p. 109).

leaves and fibres during the hours of Saturday night. Night work was also frequent in Skēthis and Nitria, where in the darkness one monk lost his plaiting-needle and others plaited all night 'to support themselves'. Twenty branches was the nightly output which Ahīla had achieved. One bundle was the output of Abba Poemen.

Čarour, a member of the early Pachomian community, explained the season for plaiting on the basis of the rise of the Nile: 'summer and winter are the time for harvest and collection, from morning to night; and, the days of inundations are those of winter when we plait ropes while reciting continuously'³¹.

III.2.1.5 The Products

III.2.1.5.1 Baskets

Among the products of the late antique monks and monasteries, baskets and mats are the most frequently attested. It goes without saying that baskets had multiple functions in and beyond the monasteries, namely as containers for bread (e.g. O.Sarga 100; P.Bala'izah 272), salt (O.Sarga 92), coins ('copper') (O.Crum Ad 30) and waste (Nau 1906: 86). Loosely plaited containers were also used as strainers (Sperber 1976: 131). In the monastery of Theodosius pilgrims were given baskets as *eulogiae* on the feast of the Mother of God (L.146, 39). Elsewhere, baskets were produced mainly for the purpose of sale³². Many of the accounts on basket-making connect the motives for performing this task with the need to fend off boredom and

³¹ L.302, p. 102. On modern conditions, cf. Panckoucke (1820-1826: XVII, 228).

³² E.g. L.101B, Macarius, 134 (exchange for bread); L.118, 194; L.133, LIII, 1; L.233, III, 6 (?); L.343, p. 357-358, 373 (exchange for bread); L.419, LI; L.691, 11 Kihak.

the imperative in the Gospel, 2 Thess. 3:10: *'If a man will not work, he shall not eat'*³³.

III.2.1.5.2 Ropes

Ropes constitute the monastic wickerwork most likely produced for sale. In Upper Egypt – due to the availability of tensile *ḥalfā* (?) – several monasteries stand out for their involvement in this important trade. Near Ĝēme, one monk urged his fellow monk to hand over no less than 62 bundles of rope (ΜΗΡ ΝΝΩ2) (O.Crum Ad 54). Ropes are well attested in the monasteries of Epiphanius [M.068] (P.Epiph. 398) and Phoibammōn II [M.070] (O.Ashm.Copt. 19). Under the early califate, a three-months surety, issued by the local *'amīr*, describes three monks from Apa Paulos [M.080] in the Theban mountain on their long-distance mission to the Arsinoite nome (al-Fayyūm), in order to sell their ropes (CLT 3).

As a product of sale, ropes are also attested in the monasteries of Wādī Sarġā³⁴ and Balā'iza (P.Bala'izah 291), and twice in the Oyrhynchite nome. In AD 533, the monastery of Apa Hierax [M.272] near Oxyrhynchus supplied ropes for an irrigator (*sāqiya*) to Phoibammōn, a sub-tenant outside the city gate (P.Oxy. LI 3640). Equally, the monastery of Abbas Andreas [M.264] delivered ropes for the water lifting devices of the monastery of Elias [M.284], the *cursus velox*, and of the church of the Holy Mary in Oxyrhynchus respectively (P.Cair.Cat. 10077. 10079; P.Oxy. I 147). The same monastery of Abbas Andreas produced ropes for at least three different

³³ Cf. above, sect. II.3.

³⁴ O.Sarga 104. Cable (ΜΔΩΡΤ), towing rope (ΛΕΒΔΝ) and (ordinary) rope (CΙΠΠΕ) are sold by/to the palm-fibre dealers, who, on their part, may have sold them to George, a sailor.

clients, but the delivery quota never exceeded 1½ to 2 'ropes or coils' (σχοινία ἤτοι κρίκια).

Tensile strength was the property also required when mooring ships, binding up cargo for long-haul transport³⁵, and lifting the jars of the *sāqiya* – purposes for which *ḥalfā* was the material that suited best. Hence it is significant that at Dayr Apa Epiphanius ropes made of *ḥalfā* were excavated about twice as often as those of palm. Furthermore, the ropes made from *ḥalfā* were generally heavier than the palm-fibre ones: the average diameter of the ropes made of *ḥalfā* was 2 cm, whereas for palm-ropes the diameter was only 0.8 cm. Only few *ḥalfā*-ropes measured up to 4 cm which is the diameter used in *sāqiyas* in modern times (Winlock – Crum 1926: I, 72). However, as there is only limited evidence of the use of *ḥalfā* and *ḥalfā* required particular soils, the material most commonly used for cordage in Egypt, it seems, was the fibre of the (date-)palm (Lucas 1962: 135).

III.2.1.5.3 Mats

Mat-making, one of the most powerful minor industries of Egypt, was more complex insofar as twining and weaving (as opposed to making coiled basketry) required a loom for which a workspace had to be set apart (e.g. in Kellia, Qlz 14). Mats were usually made from reeds or rushes³⁶, but the terms for these materials were again loosely employed. What is more, such mats and the imprints of mats

³⁵ On ropes (for packing) in Medieval Egypt, cf. the *Cairo Geniza* (Goitein 1974: 199. 235. 275-278).

³⁶ Rushes and sedges (as opposed to palm-fibre) had to be gathered at a certain time of the year, dried and stored until needed. Generally, mat-making requires more professionalism than the making of baskets, ropes and nets.

have been excavated in various monasteries³⁷, and from this evidence some variation in the matting technique and in the system of twined work may be inferred³⁸. On the other hand, evidence of *production* is only furnished occasionally, e.g. in Dayr Apa Epiphanius, where texts on the delivery of *ḥalfā* may match the archaeological record of *ḥalfā* bundles and cords, or the *domus* of mat-working brethren at Tabennēsē [M.100]. Tabennēsē was a unique institution, whereas in the rest of Egypt mats seem to have been produced here and there.

As mat-making and rope-making were related activities, it does not come as a surprise if the abovementioned monastery of Abbas Andreas also featured as a supplier of mats. Again, two receipts, dating to AD 556, relate to two deliveries of mats (ψιάρθια; 8, in total) for use in a private bath in the Oxyrhynchite nome³⁹. But, contrary to this single evidence of monastic surplus-production, O.Brit.Mus.Copt. II 11 illustrates that mat-making (for the purpose to supply a monastery) did not need to be a monastic affair. In this document, rather than plaiting themselves, the monks received their mats from Enoch, a priest (but *not* a monk), and PIsraēl, a deacon from the district of Koptos (mod. Qift).

III.2.1.5.4 Nets

Net-making was secondary in frequency (or documentation) to the making

³⁷ E.g. Dayr Apa Phoibammōn I [M.056]: storage room (Bachatly 1961-1981: I, pl. XII, B); Dayr Apa Epiphanius [M.068]: 'cell A' (1.77 x 0.70 m) and 'grave 8' (1.75 x 0.65 m) (Winlock – Crum 1926: I, pl. XXIV-XXV); Dayr Apa Jeremiah [M.334]: 'unit 1796', a storage room (Grossmann 1982: pl. 26a).

³⁸ In particular, the 'Coptic type' at Dayr Apa Epiphanius (Winlock 1926: I, 73). For comparison with other baskets and mats from Egypt, cf. Crawfoot (1954: 415-424), Wendrich (2000: 255-261).

³⁹ P.Cair.Cat. 10078; P.Oxy. I 148. On the back of P.Cair.Cat. 10078, the 'House of the Apions' signed.

of baskets, ropes and mats. The 'model' for net-making may again have been a Tabennēsīote, Abraham, who made his living from knotting nets. His motive was charity: Abraham then used to exchange the nets for beans, wherewith he generated money to relieve the poor⁴⁰. Unsurprisingly, the task of net-making is best attested in those monasteries where there is also evidence of producing ropes (but not baskets and mats), such as Dayr Apa Epiphanius and Wādī Sarġā. At Apa Epiphanius', nets have been excavated made of linen, their meshes range from 5 to 40 mm in width (Winlock 1926: I, pl. XXII, B). At Wādī Sarġā, the documents mention nets no less than four times (O.Sarga 86. 96. 100. 101)⁴¹. Again, these nets (ϠΝΕ) and net-cords (ΚΕΛΚΟΛΕ ΝΚΔΠ ΝΔΒΩ) occur twice in connection with ropes (CΙΠΟΥ, CΙΠΠΟΝ, CΤΥΠΠΕΙΟΝ), wherefrom, I suggest, some connection with shipping may be inferred. Likewise basket-making, the monastic production of nets was by no means restricted to Egypt. For example, John Rufus relates that it was through net-making that Isaiah, a monk near Gaza, was able to get an economic exchange: with three cubits of net Isaiah (also called 'the Egyptian' (!)) could pay for his daily bread (L.448, p. 102).

III.2.1.6 *Purpose and profitability: concluding remarks*

Table 13 (column 'purpose') indicates that the motives for plaiting were both

⁴⁰ L.691, 30 Babeh; one net-maker – as opposed to some who plaited baskets and mats – is attested at Tabennēsē by Palladius – °Enanīō° (L.421, XXXIII).

⁴¹ The story of Abba Isaac (of Thebes) by John Moschus (L.118, 161), who lived 6 miles from Lycopolis (mod. Asyūḡ), may actually have taken place in this monastery. Abba Isaac had been working for 52 years at his craft, when, while plaiting a mosquito net, he made a mistake. Isaac was deeply distressed at the mistake, for it would not have happened if he had not been at daggers drawn with his neighbour in the Thebaid.

spiritual and economic, to make a modest living and to earn – if any – a surplus wherefrom to offer hospitality and relief to the poor. The baskets clearly dominate the written record.

However, two further observations need to be made: not only was the plaiting of leaves the most common monastic handicraft, but it was also a literary topos in the description of holy men (cf. Wipszycka 1996d: 347). Accordingly, these texts rarely specify the quantities, the raw materials and the workspace implied. Secondly, if it was truly for economic reasons ('to support themselves') that monks were kept busy 'by day and by night', then the profitability of basket-making must indeed have been extremely low: actually, this low economic profile of basket-making was at the start of a fateful controversy shortly after the death of Pachomius (d. 346) as to whether the economy of basket-making should not have given way to some more profitable means of support for the monastery. This controversy, economic in character, ended with the secession of parts of the community (Rousseau 1985: 83-84).

The question of profitability could only be answered satisfactorily if we were able to compare, both in a synchronic and diachronic perspective, the actual prices, supplies and demands. Output numbers are given in the sources only for Dayr Apa Epiphanius, where an unidentified monk produced 3 baskets per day (P.Epiph. 537). His (individual) 'productivity' roughly equals that of Aphrodosius in the

Judean Desert, who delivered 90 baskets at the end of a month (L.139, XLIV)⁴². Only Saba, as outlined in section I.2, plaited up to 10 baskets per day.

As to the mats – though mats feature only rarely in the *Apophtegms* – some numbers are attested elsewhere: the mat-workers of Tabannēsē were expected to produce one mat every day, whereas two mats was regarded as an extraordinary achievement by the community (L.421, Tabenna, XIX). One monk of that community produced, over an unspecified period of time, no less than 500 mats (L.421, Tabenna, VI). On the other hand, twenty-one mats produced in three days (by an unspecified group of workers) at late-antique Elephantine⁴³ roughly corresponds to the output of Egyptian mat-weavers during the eighteenth century who, working in teams of four, were able to produce one mat of the dimension 4 x 4 m per day (Panckoucke 1820-1826: XVII, 228).

Site	ID	Rushes & reeds	Halfā	Chaff	Flax	Palm-fibre	Baskets	Ropes	Mats	Nets	Workshop
[Elephantine]			x [†]						x [†]		
Dayr Apa Phoibammōn I	M.056		x [^]								
Dayr Apa Epiphanius	M.068	x [†] (?)	x [^]	x [†]	x [†]	x ^{†/A}	x [^]	x ^{†/A}	x ^{†/A} (?)	x [^]	x ^{†/A} (?)
Dayr Apa Phoibammōn II	M.070					x [†]		x [†]			
[Apa Paulos]	M.080							x [†]			
Tabennēsē	M.100	x [†]			x [†]	x [†]	x [†]		x [†]	x [†]	
Dayr Anbā Šinūdā	M.122					x [†]	x [†]				
Wādī Sarḡā	M.172	x [†]				x [†]		x [†]		x [†]	
Dayr Balā'iza	M.174				x [†]	x [†]		x [†]			
[Abbas Andreas]	M.264							x [†]	x [†]		
[Apa Hierax]	M.272							x [†]			
Dayr Anbā	M.302					x [†]	x [†]				

⁴² The latter were presumably sold in the hospice by the monk in charge.

⁴³ E 31879; cf. Vomberg (2000).

Šamū'il											
Skēthis	M.348	x ^{T/A}	x ^(A)			x ^{T/A}	x ^T	x ^T			
Kellia	M.360					x ^T	x ^T	x ^T			x ^A
Nitria	M.362					x ^T	x ^T	x ^T			
Ennaton	M.374						x ^T				
[Alexandria]							x ^T				
[Gaza]										x ^T	
[Jerusalem]							x ^T				x ^T (?)
Sabas	M.684					x ^T	x ^T				
[Rhōsos]							x ^T				
[Euphrates]							x ^T				
[Mesopotamia]							x ^T				
[Chios]						x ^T	x ^T				

Table 14: Raw materials, products and workshops: a summary (T/A = textual/ archaeological evidence)

In conclusion, table 14 summarizes *all* sources, literary, documentary and archaeological, in order to relate the raw materials to the products and workshops identified. The table reflects the unique situation of documentation found in Western Thebes (above all, at Dayr Apa Epiphanius); some sort of specialization in ropes (and nets) in Wādī Sarġā and Dayr Balā'iza; and in ropes (and mats) at the monasteries of Abbas Andreas and Apa Hierax.

Surprisingly, in the documents from these monasteries (large *laurae* and *coenobia*), baskets, the *topoi* of the hagiographical sources, are virtually absent. The explanation may lie in the focus of the hagiographic genre, namely to emphasize the virtues of the holy man: basket-making was *the* task to be performed by the individual hermit, whereas the *laurae* and *coenobia*, as collective units, rather had to focus their business on the 'more profitable' production of mats, ropes and nets. This absence of baskets produced in the *coenobia* may further reflect the low profit to be gained from baskets, and also the type and dimensions of domestic

demands (for bedding, burial, roofing *etc.*)⁴⁴. In letters, acknowledgements and requests, mats, ropes and nets feature as those monastic products for which there was some – if any – ‘real’ market, namely exchange based on supply and demand.

⁴⁴ Cf. (only) Tabennēsē [M.100] where some of the mats produced were actually sold (L.131, 113).

III.2.2 Glass

Scientific research and a series of important archaeological discoveries in recent years have opened new perspectives on studies of ancient glass. Primary workshops, identified in Egypt (Wādī n-Naṭrūn) and Syria-Palestine, prepared the raw material by fusing natron (sodium bicarbonate, *trona*) with sand. This product was then sent to secondary workshops which further worked the blocks of glass. During the ninth century, as summarized in an article on *Natron sources in antiquity and their use in glass production* (Shortland *et al.* 2005)¹, the commerce of glass based on natron (above all, the Egyptian glass) in the Mediterranean seems to have come to an end. This change roughly coincides with the decline of the Wādī n-Naṭrūn monasteries. For some centuries natron glass was replaced by glass made from plant-ash.

Some centres of natron extraction in Egypt were 'particularly' Christian in late antiquity. These are Wādī n-Naṭrūn (Skēthis [M.348], the location of the influential monastic community) – aṭ-Ṭarrāna (trans-shipment centre on the Nile), al-Barnūġ (near the *laura* of Nitria [M.362]), aṭ-Ṭarābīya in the eastern Delta and Bi'r n-Naṭrūn (with a monastery near Selima) on the *Darb al Arba'ayn* ('Forty Days Caravan Route') from Dārfūr to Asyūṭ (Morkot 1996: 90-92). The question arises whether there is any link between the monks and natron extraction, and the monks and glass-production respectively. As to the former, the evidence of Wādī n-Naṭrūn (fourth-

¹ This article, of which I am a co-author, also includes the latest, comprehensive bibliography.

century) has been discussed in section II.1.2.3. The literary sources suggest that the monks and the natron-workers in Skēthis were on some sort of intimate terms through miraculous healing and exchange (of bread etc.). Active involvement in the extraction of natron may be excluded, as the salt-pans, in the view of Macarius, were very much part of 'the world'. Similarly, on monks and glass production there is no evidence at all, in Egypt, Syria or Palestine².

² A paper on sodium bicarbonate and the terminology of natron is currently in preparation. This also does not add anything to the monasteries.

'They were clothed in skins in remembrance of Elijah, it appears to me, because they thought that the virtue of the prophet would be thus always retained in their memory, and that they would be enabled, like him to resist manfully the seductions of amorous pleasures, to be influenced by similar zeal, and be incited to the practice of sobriety by the hope of an equal reward. It is said that the peculiar vestments of these Egyptian monks had reference to some secret connected with their philosophy, and did not differ from those of others without some adequate cause. They wore their tunics without sleeves, in order to teach that the hands ought not to be ready to do presumptuous evil. They wore a covering on their heads called a cowl, to show that they ought to live with the same innocence and purity as infants who are nourished with milk, and wear a covering of the same form. Their girdle, and a species of scarf, which they wear across the loins, shoulders, and arms, admonish them that they ought to be always ready in the service and work of God. I am aware that other reasons have been assigned for their peculiarity of attire, but what I have said appears to me to be sufficient.'

(Sozomen, *Church History*, III, 14 [L.163])

III.2.3 Leather goods

Leather goods were used for various purposes in late antique monasteries: for dressing¹, bookbinding and, presumably, containing wine². This section deals with leather-production, the manufacture of animal skin. When St. Basil (d. 379) declared textile-production and shoe-making the ideal *ergocheira* for his monks, he may well have considered the urgent need for monastic garments and the relative simplicity of the task (Cremaschi 2001). Archaeology, unfortunately, in no way keeps up with the abundance of texts. To date, contextualizable evidence of the organic materials has been found only in Egypt, at Dayr Apa Epiphanius [M.068], and at Tel Masos [M.580] in Palestine. At Tel Masos, a pair of modest sandals was found in the monastic remains (Fritz 1975: 110).

¹ On monks dressing in skin/leather, cf. L.102, III, 1 (sheep-skin); L.123, XXXII, 3 (goat-skin); L.144, suppl. 8 (goat-skin); L.233, 4 (sackcloth, skin); L.439 ('fine' skin); L.163, III, 14 (cf. top of page) in Egypt; L.631, 15, 1 (sheep-skin) in Palestine; L.124, XXIII (goat-skin, skin-bag, skin-belt) in Syria and Mesopotamia; etc.

² The use of wine-skins (rather than solid containers) features extremely rarely in the written record. Wine-skins occur in an account of the Umayyad census in Egypt (between AD 705 and 730), which caused an inflation so that 40 wine-skins were rated at one *dīnār*. The custom is better attested in Arabia (e.g. Heath 1996).

III.2.3.1 Leather production versus shoemaking

Papyri and ostraka provide ample evidence of monks and monastic workshops producing sandals and shoes³. The literary sources, on the other hand, often promote - in an idealized manner – the *imitatio Eliae* through wearing skin clothes. Leather, as outlined in section III.1.1 (animal husbandry), was a universal material, but who actually produced the monastic clothes? The answer may lie in a wider understanding of the terms *skytotomos* and *κἀσε*, namely the leather-cutter and maker of shoes.

Monastery	ID	Source	Skins	Shoes	Bookbinding	Notes
[Hermonthis/Armant]] ⁴		L.691, 20 Kihak			x	monastic training in copying and bookbinding
Dayr Apa Epiphanius	M.068	P.Epiph. 371		x		request for shoe-repair
		P.Epiph. 380	x		x	goat-skins (ⲱⲗⲁⲗⲣ ⲛⲃⲁⲙⲡⲓⲉ) for book-binding
		P.Epiph. 438	x			request for skins (ⲱⲗⲣ)
		P.Epiph. 446*	x			(presumably) ox-skin
Dayr Apa Phoibammōn II	M.070	O.Brit.Mus.Copt. II 38	x			instruction how to tan skins (ⲱⲗⲁⲗⲣ)
[Thebes]		O.Crum 459	x			sheep-skins (ⲱⲗⲣ ⲛⲉⲥⲟⲟⲩ) ⁵
Tabennēsē	M.100	L.123, XXXII, 11	x	x		shoemaker's shop (σκυτοτομείον); tan-pit (βυρσεῖον)
		MS Pierpont Morgan LI, 38 ⁶		x		'house' of shoemakers (ⲛⲏⲏ ⲛⲛⲕⲁⲥⲉ)
		L.421, Palladius, I, 33		x		(one) maker of sandals
		L.421, Tabenna, XII	x	x		shoemaker (processing skins)
Dayr Anbā Šinūda	M.122	L.350 (Fragment 12), VIII			x	bookbinders (ⲛⲉⲧⲥⲙⲓⲛⲉ ⲛ̅ⲛ̅ ⲭⲱⲱⲙⲉ)
Wādī Sarḡā	M.172	P.Sarga 29		x		Anour, shoemaker/tanner ⁷ (κἀσε)

³ Note that whereas the term 'sandals' is roughly synonymous with the term 'shoes', 'sandals' denotes a simpler fabric. This differentiation is made explicit in a Syriac Canon in which Marūtā (5th c.) ordered his spiritual brothers 'to wear sandals (ṭalrē), and not to wear shoes (mūqē)' (L.420, LIX, 4).

⁴ Cf. below, sect. III.2.3.4.

⁵ Skins occur as part of an extensive list that includes catechetical books (by Shenoute), shrouds and weighing-machines (steelyards?).

⁶ Cf. Crum (1939: 121 and xiii).

⁷ Cf. below, sect. III.2.3.2.

		P.Sarga 80		x		Paul, shoemaker/tanner (κΔσε)
Dayr al-Balā'iza	M.174	P.Bala'izah 303B		x		list of skins (βαλοτ)
		P.Bala'izah 332		x		three types of leather (ox, goat, sheep), listed separately
Dayr Apa Jeremiah	M.334	I.QU III 89			x	George and Shenute, shoemakers (κΔσε) ⁸
		I.QU IV 341b		(x)		John, slaughterer/butcher or cook (μάγειρος)
[Jerusalem]		L.145, IX		x		Porphyrius (later bishop of Gaza), leather worker until AD 392
Dayr Mār Gabriel	M.1440	I.Qartmin A.8			x	Aaron, sandal-maker and steward

Table 15: The evidence of skins, shoe-making and bookbinding in various monasteries: a summary

Table 15 is an attempt to summarize the evidence of skins, shoe-making and bookbinding attested at individual monasteries. In Egypt, leather-work is attested in a number of monasteries all over the country, from Hermonthis (mod. Armanṭ) in the Thebaid to Kellia, near Alexandria. Pachomius' monastery near Tabennēsē [M.100] again yields outstanding textual documentation, which is the more significant as the site has not yet been archaeologically explored. The texts on Tabennēsē speak of a shoemaker's shop (σκυτοτομείον) and a tan-pit (βυρσεῖον). The shoe-makers formed – like the mat-working brethren – a 'shoemakers' house' (πῆι κΔσε). On the other hand, Dayr Apa Epiphanius [M.068], the well-documented monastery in western Thebes, is the only site where written reports on leather production can still be put to the archaeological test. Accordingly, P.Epiph. 371, 380, 438 and 446 relate to various requests for skins of goats and oxen in that monastery. Remarkably, sheep skin,

⁸ Another inscription from the Coptic Museum in Cairo mentions John (monk?), εκωτ (Wietheger-Fluck 1995: no. 327); presumably it was discovered near Saqqāra.

though attested in a different context⁹ and at Dayr al-Balā'iza [M.174], does not occur. In two instances the purpose of the request was stated, namely for bookbinding and shoe-repair.

The archaeological remains from Dayr Apa Epiphanius include cuttings from sandals (soles)¹⁰ and lamb-skin tanned with the wool. Of a book bound in leather – *'Get good goat skins, either 3 or 4, or whatsoever [...] that I may choose one therefrom for this book!'* (Winlock - Crum 1926: I, 75-78) – no fragment was found. Goat-skin, one infers clearly from table **15**, was the most common raw-material for monastic leather produced.

III.2.3.2 Tanning

The process of tanning has scarcely been documented, both by the written sources and archaeological remains. Despite the fragmentary knowledge of ancient tanning (cf. Blümner 1912: 263-273; Humphrey 1998: 367-371), one may assume that technology changed little throughout the times. A recently published ostrakon (O.Brit.Mus.Copt. II 38) – the fragment was found in the monastery of Apa Phoibammōn II [M.070] – contains valuable instructions as to how to tan skins (ϠΔΔΡ). It goes without saying that this ostrakon is a key document, for it specifies the use of mulberry to remove the hair from the skin¹¹ and the use of alum (Ϡ) and salt (2ΜΟΥ)¹²

⁹ Cf. above, fn. 1.

¹⁰ Made of goat-skin (up to 5 mm thick).

¹¹ Pliny describes the same method of using mulberry leaves, soaked in urine (*Naturalis Historia*, XXIII, 140).

for softening (so-called *pellis alutacea*). This process (so-called *Weissgerberei*) is suitable to achieve a high degree of softness and is the common method used for goat-skins¹³. Tan-pits (βυρσαῖα) are mentioned in the sources on Tabennēsē [M.100]. They constitute the only indicator of tanning at a small number of monasteries¹⁴.

The dyeing of hides followed a process similar to that of dyeing textiles. The combination of dead animal bodies and chemicals, on the other hand, must have given the tanner's workplace a particular, offensive stench. In view of the double listing of skins of ox (ψαδρ ΝΔ200Υ), goat (ψαδρ ΝΒΔΔΜΠΕ) and sheep (ΒΔΛΟΤ ΝΕC00Υ) at Dayr al-Balā'iza [M.174] there are grounds for supposing that the workshop on top of the promontory (in a well isolated location) was not only for fulling (cf. Grossmann 1986b: 199-201), but also for tanning these skins. Furthermore, less than two kilometres from Dayr al-Balā'iza lies Wādī Sarġā, the monastery where Crum (1922: no. 29. 80) identified two monks (Ϛ) and tanners (κΔCε), namely Anoup and Paul¹⁵.

¹² As ordinary salt (NaCl and its derivatives) and natron (*natrium carbonicum*, *trona*) share various chemical properties, the terms used to designate these chemical compounds get often confused (e.g. Arab. *milḥ* (*nidrānī*) = *sal*, *nitrum* = Copt. ΔΡΔΜΔΝΟΥΣ (Kircher 1643: 205)). As the ostrakon describes a process of tanning (as opposed to fulling), the translation of ϚΜΟΥ, 'salt' by the editor with 'natron' seems to be wrong.

¹³ On goats, attested at the neighbouring monastery of Apa Epiphanius [M.068], cf. above. The process of *Weissgerberei* has meticulously been described by Gustavson (1956). Gustavson also describes other methods such as chromium tanning (1956: 5-141), vegetable tanning (142-201), aldehyde tanning (244-282) and a combination of vegetable and alum tannages (334-336).

¹⁴ E.g. Kellia [M.360] (Favre 1986: 114-115). The interpretation of pits, as indicated in sect. III.2.1.2, is often hypothetical. Conclusions on tanning may also be drawn from the evidence of *Acacia Nilotica*, seeds used for the purpose of tanning (e.g. *Isnā'*, 'hermitage 5') still today (Sauneron *et al.* 1972: III, 7).

¹⁵ Remarkably, Crum's translation of κΔCε, 'shoemaker' by 'tanner', which does not occur in his later comprehensive dictionary (Crum 1939: 121).

III.2.3.3 *The pig: a multiple resource*

As to leather production, Tabennēsē [M.100] and Dayr Apa Jeremiah [M.334] in Egypt are the best documented monasteries. Two details in the documentation may be particularly relevant to the present account. Firstly, the tombstones at Jeremiah's mention George and Shenute, who were monks and shoemakers, and John, who was 'cook' or 'slaughterer/butcher' (μαδδαιπος) in that monastery. Secondly, Palladius reports that the monks at Tabennēsē used to breed piglets (χοίροι) which they slaughtered, not to be eaten, but for the pork to be sold (L.123, XXXII, 10). Both accounts suggest slaughtering on site, and at Tabennēsē the meat was on sale. This arrangement would have been twice as beneficial for the monastic community as selling the livestock wholesale: the meat would have been sold at a higher profit and the monastery been able to hold back the skins. Since, at Tabennēse, leather was processed by entire 'houses' (cf. table 15) and, at Dayr Apa Jeremiah, by the monks George and Shenoute, the breeding of cattle also had a non-nutritional objective, namely to supply the monastic craftsmen with skins. As piglets were also bred in Wādī Sarġā [M.172], the monks Anoup and Paul, skilled in the working of leather, may actually have worked these supplies.

III.2.3.4 *Bookbinding*

At Dayr Apa Epiphanius [M.080] bookbinding was a monastic occupation (cf. Winlock 1926: I, 159 fn. 4), but the role of the monks in binding in leather is widely unclear. P.Epiph. 380, is a unique document insofar as it presents Pistentius (d. 632), the monk and later bishop of Koptos (mod. Qift), ordering goat-skins, 'good ones',

for binding a book (cf. Winlock – Crum 1926: I, 78). Furthermore, this ostrakon was found in the 'East Buildings', a workshop area for basketry, matting and leather work.

O.CrumST 163 (Western Thebes) also records the payment for a book, whereby the cost of binding was explicitly excluded from copying: one would not be surprised if the two tasks were performed by different teams. Finally, the question arises as to who were the bookbinders in these monasteries. Again, the (sole) evidence comes from Pistentius who, as a boy, was brought up by his uncle and hegumen at Toud¹⁶. Pistentius, who ordered the goat-skins on another occasion, was introduced at the age of eleven to the skills of 'copying, bookbinding and various other crafts' in that monastery¹⁷.

Copying and manuscript illumination (as opposed to bookbinding) are the subject of section **IV.1**.

¹⁶ The ruins of a monastery south of Hermonthis ('couvent d'Abshai'/Toud) are indicated in Doresse (1949: pl. V, 2).

¹⁷ This information is taken from an unpublished version of the *Coptic Synaxarium* (20 Kihak). It was edited by Crum and translated by Doresse (1949: 338).

'They were clothed in skins in remembrance of Elijah, it appears to me, because they thought that the virtue of the prophet would be thus always retained in their memory, and that they would be enabled, like him to resist manfully the seductions of amorous pleasures, to be influenced by similar zeal, and be incited to the practice of sobriety by the hope of an equal reward. It is said that the peculiar vestments of these Egyptian monks had reference to some secret connected with their philosophy, and did not differ from those of others without some adequate cause. They wore their tunics without sleeves, in order to teach that the hands ought not to be ready to do presumptuous evil. They wore a covering on their heads called a cowl, to show that they ought to live with the same innocence and purity as infants who are nourished with milk, and wear a covering of the same form. Their girdle, and a species of scarf, which they wear across the loins, shoulders, and arms, admonish them that they ought to be always ready in the service and work of God. I am aware that other reasons have been assigned for their peculiarity of attire, but what I have said appears to me to be sufficient.'

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III.2.3 Leather goods

Leather goods were used for various purposes in late antique monasteries: for dressing¹, bookbinding and, presumably, containing wine². This section deals with leather-production, the manufacture of animal skin. When St. Basil (d. 379) declared textile-production and shoe-making the ideal *ergocheira* for his monks, he may well have considered the urgent need for monastic garments and the relative simplicity of the task (Cremaschi 2001). Archaeology, unfortunately, in no way keeps up with the abundance of texts. To date, contextualizable evidence of the organic materials has been found only in Egypt, at Dayr Apa Epiphanius [M.068], and at Tel Masos [M.580] in Palestine. At Tel Masos, a pair of modest sandals was found in the monastic remains (Fritz 1975: 110).

¹ On monks dressing in skin/leather, cf. L.102, III, 1 (sheep-skin); L.123, XXXII, 3 (goat-skin); L.144, suppl. 8 (goat-skin); L.233, 4 (sackcloth, skin); L.439 ('fine' skin); L.163, III, 14 (cf. top of page) in Egypt; L.631, 15, 1 (sheep-skin) in Palestine; L.124, XXIII (goat-skin, skin-bag, skin-belt) in Syria and Mesopotamia; etc.

² The use of wine-skins (rather than solid containers) features extremely rarely in the written record. Wine-skins occur in an account of the Umayyad census in Egypt (between AD 705 and 730), which caused an inflation so that 40 wine-skins were rated at one *dīnār*. The custom is better attested in Arabia (e.g. Heath 1996).

III.2.3.1 Leather production versus shoemaking

Papyri and ostraka provide ample evidence of monks and monastic workshops producing sandals and shoes³. The literary sources, on the other hand, often promote - in an idealized manner - the *imitatio Eliae* through wearing skin clothes. Leather, as outlined in section III.1.1 (animal husbandry), was a universal material, but who actually produced the monastic clothes? The answer may lie in a wider understanding of the terms *skytotomos* and *κἀσε*, namely the leather-cutter and maker of shoes.

Monastery	ID	Source	Skins	Shoes	Bookbinding	Notes
[Hermonthis/Armant] ⁴		L.691, 20 Kihak			x	monastic training in copying and bookbinding
Dayr Apa Epiphanius	M.068	P.Epiph. 371		x		request for shoe-repair
		P.Epiph. 380	x		x	goat-skins (ⲱⲗⲁⲗⲠ ⲛⲃⲁⲙⲡⲓⲉ) for book-binding
		P.Epiph. 438	x			request for skins (ⲱⲗⲁⲗⲠ)
		P.Epiph. 446*	x			(presumably) ox-skin
Dayr Apa Phoibammōn II	M.070	O.Brit.Mus.Copt. II 38	x			instruction how to tan skins (ⲱⲗⲁⲗⲠ)
[Thebes]		O.Crum 459	x			sheep-skins (ⲱⲗⲁⲗⲠ ⲛⲉⲥⲟⲟⲩ) ⁵
Tabennēsē	M.100	L.123, XXXII, 11	x	x		shoemaker's shop (σκυτοτομείον); tan-pit (βυρσεῖον)
		MS Pierpont Morgan LI, 38 ⁶		x		'house' of shoemakers (ⲛⲏⲏ ⲛⲛⲕⲁⲥⲉ)
		L.421, Palladius, I, 33		x		(one) maker of sandals
		L.421, Tabenna, XII	x	x		shoemaker (processing skins)
Dayr Anbā Šinūda	M.122	L.350 (Fragment 12), VIII			x	bookbinders (ⲛⲉⲧⲥⲙⲓⲛⲉ ⲛ̅ⲛ̅ ⲭⲱⲱⲙⲉ)
Wādī Sarḡā	M.172	P.Sarga 29		x		Anoup, shoemaker/tanner ⁷ (κἀσε)

³ Note that whereas the term 'sandals' is roughly synonymous with the term 'shoes', 'sandals' denotes a simpler fabric. This differentiation is made explicit in a Syriac Canon in which Marūtā (5th c.) ordered his spiritual brothers 'to wear sandals (ṭalrē), and not to wear shoes (mūqē)' (L.420, LIX, 4).

⁴ Cf. below, sect. III.2.3.4.

⁵ Skins occur as part of an extensive list that includes catechetical books (by Shenoute), shrouds and weighing-machines (steelyards?).

⁶ Cf. Crum (1939: 121 and xiii).

⁷ Cf. below, sect. III.2.3.2.

		P.Sarga 80		x		Paul, shoemaker/tanner (κΔσε)
Dayr al-Balā'iza	M.174	P.Bala'izah 303B		x		list of skins (βαλλοτ)
		P.Bala'izah 332		x		three types of leather (ox, goat, sheep), listed separately
Dayr Apa Jeremiah	M.334	I.QU III 89			x	George and Shenute, shoemakers (κΔσε) ⁸
		I.QU IV 341b		(x)		John, slaughterer/butcher or cook (μάγειρος)
[Jerusalem]		L.145, IX		x		Porphyrius (later bishop of Gaza), leather worker until AD 392
Dayr Mār Gabriel	M.1440	I.Qartmin A.8			x	Aaron, sandal-maker and steward

Table 15: The evidence of skins, shoe-making and bookbinding in various monasteries: a summary

Table 15 is an attempt to summarize the evidence of skins, shoe-making and bookbinding attested at individual monasteries. In Egypt, leather-work is attested in a number of monasteries all over the country, from Hermonthis (mod. Armanṭ) in the Thebaid to Kellia, near Alexandria. Pachomius' monastery near Tabennēsē [M.100] again yields outstanding textual documentation, which is the more significant as the site has not yet been archaeologically explored. The texts on Tabennēsē speak of a shoemaker's shop (σκυτοτομείον) and a tan-pit (βυρσαεῖον). The shoe-makers formed – like the mat-working brethren – a 'shoemakers' house' (πῆσι νηκΔσε). On the other hand, Dayr Apa Epiphanius [M.068], the well-documented monastery in western Thebes, is the only site where written reports on leather production can still be put to the archaeological test. Accordingly, P.Epiph. 371, 380, 438 and 446 relate to various requests for skins of goats and oxen in that monastery. Remarkably, sheep skin,

⁸ Another inscription from the Coptic Museum in Cairo mentions John (monk?), εκωτ (Wietheger-Fluck 1995: no. 327); presumably it was discovered near Saqqāra.

though attested in a different context⁹ and at Dayr al-Balā'iza [M.174], does not occur. In two instances the purpose of the request was stated, namely for bookbinding and shoe-repair.

The archaeological remains from Dayr Apa Epiphanius include cuttings from sandals (soles)¹⁰ and lamb-skin tanned with the wool. Of a book bound in leather – ‘Get good goat skins, either 3 or 4, or whatsoever [...] that I may choose one therefrom for this book!’ (Winlock - Crum 1926: I, 75-78) – no fragment was found. Goat-skin, one infers clearly from table **15**, was the most common raw-material for monastic leather produced.

III.2.3.2 Tanning

The process of tanning has scarcely been documented, both by the written sources and archaeological remains. Despite the fragmentary knowledge of ancient tanning (cf. Blümner 1912: 263-273; Humphrey 1998: 367-371), one may assume that technology changed little throughout the times. A recently published ostrakon (O.Brit.Mus.Copt. II 38) – the fragment was found in the monastery of Apa Phoibammōn II [M.070] – contains valuable instructions as to how to tan skins (ϠΔΔΡ). It goes without saying that this ostrakon is a key document, for it specifies the use of mulberry to remove the hair from the skin¹¹ and the use of alum (?) and salt (2MOY)¹²

⁹ Cf. above, fn. 1.

¹⁰ Made of goat-skin (up to 5 mm thick).

¹¹ Pliny describes the same method of using mulberry leaves, soaked in urine (*Naturalis Historia*, XXIII, 140).

for softening (so-called *pellis alutacea*). This process (so-called *Weissgerberei*) is suitable to achieve a high degree of softness and is the common method used for goat-skins¹³. Tan-pits (βυρσαῖα) are mentioned in the sources on Tabennēsē [M.100]. They constitute the only indicator of tanning at a small number of monasteries¹⁴.

The dyeing of hides followed a process similar to that of dyeing textiles. The combination of dead animal bodies and chemicals, on the other hand, must have given the tanner's workplace a particular, offensive stench. In view of the double listing of skins of ox (ψαδρ ΝΔ200Υ), goat (ψαδρ ΝΒΔΔΜΠΕ) and sheep (ΒΔΛΟΤ ΝΕC00Υ) at Dayr al-Balā'iza [M.174] there are grounds for supposing that the workshop on top of the promontory (in a well isolated location) was not only for fulling (cf. Grossmann 1986b: 199-201), but also for tanning these skins. Furthermore, less than two kilometres from Dayr al-Balā'iza lies Wādī Sarġā, the monastery where Crum (1922: no. 29. 80) identified two monks (?) and tanners (κΔCε), namely Anoup and Paul¹⁵.

¹² As ordinary salt (NaCl and its derivatives) and natron (*natrium carbonicum*, *trona*) share various chemical properties, the terms used to designate these chemical compounds get often confused (e.g. Arab. *milḥ* (*nidrānī*) = *sal*, *nitrum* = Copt. ΔΡΔΜΔΝΟΥΣ (Kircher 1643: 205)). As the ostrakon describes a process of tanning (as opposed to fulling), the translation of 2ΜΟΥ, 'salt' by the editor with 'natron' seems to be wrong.

¹³ On goats, attested at the neighbouring monastery of Apa Epiphanius [M.068], cf. above. The process of *Weissgerberei* has meticulously been described by Gustavson (1956). Gustavson also describes other methods such as chromium tanning (1956: 5-141), vegetable tanning (142-201), aldehyde tanning (244-282) and a combination of vegetable and alum tannages (334-336).

¹⁴ E.g. Kellia [M.360] (Favre 1986: 114-115). The interpretation of pits, as indicated in sect. III.2.1.2, is often hypothetical. Conclusions on tanning may also be drawn from the evidence of *Acacia Nilotica*, seeds used for the purpose of tanning (e.g. Isnā', 'hermitage 5') still today (Sauneron *et al.* 1972: III, 7).

¹⁵ Remarkably, Crum's translation of κΔCε, 'shoemaker' by 'tanner', which does not occur in his later comprehensive dictionary (Crum 1939: 121).

III.2.3.3 *The pig: a multiple resource*

As to leather production, Tabennēsē [M.100] and Dayr Apa Jeremiah [M.334] in Egypt are the best documented monasteries. Two details in the documentation may be particularly relevant to the present account. Firstly, the tombstones at Jeremiah's mention George and Shenute, who were monks and shoemakers, and John, who was 'cook' or 'slaughterer/butcher' (μασχιρρος) in that monastery. Secondly, Palladius reports that the monks at Tabennēsē used to breed piglets (χοίροι) which they slaughtered, not to be eaten, but for the pork to be sold (L.123, XXXII, 10). Both accounts suggest slaughtering on site, and at Tabennēsē the meat was on sale. This arrangement would have been twice as beneficial for the monastic community as selling the livestock wholesale: the meat would have been sold at a higher profit and the monastery been able to hold back the skins. Since, at Tabennēsē, leather was processed by entire 'houses' (cf. table 15) and, at Dayr Apa Jeremiah, by the monks George and Shenute, the breeding of cattle also had a non-nutritional objective, namely to supply the monastic craftsmen with skins. As piglets were also bred in Wādī Sarġā [M.172], the monks Anoup and Paul, skilled in the working of leather, may actually have worked these supplies.

III.2.3.4 *Bookbinding*

At Dayr Apa Epiphanius [M.080] bookbinding was a monastic occupation (cf. Winlock 1926: I, 159 fn. 4), but the role of the monks in binding in leather is widely unclear. P.Epiph. 380, is a unique document insofar as it presents Pistentius (d. 632), the monk and later bishop of Koptos (mod. Qift), ordering goat-skins, 'good ones',

for binding a book (cf. Winlock – Crum 1926: I, 78). Furthermore, this ostrakon was found in the 'East Buildings', a workshop area for basketry, matting and leather work.

O.CrumST 163 (Western Thebes) also records the payment for a book, whereby the cost of binding was explicitly excluded from copying: one would not be surprised if the two tasks were performed by different teams. Finally, the question arises as to who were the bookbinders in these monasteries. Again, the (sole) evidence comes from Pistentius who, as a boy, was brought up by his uncle and hegumen at Toud¹⁶. Pistentius, who ordered the goat-skins on another occasion, was introduced at the age of eleven to the skills of 'copying, bookbinding and various other crafts' in that monastery¹⁷.

Copying and manuscript illumination (as opposed to bookbinding) are the subject of section **IV.1**.

¹⁶ The ruins of a monastery south of Hermonthis ('couvent d'Abshai"/Toud) are indicated in Doresse (1949: pl. V, 2).

¹⁷ This information is taken from an unpublished version of the Coptic *Synaxarium* (20 Kihak). It was edited by Crum and translated by Doresse (1949: 338).

III.2.4 Pottery

III.2.4.1 The Potters

Although the textual evidence of monks as potters (*sensu stricto*) is limited, there is some indication of monks (and also laymen) being involved in monastic pottery manufacture and trade: at Dayr Apa Epiphanius [M.068], Dayr Anbā Šinūda [M.122], Dayr Anbā Abullū' [M.190], and Dayr Apa Jeremiah near Saqqāra [M.334]. At Apa Epiphanius', a certain monk Hllō promises to deliver jars (ἄλλυκων) on camel-back, for which a price is given in P.Epiph. 283. Another document from the same monastery relates that Apa Psan ('the Anchorite') was at some point given a fine and had to provide no less than 300 jars (P.Epiph. 404)! Unfortunately, we have no indication whether these monks, Hllō and Psan, were potters or middlemen. Winlock – Crum (1926: I, 159) and Krause (1968/1969: 79-80) may have concluded too hastily that in the surroundings of Thebes no monks and potters can be identified.

The search for potters continues, in particular as pots and pot-production, but not the potters, feature in the written documentation of various monasteries¹. Krause's '*keine klaren Aufschlüsse*' equally apply to the question of *Klosterfeinkeramik* (monastic fine-ware) which can be found in the trenches, but whose origin is mostly unclear. However, the evidence of *Klosterfeinkeramik* (rather

¹ Many of these documents have not yet been published. Most promising, the approx. 2,000 ostraka from Dayr Mar Murqus ar-Rasūlī [M.062] and recent ostraka finds from Dayr al-Bahīt [M.072]. As to the archaeological evidence, the latter monastery is currently being excavated, and at Dayr Cyriacus the storage of wine is attested by recent pottery finds [III.066/1-2].

than its production) will not be considered here.

If monks were potters, °Enanišō°'s dogma of '*grass being the work of the monks*' and of monks '*avoiding the burning of fire*'² cannot universally have applied. Indeed, monks as potters are attested in the monastery of Shenoute, where Besa, its fifth-century superior, addressed the brothers, including the potters (σεκοτ), '*not to give even a farthing to any man, either amongst themselves or outside, nor any product they made*' (L.350, Fragment 12, VIII, 1). There, near Aḥmīm, potters are attested among the brothers, and their workshops must still lie hidden somewhere.

More concrete is the evidence of monastic potters at Dayr Apa Jeremiah [M.334], where inscriptions unambiguously speak of monks and potters (κεραμευς; Zacharias, Kelal) (I.QU III 108c; I.QU IV 360) and cup/bowl-maker/sellers (σαῖαποτ; Abraham, Papa Philotheus, Julius) (I.QU IV 206 and 207). As the Coptic term αποτ refers to a cup or chalice (i.e. fine-ware) rather than to an amphora or jar, do these αποτ constitute the tableware whose origin is widely unclear? The sources do not offer an explanation, but the archaeological evidence of a pottery workshop (sixth century)³ at Apa Jeremiah's supports a hypothesis brought forward by Hasitzka (1987: 37-38) who, in a note, simply equates σαῖαποτ with *kerameus*: accordingly, Zacharias, Kelal, Abraham, Philotheus and Julius would not only have been monks, but also potters, presumably of course and fine-wares.

² Cf. sect. III.2, p.199.

³ Cf. Ghaly (1992) and III.334/4-5. The pottery excavated in the vicinity of the kilns includes local products (unfired material): tableware (coarse Nile clay), cooking pots, jars (very rough clay), painted water-jugs, *qaddūs* (Ghaly 1992: 168 and fig. 5-13); imports: tableware (Group K), amphorae LR7, Aswan Wares, LRB (North Africa), LRD (Cyprus).

Amphora *dipinti* from the same monastery list the names Paul, Heraklides, Kollouthos and Zosimus, again associated with the epithet *kerameus*. Thus, these men, too, were potters. The *dipinti* also show numbers likely to indicate, according to Gasco (1978: 27), the deliveries of the containers from the pottery.

III.2.4.2 The Workshops

The evidence of pottery workshops may be direct (kilns *etc.* and textual references) or indirect (pottery debris and accounts of pottery sale). During the 1990s, two archaeological surveys by Ballet (1991) and Empereur (1992; 1999) aimed at localizing major pottery workshops along the Nile; one between al-Minya and Aswān, namely at Hermopolis Magna (mod. al-Ašmunayn), Antinoopolis (Antinoë, mod. Šayḥ 'Abāda), Dayr aš-Šuhadā' near Isnā' and Elephantine; the other in Mareotis, namely at Burğ al-Arab and Abū Mīnā [M.378]. The monasteries *not* considered by these surveys are: Dayr Apa Jeremiah⁴, Dayr Anbā Hadrā [M.020] and the 'Kloster am Isisberg', north of Aswān⁵.

The particularity of the monastery of Anbā Hadrā (also known as St. Symeon) lies in its unique archaeological preservation and documentation, namely of half a dozen kilns *in situ* ('units XXXIII' [III.020/7] *et. al.*) and of an enormous pottery debris dump [III.020/8]. Unfortunately, apart from few types of Egyptian fine-wares (e.g.

⁴ Cf. above.

⁵ Two more sites could be relevant to pottery-production in the Byzantine period near Aswān: Elephantine, the centre of pottery-production in Roman times (there was also thriving monastic life [M.020] in Byzantine times); the 'Kloster am Isisberg', surveyed by Junker (1922; Budka 1999). Future excavations (already planned by Junker) would put into context the vast assemblages of broken pottery visible on the ground.

type *Egloff 33*), the composition and the date of the debris have not yet been certified (Ballet 1991: 141-142). This is the more regrettable as the monastery may also have had a certain role in the trans-shipment of wine.

The present investigation of monastic workshops moves downstream, along the Nile. In Western Thebes, O.Crum 306 relates to the termination of a work-contract between Georgiōs, a deacon, and Phaustos, an unidentified man. Both parties shared a potter's workshop (σεκωτ)⁶. However, there is no indication that either Georgiōs or Phaustos were monastic men.

In Egypt, there are two monasteries called al-Fahūri ('of the potter'). Since both monasteries date to the period post-AD 800 they will only be briefly considered here⁷. The Thebaid monastery certainly takes its name from the impressive heap (50 x 30 m, situated west of the site) of post-sixth and seventh century pottery [III.034/1]. This heap indicates a former workshop at Dayr al-Fahūri, but again the composition and the date of the assemblage has not been analysed. Balley (1991: 143), the head of the survey, notes, *en bref*, the general absence of amphorae and jars. He further concludes that this absence would have been characteristic of non-commercial production and use.

Apa Sourous [M.162], the monastery near Aphroditō, has already been given special focus in sections **II.2.2.1** (*Landownership*) and **III.1.5.2** (*Wine*). Now,

⁶ Till (1964: 62), as opposed to Crum (1902: 28 fn. 2): πΔΤσεκωτ, 'wine-cellar'.

⁷ One monastery is situated near Ṭūrā (mod. al-Ġiza) (Timm 1984-1992: VI, 2883), the other in Thebais II [M.034].

unsurprisingly, the monastery plays its role in the production of pottery. P.Cair.Masp. I 67110 (AD 565) reports a lifetime-lease of one third of a potter's workshop (κεραμείον) negotiated by the monastery for an annual rent of 2,400 jars. The document also records that this workshop was equipped with an oven for melting the pitch, to make the jars liquid-proof so as to avoid loss by seepage and evaporation, and to prevent air getting in to sour the wine.

The excavations at Anbā Abullū' [M.190], unfortunately, have not yielded evidence of pottery workshops so far. As the monastery was equally active in wine-production, this absence may actually be due to the small percentage of the surface excavated so far (ca. 5%; Torp 1981). One inscription, I.MIFAO111 chap. XLIII, II, invokes the name of (a monk) Phoibammōn. The monk bears the epithet 'of the *Pitta* (πίττα)'⁸.

P.Prag. I 46 (AD 522) relates to a monastery known as the 'Northern Rock' [M.236] near Antinoopolis, and to its economic affairs. The subject of this document is the sale of 400 jars (κούφα), 'beautiful, new, coated (πεπισσοκοπημένα), dried (ἀπεξηραμμένα), and of large dimensions'. The recipient was John, presbyter and superior, the suppliers were Paul, presbyter, and Hatres, his brother, both from the Hermopolite village of Pesla. 'New, coated, and large' are qualities most likely required for the storage and transport of wine. Unfortunately, we do not know the origin of the containers (Pesla?), nor do we know the role of Paul and Hatres as

⁸ Cf. Clédat *et al.* (1999: 64 fn. 34): 'C'est à dire, le faiseur ou le vendeur de 'pitta', 'poix ou résine', à moins qu'il ne s'agisse d'un toponyme'.

pottery or middlemen. However, Antinoopolis was a thriving centre of monasticism⁹, of wine-growing¹⁰ and pottery production in late antique times (Ballet 1991: 134-136, 143; Bailey 1998: 129).

P.Lond. III 994 (AD 517) is a mutilated contract of lease, apparently of a 1/14 share of a pottery at Ensou, a locality near Hermopolis. Line 14 of the contract lists a *monazousa*, which literally designates a woman living in solitude. On analogy to *monazōn* ('monk'), the *monazousa* could also have been a nun. Since there is reference to a drying-place (ἡλιαστήριον), amphorae of the type LR7 or related vessels could have been produced (Bailey 1998: 130).

In the most recent publication on the Hermopolite monastery of Abū Fānā [M.244], Buschhausen (1996: 25-26) hypothesizes that one of the basins excavated in the 'Küchenbereich' could have served the production of pottery [III.244/2-3]¹¹. In absence of other facilities (such as a kiln or a drying-room), or remains (sherds), and on the basis of its location, I would rather reject this idea.

A third-century papyrus from Oxyrhynchus (Cockle 1981: 87-89) provides the most accurate, but non-monastic account of pottery manufacture in Roman Egypt. It relates to a wine-jar workshop (κεραμείον οἰνικοῦ κεράμου) shared by three potters near the village of Senepta. The papyrus not only mentions the farmstead and the pottery, but also lists the necessary equipment such as the store-rooms (κάμαρα), the

⁹ Cf. vol. 2, sect. C.5.

¹⁰ Cf. sect. III.1.5, pl. XII.

¹¹ Cf. above, sect. III.2.1.2.

kiln (καμείνος), the potter's wheel (λίθος κεραμευτικός) and the drying floors (ψυγμοί). The potter and lessee of the workshop undertakes to fire, re-fire and coat with pitch (πισσῶσαι) 15,300 jars (of three different types, namely 15,000 ordinary jars (κουῖφα), 150 double-keramia, 150 two-choes jars) and would provide himself with sufficient potters, assistants and stokers. The lessor, in turn, provides the friable earth, the sandy and the black earths, sufficient firing material, water for the cistern, and for coating the required amount of pitch. The contractual partners arrange payment in several instalments, according to the agricultural year. Their payment includes various quantities of wine (ῥίνος) and of sour wine (ῥξος). The finished containers, the contract stipulates, had to be delivered 'free from ash and sherds'. The significance of this document lies in the detail of description and illustrates the complex set of conditions (clay, pitch, water, fuel, drying- and storage-facilities, manpower, and – missing in the papyrus – transport) under which a pottery workshop could successfully be run. If monks were later active in pottery-production, similar conditions would presumably have applied. There was a monastery in Senepta during the sixth century (Timm 1984-1992: V, 2335). However, a link between the third-century workshop and the sixth-century monastery cannot be made.

The recent excavations at the monastery of John Kolobus' in Skēthis (Wādī n-Naṭrūn) have brought to light numerous pottery fragments of the type Egloff 167 (III.346B/2). There is still no publication of the material. Elsewhere, Ballet (2003b: 149) notes that 'des ateliers [in Wādī n-Naṭrūn], dépendant des établissements

*monastiques*¹², ont pu fabriquer ces amphores, mais ils n'ont pas été identifiés'. If Ballet is right, the evidence from John Kolobus' could shed new light on the economic history of Skēthis, the *endotatō oros*, where wine (or other fermented beverages) seem to have been banned from the monastic régime. Brook Hedstroms' publication of the pottery is forthcoming. It widely focuses on fine-wares.

The last site to consider in Egypt is Abū Mīnā in Mareotis, where the connection between the pilgrimage centre, the monastery ('Dayr Abū Mīnā' [M.378], still unidentified) and its involvement in wine-production¹³, pottery and *eulogia*-production has remained a speculative subject to the present day. As to pottery workshops and kilns, the entire region of Mareotis ('Greater Abū Mīnā') was a major centre under the Ptolemies (Empereur 1992: 146; Abd el-Fattah 1999: 43-46 and fig. 9; Rodziewicz 1999). As to the Byzantine and Islamic periods, kilns were also found within the pilgrimage centre. They date to the period post-AD 642 (Kaufmann 1921: 196 fig. 171; Müller-Wiener 1967: 460-462).

In an essay on *La Reconnaissance des productions des ateliers céramiques: l'exemple de la Maréotide*, Empereur (1992) re-considers the Graeco-Roman estate in Egypt. Based on the observations made by Pliny (*Naturalis historia*, with reference to Campania) and Porcius Cato (*De agri cultura*), Empereur suggests, on analogy, the evidence of a small pottery workshop wherever there was a *villa*, a vineyard or a press. What, however, was the situation on the monastic estates in Middle and

¹² In this case, dependent on Dayr Anbā Bišūy [M.346].

¹³ Cf. above, sect. III.1.5.2.1.

Upper Egypt and elsewhere? An answer cannot be given, as the only monastery that yields evidence both of wine¹⁴ and its own pottery production was situated in Wādī Sarġā [M.172]: in two documents orders were given by the steward to give to the potters (σεκωτ) 3 *phoros* of wine (O.Sarga 178. 377).

In conclusion, the textual evidence from Egypt is in striking contrast to the evidence from *Oriens*, where only on Mount Nebo [M.830] is there archaeological evidence of pottery actually being produced in a monastery (Saller 1941: III, 'unit 44'). On Mount Nebo kiln-remains were found in context with fragments of clay.

Despite the imbalance in preservation and documentation, one may, on firm grounds, infer that the production of pottery was in many cases a monastic affair: at Dayr Anbā Hadrā [M.020], Dayr al-Fahūrī [M.034], Apa Sourous [M.162], Wādī Sarġā [M.172], the 'Northern Rock' [M.236], Ensou and Dayr Apa Jeremiah [M.334]. Beyond Egypt, there is no evidence apart from the monastery and memorial of Moses on Mount Nebo. Other monasteries await further investigation, such as the 'Kloster am Isisberg' near Aswān, John Kolobus in Skēthis and the monastery of Abū Mīnā [M.378]. This evidence of workshops is in line with the documents on pots and potters. These confirm that at the monasteries of Apa Sourous, in Wādī Sarġā, the 'Northern Rock', Ensou and Dayr Apa Jeremiah some type of pottery (presumably amphorae) was actually produced.

¹⁴ On the rich evidence of wine in Wādī Sarġā, cf. sect. III.1.5, pl. XII.

III.2.4.3 *Coating the amphora*

Where conditions are favourable for the preservation of organic matter, some containers (mostly amphorae) were covered with an inner coating in order to prevent evaporation and to prevent air getting into the wine. Late antique pitch was made from a petroleum product (bitumen) or, more frequently, from the resin of the pine. More recently, even the species of the pine could be identified (Cockle 1981: 94; Peacock 1986: 49).

The coating of amphorae is attested in a number of monastic and non-monastic documents (P.Oxy. XXXI 2580 (3rd c.); P.Oxy. L 3588 (AD 157); P.Cair.Masp. I 67110 [M.162]; I.MIFAO111 chap. XLIII, II [M.190]; P.Prag I 46 [M.236])¹⁵. These documents illustrate the connection between pitch, pottery and the production of wine. Furthermore, coated jugs are the objects of sales in Hermopolis Magna (2,400 κούφα πεπισσωμένα) (SB XXX 14712) and in the Arsinoite nome (καινόκουφα) (SB I 4675). Unfortunately, in neither case can it be established with certainty if the recipients of the containers acted on behalf of themselves, the Church (of Hermopolis Magna) or a monastery.

In comparison with the written sources, the archaeological evidence of coating is very poor. Coated amphorae have been excavated at Dayr Apa Epiphanius [M.068]¹⁶, in the hermitages near Isnā', Dayr an-Naqlūn [M.308] (where most jars were coated) and Kellia [M.360] (mainly amphora type *Egloff* 177 = LR7).

¹⁵ On the monastic documents, cf. above, sect. III.2.4.2.

¹⁶ Most 'Aswān (wine-)amphorae' were coated on the inside (Ballet 1992: 115).

Table 17 (further below; sites yielding amphorae type LR7 are highlighted in grey) summarizes the evidence available for these monasteries. Beyond Egypt, unfortunately, neither in the recent excavations in Sinai (Calderon 2000) nor the Judean Desert (Hirschfeld, Patrìch *et al.*) nor the Syrian Limestone Massif (Sodini 1980; Biscop *et al.* 1997; Biscop 1998) has an analysis of amphora coating been made. Accordingly, the absence of 'C' (= 'coated') from various rows in table 17 does not necessarily reflect the reality. Finally, resin could have been used for coating the insides of beer containers¹⁷ and for distilling resinous oils.

Potters, workshops and coating: a summary

Table 16, which summarizes the data on pots, potters, workshops and coating for nineteen late antique monasteries, shows, among others, that, in general, amphorae and jars were bought and received, but not sold by these monasteries. The reasons have not been stated, but one could think of considerable internal demands.

Secondly, in Egypt, it would seem, the distribution of monastic workshops does not follow a recognizable pattern. What is more, the actual distribution reflects the ubiquitousness of the (Nile) clay and the ability of individual monasteries to respond to local demands. Due to the scantiness of the data, the conditions in *Oriens* cannot be diagnosed. The table also highlights those monasteries where coated amphorae, mainly of the type Carthage Late Roman 7 (LR7), have been

¹⁷ On beer and its absence from the monastic documentary record, cf. sect. III.1.2.

found.

Monastery	ID	Potter(s)	Workshop	Amphorae PRODUCED	& Jars SOLD	BOUGHT	RECEIVED ¹⁸	Total number	Excavated plus COATED (ex table 17)
Dayr Anbā Hadrā	M.020		x ^A	?					
Isisberg	--			?					
Dayr al-Fahūrī	M.034		x ^A	?					
Isnā'	--								x (LR7)
Dayr Apa Epiphanius [Thebes]	M.068	x							x (LR7)
			x ^T (shared)						
Dayr Anbā Šinūda	M.122	x							
Apa Sourous	M.162		x ^T				x	2,400/year	
Wādī Sarḡā	M.172	x (monastic?)	x ^T						? (LR7)
Dayr Anbā Abullū'	M.190	x							
"Northern Rock"	M.236					x		400	
[Hermopolis Magna]						x		2,400	
Ensou			x ^T (shared)						
Dayr an-Naqlūn	M.308								x (LR7)
Dayr Apa Jeremiah	M.334	x	x ^A	x (LR1?)					? (LR1, LR7)
John Kolobus	M.346B		? ^A						? (E167)
Kellia	M.360								x (LR7)
Abū Mīnā	M.378		? ^A						? (LR1, LR4, LR5/6, LR8)
Mount Nebo	M.830		x ^A						

Table 16: Potters, workshops, pots and coating (indicated in grey): a summary (T/A = textual/archaeological evidence)

III.2.4.4 Types of amphorae and jars

The amphorae found in the monasteries are characterized by a large variety

¹⁸ In repayment of a rent.

of types and sub-types dependant on region, period and clay. As a whole, however, the evidence is extremely scanty, so that only some qualitative conclusions can be made. In Egypt and Palestine, the evidence of monastic pottery (table 17) is strongly dominated by the following types (in the order of frequency):

- Carthage Late Roman 7 (LR7) (Riley 1981) = *Egloff* 173-177 (Egloff 1977) = Peacock Class 52 (Peacock – Williams 1986),
- Carthage Late Roman 5/6 (LR5/6) = *Egloff* 186-190 in Egypt,
- Carthage Late Roman 5 (LR5, 'Palestinian') = Peacock Class 46 in the southern Levant.

Furthermore, the types Carthage Late Roman 1 (LR1, 'Cilician, Antiochean')¹⁹ and 4 (LR4)²⁰ have been found all over Egypt and *Oriens*. On the other hand, the types Carthage Late Roman 2 (LR2), *Egloff* 167, Carthage Late Roman 8 (LR8) and Carthage Late Roman 13 (LR13) have been found only in a limited number of monasteries.

As LR7, LR1, LR5, LR5/6 (and, regionally, *Egloff* 167) are the most common amphorae attested in these monasteries, some annotations need to be made:

Firstly, Carthage Late Roman 7 (LR7), a small, chocolate-brown Nile-silt vessel, was in use from Lower Egypt to Nubia between the fifth and the tenth and eleventh centuries. LR7 is commonly considered as *the* wine-jar, for it is characterized by internal coating and a ventilation opening in the neck ('C' and 'VO' in table 17).

¹⁹ = *Egloff* 164, 166 and 168-169 = Peacock Class 44 A and B.

²⁰ = *Egloff* 182-183 = Peacock Class 49.

Precise volumetric data, however, is not yet available for this jar²¹. In section III.1.5.2 it has been shown that LR7 was the most likely equivalent of the *knidion* of the written sources, and that 24 amphorae of the type LR7 constituted one camel-, and 100 *knidia* four camel-loads respectively.

Particularly strong occurrence of LR7 can be observed in the Hermopolite nome (Ballet 1991: 134-138; Bailey 1996: 78-79; Ballet 2003: 137), where kilns have been identified near Antinoopolis (Šayḥ ʿAbāda) and Hermopolis Magna, al-Ašmunayn. The evidence of LR7 workshops is increased by the monastic workshops identified in sect. III.2.4.2: since all of these monasteries yield evidence of LR7 (cf. table 16), it seems probable that it was also LR7 which they produced.

While LR7 was a local, Egyptian amphora, the type Carthage Late Roman 1 (LR1) can be identified throughout the Mediterranean, between the early fifth and the mid-seventh centuries. With a capacity of 6.179 litres (subtype Ia) to 14.883 litres (subtype Vb) during the seventh century²², LR1 was the jar to store considerable quantities of either oil or wine (Bailey 1998: 121). After the discovery of sherds, wasters and slag near Antioch, the Bay of Alexandretta, southern Cilicia and eastern Cyprus, the origin of LR1 has now been ascertained and further assessed (Empereur 1989; Bailey 1996; Bailey 1998: 119. 136; Ballet 2003: 34. 66. 131-152). LR1 was a vessel produced in the north-eastern Mediterranean and shipped all over the Byzantine

²¹ A small volume of approx. 4.5 litres has been proposed (P.Oxy. LVIII 3960 (AD 621), *Introduction*).

²² Cf. Van Alfen (1996); LR1 represent a considerable percentage of the amphorae sunk in ca. AD 624 with a ship near Yassi Ada.

Empire. LR1 was found in the monasteries of the Upper Thebais, on Sinai and in various monasteries in Syria and Palestine. The recent excavations at Tanis have further addressed the issue of LR1 importation to Egypt and have rated the proportion of LR1 from Antioche to LR1 from Cyprus at 1 to 5.33 (Bavay 2000: 57). In some monasteries there is no imported vessel but LR1²³.

The issue of monasteries and amphora-production needs further investigation, in particular in light of a jar found at Dayr Apa Jeremiah [Ill.334/6] that testifies to the local imitation in Egypt of the Syro-Cilician or Cypriot jar (Ghaly 1992: 168; Bailey 1998: 122; Ballet 2003: 152). Given the evidence of potters and kilns at Dayr Apa Jeremiah, it remains an open question whether this standardized type of amphorae was actually produced in that monastery.

Egloff 167 ('E167' in tables **16** and **17**) is a type similar to Carthage Late Roman 1 (LR1), but a purely Egyptian amphora. It is attested from AD 650 in Kellia [M.360] and in Wādī n-Naṭrūn. Ventilation openings in these vessels indicate that the containers were used for the storage of fermented juice (Ballet 2003: 66-67. 148-149). Recently, examples of *Egloff* 167 were excavated near the monastery of John Kolobus (M.346B), where the possibility of monastic pottery production was raised (Ballet 2003: 148).

LR5, the so-called 'bag-shaped' amphora, was manufactured all across Palestine. With a capacity of 20 to 26.5 litres, this fifth to seventh-century vessel

²³ E.g. Šelōmi [M.826], where amphorae of the type LR1 rate at 24%. The remainder 76% are local wares.

locally fulfilled a number of functions, but as an exported container it primarily served for the storage of wine. Many of LR5 containers have traces of internal coating and circular ventilation holes (Magness 1993: 160-161. 221-231; Kingsley 2001: 49-51). As to the monasteries, LR5 is attested in parts of Sinai and all throughout Palestine. LR5 came to 87% of the amphorae at early seventh-century Šelōmi [M.826], which is the only monastery that yields a quantified pottery record. So far, the monastic production of LR5 vessel could not be shown.

Table 17 lists one type of amphora particularly characteristic of Egypt: LR5/6. These amphorae, the Egyptian imitation of LR5, the 'bag-shaped' amphora from Palestine, occur as from AD 625 in the south-western Delta of the Nile (Ballet 2003: 66. 142. 146). The jar is attested in a wide range of sub-types (*Egloff* 186-190) and places of manufacture. To date, kiln-sites for LR5/6 have been identified near Abū Mīnā in Mareotis and near Terenouthis (mod. aṭ-Ṭarrāna), the turn-off on the Nile to Wādī n-Naṭrūn. By the late seventh century, LR5/6 had increased in the record of amphorae in Egypt, whereas imported containers (LR1 and LR4) had strongly, and LR7 slightly, decreased. LR5/6 is attested in northern Sinai (Farāma West) and in al-Fuṣṭaṭ (Cairo) until the tenth century.

The contents of LR5/6 are still unknown, but on one occasion cereals have been proposed (Ballet 1994: 363-364). In view of the evidence from Terenouthis it remains an open question whether there had ever been a link between that centre of amphora production and the shipping of salt and mineral natron from Wādī n-

Naṭrūn²⁴.

Site	ID	LR1	LR2	E167	LR4	LR5 ('bag-shaped')	LR5/6 (E186-190)	LR7	LR8	LR13	'Assuan'	Peacock 36	Bibliography	Notes
[Nubia]								x ^{VF}					Adams 1962: 261 fig. 7, no. P2	
Dayr Apa Phoibammōn I	M.056	x (?)						x ^{VF}					Bachatly 1961-1981: I, pl. LVI-LVII	LR1: Peacock 44B (?)
Dayr Cyriacus	M.066							x					Bács 2000: 36 (= III.066/1-2)	
Dayr Apa Epiphanius	M.068			x				x ^{VF/C/V} o					Winlock – Crum 1926: I, 78-79 fig. 32 and 82 fig. 35; pl. XXVIII, 10; pl. XXX, A	
Dayr Apa Phoibammōn II	M.070							x (?)					Godlewski 1986: 126-127 fig. 109-114; Mysliwiec 1987: 164 and pl. XXIX	
Isnā'	--	x			x		x	x ^{C/VO}					Sauneron 1972: III, 6-7 and pl. CCXXVII, no. P3-P5. P11	
Dayr Abū Māsīs	M.110							x					Petrie 1925: pl. XLIX (= III.110/2)	
Wādī Sarḡā	M.172							x ^{VF} (?)					Bailey 1998: 131	
Dayr Anbā Abullū'	M.190	x' (?)	x (?)				x (E190?)	x ^{VF}					Clédat 1904-1906: 162 fig. 66; Maspero 1931: pl. LI; Clédat <i>et al.</i> 1999: 34, no. 38 and 241, no. 240	inscription LR1: † ΠΑΟΝ ΔΕΡΔΑ
Dayr an-Naqlūn	M.308	x'						x ^{VF/C} (95%)			x	x (?)	Godlewski 1990: 59-61 fig. 20-26; Godlewski 1992: 51; Derda 1992: no. I, 1-2; Derda 1995: I, 165-176; Bailey 1998: 130	inscription LR1: ἑλαιον ἄγιον πρωτείου (P.Naqlūn I 13)
Dayr Apa Jeremiah	M.334	x (E164)						x ^{VF}					Quibell 1908: pl. LXIII; Quibell 1912: 140 and pl. XLVIII; Ghaly 1992: 168-170 and fig. 16, a-b (=III.334/6)	
Dayr Nahyā	M.340	x					x	x		x (?)			Jones 1995: 43-50	
John Kolobus	[M.348 B]			x ^V o (?)									Ballet 2003: 67, 148	
Kellia	M.360	x		x ^V o	x (E182)			x(C)					Egloff 1977; Ballet 2003	E186 as from AD 625; E167 from AD 650
[Abū Mīnā]	[M.378]	x			x		x		x				Kaufmann 1906: fig. 40; Kaufmann 1910: pl. 84; Kaufmann 1921: fig. 173; Engemann 1992; Abdel-Aziz Negm 1999: 68-69, 72-73	
[Pharan]								x					Jones 1996: 20 fig. 4a,	

²⁴ On Terenouthis (aṭ-Ṭarrāna), cf. Fakhry (1940: 838) and my recent contribution in Shortland *et al.* (2005).

the pottery referred to in this thesis contribute to the highly tangled picture of the ancient reality. Concise in character, this final paragraph lists the terms encountered in volume 2, sections C.2 and C.3. The most common terms for jars and measurement units are – in alphabetic order – the *askalōnion*, *thallion*, *knidion*, *κοεις*, *kollathon* (κολλαθε), *kouphon*, *κουρι*, *lagena*, *λακον*, *λακοοτε*, *λαδε*, *magarikon* (μακαρις), *οργον*, *ποκε*, *skeuos* (σκευε), *σογσιογ* and the *σοτς*. More than a dozen of these terms can be associated with the storage or transport of wine, namely the *askalōnion*, *knidion*, *kollathon* (κολλαθε), *κουρι*, *lagena*, *λακον*, *λακοοτε*, *λαδε*, *οργον*, *ποκε*, *skeuos* (σκευε) *σογσιογ* and *σοτς*. Attested only at Abū Mīnā [M.378], the *magarikon*, too, was a vessel to contain wine (Wortmann 1971: 51).

Based on the observations by Clédat *et al.* (1999: 245-309), Bell (1922), Maspero (1931), Crum (1939), Kruit *et al.* (2000) and this study, two annotations need to be made. Firstly, the *knidion* was one of the most common jars or measures which, in the documents from Wādī Sargā (P.Sarga, O.Sarga), occurs, in accordance with the archaeological record, exclusively as a container of wine. *Knidia* are also attested in P.Oxy. LVIII 3960 where, in AD 621, 33,000 *knidia* are referred to in connection with the Apion estate. Bell and Crum rightly note the distinction between *knidia* and *mikra knidia*, and propose the equation of *knidia*, *λακοοτε* and *λαδε*. The material counterpart of the *knidion*, namely the amphora type Carthage Late Roman 7 (LR7)²⁹, was first hypothesized by Bailey (1998: 129). Secondly, the *askalōnion*, *κοεις*, *kollathon* (κολλαθε), *λαδε* (?), *οργον*, *skeuos* (σκευε)

²⁹ Cf. above, p. 243-244.

and 20TC were containers used for liquid and solid matter alike (Clédats *et al.* 1999: 281).

'The priests and deacons and bnay qyāmā (Sons of the Covenant) shall not compel the bnāt qyāmā ('Daughters of the Covenant') to weave garments for them by force.'
(Rabbūlā, *Rules for the Clergy and the Qyāmā*, Canon 3 [L.424])

III.2.5 Textiles

In late antique monasteries, textile-making was a common activity: a considerable number of texts (summarized in table **18**)¹ and material remains (looms, needles, cloth etc.) attest to monks and nuns being highly active in textile-production all over Egypt, from Gaza to Cilicia and deep into Mesopotamia. These texts also show that linen (λίνον, *linum*) and 'quality-linen'² were the preferred materials for weaving, but textiles made from wool, goat-hair, horsehair and palm-fibre are attested too³. For the outstanding extent of its documentation we know that one monastery, Dayr Apa Epiphanius [M.068], was a true 'textile factory': the monastery, presented in the following sections, not only supplied itself, but also its neighbours, laymen and other monasteries. Besides, the monastery lay in the heart of ancient Thebais whose linen had a good reputation, and where monks travelled

¹ Only occasionally was textile-making rejected as a genuine occupation of the monk. e.g. by ᵉEnanīṣōᵉ (7th c.): *'as regards the linen weaver, I am not near [i.e. concerned] to speak, for he is a merchant and he trades [...] and if he sees a man selling linen, he says straightway, 'Behold, the merchants have come, for the [selling of] linen is the work of this world, and it does not benefit many'* (L.421, *Counsels of the Holy Men*, XV, 51).

² 'Linen' was a loose term denoting the raw material, the yarn and the textile itself (Blümner 1912: 191), and the same equation (yarn = tissue) applies to the texts on washing, bleaching and dyeing textiles (cf. below). In late antiquity linen was a resource of greatest importance, as one can infer from the concern given by the imperial court (state textile factories etc.). In the so-called *Price Edict* (AD 301) by Diocletian, the emperor regulated the prices of 200 linen products and of five (quality) linen types: from Skythopolis (mod. Beth Shean), Tarsos, Byblos, Laodiceia and Tarsos-Alexandria (cf. Lauffer 1971: chap. 26-28). On the other hand, Egyptian linen (the Tarsian-Alexandrian type?) and linen products from Egypt have, up to the present, been the objects of a considerable export trade (Jones 1964: II, 848; Sperber 1976: 123-125. 133-136).

³ Cf. the archaeological evidence of textiles from Dayr Apa Epiphanius [M.068] (Winlock – Crum 1926: I, 156). On wool in the literary sources, cf. L.448, p. 29 (Melania); P.Bala'izah 303B; P.Cair.Masp. II 67141; goat-hair: L.135, 42, 4; L.352, 28; P.Vat.Aphrod. 13; horsehair: L.124, X, 3; L.131, 6; palm-fibre: L.101A, VI, 10 etc. On palm-fibre used for basketry, cf. sect. III.2.1.1.5.

to fetch linen supplies from as far as Alexandria (Migne 1857: LXV, 96B).

Remarkably, in the present documentation the production of silk and cotton does not feature at all. This absence is the more surprising as, according to Procopius, 'certain monks' brought, around AD 550 from India, the art of making silk to Byzantium (Cave – Coulson 1965: 244-245).

Monastery ID										
	Source	Product	Material	Quantity	From/Who	To/For	Location	Notes	Type	
Tenida (?)	M.042	P.Kell. I 12		[linen]						
Dayr Mār Murqus ar-Rasūlī	M.062	unpublished ostraka attesting to weaving at the monastery								
Dayr Apa Epiphanius	M.068	P.Epiph. 279		[linen]				request for linen		
		P.Epiph. 350		[linen]				request for linen		
		P.Epiph. 351	bandages/cords (καίρεα)	linen ('clean sed', bought)		[Enoch (monk)]	[Fringe (monk, head of the monastic community)]		request for linen; bandages mounted upon the loom	
		P.Epiph. 353		[linen]					linen-bleaching	
		P.Epiph. 359		[linen]					request for linen	
		P.Epiph. 363		[linen]		Jacob (monk)	Epiphanius		request for linen	
		P.Epiph. 367	garments (ἄβουα, 'coverings')			brethren	[community]		partially	S
		P.Epiph. 369		[linen]					request for linen	
		P.Epiph. 372		[linen]					request for linen	
		P.Epiph. 532	bandages/shrouds (σέρη)						exchange for wine, reed, lentils	E
		P.Epiph. 537	garments (ἄβουα, coverings)						monk made answerable for the garments	
		O.Crum Ad 44	garments (ἄβουα, coverings)			24	Ezekiël (monk?)		contract of employment	

Dayr Apa Phoibam mōn II	M.070	P.Leps. VI 122 (c)	garments (zbooc)		?	Abba Sabine (monk)			sale for 2 holokottinoi	S
		L.352, 28	tunics (ωτην) hoods (κογκλε) 'village coat'	goat-hair	2+2 4 1	Čeere + Kōše (dress-makers)	Pisentius (bishop, monk)			♀
		CLT 1	clothing (zbcω)		[20 holo kottinos]	Moses (monk) (?)			relief of the poor	RP
[Apa Paulos]	M.080	L.131, 113	tunics (λεβίτωνα)				Alexandria		1 out of 2 boats given for tunic deliveries	
Tabennēs ē	M.100	L.131, 134 = L.150, 19		[linen]		Silvanus (monk)			head of 22 monastic weavers (μοναζόντες λινουφείς)	
[Panopolis]		L.123, XXXII, 9 ⁴				15 tailors (ράπται) 15 fullers (κναφεῖς)				
Dayr Anbā Šinūda	M.122	L.332, p. 232	[tunics]			Bgoul (monk)			workshop set up (ΝΑΤ ΝΤΑΛΕ)	
		L.350 (Fragment 12), VIII	[sacks] [clothing]	[linen]		sack-weavers (cα2τ600γνε) linen-weavers (cα2τ280c) tailors (NETΣEΛK20)			regulation under Besa (d. ca. 474)	
Wādī Sargā	M.172	O.Sarga 161	coat (λωβιτων) garment (cαΔNTΔΛE, sack-cloth)		1 1	Daniel (hegumen)	Apa Paul (carpenter, monk?)		partial payment for work	P
		O.Sarga 174	sacks (600γνε)		4	sack-weavers (ψΔ2 600γνε)			4 sacks rated at ½ solidus for payment of poll-tax	Pt ax
Dayr Balā'iza	M.174	P.Bala'iz ah 223	garments (zoiTE)						delivery (?)	
		P.Bala'iz ah 303B	garment	linen	1				monastic account	
Dayr Anbā Abullū' (?)		P.Vat.A phrod. 13	coarse cloth (κιλίκια) sacks (θαλλία, τρίχινα, σακκία)	goat-hair (?)					requisitioned contribution s (cursus?)	Pt ax

⁴ Unidentified Pachomian community, 200-300 monks.

[al-Fayyūm]	M.190	L.102, XVIII, 2	[clothing]			Serapion (and his brethren)	Alexandria		relief of the poor; deliveries by boat	RP
Hathōr	M.262	P.Neph. 58							linen-weaving workshop (λιυφικόν ἔργαστήριον)	
Dayr an-Naqlūn	M.308	P.Naqlun 111	[clothing]						delivery to the monastery	
Dayr Apa Jeremiah	M.334	I.QU IV 290				John (monk), weaver (CΔΩΤ)				
		I.Vatican 52b				Viktor (monk), weaver (CΔΩΤ)				
Skēthis	M.348	L.101A, III, 52		linen				cell	mention of shuttle (ἄτρακτον); evidence of loom (?)	
		L.101A, III, 53								
		L.101A, VI, 8	tunic (λίβιτον)	linen (borrowed)	1			[himself]		
		L.101B (Agathon), 10	[clothing]	linen (bought)				[himself]		
Nitria ⁵	M.362	L.123, V, 3		linen		Alexandra (nun)			from dawn to ninth hour	♀
		L.123, VII, 5		linen		'all'		[themselves]		
		L.250, XXII, 33		linen					100 solidi earned	S
Ennaton	M.374	L.691, 2 Amchir	sailcloth			Anbā Longin (monk)				
Ġabal Hārūn	M.590	P.Petra inv. 6a	[clothing]						clothing obligation as part of a will	
[Gaza/Maīuma]		L.163, VII, 28		[linen]		Zeno (bishop)			relief of the poor; weaving linen seen as 'monastic philosophy'	RP
[Jerusalem]		L.448, p. 29		[wool]		Melania Senior	[herself]		needlework for herself and relief of the poor	RP
[Rhōsos]		L.124, X,	sailcloth	horseh			[export]		export by	S

⁵ Cf. Nau (1907: 58. 59).

(Cilicia)]		3	(ιστία) textiles (δέρρεις τριχίνας)	air				ship	
[Mesopotamia]		L.419, XII	[textiles]	goat-hair		Euphemia		relief of the poor; two pounds rated at 1 denarius	♀/ S/ RP

Table 18: The written evidence of monks, monasteries and textile-production: a summary

III.2.5.1 Workshops and looms

To date, workshops and their looms, both horizontal and vertical, have been identified by texts and archaeology in a considerable number of monasteries. Chronologically, Pachomius' *coenobium* near Tabennēsē was the earliest monastic establishment where linen-weavers and tailors are attested among the community⁶. The first evidence of a workshop comes from fifth-century Dayr Anbā Šinūda [M.122], where a panegyric relates that Abba Bgoul (Shenoute's uncle) set up a weaving workshop (ΝΑΤ ΝΤΑΛΕ)⁷ for the production of tunics (L.332, p. 232).

Most of the archaeological evidence, however, again comes from Upper Thebais, the home of 'quality linen' and of textile-production on an 'industrial' scale. These monasteries were Dayr Anbā Hadra [M.020], Mār Murqus ar-Rasūlī [M.062], Dayr al-Madīna [M.064], Dayr Apa Epiphanius [M.068] and Dayr Apa Phoibammōn II [M.070]. So far, six loom-pits – with an operator's seat under floor level, sitting in the pit under the loom – have been identified at Mār Murqus ar-Rasūlī, and others, much better recorded, at Dayr Apa Epiphanius, where even foot-power could have been

⁶ L.150, 19 and *Praefatio Hieronymi*, 6 (Boon 1932).

⁷ ΝΑΤ, 'loom'; ΤΑΛΕ, 'to set up (on a loom), to weave' (Crum 1939: 229, 408).

applied (Winlock – Crum 1926: I, 68-69)⁸. The requests for looms (or parts of looms) and transport by two camels in P.Epiph. 352 and O.Crum Ad 46 ('Send me the loom!')⁹ suggest that these were moveable devices. At Dayr Anbā Šinūda [M.122] the panegyric specifies that the looms were fixed on top of the pit in clay (L.332, p. 232).

III.2.5.2 The products

Despite the number of ancient textiles recovered, we are unable to distinguish monastic fabrics from non-monastic ones¹⁰. The written sources, on the other hand, inform us that in the monasteries all sorts of textiles were produced: garments, 'tunics', 'coverings', bandages, sacks and 'coats'. On a wall of the monastery (Dayr) al-Madīna [M.064] in western Thebes, even a set of weaving instructions has been preserved:

'The instructions (λόγος) for the cloaks (λεβίτων): 10 handbreadths in width, 21 in length. The large skirts (θαλις): 7 in width, 14 handbreadths and 2 fingers in length, an 10 fingers its neck-opening. The small shirts: 6 handbreadths and 8 fingers in width, 13 handbreadths and 2 fingers in length and 9 fingers its neck-opening.' (Winlock - Crum 1926: I, 9)

Dayr al Madīna was a major centre of textile production. A tailor's workshop was discovered by the excavator inside 'chapel no. 1'.

⁸ This assumption has strongly been opposed by Wipszycka (1965: 51).

⁹ From Dayr Apa Epiphanius, and Dayr Apa Phoibammōn II respectively.

¹⁰ Note that this thesis does *not* deal with textile design, to which some allusion may be found here and there (e.g. L.352, 28). It is surprising that literally none of the studies on Coptic (and other) textiles deals with the technical issues of manufacture (workshop organization, looms etc.) and origin (monastic versus non-monastic). This lack is partly understandable as the record of the archaeological context of many finds is extremely poor.

In two cases monks involved in textile-production took economic advantage of their proximity to the Mediterranean Sea: Anbā Longin(us) of Ennaton [M.374] near Alexandria, and Theodosios, who lived near Rhōsos, near Alexandretta, in Cilicia. Both monks ran some larger businesses in which they had sails for the ships produced¹¹. The motive for running such business, the *Life of Theodosius* specifies, was again to be found in 2Thes. 3, 8¹²: *'we did not eat anyone's food without paying for it. On the contrary, we worked night and day, labouring and toiling so that we would not be a burden to any of you.'*

III.2.5.3 Washing, bleaching, dyeing

'Charges for dyeing wool [...] to the fuller [...] natron [...] charges for weaving': thus were the tasks listed in the accounts of an (undated) Roman, Oxhyrynchite textile establishment¹³. Even though washing, bleaching and dyeing occur less frequently in the monastic documents, these activities must have been performed at a number of sites. Linen used to be washed with natron and various mixtures of the sodium bicarbonate (νίτρον)¹⁴. As natron and castor-oil were used as soap¹⁵ by fullers and laundry-men (Forbes 1993: III, 183), P.Epiph. 534, the account of castor-oil plants (τηκμς) at Dayr Apa Epiphanius [M.068] may well be related to P.Epiph. 353 and bleaching the linen in this textile-producing monastery. The most

¹¹ Anbā Longin(us): L.691, 2 Amchir; Theodosios: L.124, X, 3.

¹² Cf. sect. II.3 (*Fathers in controversy*).

¹³ P.Mich. inv. 1933, ed. Hanson (1979).

¹⁴ L.102, 21; L.250, 22; P.Kell.Copt. 35; (O.Brit.Mus.Copt. II 38 [M.070]). Natron was not available at all times: P.Cair.Zen. 59304 (250 BC) refers to a linen cleaning establishment which was nearly forced to close down for a notorious lack of the resource.

¹⁵ Alternatively, soap could be made out of human urine (Blümner 1912: 175).

prolific evidence on this issue comes from Wādī Sarġā [M.172] and Dayr al-Balā'iza [M.174]: O.Sarga 182 portrays Ama Martha as the recipient of 10 *artabas* (ca. 388 litres) of natron (20c̄m̄). The question arises whether it was, amongst others (?), a woman (Martha) who performed the tasks of washing, bleaching or dyeing in that monastery.

Elsewhere, inscriptions refer to monks as fullers¹⁶ at Dayr Apa Phoibammōn I [M.056] (I.Phoib. I 148) and in Dayr Apa Jeremiah near Saqqāra [M.334] (I.QU IV 349), where the fullers, as at Pachomius' foundation near Tabennēsē (L.123, XXXIII), formed a unit or corporation of an undefined sort (*'father of the place of the fullers'* in I.QU III 16). The monastery of Jeremiah also had a laundry, for a monk, Isidor, was in its charge (I.QU IV 227).

Dyeing¹⁷ is attested by texts in Wādī Sarġā¹⁸, and archaeologically at the monasteries near Balā'iza [M.174] and of Anbā Hadrā [M.020] ('unit CXLIII')¹⁹. At Dayr al-Balā'iza a series of plastered basins, round and rectangular, constructed on the south-western end of the monastery, have been interpreted as a fullers' workshop within the monastery [Ill.174/2] (Grossmann 1993: 200-201). Since dyeing requires large amounts of water and this workshop was situated on the top of the

¹⁶ Whereas there is no explicit mention of training in the profession of fulling, some monks brought these skills into monastic life: e.g. Peter 'the Fuller', the later patriarch of Antioch (AD 471-488), received his epithet from his former profession as a fuller of cloth.

¹⁷ A typical 'male-only' occupation, according to Michael Psellos, *Agathē* (Laiou 1992: I, 244-245).

¹⁸ Note also the evidence of tanners (κλκε), Anoup and Paul, at the monastery (cf. above).

¹⁹ Cf. Maguire, *Dressed for Eternity* (*Abstract of the Minnesota in Egypt Symposium, March 6-9, 2003*): 'Monasteries, although unconcerned with the vanities of fashion, are laundries and dyeworks where spiritual robes are made clean and splendid for the heavenly city.' (<http://egypt.cla.umn.edu/abstracts.html>).

hill-site, the possible origin of the required water provisions has not yet been identified²⁰. Urine²¹, on the other hand, must easily have been available, particularly as the monastery was populated by up to one-thousand men. If the workshop at Dayr al-Balā'izah served for dyeing (rather than fulling), then the location of the workshop was well chosen, in order to keep off the stench.

III.2.5.4 *Shipping, sale and charity*

Given the high numbers of monks living in certain monasteries, the domestic demand for textiles is self-explanatory²². Nevertheless – and this illustrates the particular standing of textile-production – here and there considerable surplus could be achieved. Table 18 summarizes this surplus and classifies the data by type, 'S'/'E' indicating surplus disposed of by sale/exchange²³, 'P' by payment, and 'RP' by charity towards the poor. Both the patterns 'S' and 'RP' feature frequently, and 'S' (sale) was often carried out to facilitate 'RP', the relief of the poor.

Wipszycka (1996: 342-343) has raised the question as to who bought the monastic textiles and suggested that the valley-bound monasteries in Egypt may

²⁰ Cf. the arrangement in Antioch (Syria) where a proper canal was built to supply the fullers under Vespasian (AD 60-78): the conduit measured 14 *stadia* in length and had a cross-section of 41 feet square (Feissel 1985: 79-83).

²¹ Urine serves as an ammonia-provider and detergent agent for cleaning material before dyeing. To make the colour of the dye fast, the dyer could also use mordant dyes (e.g. alum) that gave fast colours, a custom first observed by Pliny (*Naturalis Historia*, XXXV, 150) and a standard in the dyeing industry at the period in the Fāṭimids (Goitein 1967: I, 45). During the Roman period, such alum was extracted in the Western Oases (Tite 2003: 294) and in the depression of Šabb (Morkot 1996: 91-92).

²² *Expressis verbis*, L.101A, VI, 8; L.101B (Agathon), 10; L.123, VII, 5; L.448, p. 29; P.Epiph. 351. 367; O.Crum Ad 44.

²³ Strictly speaking, a clear line between 'S' (sale) and 'E' (exchange) can only in few cases be drawn – column 'type' should thus be read in qualitative, rather than quantitative terms.

rather have produced upon demand, whereas the remote monasteries (e.g. Kellia [M.360]) would presumably have produced in bulk. 'Bulk products' would later have been shipped to the markets for sale²⁴. Wipszycka's hypothesis meets the laws of rational logic and may be confirmed by accounts such as one of Euphemia in Mesopotamia or Osrhoene (L.419, XII). However, since we know too little about *monastic fabric and monastic textile design*²⁵, it is impossible to have either of these assumptions confirmed.

On the other hand, 'bulk production' may have been the rule where textiles had to be shipped far and wide. Textiles loaded on boats for river-borne transport are known from Tabennēsē [M.100], and presumably from al-Fayyūm. The cloths produced by Theodosius near Rhōsos were shipped across the Mediterranean Sea. At Dayr al-Balā'izah [M.174], which yields excellent textual and archaeological information, a letter (P.Bala'izah 223) should eventually be re-read: the document speaks of the ships of the monastery being brought out (?) while a sailor was missing, and of the garments and other commodities (such as wood) which had perished in

²⁴ Wipszycka's hypothesis raises the question of middlemen, for which the documentation is silent, both for antiquity (Wipszycka 1965: 76. 99. 100. 102. 115) and for the period concerned. Though pre-dating the heyday of monasticism in Skēthis [M.348], such a middleman is commemorated in an epitaph unearthed at Kawm Abū Billū' (Hooper 1961: no. 44), the ancient necropolis of Terenouthis (mod. aṭ-Ṭarrānā), the outlet of Wādī n-Naṭrūn: the man was a linen-merchant (ὀθωνιοπώλης), his sphere of activity could well have been the trade between Skēthis and the ships on the Nile.

²⁵ The instructions at Dayr al-Maḍīnā (above, p. 252) suggest that cloak-design was simple and presumably standardized: by modern standards, this would correspond to some kind of 'S' (small) and 'L' (large).

the meantime. The misfortune left the writer of the letter troubled in his thoughts²⁶.

III.2.5.5 *The weaving-garment tax*

Both for the Byzantine and the Islamic periods the matter of duties on textile products requires further research, even more so as textiles may have been affected by taxation twice: first, by the duties on natron (and related materials) used in bleaching and dyeing, and secondly by the taxes on the products themselves. In Egypt, garments, weavers and fullers were subjected to imperial taxation in Ptolemaic, Roman²⁷, and presumably in Byzantine times. In his *Church History* Sokrates shows that the legislative power to impose taxes could also be exercised by the heads of the Church: on one occasion, the patriarch Athanasius (d. AD 373) was falsely accused by Meletian heretics of having ordered the Egyptians to pay linen garments as their tribute. Later, after the allegations brought forward against him had turned out to be false, he was exonerated from all accusations by the emperor Constantine²⁸.

Evidence more specific to monks and textile taxation again comes from Dayr Apa Epiphanius [M.068], Dayr al-Balā'iza [M.174], and Dayr Anbā Abullū' [M.190]. Accordingly, P.Bala'izah 132 and 133 mention the payment of the weaving-

²⁶ The evidence of ships run by that monastery has never been appraised in secondary literature, nor has the reference by Petrie (1907: 42) to the 'workmen (τεχνίτης) [= sailors of the monastery] at 'the sea' (θάλ.)'. Reconsider this data by comparison with sect. III.2.1.5.2.

²⁷ On the so-called *vestis militaris*, the duty to supply the troops with textiles (imposed in AD 377 in *Oriens*, but not in *Isauria* and *Osrhoene*), cf. Persson (1923: 97-112), Jones (1964: I, 65. 433 and II, 671. 837), Wipszycka (1965: 10. 90. 143. 158-159), Wipszycka (1966: 4-6); on the taxation of weavers, Wipszycka (1965: 105); of fullers, Wipszycka (1965: 137).

²⁸ L. 162, I, 27. The same account is related by Sozomenus (L.163, I, 22).

garments tax (ΤΕΜΟCΕΝ Ν ΤΑΛΕΨΤΕΝ)²⁹, and P.Bala'izah 134 a duty on weaving alone³⁰. Elsewhere, at Dayr Anbā Abullū', P.Vat.Aphrod. 13 lists requisitioned contributions (διανομαί), which include durable cloth (κιλίκια) and sacks of various sizes (θαλλία, τρίχινα, σακκία). Since these documents probably date to the seventh and eighth centuries, they may reflect the fiscal situation under the caliphate³¹. Since in P.Vat.Aphrod. 13 the common factor of durable cloth, sacks, acacia wood, nails, raisins and wine-must (at a total value of 88 *solidi*) was the needs of the army, the use of these contributions for the *cursus* has been inferred (Gonis 2000: 22).

III.2.5.6 The organization of textile-production

Both in *coenobia* and *laurae* the craft of textiles-production was organised to a high degree. 'Superiors' to the linen-weavers are attested at many monasteries: again at Dayr Apa Epiphanius [M.068] ('monk answerable for the linen clothes', P.Epiph. 537), Tabennēsē [M.100] ('head of the weaving monks', L.131, 134 = L.150, 19), Dayr Abū Mūsā [M.108] ('head of the loom', cf. below) and Dayr Anbā Šinūda [M.122] ('Every article they produce they shall hand in to the man appointed for them, in order that they may know everything which is made', L.350, Fragment 12, VIII, 2).

²⁹ I.e. *dēmosion* of/for 'setting up on a loom/weaving (ΤΑΛΟ)' and 'garment/tunic (ΨΤΗΝ)' (Crum 1939: 229. 408).

³⁰ Cf. also Kahle (1954: I, 44).

³¹ Such interpretation would be in agreement with Kremer (1875: I, 61-62), who argued that the first conquerors required a contribution of linen (!) of the Copts. On taxation at Dayr al-Balā'iza during that period, cf. Gonis (2004).

The limited knowledge of the state factories producing linen³² and of the textile-related guilds³³ does not allow us parallels with the monastic craft. However, while the state factories were enormous employers (and, under Diocletian, a 'horror for the Christians')³⁴, the number of 22 linen workers (μοναζόντες λινουφεῖς) at Tabennēsē [M.100] still ranges above the average of private enterprises in the Egyptian land. In an attempt to assess the average number of workers in the ancient Egyptian textile-establishments, Wipszycka (1965: 81-90) calculated a work-force of 6-13 (with a maximum of 30), women and men. Wipszycka's '*grands ateliers de tissage*' – one Ptolemaic and the other Roman – had up to 12 slaves or employees (1965: 81-90).

III.2.5.6.1 Skills and training

Skills and training are poorly documented as far as the monasteries are concerned. The only reference comes from Callinicus who relates that, in fifth-century Bithynia, the production of textiles was a task assigned to those brothers '*unable to cultivate the garden, to plough the vineyard or to do any other job (ἄλλο τι ποιῆσαι)*'. In the Bithynian monastery these monks were assigned to weaving (goat-) hair (τρίχινα) (L.135, 42, 4)³⁵.

³² Cf. above, fn. 2.

³³ Notably in Philadelphia, Tebtunis, Soknopaiou Nesos, Theadelphia *et al.*, in the cities Antinoopolis Magna (Arsinoë), Oxyrhynchus, Herakleopolis, Apollonopolis Magna and Panopolis (Wipszycka 1966: 12-14); in seventh-century Idfū', Crum (1925).

³⁴ Under Diocletian, state factories, isles, mines, public works and 'harems' were common places for persecution and punishment (cf. L.163, I, 8).

³⁵ The opposite is reported of Pope Gelasius (AD 556-561) in Rome. Having acquired some plot of land, Gelasius declined to take the domestic servants and craftsmen ('*men who could perhaps be*

Training, on the other hand, was provided in a number of monasteries and could be taken up at an early age. A singular document from Dah̄la Oasis, P.Kell. I 12, gives an account of a man named Samūn, a father putting his son into a monastery to be taught the linen-weaving trade (λινοφική). Contemporaneous accounts attest to local tailoring and a flourishing trading business in that Oasis³⁶.

III.2.5.6.2 Women on the loom: a question of sanctity or a question of gender?

The 'only totally accepted economic function of women in the household of antiquity' was spinning, weaving and making cloth. In Christianity, however, this function was raised up to divine dignity by Mary who, according to an apocryphal tradition, spun the purple and the scarlet for the curtain of the holy of holies, the temple of the Lord (*Protoevangelium Jacobi* 10: 3). In the monasteries – Mary being a possible 'model' (which yet needs to be shown) – textile-making, 'an activity of the virtuous domestic woman' (Clark 1993: 103) became 'an activity of the virtuous and saintly ascetic or nun' (cf. table 18, type '♀'). In the hagiographic sources pious women are frequently portrayed as ceaselessly caring for the poor, such as Mary and Euphemia, two sisters living in Amida and Constantina (mod. Viranşehir). Euphemia, an excellent workwoman, John of Ephesus relates, wove two pounds of goat-hair yarn for one *denarius*, which she received from the great ladies of the city (i.e. Constantina?). After deduction of the cost of the raw materials, Euphemia

useful for wool-making') away from their estates, and favoured agricultural slaves (after Jones 1964: II, 848).

³⁶ E.g. P.Kell.Copt. 44-48 (4th c.), business accounts from Kellis (Ismant al-Ḥarāb).

assigned the remaining profit (50 %) to the sick, the prisoners and the poor (L.419, XII). The issue of female ascetics active in textile-production is also documented in Euphratensis, near Europos, where Theodoret witnessed 250 women spinning and weaving in Aptonios's monastery (Canivet 1977: 219). Further east in Edessa, Rabbūlā (d. 435), the considerate bishop, actively opposed what he considered a deplorable state of affairs: *Canon 3* (L.424), issued on such occasion, orders the 'priests, deacons and the bnay qyāmā (*Sons of the Covenant*) not to compel the bnāt qyāmā (*Daughters of the Covenant*) to weave garments for them by force'. This is evidence of women weaving, if not for the purpose of sanctity, then under threat³⁷.

Shenoute's monastery in Egypt [M.122] was a confederation of two male and one female monasteries. Having presented elsewhere the weaving-workshop of the monastery set up by Bgoul³⁸, the question arises as to the role of the women in operating the looms. Unfortunately, this question is not touched on by Krawiec (2002: 18), the author of a recent book on women in the Shenoutian nunnery. Krawiec hastily passes over the question by stating that women were apparently limited to the production of clothing at the site³⁹. Krawiec did not consider the evidence of a loom at all.

To shed light on this question, one should look further upstream, to Dayr Abū

³⁷ Female ascetic/nuns weaving textiles also occur in Rabbūlā's *Life*: cf. Bedjan (1890-1897: IV, 444), Hélou (1998: 183).

³⁸ Cf. above, p. 252.

³⁹ Similarly, Elm (1994: 302).

Mūsā [M.108], a monastery of the Pachomian type⁴⁰. Given the epigraphic evidence, we are on firm grounds as to the question of an earlier presence of women in that monastery. There is, among the inscriptions, a revealing detail, namely τἈΠΕ ΝΠΠΗΤ (Murray 1904: 11, 12, in a reading by Crum 1939: 229), a monastic title that denotes the 'head (f.) of the loom'! One should presume that if a nun ran the workshop at Dayr Abū Mūsā, in Shenoute's monastery the nuns would presumably also have operated the looms.

⁴⁰ This 'Pachomian type' hypothesis is based on various functions/titles ('hegumen', 'mother of the community', 'head of the house' etc.) attested by the graffiti from the site (Murray 1904: 38-43). Shenoute's monasticism, as has repeatedly been shown, was a refinement and a reflective renovation of various Pachomian ideas. As to Tabennēsē [M.100], Palladius [L.123, XXXIII] relates that an itinerant tailor once came to a Pachomian nunnery looking for work, but was sent away with the words: 'We have our own tailor [at Tabennēsē]'.

III.3 Miscellaneous

In section **II.1.2**, perilous environments – woodlands, marshlands and mining regions – have been considered as potential monastic environments. As the evidence of forests and mines is extremely limited, their economic exploitation by monks and monasteries can, apart from very few exceptions, at best be hypothesized.

The evidence of the marshes is different. For the monks, as outlined in the same section and in section **III.2.1.1**, the marshes both constituted a symbolic setting ('the desert') and provided the materials needed for the monastic production *par excellence*, namely basketry (rushes, reeds, *ḥalfā*, chaff, flax, palm-fibre). Best known among these monasteries that were situated in marshland regions were Skēthis [M.348] and those monasteries which bear the epithet 'Qalamūn' (< κάλαμος, 'reeds'). These were Dayr Anbā Ṣamū'īl ('of Qalamūn') [M.302] in Wādī Muwayliḥ, and Qalamūn ('Ayn Ḥalḡa) [M.732] in the Judean Desert, close to the river Jordan and Gerasimus' monastery.

Other resources taken from marshes were the various halite and bi-carbonate salts. Again, their occurrence is not only attested in the literary sources (and above all, in Skēthis/Wādī n-Natrūn, 'Natron Valley'), but also by toponyms referring to salt (Syr. *malḥā*, Ar. *milḥ*), such as Wādī Muwayliḥ in Egypt, and, in Wādī Muwayliḥ in Syria, east of Gabula (mod. al-Ġabbūl). These issues have been discussed in the previous sections on glass, material resources and the location of monasteries.

SERVICES

Chapter IV

IV.1 Copying and manuscript illumination

In an article on *Scripture and the Quest for Holiness in Early Christian Monasticism* Burton-Christie (1993: 43) notes, following Skeat (1969: 54), that 'no early Christian writer tells us about the way in which Christian or any other books were written and circulated'. Burton-Christie is right that the Christian writers are silent on book-production, but by re-considering this issue by looking at the evidence of the papyri, ostraka, colophons and archaeology, considerable evidence for writing, book-production and sale can still be found. This section considers various aspects of book-ownership, copying and manuscript illumination, whereas bookbinding has been dealt with in section III.2.3.4.

IV.1.1 Book-ownership

To set the framework: the question of monastic book-ownership and copying is closely linked to the issues of literacy and the attitude towards learning by the ancient monks. The request for the study of writing and the reading of the Scriptures had for the first time been declared compulsory for the brothers in Pachomius' community: '*nullus erit in monasterio qui non discat litteras et de scripturis aliquid teneat!*'¹ This imperative is in clear contrast to the concept of monastic life conveyed by the *Apophtegmata Patrum* according to which monks were rarely engaged in philosophical problems and illiteracy was the desirable norm. In

¹ L.306, in the Latin version, chap. 139-140 (ed. Boon 1932; Scholten 1988: 145).

general, as also noted by Wipszycka (1984: 293-294) and Rubenson (1995: 54) for Egypt, illiteracy was a *topos* rather than the ancient reality.

It is an instructive observation that not only can some kind of 'group pressure' on illiterate monks to learn (namely those drawn from the peasant class, in opposition to many others with an educated background) be shown in the *Rules of Pachomius* ('*qui rudis monasterium fuerit ingressus [...] et si litteras ignorabit, hora prima et tertia et sexta vadet ad eum qui docere potest*'), but also in the monasteries of Shenoute [M.122]² and in the monastery of Naqlūn [M.308]³. Literacy, we may infer, was a skill of a great number of monks both in the *coenobia* and *laurae*. The analysis of the 'Origenist network' in Nitria [M.362] by Rubenson has again shown the extent to which monks were educated and deeply involved in studies and correspondence (1990: 116-125; 1995: 53).

Similar conditions were to be found in late antique Syria and Mesopotamia where books were not only available (cf. below), but learning was encouraged to a serious extent⁴. Some kind of 'educational standard' was also imposed by the emperor Justinian who, in *Novellae* 5 and 133 [L.181], demanded from every monk some degree of literacy.

Book-ownership, on the other hand, can be traced on two levels, namely on

² Evidence for learning is provided by a number of 'schoolbook ostraka', published by Di Bitonto Kasser (1988).

³ Urbaniak-Walczak (1994) and the Coptic alphabets on parchment (P.Naqlun inv. 98/88) and on an ostrakon (O.Naqlun inv. 9/86). Cf. also Derda (1995 I, 49 fn. 37).

⁴ Vööbus (1958-1988: II, 389-393). As to learning and teaching, a 12th-c. *Canon* of the monastery of Mār Ḥanānyā (L.402, XII) remarkably resembles that of Pachomius.

a communal ('monastic libraries') and an individual one. Most remarkably in view of the 'illiteracy topos', the books in Pachomius' library – '*codices qui in finestra, id est in risco parietis, reponuntur*'⁵ – not only included the Bible and religious writings, but also Homer, Menander and the Vision of Dorotheos⁶. Shenoute's community near Aḥmīn bought its books from other monasteries and churches, and had its books copied there (Bouriant 1892; Scholten 1988: 154). Insight into the intellectual (theological, classical and medical) worlds of the reading monks can also be gained from the catalogues of books preserved at Dayr Apa Epiphanius [M.068]⁷ Apa Elija 'of the Rock' [M.094]⁸, Saint Merkurios near Idfū' and Saint Michael Ḥamūlī (al-Fayyūm)⁹, and in the monasteries of Skēthis/Wādī n-Naṭrūn (Evelyn-White – Hauser 1926-1933: I, xxi-. xxxix-. xlv; II, 352-353 Fiey 1973: 323-326. 340-341). Monastic libraries are also known from Persian Mesopotamia (e.g. Bēt Abhe) (Budge 1893: lx).

Book-ownership on an individual level is equally attested all over the *oikoumenē*, with Egypt, again, playing a particular role. One *Apophtegm* speaks of a monk who owned one book of the Gospels, another had no less than three (L.101A, VI, 6-7). Another monk, Gelasius, who may have acted on behalf of his monastery, owned a book made from parchment worth no less than eighteen *solidi*.

⁵ Cf. above, fn. 1 (chap. 101).

⁶ Cf. Robinson J. M., 'Reconstructing the first Christian monastic library', *Smithsonian Institution Libraries Lecture*, 15 September 1986 (online publication).

⁷ P.Epiph. 554. 556*. 557*. On the literary life in Western Thebes, cf. Winlock - Crum (1926: I, 196-208), Wilfong (2003: chap. 2); KRU 65 and P.Lond. I 77 (Dayr Apa Phoibammōn II [M.070]), O.Crum 250. 402. 458. 459, O.Crum Ad 23 and O.CrumST 163.

⁸ First published by Bouriant (1889: 131-138, re-ed. Coquin 1975), ostrakon O.IFAO 13315 is an impressive catalogue of 80 books mainly concerned with biblical, hagiographical and canonical, but also with medical subjects. Cf. also C.Lantschoot 105 (Dayr Nazlat Tūna [M.198]?).

⁹ References in Scholten (1988: 154).

His book included both the Old and the New Testaments (L.101B, Gelasius, 1). Individual book-ownership is also attested in the monastery of Epiphanius [M.068] (P.Epiph. 373, 374, 375, 376, 378, 379, 380, 382, 383, 384, 388, 389, 393, 394, 395).

Further north, in Osrhoene and Mesopotamia, John of Ephesus relates the enormous *bibliophilia* of Thomas 'the Armenian', who went (as many others, e.g. the monks of Bēt Abhe) to Edessa in order to buy 'many great books from all the Fathers, the full amount that he could and was able to obtain, about five large loads' (L.419, XXI). Thomas' quantities hint at a library he was going to fill¹⁰. *Bibliophilia* was also a characteristic of Marūtā, the seventh-century metropolitan of Tagrit and of *Oriens* (L.445, p. 70), and Symeon 'of the Olives' from the monastery near Qarṭmīn [M.1440]. The so-called *Qartmin Trilogy* enumerates 'splendid literary compositions', books of which, during the fifth century, there was a 'superabundance of every sort (sūgō d-ktobē)'¹¹. Symeon's *Life*, composed after his death in AD 734, refers to no less than 180 volumes that he had left to posterity (L.442, p. 178-179). Now the question arises: by whom had these books been made?

IV.1.2 Centres of production

The survey of monks and monasteries involved in book-production reveals a dense matrix of sites where the tasks of writing, copying and illuminating were actually performed. Whether there was a proper *scriptorium* (rather than an

¹⁰ Cf. above, p. 270.

¹¹ L.437, 2 and Vööbus (1958-1988: II, 392-393).

individual writer), is not always clear. The following is a concise anthology of the more significant monasteries.

IV.1.2.1 *Egypt*

In Egypt, monastic book-production is attested from the fourth to the eighth century, from Hermonthis/Armanṭ on the Nubian border to the *laura* of the Ennaton on the Mediterranean Sea. The literary life in Western Thebes, centred around Dayr Apa Epiphanius [M.068], is closely linked to the literary production of the monastery where we have textual evidence of scribes (Moses, Abraham) (P.Epiph. 386. 387), and textual and archaeological evidence of a workshop for bookbinding and repairs¹². Copying and bookbinding were related activities, such as Pistentius, who was taught both crafts by his uncle when he was a young boy of eleven years¹³. A *scriptorium* has not been identified at Dayr Apa Epiphanius, but features in an eighth-century papyrus from Apa Geōrgios [M.096] (?) (CPR XX 10), which presumably was also situated in Thebais II.

Scribes are attested in Middle Egypt in Kellis/Dahla Oasis¹⁴, Wādī Sarḡā [M.172] (P.Sarga 66), Dayr Anbā Abullū' [M.190] (Clédat *et al.* 1999: 201) and, above all, at Pachomius' 'literate' monastery near Tabennēsē [M.100], where Palladius (d. ca. 431), Cassianus (d. 430) and, in continuation of the former, 'Enanīšō' mention the

¹² Cf. P.Epiph. 380, Winlock – Crum (1926: I, 42-43) and sect. III.2.3.4. Another document relative to book-repair is O.Louvre N 686.

¹³ Cf. sect. III.2.3.4.

¹⁴ P.Kell.Copt. 35, a 4th-c. request for papyrus by Ouales who seems to have been a monastic scribe (Gardner 1999: I, 77. 223).

presence of scribes (L.123, XXXII, 12; L.207, IV, 12; L.421, XXXII and *Counsels*, XV). These scribes, Cassianus and 'Enanīšō' note, were particularly distinguished among the brothers by their obedience and humbleness of the heart.

The handful of academic articles on book-production in Egypt (Wipszycka 1984 *et al.*) largely focus on Lower Egypt, and in particular on Skēthis/Wādī n-Naṭrūn. Despite the 'illiteracy topos' in Skēthis, scribes are attested amongst the brothers several times. These include Abraham (L.101B, Abraham, 3), Mark (L.101B, Mark, 1) and Dioscorus (L.301, 256) during the fifth, and Isaac during the seventh century at Dayr Anbā Maqār [M.342] (L.666, XV). Palladius and Cassianus are also the main witnesses of the *askēsis graphikē* performed in late fourth-century Nitria (L.123, IV, 1; XIII, 1; XXXVIII, 1; L.207, V, 39). The inscriptions from Dayr Apa Jeremiah [M.334] complete the picture of individual monks performing the tasks of painters/secretaries or scribes (ΓΡΑΦΕΥΣ/ΝΟΤΑΡΙΟΣ; I.QU III 13; IV 203; IV. 275) in these monasteries. However, *sensu strictu*, so far we have not identified any *scriptorium*.

One such monastery, where a *scriptorium* could well be imagined, was the 'beehive laura' on the ninth mile west of Alexandria, the so-called Ennaton [M.374]. The hypothesis of a Syrian/Syriac *scriptorium* at the Ennaton is based on C.Wright LIII (AD 616)¹⁵ which refers to the translation of a Palestinian (Caesarean) copy of the Hexapla from Greek into Syriac made at that monastery. The first scribe attested at Ennaton was Stephanus during the fifth century (L.145, p. 43). Damian, the patriarch

¹⁵ MS *British Library* Add. 7163, MS *Vatic. Syr.* 267 *etc.* The Syriac recension of the New Testament (so-called 'Heraklensis') was collated by Thomas of Ḥarqel, bishop of Mabbūg (in exile).

of the Coptic Church from AD 569-605, had also been, according to the *History of the Patriarchs of Egypt*, scribe (*kātib*) in this peri-Alexandrian monastery¹⁶.

IV.1.2.2 Palestine

In comparison to Egypt, the evidence of book-production in the monasteries of Palestine is thin and becomes stronger only during the eighth century. In the earliest phase, when the emperor Constantine asked Eusebius, the bishop of Caesarea for the copying of books in AD 322¹⁷, Eusebius must have had a major *scriptorium* at his disposal, whose location and scribes (monks/priests versus laymen) have not been identified. The first evidence of monastic production dates to the following century, when Epiphanius, later bishop of Salamis, joined a monastery near Eleutheropolis, which had a whole team of scribes¹⁸. At the same time Rufinus (d. 411) directed the copying of books in his (the 'male') part of Melania's monastery in Jerusalem. Melania's *Life* instructs us that the texts copied in that monastery included the *Lives of the Fathers*, canonical books and homilies (L.230, XXIII).

After the fifth century, book-production is attested in the Judean Desert monasteries of Mār Saba [M.684] and Souka (Chariton) [M.676]¹⁹, where Cyril of Scythopolis (d. 558) during the sixth, John Moschus (d. 619), Strategius and Antiochus Monachus during the seventh, and John of Damascus (d. c. 750), Cyprian, Cosmas

¹⁶ L.666, I, p. 473.

¹⁷ *Vita Constantini*, IV, 36 (ed. Winkelmann 1991).

¹⁸ *Life* (Migne 1857: XLI, 24).

¹⁹ On the literary life at Mār Sabas and Chariton, cf. Blake (1965), Griffith (1988), Mango (1991), Leeming (1997: 46-65).

of Maiouma, Stephen the Sabaite and Stephen of Damascus composed their works during the eighth century. During the ninth century (and before a phase of decline) literary production flourished due to the activities of Theodore Abū Qurra (d. c. 825) – one of the first Christian authors to write in Arabic – Leontius of Damascus, Michael the Synkellos, Theodore Graptus, Theophanes Graptus, Theodore of Edessa, Basil of Emesa and Joseph the Sabaite. Not only was Mār Sabas a centre of writing, but it was a centre of literary translation (from Syriac to Greek, and from Greek to Arabic and Georgian), and (presumably) of copying as well. A text in Old South Palestinian Arabic, found at Hirbat al-Mird (Castellion) [M.690], the easternmost Judean Desert *coenobium*, was first dated to the eighth to tenth century, but – as Blau has noted – it stands to reason that some manuscripts of that dialect, including the one from the Castellion, were actually composed at an earlier date (Blau 1966: I, 20 n. 7). The editor suggests a date of composition at Hirbat al-Mird around AD 600 (Perrot 1963: 550).

IV.1.2.3 Cilicia and Syro-Meopotamia

Little is known about monks and book-production during the earliest, pre-sixth century period in Cilicia, Syria I²⁰ and Syria II. Two passages, however, refer to writing, but cannot certainly be placed in a monastic context. The first is Egeria's description of St. Thecla's shrine and pilgrimage in which Egeria may actually refer to a

²⁰ The Wondrous Mountain [M.1280] and St. Barlaam [M.1282] near Antioch became important centres of book-production during the Middle Ages, but there is no evidence of production during the period pre-AD 800 (Peeters 1922: 284-298; Djobadze 1976).

scriptorium, as suggested by Dagron²¹. The other is a letter by Theodoret of Cyrhus (d. 466) to bishop Timothēs, whom he found desperate to find a scribe (καλλιγράφος)²². Was there a lack of scribes in his see? On the other hand, Jerome (d. 420), while dwelling near Chalcis, wrote to Rusticus in *Letter CXXV*: '*texantur et lina capiendis piscibus, scribantur libri, ut et manus operetur cibum, et animus lectione saturetur*' (L.250, CXXV, 11). For Jerome writing books (*scribere libros*) was one of the 'appropriate activities' for the Syrian monk to keep his mind occupied²³. Jerome's observation is partly in line with John Chrysostom (d. 407), who relates that among the monks of Syria some were literate, i.e. able to copy and write²⁴.

As to copying and manuscript illumination, the sixth century, with the rise and persecution (after AD 520) of the Monophysite movement, was a period of change. These persecutions provoked some transfer of the intellectual activities from cathedral and urban *scriptoria* to the monastic world (by then the home of the 'Church in exile'): it was the monastery and its *scriptorium* which benefited from the intellectual brain-drain. This has lately been shown by Mango (1982a; 1983; 1984; 1991; forthcoming) for various monasteries in the southern North Syrian Limestone Massif (Bēt Zabga), the northern Limestone Massif, Burğ as-Sab' [M.1192], Dayr Ṭell 'Adē [M.1190] and Qennešrē [M.1406]. This can also be shown for the region of Greater Edessa and the Mesopotamian Ṭūr 'Abdīn.

²¹ L.293, XXIII, 2-5; Dagron (1978: 58).

²² *Letter CXXXI* (ed. Azéma 1955).

²³ Cf. also L.419, XIX, in sixth-century Armenia.

²⁴ *Epistula ad Timotheum, Homilia XIV* (ed. Migne 1857: LXII, 571-580).

In her study of the 300-odd Syriac manuscripts written before AD 700 and preserved in various collections Mango collected and compared the scribal notes which give information about the dates, scribes, *scriptoria*, libraries, collators, patrons and prices, and showed that these manuscripts were produced in cities, villages and monasteries, in *scriptoria* attached to cathedrals and monasteries, and by independent scribes. There was a big market for book-production at that time²⁵. During the sixth century, the city of Edessa was *the* place for the Syriac-speaking book-buyer to go²⁶, and monasteries, sometimes under the influence of Edessa, were the homes of writing and copying by prolific scribes. In the article *Where was Beth Zagba?* Mango (1983) was able to identify 'the holy monastery of Bēt Mār John of Bēt Zagba' in northern Ġabal Zāwiya (as opposed to Mesopotamia, as commonly assumed), where the Syriac illuminated manuscript of the so-called Rabbūlā Gospel was made in AD 586²⁷. Other cities, famous for their intellectual climate conducive to book-production, may have been Antioch and Beirut. It is little surprising that later the *charta Bombycina*, a paper of the Middle Ages, came from

²⁵ Mango (1991: 166. 169). The following is a short summary, amongst others, of her work on Syriac scribal notes.

²⁶ Edessa had a *scriptorium* attached to the Melkite cathedral which functioned until the 8th c. During the early 600s one could come – as did Marūtā – to Edessa to be taught in calligraphy in a monastery (Nau 1909: 70-71).

²⁷ MS Flor., Laur. Plut. I, 56 = Mango (1984: MS no. 42): 'This book was written and finished in the holy monastery of Beth Mār John of Beth Zagba in the days of the God-loving Sergius, priest and abbot of the same monastery [...] and Martyrios, the priest of the same monastery, and the well-born Mār Damianos, the notary, who is from Beth Protogen (?), who succeeded and took pains about and finished [the work] after them. And they obtained (the original copy?) and collated and bound and deposited these books in the monastery of Beth Mār John of Beth Zagba.' The book, it seems, was not commissioned by others, but copied for the monastery itself, for 'this book belongs, then to the holy monastery of Beth Mār John of Beth Zagba. Anyone, then, who takes it or borrows it to read in it or to write from it or to collate from it and conceals it or cuts from it a leaf which is written or not written, if damage is not in it, or willfully damages something in it, he shall be placed among the despoilers of the temple, through the prayer of all the saints everywhere, forever, amen'. Rabbūlā was the name of the scribe.

an Arab paper mill situated somewhere in the region between Aleppo and Antioch.

The life of Jacob of Edessa (633-708) features the other monasteries in that region famous for Greek and Syriac learning and writing between AD 538 and 800: Burğ as-Sab' [M.1192] and Dayr Ṭell 'Adē [M.1190], situated north and north-west of Dānā (with the scribes Lazarus, Adi and John, AD 697-720) (Leroy 1964: 124; Mango 1991: 176-177), and Qennešrē [M.1406] (Mango 1991: 167-168; Watt 1999: 156. 167). Near Qennešrē (situated south of Zeugma, on the Euphrates), book-production is well attested by scribal notes in the monasteries of Gubbā Barāyā (Thomas of Edessa, AD 584)²⁸ and the Speculos Monastery near Rēš'aynā (Theodosiopolis, mod. Viranşehir) (Saba, AD 624-626)²⁹. A *city-scriptorium* (monastic?) is attested at Mabbūg (Hierapolis, Manbiğ; AD 510)³⁰ where Philoxenus, the bishop (AD 485-523), may have had edited most of his theological works (Halleux 1963: 110).

The nomination of Symeon 'of the Olives' to the ministry of bishop of Ḥarran (south of Edessa) in AD 700 strengthened the sympathies between Greater Edessa and Symeon's monastery in Ṭūr 'Abdīn. Accordingly, the last monasteries to consider copying and manuscript illumination were situated in that mountain and at Kfar Tebnā near Ḥarran. Symeon's *Life* mentions the calligraphers Mār Daniel of Kendirib, Mār Joshua Symeon and Mār Ḥoyē at Kfar Tebnā. These scribes and (miniature-) painters copied and illustrated '*regal copies of the Old and New Testaments [...] and other fine manuscripts*' for the monastery of Qarṭamīn [M.1440]' (Palmer 1982:

²⁸ MS British Library Add. 12160 (fols. 1-108) = Wright (1870) = Mango (1984: MS no. 41).

²⁹ MS British Library Add. 14428, 14430 and 12135 = Wright (1870) = Mango (1991: 178).

³⁰ MS British Library Add. 17126 = Wright (1870) = Mango (1984: MS no. 10).

chap. 3, 32; Palmer 1990: 164 fn. 120). Another scribe, Abraham, is commemorated on 30 December, according to the so-called liturgical *Calendar of Ṭūr 'Abdīn* (Peeters 1908; Palmer 1990: 18).

Unfortunately, the monetary value of 'regal copies' escapes our knowledge, but prices of eighteen *solidi* (as attested in fifth-century Egypt)³¹ have nowhere been attested in Syriac manuscripts. The highest price attested for a book was for a copy of the writings of Isaias the Younger (d. 488/489) by a monk and hermit Ša'dūn, who lived south-east of Bostra near Mothan (mod. Imṭān): the colophon dates to AD 604, the price was three *solidi* minus twenty-one *carats*³².

In conclusion, there is strong reason to suggest that book-production (writing, copying, illustration³³, binding, repair), in the region from Egypt to Mesopotamia, was a frequent monastic, and partly an economic (mostly for sale) affair. Books were produced both by literate hermits and in a considerable number of *laurae* and monasteries (Tabennēsē, Ennaton, Mār Saba, Bēt Zagba, Ṭell 'Adē, Qennešrē, Kfar Tebnā, Qarṭamīn etc.). However, our knowledge is biased by the strong evidence of the scribes (and less so of the monastic *scriptoria*) in Egypt (in the early period) and Syro-Mesopotamia (as from the sixth century), whereas we are still ill-informed about these issues in pre-eighth century Palestine. Finally, the question arises of how to

³¹ Cf. above, p. 270. The price of 18 *solidi* was for an entire Bible, i.e. the Old and New Testaments.

³² MS *British Library* Add. 12170 = Wright (1870) = Mango (1984: MS no. 72).

³³ *Expressis verbis* and apart from one reference, monastic illumination is not attested at all. SB XIV 11858, a 4th/5th c. papyrus of unknown origin, is an informative receipt for a book to be illustrated giving the time: Herakleios, the illustrator, assures his client to return the book, illustrated (κόσμησις), within one month.

interpret words such as Theodoret's '*if (only) I can find a scribe ...*' in fifth-century Northern Syria. Do they reflect the scarcity of literate monks (i.e. *outside* the few centres of learning), or was the '*illiteracy topos*' indeed a reality?

'When the disciple of Daniel knocked at the door of the nuns and asked for hospitality for him and a fellow-monk, fearing that sleeping under the open sky they would be devoured by the beasts [of the desert], the abbess informed him that men were not accepted in that nunnery and that they would better be devoured by the beasts living outside rather than [by the beasts who lived] inside.'

(Apophthegmata Patrum, Daniel [L.101B])

IV.2 Pilgrimage

Pilgrimage – an outer and inner, personal process of 'extroverted mysticism (just as mysticism is introverted pilgrimage)' (Turner 1978: 33) – balances interior spirituality and exterior rite and icon, individually and collectively, while it allows the faithful to visit sites by which he/she orientates his/her life. Pilgrimage satisfies instinctive *Wanderlust* and the 'thrill' of tourism, the allure of exotic spaces and distant monuments (Frankfurter 1998: 5).

During late antiquity, Christian pilgrimage (local, regional and trans-regional) became a 'mass phenomenon', and some of the most attractive ('primary') pilgrimage centres are still attracting pilgrims today: Abū Mīnā in Egypt, Mount Sinai, Gaza, Jerusalem and all the sites associated with Biblical history¹, the pillar of St. Symeon the Elder (d. 459) at Qal'at Sim'ān, and Edessa (mod. Şanlıurfa), St. Thecla near Meriamlık in Seleucia and, in Isauria, Alahan Monastery. Delehayé (1912), Kötting (1950) and, most influentially, Brown (1971; 1981) provide a coherent analysis of the 'mass phenomenon' pilgrimage from a historical and sociological point of view, occasionally revealing the psychology of the individual pilgrim. However, the pilgrim's motivation, i.e. the *momentum* for 'true' pilgrimage (as extroverted

¹ On Jerusalem pilgrimage, in particular, cf. Wilkinson (1977).

mysticism) versus tourism, is not always clear². Widely based on texts, Kötting, Patlagean (1977) and Brown (2002: 35-44) also discuss the origins of Christian *philanthropia* and *philoxenia* in their institutionalized forms (above all, the guest-house, often run by a bishop or local Church). Neither, however, thoroughly considers the role of the monasteries and the monks, who not only operated as hosts, 'Hüter der Kultstätten' and 'organisierende Kraft für die Pilgerschaft (*martyrarius et abba*)' (Prinz 1995: 310), but also as the destinations/addressees of the pilgrims themselves. Thus, this section aims to investigate the services provided to pilgrims by ancient monasteries, and, in particular, their accommodation facilities (referred to as 'guest-houses'). The section also considers many 'secondary' pilgrimage centres, overlooked by the sources, but attested to by archaeology. Their evidence is mainly material (reliquaries, pillars, guest-houses) and epigraphical (inscriptions and graffiti). Pilgrimage will be considered both in a global, trans-Mediterranean (e.g. Holy Land pilgrimage) and a local, micro-regional perspective.

IV.2.1 Monastic hospitality

On his return from Oxyrhynchus in Egypt, a fifth-century pilgrim and author, overwhelmed by the hospitality of the Oxyrhynchite monks, made the following note: '*It is beyond my power to describe the hospitality and their love for us [i.e., for him and his companions]*' (L.102, V, 6). Elsewhere, John Rufus wrote on Peter 'the

² Most recently, the open question whether we can discern 'pilgrimage' or just the appeal of (in this case) an intellectual centre, has been posed with regard to Shenoute's monastery [M.122] by Behlmer (1998: 360-361). Cf. also Mango (1995) and, most recently, Gleason (1998: 507-510) on 'gossip' (if this term is appropriate) and reputation-management in the monastic world.

Iberian' (d. 491) that his community was particularly distinguished by its enormous hospitality: *'They [the monks] received the pilgrims in the way as did Abraham, they, who had been pilgrims and strangers themselves before.'*³ Hospitality was a distinguishing characteristic of the monks and holy men trained in these monasteries: visitors and hagiographers sing the song of their praise throughout the ancient world: from Egypt (L.102, I, 62; L.337, p. 89; L.630, p. 366. 396-399) to Sinai (L.293, III, 1: *'prebentes omnem humanitatem'*), Arabia (P.Petra inv. 6a), Palestine (L.146, 100-101), Syria (L.124, III, 20 (Basil); V, 2 (Publius); VII, Palladius; XVII, 7 (Abrahamēs); XIV, 2 (Maësymas); XXIV, 2 (Zebinas); XXV, 1 (Asclepius); L.130, XI. XIII), Mesopotamia and Armenia (L. 419, V (Symeon the Recluse); XXIII (Symeon the Solitary); XXXI (Elija and Theodore); L.432, p. 10 (Jacob)). On the other hand, reservations about hospitality are gentle and extremely rare, such as

'for an ascetic it is good if he is constantly training himself in the world, if he shows brotherly love and practices hospitality and charity, if he gives alms and is generous to visitors, if he helps the sick and does not give offence to anyone. But he is occupied with earthly things. Better and greater than he is the contemplative, who has risen from active works to the spiritual sphere and has left it to others to be anxious about earthly things.' (L.102, I, 62)

True criticism is entirely absent.

In the context considered, hospitality was both a spontaneous expression (as illustrated by the *Lives* by Theodoret and John of Ephesus) and an institutionalized behaviour towards the stranger at the door. Remarkably, the Church authorities

³ L.448, p. 46. Obviously, reference is being made to Gen. 18: 1-8 and Matt. 25: 35: *'For I was hungry, and you gave me something to eat, I was thirsty, and you gave me something to drink, I was a stranger, and you invited me in'.*

(bishops, synods), who, during the fourth century, were the first to call – for hygienic and moral reasons – for the Christian institution of the *xenodocheion*, were later also the first to harness the philanthropic fervour of the monks. Rabbūlā (d. 435), the bishop of Edessa, Marūtā (5th c.), the bishop of Mayperqat (Martryopolis, mod. Silvan) and John (d. 538), the bishop of Ṭella (Constantina, mod. Viranşehir) were men not only deeply devoted to the faithful, but also to the maintenance of the discipline of the monks. Accordingly, *Canon 17* by Rabbūlā (L.423) and *Canons 36/1* and *44* by Marūtā (L.420) regulate the duties of the guest-master and make him answerable to the *rīs dayrā*, the 'head of the monastery'. John, on the other hand, urged the parishes (rather than the monasteries) in the see of Ṭella to provide guest-houses for the travellers and the passers-by (L.418, XII). One guest-house, we know, had already existed in Ṭella before his episcopacy (cf. table 19, no. 47). The guest-masters were the key representatives of any monastery to fulfil, in an institutionalized manner, its philanthropic vocation – reason enough to find them attested elsewhere (in Egypt⁴, Palestine⁵ and Bithynia (L.135, 42, 5)). Dorotheus was the guest-master in the monastery of Seridos near Gaza, a city of great renown for its hospitality (L.291, 33, 5): later he writes that he used to feel 'knocked-out and utterly exhausted' by the difficulty of his tasks to perform every day (L.108, XI, 119).

⁴ L.102, XVII, 2; P.Ryl.Copt. 224 (undated, list of monastic officials) and at Pistentius', 6th/7th c. (Cauwenbergh 1914: 166).

⁵ L.138, VI-VII (Dayr Mār Sāba [M.684]).

IV.2.2 Guest-houses and the archaeology of accommodation facilities

One of the biggest achievements of the Roman Empire was the network of roads. Roman roads, not always safe to travel along, were equipped with guest-houses (*mansiones*) at equal distances, as indicated in the *Tabula Peutingeriana*. In late antiquity, it was the onset of Christian pilgrimage and the low moral standards in these *mansiones* which forcedly brought the Churches, monks and monasteries on to the scene⁶. Accommodation offered by the monasteries is the one considered here.

Accommodation was the key facility provided to pilgrims in many monasteries. The service is traceable both in the texts and by archaeology. A survey of the guest-houses in the written sources (table 19) reveals the enormous impression this institution had left on the ancient mind: 54 guest-houses have been recorded, approximately 70 % of which were (or may have been) run by monks and monasteries⁷. Cities like Jerusalem or Gaza (and presumably Alexandria, Antioch and others) had high numbers of guest-houses, some run by the Church, others by investors, charitable men and the monasteries.

⁶ On the emergence of Christian accommodation facilities, see, concisely, Kötting (1950: 366-386) and Constable (2003: 18-22). On the *Tabula*, the only surviving copy (made in the Middle Ages) of a late Roman road map showing the roads and distances across the Roman Empire, and other *itineraria*, see Miller (1962), Salway (2001). Salway also published an instructive map of *pandocheia* and *funduqs* attested in the eastern Mediterranean by texts and archaeology, 2nd to 10th century.

⁷ Even though further references may be added, 54 – from a statistical point of view – is a representative number. Seventy percent equals 36, a number that, for evident reasons (cf. column 'R[un by]/V[isited by]') is rather hypothetical than 'true'. Guest-houses run by monks or monastic institutions are marked in bold, whereas the others may have been run by the Church or laymen. The proportion of monastic to non-monastic (70 % to 30 %), however, is also biased by the focus of this thesis which mainly considers the monasteries, the often monastic authorship of the sources and the relative absence of texts of a 'parish origin'.

No.	Monastery Church	ID	IV	V	VI	VII	VIII	R[un by] V[isited by]	Note	Source
1	Tabennēsē	M.100	x					R mon.; V (Pachomian?) monks	guest-house for monks, another for laymen	Cauwenbergh 1914: 157
2	Dayr Anbā Šinūdā	M.122		x				R Shenūte's (d. 466) mon.	exhortation to shelter the strangers and the poor	L.337, p. 89. 366
3	Apa Dios	M.134			x			R mon.; xenodocheion		PSI IV 284
4	Apa Apollōs	M.144			x			R mon. (AD 574)	guest-house for monks	P.Cair.Masp .I 67096
5	Dayr Anbā Šamū'il	M.302				x		R Samuel's (d. 695) mon.; V crowd of people	no explicit mention	L.339, XXXVI
6	Nitria	M.362	x					R mon.	rather hospital	L.123, V, 5
7									guest-house	L.123, VII, 4
8	Alexandria		x					R Church of Alexandria; V Palladius (d. 431)		L.123, I, 1
9	Alexandria					x		R John the Almsgiver (d. c. 619) - Church of Alexandria	guest-house for monks ('The Monks' Inn')	L.144, XXIV
10	St. Catherine	M.476				x		R mon.		Cf. C.5 (Gazetteer)
11	[Red Sea]	--			x			R mon. (?); V Peregrinus Placentinus		L.291, 41, 4
12	Surandala				x			R church; V P		L.291, 41, 2
13	St. George [not identified] ⁸	--			x			R mon. (?); V Peregrinus Placentinus	20 miles S of Elusa	L.291, 35, 1
14	Nessana ⁹				x			R Abū Joseph, son of Dubāb		P.Ness. 31
15	Zoara	--			x			R holy woman; V Peregrinus Placentinus		L.291
16	Ma'in				x			xeneōn (Piccirillo 1989: 237)		IGLS XXI/2, 163
17	stf Gaza	--		x				R mon. (?); (rather) hospital		L.140, 6

⁸ On the controversy of identification of the guest-house, at Sobata (Shivta) in the Negev, cf. Valbelle (1998: 121. 123).

⁹ Resembles the guest-houses in the Limestone Massif (cf. below): double-storeyed, court for the animals, 96 beds.

18		Gaza			x			R Porphyrius (bishop)		L.145; Valbelle 1998: 122
19		Gaza: Abba Seridos	--			x		R mon.; Dorotheus (d. 560/580) guest-master		L.108, XI, 119
20		Ascalon	--				x	V John Moschus (d. 619)		L.118, 189
21		Dayr al-Qaṭṭar [Jordan]	--			?		R mon.		Politis 2001: 586
22		Bethlehem	--	x				R Paula (d. 404)	'diversorium peregrinorum'	L.231, 14, 4 = L.250, CVIII, 14
23		Jerusalem: near Sion [not identified]	--		x			V Bāršawmā (c. 400)		Nau 1913-1915: [ROC 19,] 28
24		Jerusalem: Passarion [E Gate]	--		x			R Passarion; V Peter the Iberian (d. 491)		L.448, p. 35
					x			R Passarion; V Saba (d. 532), AD 457		Synaxarium, Dec. 5; Hay 1996: 119
25		Jerusalem	[M.68 4]			x		R Saba's (d. 532) mon.		L.139, XXXI
26		Jerusalem: St. George the Martyr				x		hospital donated by Eudokia		L.138, IV
27		Jerusalem					x	hospital with 100-200 beds, demanded by Saba (d. 532), granted by Justinian		L.139, LXXIII
28		Jerusalem					x	V Peregrinus Placentinus		L.291, 23, 141
29		[Dayr Mār] Sabas	M.68 4				x	R Saba's (d. 532) mon.		L.138, V
							x	V Jeremiah, Peter, Paul		L.139, CV, 1
30		[near Tower of David]	[M.69 0]				x	R Castellion (?)		L.139, XXXI
31		Jericho	[M.68 4]				x	R Saba's (d. 532) mon.	'for Fathers in transit'	L.139, XXV-XXVI
32		Jericho	[M.69 0]				x	R Castellion (?)		L.139, XXXI
33		Theodosius	M.69 2				x	R Theodosius' (d. 529) mon.		L.146, XXXIV-XXXV, XXXIX, XLI, C-CI
							x	R mon.; V Eutactus (Armenian, AD 529)		L.146, CCXLI, 1
34		St. John the Baptist	M.73 6				x	2 guest-houses; V Peregrinus Placentinus	site of baptism of Christ	L.291, 12, 4
35		Choziba	M.75 6				x	R mon.; xenodochus		L.132, 4
36		Euthymius	M.78 8		x			R Euthymius' (d. 473) mon.; V 400 Armenians		L.137, XXVII, 8
37	Palæstin all	Mt. Tabor	--				x	V Peregrinus Placentinus		L.291
							x	R mon. (?); V Pseudo-Eliṣē the Armenian		Stone 1986: 106

38	Syria	Telannisos (Dayr Sim'ān)	--		x			R unknown; 'pandocheion' (AD 479)		Waddington 1853: 2691
39					?			R unknown		IGLS 417 = Waddington 1853: 2692
40		Dayr Sim'ān SW NW or SE (?)	[M.12 20/2 2/24]		x			V Daniel the Stylite (d. 493)		L.130, VII
41		Qal'at Sim'ān	M.12 26		x			R mon.	guest-house (?)	IGLS 413
4		St. Symeon the Younger	M.12 80			x		R Symeon's (d. 592) mon.		L.133A, 99, 1-4
43		Seleucia Pieria: Apostle Thomas	--			x		R mon.; guest-master: John Bār Aphthonia (d. 537)		L.433, 4
44	Cappadocia	Caesarea			x			R Basil (bishop, d. 379)		L.467, XV
45	Bithynia	[not identified]	--		x			R Hypatius' (d. 446) mon.		L.135, 42, 5
46	Osrhoene	Edessa	--				x	R Athanasius Bār Gūmāyā	owner of 400 guest-houses	L.468, X (AG 1010)
47		Constantina (Ṭellā)				x		R Samuel (bishop, AD 513-514)		[L.418, XII;] Chapot 1902 ¹⁰
48	Mesopotamia	[not identified]	--			x		R Symeon, Sergius		L.419, V
49		[not identified]				x		R Elijah, Theodore (laymen)		L.419, XXXI
50		[Ṭūr 'Abdīn]	--			x		R Jacob (d. 421)		L.432, p. 10
51			--			x		R Mār Benjamin (d. 466)		L.435, p. 256
52		Nisibis				x				L.446, p. 70
53		Nisibis					x	R Symeon 'of the Olives' (bishop, d. 734)	related to M.1440 (?)	L.442, 133
54		[Bašarā] (near Samarrā)	--				?			L.606 - Landron 1994: 33

Table 19: Guest-houses in the written sources, **bold** indicating that guest-house was run by monastic, and normal font indicating that it was run by the Church or laymen.

The archaeology of guest-houses is more ambiguous, in particular as guest-houses could resemble any arrangement from an elaborate building to a normal

¹⁰ Marginal reference in *Bulletin de la Correspondance hellénique*, vol. 26, pp. 200-201 (not in bibliography).

room or simple interior court. To date, only few monastic guest-houses have been identified. In most cases their identification is based on their relative position, the facilities for animal-shelter and the graffiti left on the walls¹¹. Both the *Lives*¹² and the excavated monasteries suggest that it was common to have individual or collective guest-rooms arranged near the gate (and the guest-master's lodge). This arrangement can still be studied at Dayr Anbā Hadrā [M.020], where a series of five individual rooms ('units III-VII'), each with three beds and a window, are lined up near the gate and against the inner wall (Monneret de Villard 1927: II, fig. 39). In Kellia [M.360], the excavations allow the reconstruction of the development of various hermitages in the course of time. In 'phase IV', according to Favre (1986: 115) and Makowiecka (1993; 1995), some of these hermitages (e.g. QH 39-40) were enlarged by annexes to shelter the guests. In Qlz 141-142 (III.360/3), rooms previously interpreted as a row of workshops, could, according to the excavators, also have served as a kind of large 'caravanserail'.

In the Judean Desert monastery of Hirbat ad-Dayr both the stable [III.666/5] and, presumably, the upper floor of the gate-house may have been related to the accommodation of guests (Hirschfeld 1999: [13-]24). The only identified and fully excavated monastic guest-house is in the monastery of Martyrius [M.702]; the building measures 43 x 28 metres, includes eight rooms (for 60-70 persons) and has separate stables for the pack-animals [III.702/2]. The complex is built adjacent to the

¹¹ Note that table 19, no. 16, 38, 39, and 41 are known from inscriptions, their evidence is also archaeological.

¹² Cf. above, and L.102, XVII, 2: '*This gate-keeper had a small guest-house near the gate where he put up visitors for the night*'.

outer wall. The stables *within* the walls clearly followed a different purpose, namely the shelter of the monastery's domestic animals. Besides, Martyrius' monastery is the only site in the Judean Desert to house a bath¹³, and its refectory has a capacity of approximately 200 men. Beyond the river Jordan, at the memorial of Moses on Mount Nebo [M.830], guest-houses could be identified ('units 56' and '129-131').

The *Life of Daniel 'the Stylite'* (d. 493) (L.130, chap. 57), presents a similar picture of the *martyrium* of his master, Symeon 'the Stylite' (d. 459), at Qal'at Sim'ān [M.1226]. The *Life* reports that '*the monastery for brothers and strangers should be behind the column*', and Tchalenko (1953: I, 205-222) seems to be right when he placed the monastery south of the apse and the guest-house ('*hôtellerie*') near the propylæum and the (entrance-sided) octagonal baptistery. Qal'at Sim'ān, however, was a particular case, as, with the onset of pilgrimage to the column, the neighbouring village of Telanissos (Dayr Sim'ān) developed into a *Dienstleistungszentrum*, serving the Syrian 'Mecca' or 'Lourdes' in late antiquity¹⁴.

To date no architectural study on late antique and early medieval guest-houses has been made. Thus, the following considerations are based, too, on assumptions (often intuitive and based on location, the evidence of stables, graffiti etc.) rather than on the comparison with evidence from elsewhere. Lassus, Tchalenko and Festugière left an open question with regard to the identification of

¹³ Cf. below, sect. IV.2.2.1.3.

¹⁴ On Telanissos, cf. also Trombley (1993: II, 163-167.185-197), Severin (1995: 331-335), Gerard (1997) and tables 19-20.

guest-houses in the North Syrian monasteries¹⁵. Festugière (1959: 321) concluded that *'s'il est vrai que l'édifice (à portique) ait pu héberger des pèlerins ou des hôtes de passage, il ne semble pas avoir été construit à cet usage seul, et l'exemple des petits couvents le montre en effet intimement lié à la vie de la communauté'*. However, at that period, none of these scholars could consider the whole repertory of monasteries in the *ġabals*. Only now – in the wake of Fourdrin and Peña – one can state that it is the very combination of a double-storeyed building (mostly porticoed, occasionally towers in an earlier phase) with mangers on the ground floor (and, occasionally graffiti on the walls) which most conclusively indicates the existence of a guest-house in many small monasteries¹⁶. This (working) definition, taking into account an element of uncertainty, underlies table **20**. The double-storeyed arrangement could also be found in non-monastic¹⁷ mass accommodation and, later, in the Islamic *khans*. Attached to the pre-Islamic 'Mecca' of the pre-Islamic Arabs, St. Sergius – Sergiopolis (mod. Ruṣāfa), Karnapp (1978) identified a building he later labeled an 'urban caravanserai': the pack animals and large baggage would have been left in the inner courtyard, with the travelers housed in the (upper) rooms. Karnapp's dating is rather vague, probably Byzantine.

Finally, table **19** lists a similar guest-house in Nessana (no. 14) with a capacity

¹⁵ Cf. above, sect. I.1.

¹⁶ Cf. also Peña (1980: 141; 2000: 85).

¹⁷ Two non-monastic establishments, outstanding for their dimensions (and double-storeyed), can be found in the Limestone Massif: Ruwayḥa (Ġabal Zāwīya; see below, table 20 [fn. 20]) and Kafr Nabū, AD 504-505 (Ġabal Sim'ān; *ibid.* [fn. 47]).

of 96 men. It was probably related to sixth- and seventh-century pilgrimage to Sinai¹⁸. The document from Nessana (lines 33-36) informs us that this guest-house was situated in the eastern part of the town (near the *wādī*), was double-storeyed and had a courtyard which served as the enclosure in which to keep the pack animals.

Table 20 summarizes the monastic evidence from the North Syrian mountains where, to date, 22 monastic guest-houses, some related to the shrine of St. Symeon¹⁹, can be identified:

	Monastery Church	ID	Double-storeyed	Mangers	Reliquary	H[ermit] S[tylite]	Baptistery	Graffiti
Ġabal Zāwīya	Ruwayḥa ²⁰	--	x		(x)			
	Kawkaba ²¹	M.928	x		x	H		x
Ġabal Waṣṭān	Fassūq ²²	--	x		x			x
	Hirbat Ṣuṭṭān ²³	--			x			
Ġabal al-A'īā	Kafr Māris ²⁴	--	x					x
	Dayr al-Malik	M.1004				S		x
	Kafr Kīlā ²⁵	--	x	?		H		x
	Qaṣr al-Ġarbī A	M.1012			x			
	Qalblōze ²⁶	--			x	(S) ²⁷		x

¹⁸ On caravan traffic through Nessana at the time of the document (P.Ness. 31), cf. Colt (1950-1962: III, 27-28).

¹⁹ In particular, from the west, the monasteries situated along the Antioch – Dānā – Cyrrhus road; from the east: Bardḥan [M.1250], Kafr Nabū (non-monastic, erected soon after the beginning of the pilgrimage 'boom', ca. AD 500). The case of Qaṣr al-Banāt [M.1206], whose splendour has often been attributed to the development near Telannisos and its location in the 'highway gorge', shows the one-sided character of such interpretation, for an inscription from the site (AAES, III, 76) mentions the architect of its church, Kyrios, whose activity between AD 390 and 415 (i.e. before the apogee of Symeon) is well attested in the Massif: Qaṣr al-Banāt may well have profited from the later influx of pilgrims from the Mediterranean to (later) Qal'at Sim'ān [M.1226], but the reasons for its prosperity must also be sought elsewhere (e.g. its economic assets and its collective tomb/sanctuary; cf. sect. II.2.2.7).

²⁰ This *khan* (29 x 24 m) is not attached to the church (of Bizzos, son of Pardos) with its reliquaries, but situated 150 m SW of it (Peña 2000: 175). Peña (2000) includes/supersedes all previous bibliographies in table 20.

²¹ The guest-house is not attached to the monastery, but related to Christian pilgrimage.

²² Peña (1985: 279-290; 2000: 150-152).

²³ Peña *et al.* (1999: 104-105, 108), Peña (2000: 160-161).

²⁴ Dim. 30 x 16.2 m (Peña 2000: 159-160).

²⁵ Peña (1980: 157).

²⁶ Peña (2000: 172).

	Qirqbīzē ²⁸	--						
	Kfayr ²⁹	--			x			x
Ġabal Barīsa	Qal'at al Brayġ	M.1048	x		X			x
	Dayr Sītā (N) ³⁰	--			x		(x) ³¹	x
	Kaukanāyā (E) ³² , or al-Hayma	M.1062	x			(H)		x
	Dayr Bašmišī	M.1068			x	H/(S) ³³	x	x
	(Dayr) Bafettin	M.1078			x	H/(S) ³⁴	x ³⁵	
	Dayr Bašakūh	M.1088			x	H		x
	Nūriya (4 th c.) ³⁶	--			x		x (?)	x
	Banakfūr (N) ³⁷	--						x
	Me'ez (E) ³⁸	--			x		x	
	Qal'at al-Tuffāh	M.1100	x		x			
	Burġ Ġamūr	M.1132	[tower]	?		H		
	Bāqirhā ³⁹	--						
	Dār Qītā ⁴⁰ SS. Paul and Moise (AD 418) S. Sergius (AD 537)	--	x (AD 436) x		x x	H H (?)	x (AD 515) x (AD 567)	x x
	Babišqa ⁴¹	--						
	Ksayġba (AD 414) ⁴² Ksayġba (W) ⁴³	--	x		x		x (AD 414)	x
	--			x				
Hirbat al Hātīb (AD 473) ⁴⁴	--			x		x (AD 532)	x	
Dānā - Ġabal Halaqa	Dayr'amān	M.1164	?	?				
	Kfayr (Dānā)	M.1170	[tower]	?		H		
	Dayr Tūrmanin	M.1180	x	x		S		
	Dayr Tell 'Adē	M.1190	?		x			
	Serġibla ⁴⁵	--						

²⁷ On the relief of a stylite on the N tower, cf. Peña (2000: 171-172). Similar representation can be found, amongst others, on the S façade of the E Church of Déhès etc..

²⁸ Peña (2000: 84).

²⁹ Peña (2000: 203-204).

³⁰ Peña (2000: 148-150).

³¹ Two guest-houses; the hexagonal 'martyrium-baptistry' is situated further west in the village, not attached to the church.

³² Peña (2000: 127. 154-156).

³³ Conclusion drawn on the basis of a relief of a stylite (Peña 2000: 183).

³⁴ Conclusion drawn on the basis of three representations of a stylite in the church (Peña 2000: 184).

³⁵ 'Martyrium-baptistry'.

³⁶ Peña (2000: 209-210).

³⁷ Peña (2000: 185-186).

³⁸ Peña (2000: 127-128. 165-166).

³⁹ Peña (2000: 83).

⁴⁰ Peña (1980: 140; 2000: 143-147).

⁴¹ Peña (2000: 83. 127).

⁴² Peña (2000: 83. 205-206).

⁴³ Peña (2000: 84. 205-206).

⁴⁴ Peña (2000: 206-207).

⁴⁵ Peña (1980: 141. 152).

	Qaṣr al-Banāt	M.1206	x		x			
Ġabal Sim'ān	Telannisos (Dayr Sim'ān)	M.1220	x		x			
	Dayr Sim'ān SW	M.1222	x		x	S		
	Dayr Sim'ān NW	M.1224	x					x
	Dayr Sim'ān SE	--						
	'Pandocheion' (AD 479)⁴⁶							
	Bānastūr	M.1230	x	x		H		x
	Kimār	M.1238	x		x	S		
	Kafr Nabū (504/505)⁴⁷	--	x					
	Bānaqūr (N)⁴⁸	--						
	Bātūtā⁴⁹	--		x		(S) ⁵⁰		x
	Šayḥ Sulaymān (Saint Mary)⁵¹	--	x		x		(x) ⁵²	
Surqānya⁵³	--	x	x	(x)		(x) ⁵⁴	x	
Qaṣr Brād	M.1240	x			S			
Bardhān⁵⁵	M.1250	x	?					

Table 20: Guest-houses and related institutions in the North Syrian Limestone Massif (archaeological evidence)⁵⁶, **bold** indicating that guest-house was monastic, whereas a normal font relates to its ownership by the Church or laymen.

IV.2.2.1 Institutionalized providers of hospitality: the Church or the monasteries?⁵⁷

In various places of pre-Christian Egypt and Syria there is evidence that illustrates the 'logical' connection between guest-house and sanctuary/shrine. Lucian (of Samosata, ca. AD 120–190), in *On the Syrian Goddess (De Dea Syria)*, gives a vivid example of this connection in the Syrian city Hierapolis (Mabbūg, mod.

⁴⁶ Cf. table 19, no. 38.

⁴⁷ Butler (1919b: 297 and ill. 328).

⁴⁸ Peña (2000: 84).

⁴⁹ Peña (2000: 188-189).

⁵⁰ Conclusion drawn on the basis of a relief of a stylite (Peña 2000: 189).

⁵¹ Peña (1980: 140; 2000: 142-143).

⁵² A baptistery can be found in the 'parish' church (bema-church). Šayḥ Sulaymān had four churches during the sixth and seventh centuries.

⁵³ Dim. 12 x 7 m (Peña 2000: 219).

⁵⁴ 'Martyrium-baptistery'.

⁵⁵ Dim. 30 x 10 m.

⁵⁶ The tables excludes two monasteries (the second being a stylite sanctuary), for which there is not sufficient evidence: Burġ Naḥḥas (Peña 1980: 84) and Qurzēḥil near Dānā (Tchalenko 1953: I, 153; Peña 2000: 99).

⁵⁷ This section deals with an ambiguous matter already outlined in sect. I.1.3, namely the Church versus the monastery.

Manbiğ), where the author describes the important sanctuary of Atargartis and a guest-house (Lightfoot 2003: 519-520). Furthermore, from the period of the Seleucids, Hierapolis/Mabbūg was an important staging post. During the Christian period Hierapolis continued to be a staging post, but also became a centre of monasticism as reflected in the writings of Philoxenos (485-523) (L.422/52). In the Christian period, who was in charge of accommodating the pilgrims? The state, laymen, the Church or the monasteries?

Considering the 'monastic background' of many bishops, the dividing line between 'Church' and 'monastery' is often difficult to draw, even more so as those bishops who insisted most on the 'real-world implementation' of Christian philanthropy (Aërius of Sebaste, Basil of Caesarea, Rabbūlā, Marūtā, John of Ṭella *et al.*) (Kötting 1950: 378) were also the most influential in bequeathing their legacy to the monasteries. Thus, the role of the Church (as opposed to the monasteries) in 'Christian' guest-accommodation is not always clear. The regional observations presented in the following sections further emphasize a picture of utmost diversity.

IV.2.2.1.1 Egypt

Papaconstantinou's monograph *Le Culte des saints en Egypte, des byzantins aux abbassides: l'apport des inscriptions et des papyrus grecs et coptes*, pages 283-311, is a comprehensive geographical outline of Christian sanctuaries along the Nile. Even though the quantitative assessment is hampered by the 'loose' use of the terms *topos*, *μᾶ*, *euktērion*, *τοογ* and *petra* (only *monastērion* and *oros* being 'fairly'

clear)⁵⁸ in the sources, the observations can be made that the percentage of the monasteries – identified by *monastērion*, *oros* and *topos*, and opposed to the Church – in the care of the shrines and pilgrims is surprisingly low! The following numbers reflect the number of monasteries in Egypt connected to shrines, and the number of shrines actually connected to monasteries respectively: several cities or regions had – according to the documentation (which seems to be incomplete) – no monastery, Oxyrhynchus had 1 or 2 (out of 30)⁵⁹ and Hermopolis Magna 0 to 4 (out of 45). In contrast, Antaeopolis had no less than 19 (out of 26) shrines somehow related to a monastery⁶⁰.

On the other hand, the written documentation of churches, monasteries and places linked to the cult of saints includes some monasteries which are also known from archaeology: Dayr Apa Phoibammōn II [M.070], Dayr Anbā Šinūda [M.122], Apa Dios [M.134] and Kolluthos 'of the Gate' [M.208]. At one monastery pilgrimage is exclusively attested by archaeology: Dayr Apa Jeremiah [M.334] (Wietheger-Fluck 1995). Pilgrimage can also be traced at Dayr Anbā Abullū' [M.190] and Dayr Abū Fānā [M.244], sites not considered by Papaconstantinou. Finally, to make a valid assessment, one equally has to make clear that there is not enough information to evaluate the interaction between monks and pilgrims at the most important pilgrimage centres of Christian Egypt near Menouthis (Montserrat 1998) and at Abū Mīnā [M.378].

⁵⁸ Cf. Papaconstantinou (2001: 268-270) and above, sect. I.1.1.

⁵⁹ The number in brackets indicates the total number of shrines.

⁶⁰ In particular, cf. Papaconstantinou (2001: 286. 290-291. 296-297).

IV.2.2.1.2 Palestine

The monastic guest-houses in Palestine are listed in table **19** (no. 10-15 and 17-36). Now, a doctoral thesis on the baptisteries on the peninsula of Sinai, in Arabia and the three Palestines by Ben-Pechat (1985: 60-94; 1990) allows me to approach the issue of 'monks-pilgrims interaction' from a different, though related point of view. Baptismal fonts, to be found even in remote monasteries, attest to the enormous attraction of monasteries for laymen who aspired to Christian life. Ben-Pechat lists six baptisteries (monastic and non-monastic) in Palaestina II (Gergesa [M.828], the site of the Miracle of the Swine, being the only one in a monastery) and twenty-two baptisteries in Palaestina I, where the monastic baptisteries account for almost 50 %. A remarkable concentration of these sites can be observed throughout Judea (2 out of 7 baptisteries), the Judean Desert (3 out of 3) and at the foot of Mount Hebron (2 out of 4).

The monasteries in the Judean Desert – namely Herodium [M.678], presumably the site of a *leprosarium*; Castellion [M.690], a 'pro-Arab' and 'pro-Muslim' community with its dependencies (hostelries) in Jerusalem and Jericho (table **19**, no. 30. 32); Martyrius [M.702], the monastery with the best documented guest-house⁶¹ – and on Mount Hermon – namely Ḥorvat Beit Loya [M.820] – housed baptisteries. Elsewhere in this thesis, these sites have been discussed for their highly complex economies!⁶² Thus, the monasteries in the Judean Desert illustrate, in an

⁶¹ Cf. above, p. 289.

⁶² Cf. vol. 2, sect. C.5, the sundial at Castellion (Ill.690/1), the presses at Ḥorvat Beit Loya and the complex hydraulic installations at Martyrius (Ill.702/1. 3).

exemplary fashion, the 'logical' connection between baptism and other places of blessing or healing (*leprosaria* and, presumably, monastic *martyria*) with economic resources and the provision of accommodation facilities (Castellion, Martyrius).

The monastery of St. John the Baptist [M.736] (table 19, no. 34) and the two baptismal fonts on Mount Nebo [M.830]⁶³ served a similar purpose, namely the dignified reception of pilgrims, local nomads and catechumens on the blessed shores of the Jordan and at Moses' memorial shrine. Such sites were likely to benefit from various donations. St. John the Baptist was also endowed with imperial funds⁶⁴.

IV.2.2.1.3 The Syrian Limestone Massif

A similar, though a complex picture can be drawn from the archaeological evidence in the Syrian Limestone Massif. Again, table 20 serves as its basis by illustrating the dependence and inter-dependence of accommodation facilities on the existence of pilgrimage attractions, such as reliquaries and collective tombs⁶⁵ etc. The portion of 47.8 percent (22/46) of the guest-houses being monastic is considerable. In the vicinity of Qal'at Sim'ān, in Ġabal Ḥalaqa, the natural 'propylæum' of St. Symeon's, the percentage of monastic guest-houses is even higher and amounts to 83.3 %, and in Ġabal Sim'ān to 53.6 %. The inter-relation between monasteries and stylites, baptisteries and baths (as pilgrim attractions) shall now briefly be considered here.

⁶³ On the likely guest-house in the monastery on Mount Nebo, cf. above, p. 290.

⁶⁴ Cf. sect. VI.3.6, table 23.

⁶⁵ I have presented a provisional list of collective tombs in North Syria at the Dumbarton Oaks Spring Symposium 2005. A paper is in preparation.

Based on the 'model' of St. Symeon (d. 459), stylitism was a phenomenon well attested by texts, column drums and pictorial representations from the fifth and sixth centuries⁶⁶. As stylites represent a particular type of the model 'holy man'⁶⁷, it is hardly surprising to find more than half a dozen stylite sites (monastic and non-monastic) associated with facilities to shelter guests and pilgrims.

The combination of guest-houses and baptisteries is more frequently attested in parish churches than in the monasteries, whereas the combination of guest-house, baptistery and stylite column can be found in three monasteries, namely at Qal'at Sim'ān [M.1226] – with a monumental octagonal baptistery – Dayr Bašmišī [M.1086] and (Dayr) Bafettīn [M.1078]. The symbolical merging of baptism (of the catechumen) and death (of the self-mortifying stylite or holy man) with the hope of salvation (following his intervention), as expressed by Paul in Rom. 6: 4, would have materialized in such an environment. This thought would be in line with the observation that in all but two locations of the Limestone Massif where baptisteries are attested (monastic and non-monastic) there is archaeological evidence of a reliquary or *martyrium*. The exceptions are the villages of Bāmuqā and Bāṭūṭā: at Bāmuqā, on the other hand, there is evidence of a stylite (?) and a baptistery, but, it seems, no identifiable monastery (Tchalenko 1953: I, 167 fn. 2 and 315-316; Peña 2000: 185); at Bāṭūṭā, a centre of communication in Ġabal Sim'ān, there had been guest-houses (non-monastic), three in number, as from AD 363 (Tchalenko 1953: I, 22

⁶⁶ On the 'archaeology of the stylite', cf. Delehayé (1962), Peña (1975), Callot (2001), and, in preparation, my homonymous article proposed for *Late Antique Archaeology* 4 (2006).

⁶⁷ Cf. Brown (1971), Howard-Johnston *et al.* (1999).

fn. 2 and 24 fn. 1; Peña 2000: 188-189).

IV.2.2.2 Digression: monastic baths

The baths (λουτρά) in monasteries and pilgrimage centres were undoubtedly pilgrims' attractions, and were used for hygienic reasons and cures. In the Limestone Massif several baths are reported (Butler 1919b: 300-303; Tchalenko 1953: I, 25-28), but none belonged to a monastery. What is more, baths for pilgrims are attested elsewhere: at Abū Mīnā [M.378] (Müller-Wiener 1966: 173-180; Grossmann 1998a: 290); Menouthis (Montserrat 1998: 268); the Mount of the Olives (Berger 1982: 36); Martyrius [M.702]; Mount Nebo [M.830] (Piccirillo – Alliata 1998: 79)⁶⁸; St. Symeon the Younger [M.1280] (L.133A, CII, 18. 20)⁶⁹; Meriamlık [M.1304] (Egeria); and in the outskirts of Nisibis: *'He (Symeon of the Olives) also bought some baths and donated them to the monastery of Mar Elīša which he had built. He ordered that any surplus from the endowments should go to the monastery of [Mār Gabriel near] Qarṭamīn [M.1440]'* [L.442, 138]. Again, not all of these baths needed to be monastic (e.g. Abū Mīnā, Menouthis, Meriamlık), though a monastic involvement in running these pilgrimage centres can be inferred. On one occasion the emperor Anastasius (491-518) used the threat of closing down baths as a disciplinary means to keep the monks under control (L.472, IX, 9). Such evidence needs to be considered against the background of a far-reaching opposition to bathing – a Roman institution – in the monastic milieu (Berger 1982: 32. 38-39). This situation only changed in the

⁶⁸ Observed by the Pilgrim of Piacenza (L.291, 10), these Baths of Moses were situated in the vicinity of Livias, a city close to Mount Nebo.

⁶⁹ The bath was situated *'three miles from the (hill-top) monastery'*. Cf. also Ven (1962: I, 195).

Medieval period, according to the archaeological evidence and the *typika* (Orlandos 1958: 95-108; Berger 1982: 60-70, Thomas 1998: V, 1895 s.v. 'baths and bathhouses').

IV.2.3 Practical aspects

IV.2.3.1 Group-travel

A local, regional, trans-regional and 'international' phenomenon, late antique pilgrimage brought together Christians and non-Christians speaking in various tongues: 'the lustful, prostitutes, Arabs, barbarians, Armenians, Urtaye, people of all tongues', the *Life* of Symeon the Stylite relates, literally 'flocked' to the vicinity of his shrine (L.449, 77) – and by AD 500, the village (Telanissos or Dayr Sim'ān), it seems, was prepared to accommodate the 'hoards' to come (cf. tables **19** and **20**). A century later, Sophronius related that the pilgrims who in his time headed for Menouthis in Egypt for healing were Alexandrians, Egyptians, Libyans and 'foreigners'. The 'foreigners' were John the Roman, others from Asia Minor, Syria, Palestine, Cyprus and Rhodes. Sophronius himself was from Jerusalem (Montserrat 1998: 273-274). Solzbacher (1989: 272), Stone (1986: 107) and others have noted from the pilgrims' accounts the distinct tendency of these people to travel in groups. Often this was a security issue, and some of the 'tour-guides' were actually monks, Egeria's '*deductores illi, qui nobiscum erant*' (L.293, 1, 2).

Group travel, however, poses a particular challenge to the host institution, both in linguistic and administrative terms. While a multilingual atmosphere was the

status quo in many of the Near Eastern monasteries⁷⁰, the handling of the pilgrims in the monasteries (translation, accommodation, serving the meals etc.) remains largely obscure. Occasionally, the sources mention the guest-master (ξενοδόχος), but institutionalized hospitality must have had a more complex structure able to cope with the numbers of pilgrims that passed by: in AD 428, no less than 400 Armenians visited their famous fellow-countryman Euthymius in his monastery [M.788] (L.137, XXVII, 8 = table **19**, no. 36). Two centuries later a group of 800 pilgrims set out from a staging-post in the Negev (Nessana?) for Mount Sinai⁷¹.

For the reasons set forth in section **IV.2.2**, archaeology is still not in a position to confirm or confute these numbers, in particular as many pilgrims may simply have slept under the open sky. Capacities of 60-70 persons (e.g. at Martyrius [M.702]) or higher could also well be imagined in the monastic guest-houses of the Limestone Massif⁷², along the Antioch-Cyrrhus highway, in the plain of Dānā and in the Ġabals Ḥalaqa and Sim'ān (cf. table **20**), whereas hypæthral accommodation entirely escapes archaeology. Barṣaumā, when travelling to Jerusalem around AD 400, slept in a courtyard near the church of Golgotha⁷³, and St. Willibald, who set out to travel to the Holy Land in AD 724, pitched his tent on the bank of the river near Rouen (Wilkinson 1977: 125). The incidence in the Arabic *Life* of Shenoute – 20,000 refugees

⁷⁰ The list of references (Theodoret of Cyrrhus, Cyrill of Scythopolis, John Moschus *et al.*) would be too long to draw up here. Certain nationalities (e.g. the Armenians, as from the fourth century) had permanent 'national monastic representations' in Jerusalem.

⁷¹ Anastasius of Sinai, *The Holy Fathers of Sinai*, quoted after Stone (1986: 107).

⁷² Cf. above, sect. I.1.2.

⁷³ ... and it was under the open sky that one of Barṣaumā's companions got trapped by an impure spirit (Nau 1913-1915: ROC XIX, 28).

being temporarily accommodated and fed after displacement provoked by the attacks of Berbers⁷⁴ – reminds us rather of a tremendous ‘post-tsunami’ recovery operation than of an organized expert affair (L.630, p. 396-399).

IV.2.3.2 *Social differentiation*

A small digression needs to be made on the *modus* of monastic accommodation and the ‘equality’ of men. Equality has never (if ever) been more than a theoretical concept whether in the civil or the monastic worlds. As to pilgrim accommodation by monasteries, there is strong evidence of segregation according to confession, status, gender and wealth.

IV.2.3.2.1 Confession

The wide spectrum of motives for travel required, on the part of the host institution, a mechanism to distinguish ‘true’ pilgrims from those travellers ‘*sub specie peregrinationis*’⁷⁵ on the move. To facilitate such distinction, in the fourth century church officials introduced *Pilgerbegleitbriefe* (‘accompanying letters’) (Kötting 1950: 378). One such letter, to distinguish the pilgrim from ‘*the lustful, the prostitutes and others*’, was carried by a pilgrim to Qal’at Sim’ān (L.449, p. 115). In the wake of the *Henotikon* (AD 482), the law issued by the emperor Zeno in order to conciliate Catholics and Monophysites, the demarcation of confessional membership became an issue that even more brought the Syrian monks on to the scene. Under the

⁷⁴ L.630, 396-399 and Barns (1964).

⁷⁵ So Ambrosius, *De officiis ministrorum*, II, 16. 76 (ed. Davidson 2001).

heading *On the Persecution of the Great Monastery of the Orientals in Edessa and all other Monasteries in the Entire East and West*, the Chronicle of Zuqnān (Mesopotamia) relates that a text, which anathematized the council of Chalcedon (AD 451) and the Tome of Leo (AD 449), was recognized by the Orientals as a statement of orthodox Christology. This text 'would be written on the outside of the gates of all monasteries. And all the monasteries all over Syria did so ...' (L.465, p. 27). The impact on the movement of non-Monophysite travellers must have been serious.

IV.2.3.2.2 Wandering monks

Like laymen, monks were driven by all kinds of motives ranging from extroverted mysticism to *Wanderlust*. For monks Jerusalem exercised a particular gravity⁷⁶. Accordingly, *separate* guest-houses for monks as pilgrims could be found in various locations – at Tabennēsē [M.100] or Pbow (table 19, no. 1), Aphroditō⁷⁷, Alexandria (no. 9) and near Jerusalem (no. 33). They were run by the local churches and monasteries. Rabbūlā (d. AD 435), in Canon 22, forbade his clerics to use civil guest-houses and ordered them to make use of the *xenodocheia* run by churches

⁷⁶ Jerusalem pilgrimage, by monks, is attested in various instances (e.g. Barṣaumā, cf. above, p. 291; L.130, 11. 13; L.118, 180; Mexit'ar, around AD 630 (Movses Dasxuranc'i, *History of the Caucasian Armenians*, II, 50 (ed. Dowsett 1961)). However, the custom of monks making a pilgrimage to the Holy City must have been a nuisance to the bishops and monastic, for Gregory of Nyssa, *Epistula* 2, 7 (ed. Maraval 1990) and, later, Gregory Bar Hebraeus, *Ethicon* (ed. Bedjan 1898; Fiey 1969: 115-116; Teule 1994: 318-321), consider Jerusalem pilgrimage as a matter for laymen, a category to which monks and nuns do not belong. Opposing this custom in Egypt, Shenoute proposes his own church instead as the 'heavenly Jerusalem embodied in his monastery [M.122]' (L.630, p. 392-393). Fiey's (1969) statement of 'great numbers' of Nestorian monks heading for the Holy City from Mesopotamia has been contested by Teule (1994: 315) on similar grounds.

⁷⁷ Apa Apollōs [M.144] (table 19, no. 4) and P.Cair.Masp. I 67096 (AD 574): ἔρημίτων ξένων μοναχῶν.

and monasteries (L.423, 22).

IV.2.3.2.3 Gender

There is only little evidence of gender-specific accommodation provided by the texts and by archaeology. The *apophtegm* heading this chapter⁷⁸ shows that gender was a serious issue, in particular if men intended to stay overnight in a convent of nuns. Inversely, there is substantial evidence of wandering by women (Egeria, Hilaria, Apollonia *et al.*), and of exhortations not to do so. For women, a possible way to travel about freely was transvestism, by which women repeatedly infiltrated male monastic societies⁷⁹.

Jerome and the Pilgrim of Piacenza relate the duties of the guest-master at Tabennēsē [M.100] – namely the identification of the pilgrims, separation by gender and the care of their wealth (L.250, 52, 3, 2). Separate guest-houses for males and females are attested near St. Mary's in Jerusalem (L.291, 23). For gender-division one may well think of bi-partite arrangements similar to the twin-peristyle guest-houses excavated at Abū Mīnā [M.378], situated north of the basilica.

IV.2.3.2.4 Wealth

Finally, the issue of wealth: John Chrysostom and Shenoute praised the

⁷⁸ Cf. above, p. 281.

⁷⁹ On female transvestism in Egypt, cf. Anson (1974).

hospitality of their brothers for 'serving everyone, both slaves and free men'⁸⁰. Section **IV.2.1** has focused on the sincerity of this state of mind. Nevertheless, there is clear evidence of varying standards according to the financial power of the monastic guests. Most illustrative on this issue is the *Life* of Theodosius, according to which every guest was given 'equal care'. Theodosius' monastery had separate accommodation facilities for travelling monks, the 'people of the world' and for those without financial resource (L.146, 34). The social gap was more evident in some pilgrimage centres, where the perspectives for healing and blessing were unluckily coupled with personal wealth. A miracle (no. 24), reported by Sophronius, reports the healing of two women at Menouthis. There, one woman was rich and used her wealth to install herself near the tomb of SS. Cyrus and John, lying comfortably in a bed, while the poor woman had to sleep on the ground outside the gate⁸¹. As there are no remains left at Menouthis, one may find architectural analogies at various other monasteries and shrines (e.g. Abū Mīnā, Qal'at Sim'ān, Meriamlik). The case of Abū Mīnā [M.378] is particularly instructive for one can distinguish a full hierarchy of accommodation facilities likely to be dependent on wealth: a) south of the basilica, a *sigma*-shaped building ('hemicyclon'), providing accommodation for the sick at the shortest distance from the sanctuary – probably 'class A'; b) north of the basilica, the bi-partite building mentioned above – probably 'class B'; c) north of 'b', four peristyle-buildings with wide porticoes – similar

⁸⁰ In *Matthaeum homiliae*, LXXII (ed. Migne 1857: LVII, 705) and Frankfurter (1998: 11). The visitors of Shenoute's monastery [M.122] are subject of a recent study by Behlmer (1998). The clergy and monks are dealt with on pages 351-354.

⁸¹ These miracles have not yet been edited, but have been summarized in Festugière (1971: 220-225) and Montserrat (1998: 268-276).

to the guest-houses in the Limestone Massif? – and a small number of adjacent rooms – probably ‘class C’. ‘Class D’ would most likely again have been the porticoed street and the open terrain north of the main gate.

IV.2.3.3 *Financing*

The stereotype picture drawn by the hagiographic sources portrays the early monks and solitaries labouring with their hands in proportion to their own needs, and the needs of others whom they received and relieved⁸². Only occasionally, as in the case of Mār Jacob (d. 421; Ṭūr ‘Abdīn), the hagiographer speaks of the very wealth ‘engendered’ by hospitality. In the case of Mār Jacob, it was through their hospitality (i.e. the generated resources) that the monastery could be adorned and the community be enlarged⁸³. As usually accommodation and guidance were services provided by the monks for free, the survival of monasteries would not have been conceivable without offerings and donations as the mainstay of their income. But why do these donations not feature in the literary accounts? Wipszycka (1996: 287) explains this silence on monetary issues as the result of conflicting minds, a ‘Geldkomplex’ or ‘*complexe de l’argent*’ of the ancient (and modern) monks. I will return to this issue in sections **VI.3.4** and **VI.3.6**.

Another type of income related to pilgrimage was sponsorship, a notable example being given by IGLS 413, which mentions a sponsor from Telanissos who made a major endowment to the guest-house (?) at Qal’at Sim’ān [M.1226].

⁸² Cf. L.134, 50-53; L.419, XXIII and sect. IV.2.1.

⁸³ L.432, p. 10-12; during Jacob’s lifetime, the community grew from 3 to 100 men.

Elsewhere, pilgrims offered to labour in monasteries in return for their stay – remarkably, again this option is ill-attested (e.g. L.123, VII, 4; L.133A, 96. 172. 192), but could be imagined anywhere. And finally, there was patronage towards some guest-houses by civil authorities and the imperial court (cf. table **19**, no. 26, 27 and 34; table **23**). According to the *Life of Peter the Iberian* (L.448), the empress Eudokia (d. ca. 460) sponsored, amongst others, the erection of a church and a guest-house (monastic?) for pilgrims at Jamnia (mod. Yavneh-Yam), although the site was inhabited at that time by the Samaritans. Justinian (527-565) provided the money to restore the poor-houses in Curicum and in the Emporium, and another named after St. Conōn (L.161, V, ix)⁸⁴.

Conclusion

Hospitality is the most characteristic expression of Christians towards their fellow-men⁸⁵, and even more so of the monks who, with fervour, further developed and institutionalized this philanthropic idea. In the absence of any contrary statement, we may assume that the provision of hospitality, investigated in this chapter by focusing on mass accommodation, was, as a matter of principle and in most forms, ubiquitous in the monasteries. Furthermore, it seems to have been a 'non-profit' affair. The section also proposes to identify patterns of accommodation related to other 'pilgrim attractions' such as reliquaries, holy men (including the

⁸⁴ On patronage, cf. sect. VI.3.6.

⁸⁵ Cf. Matt. 10: 40: 'He who receives you receives me, and he who receives me receives the one who sent me'.

stylites) and baptismal fonts. It calls for further, systematic archaeological and typological examination of the ancient guest-house. The evidence also allows us to state, on textual and archaeological grounds, that the *institutionalized* provision of hospitality was by no means simple or bound to an 'egalitarian agenda' of any kind.

HUMAN RESOURCES AND THE ORGANIZATION OF LABOUR

Chapter V

V.1 Human resources

In the hagiographic and other sources on *single* monks and holy men the act of working (e.g. the making of baskets) is usually portrayed as a proof of the virtue and of the desire for material independence of the individual, whereas the papyri mostly document (rather than eulogize) the transactions of raw materials and the ready products. In most documents, however, literary and documentary, the monk features as the 'entrepreneur', the actual producer and the 'marketing director' of his produce.

In the *coenobia* production is far more difficult to analyse, as only rarely do these processes feature as subjects of hagiographic praise. On the other hand, archaeology, as shown in this thesis, provides a powerful tool to analyze these processes of production, but still fails – with few exceptions (e.g. inscriptions) – to identify the labour force. Who worked at the press, tilled the vineyards and ploughed the fields – the monks, laymen (and women) or slaves?

As to the monks, their general attitude towards labour and work, as shown in a previous section (II.3), was overwhelmingly positive. The task of harvesting, for example – and in particular the harvest of olives and vines – was the most delicate and labour-intensive, in particular as the harvest had to be brought in within a short period of time. Though we should not exclude the participation of lay labour (e.g. L.432/42) there is firm evidence of the monks themselves being involved in these tasks. The *Canons* of Rabbūlā, the *Sayings of the Desert Fathers*, John Moschus' *Spiritual Meadow* or the seventh-century *Life* of Theodotus of Amida show their

active participation, either as supervisors of agricultural labour or as labourers in the fields¹.

In Egypt, the papyri make clear who, for example, operated the Oxhyrynchite 'milling-bakery'. The bakery, situated in the monastery of Apa Kopreus [M.266]², belonged to the lessor, a woman (and not the monastery!), whereby the papyrus illustrates the possession by laymen of proprietary rights in a monastery. Here, as the lessees were bakers and master-millers, none was a member of the monastic community.

In the absence of textual information, the role of monastic versus lay labour can at best be hypothesized by the architectural setup and the settlement-related position of the monasteries. If, for example, one of the three presses ('press III') at Dayr al-Malik [M.1004] was located at 70 metres north-east of the monastic core, adjacent to (but inside) the wall of the monastery and close to other presses of the village Bšendlāyā³, what does such an arrangement tell us about the labour who operated 'press III'? And who would have operated 'presses I and II', the minor presses situated close to the monastic core? Or, does an arrangement like that at Dayr Déḥēs [M.1080] in Ġabal Barīša, with two olive presses ('no. 2')⁴ in the very centre, suggest that monks (rather than laymen) operated the press? Furthermore,

¹ Supervisors: L.404, 10; L.424, 25 (interdiction); labourers: L.101A, 45. 166 (Skēthis [M.348]); L.118, 183; L.443 (various); I.KelliaQR195 81 (Kellia [M.360]).

² Cf. above, sect. III.1.3.3.2.

³ A short description of this arrangement is given in Schachner (2005: 167-168. 176-177 fig. 4-5 and pl. 3).

⁴ Dayr Deḥēs was a major producer of olive oil. Its production and numerical considerations on the potential output have been presented elsewhere.

south-east of these presses was the residential quarter of the monastic community ('no. 4'). At Dayr Déhès, the presses, the tower and the residential quarter, isolated from the surroundings by the wall, the church ('no. 1') and a courtyard ('no. 5'), seem to have constituted the *clausura*, the monastic core.

V.1.1 Women

Women and nuns played a considerable part in monastic production, though the documentation of female labour is comparatively scarce. However, Palladius' *Historia Lausiaca* and John of Ephesus' *Lives of the Eastern Saints* are the sourcebooks on women and labour *par excellence*. Women were particularly engaged in textile production⁵, whereas the participation of women in agricultural activities remains an open question to the present day (Fiey 1965: 291; Laiou 1992: 1, 249; Hélou 1998: 183; Krawiec 2002: 18).

V.1.2 Visitors

Palladius (d. ca. 431) reports that when visitors came to the *laura* of Nitria [M.362], they found a guest-house close to the church where they were expected to contribute to the running of the establishment in various ways: through work in the garden, in the bakery, in the kitchen *etc.* (L.123, VII, 4)⁶. As many monasteries were also service-providers, the role of the guests in the supply of labour, though presumably common, has not yet been understood. Similarly, the *Life* of Symeon

⁵ Cf. also above, sect. III.2.5.6.2.

⁶ Cf. also above, sect. IV.2.3.3.

Stylites the Younger relates that the ill that came to be healed helped to build and to run Symeon's monastery [M.1280]. Serving the monks and the guests was their way of expressing gratitude (Ven 1962: 203*). In Nitria, we are informed, one week was the maximum period for guests to stay.

V.1.3 Slaves

The role of slaves in late antiquity in general and – even more so – in the monasteries is an issue that is also insufficiently understood⁷. After the third century slavery continued to be an institution both approved by some Church fathers (e.g. Chrysostom⁸, Theodoret; often on the basis of Eph. 6: 5-6 and 1Cor. 7: 21) and by the State (L.181. 5, 2). However, it has been argued that for late antiquity the role of slavery in agricultural labour has been overstated in the past (Morrisson - Sodini 2002: 183). In *Poverty and Leadership in the Later Roman Empire* Brown (2002) shows, based on the evidence of the council of provincial bishops at Gangra (Çankırı) in AD 343, that joining monastic life was propagated by various groups as a possible way to escape slavery. Brown (2002: 36-37), however, also remarks that it is not possible to assess the widespread effect of such views (in this case, of the partisans of Eustathius in Pontus and western Armenia)⁹.

In Syria and Mesopotamia two *Lives*, early/mid-fifth and seventh-/eighth-

⁷ On slavery in late antiquity, cf. my *Annotated Bibliography in Late Antique Archaeology* (2005), section C.5.

⁸ *Homily XIX* (ed. Migne 1857), on 1Cor. 7: 21.

⁹ Monastic life as an escape from slavery can also be found in Syriac Christianity; cf. Vööbus (1958-1988: II, 380) and below.

century, presumably attest to monastic slavery. Daniel, Mār Jacob's successor as the head of the community at Ṣalāḥ (Ṭūr 'Abdīn), when improving and enlarging the monastery, acquired 'slaves and maid-servants, horses, donkeys, sheep and cows'¹⁰. Similarly, the *Life* of Symeon of the Olives describes an agricultural dependency of the monastery of Mār Gabriel [M.1440], located some distance away in Mount Singara near Mossul (in Persian, then-Islamic territory). The monks in Mount Singara lived from agriculture and supervised slaves who, at harvest time, could be supplemented by hired men¹¹.

Another instance of monastic slaves (eighth-century) has been shown by various scholars (Steinwenter 1921; Wipszycka 1972: 90-91) at Dayr Apa Phoibammōn II [M.070]. There, the documents KRU 78-88 and 90-104 (KRU 81, 92 and 99 in particular) relate to the donation of children ('*Kinderschenkungen*'), often for the purpose of labour, to the then-famous monastery. This custom may have been more wide-spread than suggested by the texts. Similar observations can be made in sixth-century Mesopotamia, where young boys worked in the households of holy men (L.419, V). At modern Dayr Anbā Samū'īl of Qalamūn [M.302] boys, though unlikely to have been donated, still served the monks during my visit in AD 2003.

¹⁰ L.432, p. 12. Since neither of the two *Lives* has been edited, the translation of this and the following reference still need to be verified against the text in the manuscripts. The translation 'slaves' has been proposed by Palmer (1990: 110 n. 198). Monasticism, Vööbus (1958-1988, II, 379) writes, '*since its beginnings, had a strong conviction that the institution of slavery was unworthy of human beings; in the encomia of the monks, the slaves they freed (when turning to the monastic life) were enumerated*'.

¹¹ L.442; Palmer (1990: 110 fn. 196).

V.2 The organization of labour

Various sources refer to division of labour in the larger *laurae* and monasteries. Besa's (d. ca. 474) enumeration of 'carpenters, smiths, potters, sack-weavers, linen-weavers, basket makers, tailors, scribes and bookbinders' (L.350, Fragment 12, VIII) at Dayr Anbā Šinūda [M.122] recalls the complex scheme of labour division already devised at Tabennēsē [M.100] during the fourth century: 'smiths, tailors, carpenters camel-drivers and fullers'¹². Further hints at professional specialization and division of labour can be found in the papyri, the *Rules, Lives and Itineraries*, of Horsiesius¹³, Callinicus¹⁴, Cyrill of Scythopolis¹⁵ and the Pilgrim of Piacenza¹⁶. Young monks, the novices, often passed through a series of monastic professions – e.g. baker, male nurse, guest-master and steward, with a change of profession after one year – as part of their apprenticeship in a monastery¹⁷. The change of profession usually required approval by the monastic authorities (L.135, 42, 7).

V.2.1 'Primus inter pares': the steward

Managerial officials (*oikonomoi*) were formally made a compulsory institution by Canon 26 of the Council of Chalcedon [L.280] and the Second Ecumenical

¹² L.123, XXXII, 9. *Ibid.*, 12: farmers, gardeners, smiths, bakers, carpenters, fullers, basket-weavers, leather-workers, shoe-makers, calligraphers; reference made to Tabennēsē [M.100]?

¹³ L.303, 35: harvesters; 57: head of the irrigation.

¹⁴ L.135, 42, 5: calligraphers, tailors, porters, herdsmen, steward, male nurses, guest-masters.

¹⁵ L.136-L.139, the individual passages being quoted elsewhere. On the professions in the Sabaitic monasteries of the Judean Desert, cf. also Patrich (1995: 169-195).

¹⁶ L.291, 37 and Anastasius, *On the Monks of Mount Sinai*, chap. 2, 4, 7, 19 (Nau 1902): stewards, cooks, translators (for pilgrims), servants.

¹⁷ E.g. Cyriacus (d. 556), while as a young man in Souka – Chariton Monastery [M.676].

Council of Nicaea in AD 787 (Meester 1942: 15-161. 281-283; Kaplan 1992: 152-155. 286-289; Kaplan 1994: 114; Papagianni 2002: 1060), but are attested – as οἰκονόμοι, ἀποκρισάριοι¹⁸, προστατευόντες, ἡγούμενοι (?) (Canivet 1969: 245), παραμονάριοι¹⁹, *rīšē dayrā* ('heads of the monastery'), *rīšē aḥē*²⁰ ('heads of the brothers'), *so'ūrē* and *mudabbirūn* ('administrators')²¹ – from the earliest days. Difficulties in their identification, however, arise from the imprecise definition of their tasks and the use of terminology²².

Cassian, Pseudo-Athanasius and others called for '*all things to be under the steward: the fruit and seed-corn and the grain that belong to the church*' (L.207, X, 20; L.603, 61). Evagrius distinguished between the unjust steward, who distributes badly, and the just one who gives as it is appropriate (L.111, 76); and Horsiesius, successor of Pachomius, composed a whole set of *Regulations for the Stewards* (οἰκονόμοι) of the Pachomian community (L.303, 22-23). These stewards, like the *pronoētai* of the large estates, were a key institution, closely related and occasionally identical to the monastic superiors. The superior or 'head' of a

¹⁸ The term ἀποκρισάριος is rather rare. Justinian, *Novella* 133 [L.181], deals with this type of stewardship in full detail.

¹⁹ I.e. manager of the real estates of the Church or a pious foundation, though not explicitly attested in a monastery (Di Segni 1999: 129).

²⁰ I.e., those authorized to assign duties in the community; see L.402, by John of Mardin (12th c.), and Palmer (1990: 95).

²¹ L.402, 5. In this *Canon* the *so'ūrō* is clearly distinct from (and inferior to) the *rīš dayrā* in the hierarchy. John of Nikiu (d. ca. 690) was bishop in the Delta and as such monastic *mudabbir* for the entire Egyptian land.

²² Obviously, there is some semantical overlap with the 'head' of a monastery. These terms listed, however, do designate the 'managers', although some of these terms also designate the 'heads' or, in a modern understanding, the *hegoumenoi*.

community used to be designated by προεστώς²³, ἀρχιμανδρίτης, ἡγούμενος, διοικητής²⁴, ⲛⲟⲥ ⲛ̅ⲣⲱⲙⲉ, ⲉⲓⲱⲧ, *rīš dayrā*, and *rabbā baytā*. Kahle (1954: I, 34) has rightly noted that even the title οἰκονόμος, which in literary texts indicates the steward responsible for all business transactions, in non-literary texts simply indicates the monastic superior. A similar overlap of *signifiés* characterizes the Syriac terms *rīš dayrā*, 'the head of the monastery' and *rabbā baytā*, 'the father of the house': 'the next to the *rīš dayrā*', Rabbūlā prescribed, 'shall take care of the needs of the community' (L.425, 34), whereas elsewhere the bishop stated that 'no one of the brothers ought to buy or sell anything without the command of the *rīš dayrā*' (*ibid.*, 7). The *rīš dayrā* could thus be the abbot, his deputy (δευτεράριος and steward) or a separate person responsible for the economy of the monastery.

As to the *rabbā baytā*, 'the father of the house': the universal role of the steward in handling economic affairs and business transactions gets even more complex if one considers that economic transactions initiated by the *proestōs* or the steward needed not necessarily be carried out on behalf of the entire monastery. This has been remarked by Wipszycka (2001b: 172-173) with reference to P.Bala'izah 115 and KRU 13, and the same may presumably be said about many more.

Whatever the precise linguistic term for the steward, the official to handle the economic affairs had to perform a wide variety of tasks. Aside from running the daily

²³ Related, δευτεράριος, 'second-in-authority', in the Coptic translation (e.g. P.Ryl.Copt. 224; O.Sarga 375); cf. also Clackson (2000: 29). The offices of the δευτεράριος and ἡγούμενος (in the sense of 'abbot') is also well attested in the fourth- to seventh-century inscriptions of Arabia and Palestine (Di Segni 1999: 129-130).

²⁴ Identical with ἡγούμενος (Crum 1922: 216 fn. 3).

routine (acquisition of foodstuff, fodder and raw materials, release of products for sale) these tasks include the appointment of the brothers to various offices²⁵, and to make them leave for work during harvest and return at the proper time (L.303, 35). The steward was also the one (and only) authorized to leave the monastery for business affairs; this task will be treated in section **VI.3**.

V.2.2 Scheduling work

V.2.2.1 Daily

As in any communal social structure, the scheduling of work in monasteries must have played a crucial role in the smooth performance of the daily routine: prayer, work and rest. Evidence for such arrangements comes from only few (predominantly Syriac) textual sources – e.g. the *Canones* of Marūtā (L.420, LIV, 18. 23. 24), the bishop of Mayperqaṭ, and *De vita monastica* by Philoxenus (L.452, 77. 79), bishop of Hierapolis (Mabbūg). Marūtā proposes a scheme according to the type of monastic establishment ('monasteries of workers' versus those who do not work) and to the season, understandable if one considers the Syrian heat. Philoxenus, on the other hand, proposes a less labour-intensive daily routine; apart

²⁵ Explicitly stated in L.406, 2, the examination of the brothers being undertaken by the *rīš dayrā*. Similarly Gregorius Bar Hebraeus, *Nomocanones* (Vööbus 1970: 221) [L.412] and Marūtā, *Canon XLIV*: 'It is the will of the synod that the *rīš dayrā* shall set apart (*lit. see*) the brothers, those in whom there is the zeal of the fear of God, who are active and do not spare themselves, to whom the needs of the monastery and their brothers lie on their hearts – these men shall serve before the *rīš dayrā*, some as *rabbay bōtē* ('heads of the houses'), others in the service of a doorkeeper, others in the visitations. They shall take care of the monastery, everyone in his place. These have no anathema' [L.420]. At present it is impossible to ascertain whether 'heads of the houses' actually refers to the stewards or also to 'monks-en-chef' of some craftsmen units ('houses') as attested in the Pachomian monasteries; cf. Rousseau (1985: 79. 81-85. 114-115).

from the (only-) three-hours daily commitment, work was only expected of those monks in the two lower states, namely the corporeal and the mental. Brethren who had achieved the state of the *pneuma* were exempt from working at all.

Marūtā's and Philoxenus's time schedules (with regard to manual labour) can be summarized by the following scheme:

	<i>hora tertia</i>	<i>hora sexta</i>	<i>hora nona</i>	
a)	work (from early)	reading	service/eating	rest
b)		?		eating
c)			work	

a) Marūtā, 'monastery of workers' (summer)

b) Marūtā, non-workers (they eat only once a day)

c) Philoxenus

There is occasional evidence of scheduling in other sources, such as in the *Apophtegmata Patrum* which relate that Abba Daniel plaited his ropes from the morning to the sixth hour or noon (L.101A, IV, 5). My survey of the Egyptian papyri and monastic remains in Syria and Palestine complements the picture drawn of the regulated monastic routine. Derda (1997: 151-152) quotes a reference to a *horologion* in a papyrus from Dayr an-Naqlūn [M.308]²⁶. Such *horologia* (sundials, occasionally conical) have been found in a number of monasteries: e.g. at Castellion [III.690/1] and in Wādī Muḡār [M.738] in the Judean Desert, Qaṣr al-Ġarbī A [III.1012/1] in Ġabal al-A'lā, Qal'at at-Tuffāḥ [M.1100] in Ġabal Barīša and at Dayr

²⁶ P.Naqlun I 6, lines 12-23. The editor, however, suggests that the *holologion* belonged to an individual monk of the *laura*, and not to the monastic community.

Sim'ān SW [M.1220]. It is worth noting that at least four of these monasteries (Wādī Muḡār?) played an important role in their regional economies (presses etc.) and in the pilgrimage-related scene. In such establishments time-keeping was crucial not only to determine the hours for rest, work and prayer, but also for the provision of the pilgrims and their admission to the holy shrines (monastic tombs; Qal'at Sim'ān).

V.2.2.2 Weekly and seasonal

Many of the sources on Palestinian and Egyptian monasticism speak of the monks in the *laurae* who worked during the week (Monday to Saturday) and came to the monastic centre – for the *synaxis* – on Saturday afternoon²⁷. Sunday, according to the overall impression received, was reserved for communal worship and prayer, and for the preparation of the week to come (e.g. the renewal of raw material supplies). Remarkably, the sources studied in this thesis revealed only one monk and abbot who apparently tolerated ignoring the Sunday rest: Barsanuphius (d. 540), when asked if it was a sin to work on Sundays, briefly replied – quoting 1Thes. 2: 9 – that even the 'violation' of the Sunday was justified by the words of St. Paul: Paul had instructed the Christians to work day and night²⁸.

In many monasteries, the week was the normal period of rotating tasks²⁹. In the Pachomian foundations even the *praepositus*, the head of the house (elsewhere the *rabbā baytā*), was a *hebdomadarius* (Rousseau 1985: 114).

²⁷ Cf. Chitty (1966: 90) and above, chap. 1.2.

²⁸ Cf. *Fathers in controversy* (sect. II.3).

²⁹ L.207, IV, 19, 2, with change of tasks Sunday late afternoon. Other references to a weekly rota are L.123, XXXII, 11; L.135, 42, 6; L.449, 17.

The nature of tasks was also influenced by the change of the seasons, though these changes are rarely reflected in the texts (e.g. Marūtā's *Canon* LIV/23). As monastic production was largely agricultural, village farmers and monks were affected alike. Till's *Coptic Almanac* (1936) and the tenth-century *Geoponika* (referred to elsewhere) give the most authentic insight into the reality of the late antique and Medieval agricultural world. Manufacture was sometimes organized to fit the other times: for example, where the monks were involved in pottery production³⁰, these tasks often finished by June or July, before their labour was again needed to harvest the vines.

Concluding remark

Despite the importance of labour in the economy of these monasteries, its organization is poorly documented and its mechanisms – including the status and the role of the steward – only insufficiently understood. The issue of slaves and children still needs to be addressed in the wider context of late antique slavery. Similarly, given the poor state of documentation, it is also impossible to assess the extent to which monastic labour influenced the development of surrounding, non-monastic settlements.

The other issue considered was scheduling time on a daily, weekly and seasonal basis. Scheduling was instrumental to coordinate various members and tasks in order to establish one monastic routine. The evidence of *Rules* and sundials

³⁰ Cf. sect. III.2.4.

in various locations still witnesses to the seriousness of this concern.

OUTPUT

Chapter VI

Chapter **VI** is the last chapter of this thesis and deals with output, a key constituent to describe production and 'productivity'. In those cases where the factual output can be determined by textual evidence – including the papyri, and often on the basis of a single instance rather than of periodicity – numbers could be given with a certain degree of accuracy (e.g. chapters **III** and **IV**). However, the archaeological evidence only occasionally allows the immediate assessment of output, but provides data which is sometimes comparable to data obtained by palaeo-anthropology and experimental archaeology. This said, *nolens* or *volens*, the treatment of output – surplus production, specialisation versus generalisation and marketing – must remain preliminary in the way described in section **1.2**.

VI.1 Surplus production? Quantifying monastic production

Since the 1980s, there has been an enormous increase in monastic studies and substantial efforts have been made by a number of scholars – notably Wipszycka (Egypt, papyrology), Dahari (Southern Sinai, archaeology), Hirschfeld, Patrich *et al.* (Judean Desert, archaeology), Tchalenko and Peña (Northern Syria, archaeology) – to unveil the day-to-day, economic reality in the late antique monasteries. However, despite the credit for their publications, one has to state that there are still deficiencies. The question of output, for example, has nowhere been addressed systematically.

Before the 1980s, historians (Jones *et al.*) still considered the emergent Church (*not* considered in this thesis) as the new economic player of late antiquity, but widely disregarded the monasteries (unless subsumed into the Church). In the light of the more recent discoveries, however, archaeological and papyrological, chapters II to IV have shown that such views are outdated and no longer reflect ancient reality: in the East, by the mid-fifth century the economic scene had been enlarged, if not occasionally dominated, by the Church (cf., in particular, Wipszycka 1972) and the monasteries.

VI.1.1 Scholarly views

In *Gods, Temples and Churches in Egypt after the Pharaohs*, Bowman (1986: 196) notes that '*monastic communities being self-sufficient to a high degree, it need*

not and should not follow that they were entirely divorced from involvement with the nearby towns and villages'. Bowman, based on his vast acquaintance with the documentary papyri from Egypt, stresses the self-sufficiency of the late antique monasteries. He also states that the sixth and seventh-century estates of the Oxhyrynchite family of the Apions were 'by no means economically self-sufficient', for on a casual basis they purchased pots from local potters and mats and ropes from a nearby monastery [M.264] (*ibid.*, 117).

Such observation is recorded from as early as AD 400, by Palladius (and, following Palladius, by 'Enaniṣō'), namely that among the monks of Nitria [M.362], there were many who worked with their hands, 'so that they were all independent (ὡς εἶναι πάντες ἀνευδεεῖς)' (L.123, VII, 5; L.421, VII). As the monks of Nitria were living close to the Delta, one wonders whether these monks did not also obtain some commodities from elsewhere. Note that the *laura* of Nitria was particularly popular amongst pilgrims from the fourth century.

The concept of self-sufficiency, as proposed by Bowman, has more recently been opposed by Wipszycka (1996: 324):

'Les communautés monastiques [égyptiennes] n'étaient pas en mesure de se procurer par le travail tout ce qui leur était nécessaire pour vivre: leur travail était trop peu rentable (notamment lorsqu'il consistait à fabriquer de la vannerie), il durait trop peu de temps (car la prière était plus importante), les communautés avaient trop de vieillards et de malades, et le devoir de distribuer des aumônes pesait d'un poids trop lourd par conséquent, l'afflux de dons apportés par des hôtes pieux était une conditio sine qua non pour toute communauté monastique un peu nombreuse'.

Wipszycka resumes some observations made in this thesis (e.g. the low profitability of basket-making), whereas the others (the conflict of time for work and

prayer, the burden of charity and philanthropy) seem, unless substantiated elsewhere, inferred. On similar grounds, Escolan (1999 : 189 and 192), writing on self-sufficiency in the monasteries of Syria, states that '*le monachisme était financé principalement par l'aumône*'. The Syrian monk, according to Escolan, was a beneficiary and a dependant on his '*clientèle de fidèles*'. Both Wipszycka and Escolan rightly highlighted an important source of income, namely patronage¹, but were limited in their assessment by the evidence of the papyri and hagiographical texts. Furthermore, both scholars drew their conclusions based on their observations in micro-regions (Skēthis; Cyrrhus, Edessa etc.) which may not be representative for 'main-stream' monasticism in the *coenobia* elsewhere. The full consideration of production at every monastery, as proposed in this thesis, unveils a more complex reality.

VI.1.1.1 The North Syrian Limestone Massif

The Limestone Massif has been a principal focus of this research. It is the merit of Tchalenko to have, for the first time, considered its monasteries with regard to their impact on the Syrian economy. In *Villages antiques de la Syrie du nord* Tchalenko considered, summarizing his evidence (primarily archaeological), the fifth- and sixth-century monasteries as '*à la tête des grandes exploitations agricoles*' (Tchalenko 1953: I, 173-178)². Tate (1992: 339-340), whose publication *Les Campagnes de la Syrie du Nord du IIe au VIIe siècle* followed four decades later,

¹ Cf. below, sect. VI.3.6.

² Cf. above, sect. II.2.2.7.

had, *grosso modo*, a modified, differentiated view:

'C'est le quotient du nombre des moines par celui des surplus qu'ils réalisent ou de la quantité de terre dont ils disposent qui nous permettrait de savoir s'ils constituaient des exploitations plus ou moins rentables que celles des paysans. En toute rigueur, on ne peut parler à leurs propos de 'parasitisme': ces sont des exploitants, et non seulement des prévaleurs de rente. [...] En fin de compte, dans l'état actuel des connaissances, le poids des couvents ne peut être assimilé, au plan économique, à un parasitisme capable de compromettre l'expansion des villages en annulant les surplus de la paysannerie, bien qu'ils aient pu jouer finalement ce rôle dans certaines régions'.

Where lies the truth? In a number of publications, the third scholar, Peña, partly filled the gap of required archaeological documentation, though the question of landownership is still the less clear. Peña, on the other hand, only in passing considered the ancient economy, stating – far too briefly and generalizing – that *'vivant dans des régions fertiles, fort peuplées et récemment christianisées, les reclus syriens n'avaient pas besoin de travailler pour se procurer les ressources nécessaires à leur existence'* (Peña 1980: 130). Peña refers to the Syrian hermit, and, with regard to the *coenobium* or monastery: its economy neither aimed at yield (*rendement*), nor at the accumulation of wealth (*enrichissement*)' (Peña 1983: 57). Peña, who, for decades, meticulously catalogued monasteries, presses and other remains, would have been in the strongest position to have the economic issue further scrutinized. On the contrary, the scholar tried to reconcile the few and vague hagiographic sources (Chrysostom, Theodoret *et al.*)³ with the material remains. Thus, disregarding the archaeological reality (which he documented to such a thorough extent), he hastily summarized the monastic economy by quoting the idealized case of Mār Bassus, a representative of the truly ascetic, 'non-labour'

³ But omitting Isaac of Antioch.

extreme⁴.

Partly, the present thesis has been an attempt to pick up where Peña's publications have left off. Based on the evidence, published and un-published (personal)⁵, of

- presses (olives and grapes) and millstones,
- hydrological installations (water conduits; cisterns, reservoirs),
- terraces and
- boundary fences

as *quasi-ubiquitous* features in the north Syrian monasteries, there is now strong reason to suggest that, in a large number of cases, production would have been directed towards the generation of surplus and yield. Dayr Déhès [M.1080] is an instructive example – it will once again be referred to below.

As the generation of surplus depends on the available labour⁶ and the domestic demands of these monasteries, the small numbers of inmates – in the Limestone Massif in average 7 to 30, according to Peña – and the high number of press installations (cf. sect. III.1.5, pl. XV) favours the hypothesis of surplus and profitability. If such surplus could be achieved, it could have been distributed

⁴ Peña (1983: 58). On Mār Bassos [L.124, XXVI, 8], cf. sect. II.3.2, table 6, no. 34.

⁵ Cf. sect. II.2, III.1.4 and III.1.5 (incl. tables); vol. 2, sect. C.5.

⁶ Cf. sect. V.1 and Tate (1992: 267): '*Ces domaines étaient donc exploités en faire-valoir direct, soit par une catégorie de moines, ce qui suppose un changement dans les règles monastiques vis-à-vis du travail manuel, soit par une main d'œuvre spécialisée. De ces deux hypothèses, les vestiges archéologiques conduisent à préférer la première car aucun logement convenant à une main d'œuvre salariée ou servile n'a été retrouvé*': Tate too, suggests without foundation, 'universal' monastic rules that would, *a priori*, be hostile to manual work (for the opposite, see sect. II.3.2 and *ibid.*, no. 29-30); the '*logement convenant à une main d'œuvre salariée ou servile*' has been discussed in sect. I.1.2, the accommodation facilities of the monks are little distinguishable either.

among pilgrims (as discussed in section **IV.2.2.1.3**) or sold off to the market elsewhere; the return would presumably have been invested, amongst others, into their often so excellent architecture (notable of those monasteries recorded by De Vogüé and Butler, at the turn of the nineteenth century). Tchalenko, Tate and Decker agree in stating that the Limestone Massif was the major supplier in oil and wine of Antioch, Antiochene and Apamene, and the eastern Mediterranean. In their publications, the contribution of the monasteries, so frequent in number and press installations, still remains unclear.

VI.1.2 Numerical data: a selection

VI.1.2.1 *Agricultural land*

The use of comparative data to assess production has already been exemplified in section **III.1.4.3**. There, the assessment of oil-production at Dayr Déḥès [M.1080], in North Syrian Ġabal Barīša, has yielded conspicuous results: only 1.8% to 2.2% of the calculated output would have been produced for the monastic community, whereas 97.8% to 98.2% could potentially have been distributed or sold off as yield. The assessment was based on the extent of the olive grove.

The area of agricultural land was also at the basis of research undertaken in 1981 in southern Sinai. There, combined horticultural and calorimetric studies (Pervolotski 1981: 331) showed that, under modern conditions, 350 m² was the amount of land needed to provide for the annual nutrition of one Bedouin. Sect. **II.2.2.2**, plate **V**, lists the monastic land ('agro-plots') exploited and irrigated in late

antique Sinai: their average surface was 2,806.51 m² (or 1,400 m²)⁷, providing nutrition for up to eight men. On the other hand, Dahari (1998: 150), who surveyed the Sinai region, concluded that in South Sinai 300 m² was the area cultivated, on average, per individual monk or man. Based on these numbers, hypothetical as they may be, the monks in south Sinai may have enjoyed a considerable degree of self-sufficiency.

The smallest numbers on agricultural land are given in an account of Symeon, a monk in the village of Kalesh in Mesopotamia. Symeon, John of Ephesus relates,

'whenever any stranger wearing a habit came to him [...] he would immediately run to the garden, which measured about ten cubits one way, and about twenty the other and the heavenly blessing rested upon the place to such an extent that what was sown in it was enough for forty men' (L.419, V).

Symeon's garden, according to the numbers, measured 39.5 m². Koder (1993: 69), based on Kopetz (1957: 11), notes that under pre-industrial conditions (and in a central European climate), Symeon's garden would have been able to guarantee the monk's self-sufficiency. Only when the account speaks of Symeon feeding forty men is its credibility shattered. However, forty square metres per monk must have been a lower limit, as smaller plots were unlikely to feed an individual. Accordingly, in the documentation these are extremely rare (e.g. at 'Ayn as-Saharī [M.674])⁸.

On the other end of the spectrum we find the monasteries of the Judean Desert in Palestine. Their average agricultural area was 10,142.86 m² (with higher

⁷ So at the 'farms' and 'farmhouses' (Dahari 2000: 147).

⁸ Cf. sect. II.2, pl. VIII.

numbers in the larger *coenobia* and *laurae*, namely the Nea Laura [M.663], Souka [Ill.676/2], Sabas [M.684], Heptastomos [M.684B], Gerasimus [M.714], Firminus [M.764] etc.). To assess the surplus, one again needs to divide the surface by the number of monks (where known; inmate numbers based on two monks occupying an individual cell). Accordingly, the area *per caput* at Sabas amounts to 2,666 m², and to 15,000 m² at Firminus. Despite the lack of information on soil fertility in the Judean Desert⁹, these numbers suggest – by comparison with the data from southern Sinai – a potential surplus (up to a ratio of 1 : 42) being produced.

Monastic land is best documented in Egypt¹⁰, where it is also the most difficult to assess with regard to its production and productivity. The difficulties are many: unknown locations and sizes, the lack of palaeo-geological and palaeo-climatic data, no comparative data as the area of inundation was reduced by the construction of the Aswān Dams in 1898-1902 and 1960-1971. Nonetheless, two observations are valid and instrumental, namely that – apart from a few exceptions (e.g. Dayr Apa Sourous [M.162]) – the total area of monastic holdings was rather small. Secondly, the extent of estate fragmentation was detrimental and must have had a negative impact on production and output.

VI.1.2.2 Press specifications (olive oil)

To date, attempts have been made volumetrically to assess the output of the

⁹ On this issue in general, cf. Gilchrist Shirlaw (1962). The average annual precipitation is up to 400 mm per year; cf. sect. II.1.1.2.3.

¹⁰ Cf. sect. II.2.2.1; pl. XIII and IVa-b.

presses at two monasteries: Pisgat Ze'ev East A (Ra's Abū Ma'arruf) [M.648], situated near Jerusalem, and Dayr Déhès [M.1080]¹¹. This method, based on the volume of pulp pressed in each operation, had been developed by Mattingly (1988: 181-185). However, the method (applied here by Seligman and Callot) poses difficulties since the only figures with absolute credibility are the maximum volume of the vat and the maximum quantity of oil obtainable per pressing¹². Furthermore, it needs to be stated that in the Limestone Massif the dimensions and the layout of monastic presses remarkably resembles those of the village presses and wineries.

VI.1.2.3 Container contents (amphorae, baskets)

In the papyri from Egypt one can clearly recognise the connection between landholdings and the production of wine¹³. Furthermore, archaeology comes on to the scene when considering the storage and transport of wine in jars: as we have already mentioned (sect. III.2.4), most jars found in these monasteries were of the type Carthage Late Roman 7 (LR7), a small amphora of 4.5 litres, 24 of which constituted one camel-load. However, as to quantification and surplus there are again inconsistencies: the textual documentation only covers a short period (certain days) of the vintage season (e.g. pl. XIII), and there are virtually no grounds for an assessment of the consumption within these monasteries (Dayr al-Balā'iza [M.174], it

¹¹ On these calculations, cf. sect. III.1.4.3 and above.

¹² The data retrieved from fieldwork in the Syrian Limestone Massif in 2002 and 2003 (sect. III.1.5, pl. XV) illustrates the same difficulties: contrary to the surface, the height/volume of the vat could be ascertained only occasionally (the vat being silted up etc.). I thus refrained from calculations of the type proposed by Mattingly. Furthermore, the identification of olive-press versus winery is in most cases unclear; on press-technology, cf. sect. III.1.4.4.4.

¹³ Cf. sect. II.2.2.1 and III.1.5.2.

has been suggested, had up to 1,000, and Dayr Anbā Abullū' [M.190] up to 500 inhabitants). Neither do we know the final destinations of these wine-deliveries. At Abū Mīnā [M.378], an enormous pilgrimage centre and monastery, the capacity of the wine-press was of the order of 250 baskets per day. At Abū Mīnā it could well be imagined that the wine from the vineyards was drunk (and taken away) both by the monks and the pilgrims who flocked to the shrine of St. Menas throughout the year¹⁴.

VI.1.2.4 Monetary issues

The fifth-century *Apophtegmata Patrum* relate the remarkable incident of Lucius, a hermit who earned through his work 16 *nummi* per day, of which he spent 2 *nummi* to support someone to pray for him when he was asleep or eating. With the remainder, 14 *nummi*, Lucius purchased his food. Bagnall (2001: 21) took this *apophtegm* as a base for further considerations. During the fifth century a yearly income of 5,110 *nummi* (i.e., 14 x 365 *nummi*) would have amounted to little less than three-quarters of one *solidus*¹⁵. At best, this sum would have bought 7 *artabas* of wheat (if Lucius ate wheat, not barley), yielding Lucius about 1,840 calories a day. As the nutritional input of 1,840 calories per day is still below subsistence level, Lucius must have had other sources of income, either from a garden or acts of charity. The case of Lucius, however, also illustrates the problematic of using the *Apophtegms* for

¹⁴ Cf. sect. III.1.5.2.1 (incl. pl. XII) and IV.2.

¹⁵ For comparison, Jones quotes an interesting parallel from John Moschus' *Spiritual Meadow* [L.118, 134], the story of an Egyptian monk who, aspiring to buy a beautifully bound copy of the New Testament costing three *solidi*, took work as a labourer on a cistern which John, the bishop of Jerusalem (516-524) was building. Theodore, the monk got only 5 *folleis* a day, which at the current rate of 210 *folleis* to the *solidus* (Jones 1964: 858) works out a little over half a *carat*. Even at this rate, however, a man in full employment could earn 7 *solidi* a year, about as much as a private soldier got. On currency and inflation in this period, cf. Bagnall (1985).

the assessment of the monastic economy: these texts reflect, in a highly idealized manner, the life of hermits in the *laura* of Skēthis [M.348]. One must bear in mind that life in Skēthis had little in common with life in the many fifth- to seventh-century communal monasteries.

'Le monachisme occupe une place éminente dans la société byzantine sur plusieurs plans. [...] Au plan idéologique: il se veut l'image de la vie chrétienne parfaite [...] Au plan ecclésiastique: les monastères constituent à la fois une mine inépuisable de saints hommes, un foyer de recrutement des évêques et un pôle de contestation de la hiérarchie. Au plan social enfin: les moines deviennent de grands propriétaires sans en avoir ni la vocation ni les capacités.'

(Kaplan 1997: 121)

VI.2 Specialisation versus generalisation

In section II.3 (*Fathers in controversy*) and chapter V (*Human resources and the organization of labour*) the intellectual background to economic enterprise and the essential features of labour organization have been set forth. Furthermore, it has been shown that we still find ourselves remarkably ill-informed about labour division, professional training and the *modus agendi* of the management board (the abbot, the steward and his deputies, the *dikaion* etc.)¹. The present section, in summarizing chapters II to IV, looks at the issue of specialization. Even if the management of the daily affairs has scarcely been recorded – as opposed to the many single transactions attested in the papyri – one should, from the outset, assume at least some degree of complexity. From this it may prove true or false if '*lack of vocation, lack of abilities*'² really matches the ancient reality.

Specialization, in the present context, has two meanings, namely to exceed or excel in some way in that which is usual or common (e.g. through professional training or advanced technology), or to focus on the production of one single, or a

¹ Cf. sect. V.2.1. Not in sect. V.2, The *dikaion*, frequently attested in P.Bala'izah, CPR IV, P.Lond.Copt. I 1055 and P.Ryl.Copt. 164 (cf. vol. 2, sect. C.2), according to Steinwenter (1930: 31) and Kahle (1954, I, 31-32), simply denotes – rather than a 'council' or 'assembly' – the jurisdiction of the monastery, normally represented by its superior.

² Cf. Kaplan (1997), on top of this page.

small number of commodities, respectively. Despite occasional reference to apprenticeship and professional training – most training being required for book-production – the overall evidence of training is extremely low³. However, in the light of the following sections, the lack of documentation on training does not necessarily imply that the monasteries and their inmates were not up to the demands of an ancient, primarily agricultural society. Furthermore, some sort of management and labour division are attested in the papyri, inscriptions and hagiography⁴. Archaeology, on the other hand, has been able to prove, in most of the regions considered, both the existence and the use of late antique ‘advanced’ technologies (e.g. threshing-machines, lever-and-weight presses, looms, *sāqiyas*, cisterns, (often) enormous reservoirs) in these monasteries⁵.

The second aspect relates to the range of products generated in a single monastery. To assess this range, the evidence – though lacunary and often

³ See sect. III.2.3.4, IV.1.2.1 (*Book-production*) and V.2 (rotating tasks).

⁴ In particular at Dayr Apa Phoibammōn II [M.070], Tabennēse [M.100], Dayr Anbā Šinūda [M.122], Wādī Sarġa [M.172], Dayr al-Balā'iza [M.174], Dayr Anbā Abullū' and Dayr Apa Jeremiah [M.334]. The last monastery is particularly instructive as a vast spectrum of monastic professions (and related epithets) is attested by epigraphy (I.QU III and IV).

⁵ Cf. vol. 2, sect. C.5 (archaeology). In the papyri, irrigation devices are attested at Abba Aganēs [M.024]: SB XX 14701; Forty Martyrs/Holy Theophilos [M.046]: O.CrumST 46; Dayr Epiphanius [M.068]: P.Epiph. 85 (?). 312; Genealios [M.152]: P.Hamb. I 68; Apa Sourous [M.162]: P.Cair.Masp. II, 67133; Wādī Sarġa [M.172]: O.Sarga 108; Dayr Balā'iza [M.174]: P.Bala'izah 324; Tūnā al-Ġabal [M.198]: P.Horak 10; Hermopolis Magna (?): P.Giss. I 56; Apa Jeremiah [M.214]: P.Cair.Masp. II, 67151; Phoibammōn [M.240]: P.Cair.Masp. III, 67299; Apa Hierax [M.272]: P.Oxy. LXIII 4397; Elias [M.284]: P.Cair.Cat. 10077; Oxhyrynchus: P.Oxy. XVI, 1968; LXVI, 4537. On water-conduits, cisterns and reservoirs, cf. sect. table sect. II.2, pl. V-VIII and III.1.5, pl. XV (fieldwork data). The construction of a reservoir in Tūr 'Abdīn is described in remarkable detail in the *Life of Mār Samuel*: 'And outside (this door the monks dug again and they made this deep cistern (*keyvā*), which is formed and clawed into the limestone bedrock) (It consists of) three vaults, the size of which is (in length) 40 cubits, (width) 36 cubits, (height) 25 cubits [...] This (cistern) satisfies the thirst and other needs of the whole community and of everyone who enters it, though not of the livestock' (L.437, 14). As one Roman cubit was approx. 0.444 m, the cistern had a volume of 3,151 m³.

unbalanced – again comes from texts and from archaeology. A comparative chart will illustrate, based on the previous chapters, the impressive variety of production, in one way or the other, in a considerable number of monasteries.

In Northern Syria, on the other hand, the issue of specialisation (vine or olive monoculture) versus generalisation (agriculture, animal husbandry etc.) still cannot be fully assessed in the monasteries. Did these monasteries simply reduplicate the economy of the lay estates and the villages, for which Tate, Sodini *et al.* proposed a mixed Mediterranean economy? Tate (1992: 258) concludes, based on his vast experience, that the houses in the Limestone Massif

'du point de vue économique, elles sont caractérisées par une absence totale de spécialisation; dans la plupart d'entre elles, l'arboriculture est attesté ou probable et l'élevage est certain'.

As the monasteries of the Limestone Massif, as shown in sections **III.1.4** and **III.1.5**, were actively involved in wine and oil- production, the question now arises whether these monasteries were *exclusively* producing wine, olive-oil and related products, or if no such limitations should actually be inferred. Archaeology could presumably give the answer if *all* archaeological data had been collected, analyzed, the issue of press technology been solved and all data quantified. Therefore Tate and Peña have masterly paved the way. A high degree of specialization also generates or requires an economic environment characterized by exchange or sale. On the other hand, specialization may also have been a simple necessity where the amount of available labour was very low. This was the case in many of the smaller North Syrian monasteries.

Urban monasteries, known for the most part only from the textual sources, constitute the most ill-defined monastic economic category. These monasteries have been considered on various occasions and in particular in section **IV.2**. Their revenues must have come from patronage, service-provision and landownership in the suburban and rural environments. The degree of specialization remains an open question with regard to these monasteries.

In summary, the (quasi-) random selection of twenty-two sites (table **21**, another 'key-table' to be read horizontally) illustrates the 'universal' character and the wide range of production in many of these late antique monasteries. The table summarizes types of monastic production in Egypt (no. 1-9), Palestine (no. 10-14), North Syria (no. 15-19) and Mesopotamia (no. 20-22). For each monastery the details are given in full in vol. 2, section **C.5.3** (*Gazetteer*). It is striking to see that, on average, production spanned an enormous, if not complete range of varieties! Where there are lacunae, these either reflect some type of specialization (and the renunciation of other types of production respectively), or the lack of documentation or evidence⁶.

Monastery	ID	Landownership (II.2)	Animal husbandry (III.1.1)	Basketry (III.2.1)	Book-production (IV.1)	Bread (III.1.3)	Leather goods (III.2.3)	Oil (III.1.4)	Pottery (III.2.4)	Textiles (III.2.5)	Wine (III.1.5)	Pilgrimage (IV.2)
1 Dayr Apa Phoibammōn I	M.056	?	x			x						
2 Dayr Apa Epiphanius	M.068		x	x	x	x	x	(x)	x	x	?	

⁶ In particular, no. 10-22, as there is no supporting evidence from papyrology.

3	Dayr Apa Phoibammōn II	M.070	x	x			?	x	(x)		x	?	
4	Tabennēsē	M.100	x	x	x	x	x	x			x		x
5	Dayr Anbā Šinūda	M.122	x	x	(x)		x	x		x	x		x
6	Wādī Sarġa	M.172	x	x	x	x	x	x	x	x		x	
7	Dayr al-Balā'iza	M.174	x	x			x	x	(x)		(x)	x	
8	Dayr Anbā Abullū'	M.190	x	x		x	x		x	x		x	
9	Dayr Apa Jeremiah	M.334	x			x	x	x	x	x	x	?	
10	Sabas	M.624	x	x	x	x	x						x
11	Pisgat Ze'ev East A	M.648							x				
12	Castellion	M.650	x			x							
13	Nea Laura	M.663	x				x					x	
14	Souka	M.676	x			x	x						
15	Dayr Bašakūḥ	M.1088	x				x	or	x				x
16	Dayr Šim'ān	M.1122		x									x
17	Dayr Babišqa A	M.1140		x			x	or	x				x
18	Dayr Tell 'Adē	M.1190	x			x							x
19	Burġ as-Sab'	M.1192	x			x							
20	Jacob (Šalāḥ)	--	x	x								x	x
21	Dayr Mār Gabriel	M.1440	x	x		x	x	x	x				
22	Mār Aḥā	M.1442	x	x			x					x	

Table 21: Types of production attested in various monasteries (summary, selection).
The numerotation of the columns refers to the individual sections in this thesis.

Furthermore, table **21** visualizes the connection of landownership with various agricultural activities, and of agriculture (and animal husbandry) with the provision of services (e.g. pilgrimage). 'Low-profit' products (e.g. basketry, the product par excellence in the hagiographic sources; leather goods) were actually produced in both large and small monasteries.

On the other hand, 'real' specialisation, i.e. the focusing in the production on one single, or only a small number of commodities, can only be shown in a tiniest number of monasteries. The strongest specialization on (or documentation of) wine is attested for Wādī Sarġa [M.172] in Egypt, and Dayr Anbā Abullū' [M.190]. Both communities, however, also produced a whole variety of other, smaller, and presumably less rentable commodities.

(continue page 341)

'[Of how when the work of the brethren was sold Rabbā was unwilling even that they should accept the full price of the same:] *The same brother took away from the shoemaker to sell a large number of shoes (or sandals) and other kinds of objects, and having received as their price a larger sum of money than the shoemaker had mentioned [...] he reckoned up the price of the leather, and of the labour of his hands, and the value of the work of the days [... the shoemaker complains about the selling brother:] 'He hath sold them for a great deal more.'* [Rabbā said:] 'You have sinned greatly in loving excess, but run quickly, and give back the excess in price to those who gave it to you.'

(^cEnanīšō^c, *Paradise of the Fathers – The Monks of Tabennēsē* [M.100], XII [L.421])

VI.3 Marketing and finance

Controversial in nature, marketing of the monastic products was the way to make them viable for other purposes, either to support oneself and one's monastic community, or to redistribute surplus through various acts of charity. This section re-considers, in conclusion, the strong evidence of sale and monastic finance.

VI.3.1 Evidence of sale

That the sale of monastic products was a day-to-day reality is unquestionable. In the hagiographic sources on Egypt, sale – in most cases direct and without intermediaries¹ – is well attested (and occasionally described as an obligation) at Tabennēsē [M.100]², by Evagrius³, Zacharias (L.343, p. 357. 358. 373), in the *Apophtegmata Patrum*⁴, the sixth-century *Spiritual Meadow*⁵ and the *Life of Daniel of Skēthis*⁶, the seventh-century *Life of Isaac of Qalamūn* (L.339, XXVIII); in

¹ Cf. also Wipszycka (1996: 348).

² L.123, XXXII, 8 (sale in Alexandria); L.131, 113; L.421, XII.

³ L.110, 41 (obligation).

⁴ L.101A, V, 31; VI, 15; VI, 19; L.301, 27 ('there is nothing wrong about sale').

⁵ L.118, 114 (from Skēthis [M.348] to Terenouthis/aṭ-Ṭarrāna). 194 (from Skēthis to Alexandria).

⁶ L.333, p. 104 (obligation). 106.

Sicily in the *Life* of Hilarion (L.233, XXV, 8-9); in Syria by Theodoret (L.124, X, 2-3); and in Mesopotamia in the *Life* of Mār Samuel (Ṭūr 'Abdīn) (L.437, 5) and the *Lives of the Eastern Saints* by John⁷. The papyri complement this picture with a plethora of individual transaction in various products that can clearly be labelled as 'sale', i.e. the exchange of commodities for money or other considerations.

VI.3.1.1 *Opposition to sale and rules of conduct*

As economic exchange involved the (perhaps) most serious threat to the ancient eremitical and monastic ideal, namely the interaction with the secular, business had also been opposed from the earliest days. 'When we are compelled [by economic necessity?] to spend some time in the cities and the villages', Evagrius writes in his *Practicus*, 'let us, above all, firmly abstain when dealing with the secular' for the sake of the protection of the intellect (L.110, 41). Elsewhere, in Ṭūr 'Abdīn, for Samuel (d. 410) and his followers, the monk on business on behalf of his monastery was still exposed to another, yet more serious and constant threat: Satan made the girls of 'the world' yearn for his soul (L.437, 5)!⁸

Opposition to mercantile enterprise was strong in the monastic milieux during the fourth and fifth centuries, whereas after that period opposition (or simply the evidence of opposition) fades away. Bishop Rabbūlā, whose Edessene clergy, priests and monks, led 'a rather messy and worldly life' (Drijvers 1999: 146-147),

⁷ L.419, VIII (Adday). XIII (the seller was Egyptian/Libyan by origin). LI. Adday, according to S. Ashbrook-Harvey (1990: 47), ran a 'shrewd profitable business' in wine. Cf. sect. III.1.5.2.

⁸ Fornication of the monks is a 'big issue' in the hagiographic sources. On the making of fornication in early Christian thought, cf. Gaca (2003: 119-291).

dedicated a number of *Canons* to the regulation of commercial affairs:

'The brothers of a monastery shall not enter the villages except only the so'ūrō [i.e. the administrator]⁹ of the monastery and he shall observe the order of chastity.' (*Canons for the Monks*, 2) (L.423, 2);

'The so'ūrē who go out on business of the monastery shall not put on the garment of hair, nor shall any of the brothers outside the monastery, so that they may not despise the honour of the monastic garb.' (*ibid.*, 6);

'There shall be no business-affairs of buying and selling in the monasteries, except only for that (thing) which is sufficient for their needs, without greediness.' (*ibid.*, 11);

'No one of the brothers ought to buy or sell anything without the command of the rīs dayrā, and the three brothers who are next to him.' (*Pseudo-Rabbūlā, Canons*, 7) (L.425, 7).

Similarly, the anonymous Syriac *Rules for the Nuns* stipulate restrictions for the members of a female community, namely

'not to engage themselves [in worldly intercourse? ...] except (it be) because of necessary business. Except if they have an evident (cause), they shall not go out of their monastery.' (L.407, p. 68)

Rabbūlā's (d. 435) *Canons* reflect an early phase of cenobitism in Osrhoene and Mesopotamia, but re-enforcement of these *Rules* was deemed necessary by Ignatios, the Patriarch of Antioch (d. 883), as late as in AD 878 (L.413, 6).

After Rabbūlā, the Church tried to diminish the mercantile activities of monks in the council of Chalcedon (AD 451)¹⁰ by subjugating them to the overall supervision of the episcopal authorities. Justinian, in *Novella* 123, forbade such activities altogether (L.181, CXXIII, 6). The textual documentation proves that there would – as in other matters – not have been opposition, had there not been an

⁹ On the so'ūrō, cf. sect. III.2.1.

¹⁰ *Canons* 3 and 4, and, again, in the west, at the *Concilium Tarraconense*, Canon 11 (Ueding 1953: 604-607. 638. 667).

unacceptable reality.

VI.3.1.2 *The period of early Islam*

Changes between the *futūḥ* of Egypt and Syria-Mesopotamia and AD 800 are very difficult to verify. From a legal perspective, most *ḍimmīs* were free in their commerce and industry. The ban on trade in wine and pork imposed on the Muslims would – again, in principle – have been beneficial to the monasteries (Fattal 1958: 144. 147. 151; Tritton 1970: 195). However, apart from general taxation and taxes on long-distance trade¹¹, the communities were compelled to pay the 'uṣr, the tithe on their products, a kind of customs fee¹². In general, commerce went on and prospered in many of the Theban and Mesopotamian monasteries. After AD 800, when Muslim travellers visited the monasteries of the Christians – for Christian territory was a kind of 'abroad' – the standards of the encounter seem likewise relaxed. According to the *Book of Strangers* many monasteries in Syria and the Ġazīra were tourist attractions and watering-holes, where Muslims could, in protected surrounding, enjoy their sip of wine. The 'Abbāsīd caliph al-Muṭawakkil (847-861) met his later wife in a monastery near Ḥimṣ in Syria, where he got drunk on communion wine¹³.

¹¹ Cf. below, sect. VI.3.7.

¹² Fattal 1958: 156; *The Encyclopedia of Islam* X (2000) 917-919 s.v. 'uṣr. This tax will recur at Dayr Anbā Abullū' [M.190] (cf. below).

¹³ L.690, 51; Crone (2000: 13-14).

VI.3.2 The markets

The footnotes in section VI.3.1 list some of the places of sale for the products from Skēthis [M.348], Kellia [M.360] and Nitria [M.362] in northern Egypt, namely Terenouthis (mod. aṭ-Ṭarrānā), the Delta and Alexandria. These places illustrate the importance of *kōmai* and *poleis* for the transshipment and the marketing of the monastic produce¹⁴. Elsewhere, along the Nile, in Palestine (with Jerusalem, surrounded by a halo of monasteries [M.640-]) and in Syria, private estates (e.g. the Apions)¹⁵, villages (cf. the Limestone Massif; sect. II.1, pl. III) and cities (Hermopolis Magna, Oxhyrynchus, Alexandria, Gaza, Jerusalem, Apamea, Antioch, Edessa, Amida etc.) feature as the economic partners of these monasteries¹⁶. Exchange between the monasteries, on the other hand, escapes the documentation quasi entirely¹⁷.

To come back, once again, to the north Syrian Limestone Massif and Ĝabal al-A'lā, with its markets in Ḥārim and Antioch; Ĝabal Barīša, with the 'market towns' Ba'ūde, Babisqa and Dār Qīta; Ĝabal Zāwiya, with Serĝilla; and Ĝabal Sim'ān, with Kafr Nābo and Brād (Tchalenko 1953: I, 21-25): are these towns the *kōmai*, *metrokōmai* and *kōmopoleis* described by Libanius, 'secondary centres' (Dagron

¹⁴ Evelyn-White (1926-1933: II, 114, 194, 262) and Wipszycka (1996: 325) note that on these markets high quality was the *conditio sine qua non* for the successful marketing of monastic commodities. The ancient track from Skēthis to the markets near Nitria (which borders the Delta), via Kellia, was 52 Roman miles or 72-74 kilometres.

¹⁵ The monasteries engaged with that family were, amongst others, Abbas Andreas [M.264] and Dayr Apa Hierax [M.272].

¹⁶ Cf. also Laiou (1992: XI, 53): 'Die Geschichte des Binnenhandels in Byzanz wartet noch auf eine grundlegende Darstellung'.

¹⁷ Few documents relate to *inter-monastic* exchange. *Intra-monastic* exchange, however, is particularly well attested in the papyri on wine (cf. sect. III.1.5, pl. XII).

1979) where the peasants could acquire their goods without having to go to the city of Antioch?¹⁸ For the fifth and sixth centuries, much research is still needed to ascertain the role of the monasteries (as producers, trans-shipment centres etc.). Tchalenko (1953), Sodini (1990) and Tate (2001) deal with these marketing issues (in particular, the marketing towards Antioch). Sodini and Tate also consider the pottery. But, there is no mention or reply as to the monasteries¹⁹.

A last role can at best be inferred by analogy. The *typikon* of the eleventh-century monastery near Bačkovo (Bulgaria, AD 1083) mentions annual fairs (*panegyreis*) as an integrative part of the endowment of a monastery. It was the purpose of such *panegyreis*

*'die Bedürfnisse der Mönche nach Kleidung, Schuhen und allem anderen Lebensbedarf zu befriedigen – ein Kloster organisiert also einen Jahrmarkt und ist zugleich der Hauptgrund für dessen Existenz.'*²⁰

Panegyreis, a characteristic phenomenon of villages and the countryside, are known in the early period, among others, from Sergiopolis (Ruṣāfa) (cf. Shahid 1995: 949-962) and Ephesus (AD 795, though not monastic) (Foss 1979: 110-111). *Monastic panegyreis*, however, are not attested before the eleventh century. Another monastery, St. Eugenius near Trebizond, rebuilt by Basil II in AD 1021-1022 and owning considerable property, moved the festival from the saint's *martyrium* on 21 January

¹⁸ Or. 11, 230 (tr. Festugière 1959: 29-30) and Petit (1955: 305-310).

¹⁹ An attempt, not undertaken in this thesis, would be a thorough analysis of the (partly inedited) writings of Isaac of Antioch (d. ca. 460). When Isaac castigates – in discourses, hymns etc. – those Syrian monks who had adopted the opinions of Origen, Nestorius, Eutychius, Novatian, Pelagius and others, he occasionally refers to their subsistence and way of life.

²⁰ Laiou (1992: XI, 60); ed. Gautier (1984), tr. Thomas (1998: II, 512. 535-536. 557).

to his birthday on 24 June, as a measure to facilitate the access for the caravans that brought goods to the saint's annual fair (Morris 1995: 21-22). The question arises: could the monasteries of Northern Syria, with their countless pilgrim attractions²¹, have given rise to similar *panegyreis*, thereby rising temporarily, in an economic perspective, to the level of the *kōmai* and *metrokōmai*? The evidence is inconclusive on this issue.

The last type of 'market' fully escapes our analysis: the economic exchange between monks and semi-nomadic groups, the bedouins, who lived or moved close to the desert and the Roman frontier. This interaction must have been common, but has left only the tiniest record (e.g. Alexander Akoimetes, Cyril of Scythopolis, Theodore) (Stoop 1911; Shahid 1989: 526; Strobel 1993; Gatier 1995; Shahid 1995: II, 836-842).

VI.3.3 Transport

The issue of transport, too, is documented only to a minimal extent. The evidence of animals and stables for animal shelter (sect. III.1.1) highlights its importance, and illustrates the living conditions of the monks' domestic (e.g. for the mill, olive-press or *sāqiya*) and pack-animals (for transport). The documents from Egypt – above all, the delivery notes from Wādī Sarġa [M.172] and Dayr Anbā

²¹ Cf. above, sect. IV.2.2. and table 20.

Abullū's [M.190]²² – from Palestine²³, Syria²⁴ and Osrhoene²⁵ underline the overwhelming importance of the camel in the ancient Near Eastern monasteries. Bagnall, Crone and Millar have rightly noted that for the Roman and early Islamic periods caravan transport is often taken for granted. This is why we have so few details²⁶.

Boats and ships are recorded for many monasteries. Not only are boats depicted in frescoes²⁷, but their existence and use are well attested by the papyri²⁸ and hagiography²⁹. The Coptic and Arabic texts on Macrobius, an Egyptian monk of the sixth century describe river borne transport from Wādī Sarġa [M.172] to Alexandria; they arrived safely after sailing downstream for 18 days³⁰.

On the other hand, the cost of transport is only occasionally referred to. Such

²² Cf. sect. III.1.5, pl. XII-XIII. Elsewhere, camels for transport are attested at Dayr Anbā Ṣamū'īl [M.302] (L.339, XXVI, XXVIII, XXXVI) and Dayr Anbā Maqār [M.342] (L.601, p.136; L.664, p. 494).

²³ Sinai: L.291, 36, 1; Sabas [M.684]: L.139, LXXXI.

²⁴ Burġ as-Sab' [M.1192]: L.449, 13.

²⁵ Qennešrē [M.1406]: L.468, 50.

²⁶ Cf. Paret (1960), Bagnall (1985), Dentzer (1985: 118), Crone (1987) and Millar (1998). Shahid (1989: 526) suggests that a whole series of monasteries in north-west Arabia/al-Ḥiġāz – Dayr Maydān, Kilwā, Dayr Ḥismā, Dayr ḌamḌam, Dayr Sa'd, Dayr Ibn 'Amīr, Dayr Arwā, Dayr Ḥabīb – owe their existence to their location on an ancient caravan route. Cf. also sect. IV.2.2.

²⁷ Wādī Sarġa [M.172]: P.Sarġa 73 (rough drawings); Dayr Apa Jeremiah [M.334], 'unit R 706': ship with crosses on mast and yard (Quibell 1909: III, 13, fig. 3 and pl. XI, 3; Rassart-Debergh 1981: 32-34); Kellia [M.360]: Kasser (1983: II, pl. CLXXVIII-CLXXIX, CLXXXVII); Tel Masos [M.580] in the Negev Desert: Fritz (1983: I, 138-185). For others in Egypt (e.g. Isnā'), cf. Wietheger (1992: 67 n. 463).

²⁸ Tabennēsē [M.100] (?): SB XIV 11972 and SB XXII 15311; Dayr Apa Apollōs/Aphroditō [M.144]: P.Fouad I 87; Apa Sourous/Aphroditō [M.162]: P.Cair.Masp. II, 67133 (monk and *nautēs* Ammonios, shipping wheat); Wādī Sarġa [M.172]: P.Sarġa 73 (sailor) and O.Sarġa 133 ('by water'). 369; Dayr Balā'iza [M.174]: P.Balaizah 223, 235, 291, 312; Dayr Anbā Abullū' [M.190]: Clédat (1999, no. 63 and p. 290); Apa Jeremiah [M.214]: P.Cair.Masp. II, 67151; Pouīnkōreōs [M.252]: P.Cair.Masp. II, 67168 and P.Michael. 32; Dayr Apa Jeremiah [M.334]: CPR IV 17 (cf. also above, fn. 27) and O.QU IV 372-374; Metanoia [M.370]: P.Cair.Masp. III, 67286 and P.Lond. III 995; unknown: SB VIII 9683; unknown (to Alexandria): P.Genova II 69.

²⁹ Tabennēsē [M.100]: L.131, 113; L.151, 27. The community had two boats, one of which was to transport their products to the markets for sale.

³⁰ Ten Hacken (1999: 123). Cf. also above, fn. 27 and 28.

is the case in P.Oxy. LV 3804 (AD 566), in which the monastery of Abbas Andreas [M.264] charges the estate of the Apions 3.5 *solidi* for the transport (*hyper metaphoras*) of 1012 *artabas* of wheat. With the prices for wheat during that period³¹, the actual cost for this transport amounted to 4.84% of the total value.

³¹ Cf. Morrisson – Cheynet (2002: 822, table 5).

'But he, the God-loving man and true monk, would not hear of taking any sum worth mentioning, but spoke these words to the Patriarch: 'I do not want these coins, master, for if a monk has faith, he does not need money; and if he does need money, he has not faith.' This remark more than anything else convinced his hearers that he was a servant of God.'

(Leontius, *Life of John the Almsgiver*, XXIV [L.144])

VI.3.4 Financial issues

Financial issues are highly relevant to the assessment of productivity. In the corpus of documents of this period considered, prices are given for a large number of transactions in various monasteries. However, a systematic attempt to assess the values – taking into account the ancient 'exchange rates'³² – would in most cases end up in an odyssey. What is more, where prices are attested, these have been dealt with or simply been listed in the relevant section of chapters III and IV. Remarkably, coins have been found only in a smallest number of monasteries. Nikertai [M.902] in Syria is the only monastery in *Oriens* to yield a hoard with some *solidi*³³.

VI.3.4.1 Pricing

There is no explicit evidence that would prove that the *exclusive* motive of monastic production was the pursuit of profit. Where profit could be generated, it

³² On monetary history (in Egypt, and elsewhere), cf. West (1944), Bogaert (1973), Hendy (1985), Fichman (1991/1992) and Morrisson – Cheynet (2002); fifth century: Bagnall (1985); sixth century: Maresch (1994). 2 *solidi* could represent a year's wage in the sixth and seventh centuries; see the introductory remarks to P.Dubl. 135, a sixth or seventh-century loan for 6 *solidi*.

³³ Morrisson (1972). The hoard includes two gold *solidi* of Heraclius (610-641).

was invested, paid off as tax-contribution or re-distributed for charity³⁴.

Rabbūlā again, aware of the possibility of human failing when exposed to financial affairs, stipulated that

'if one [a monk] shall sell the crop for the benefit of the monastery, he shall not take something more, except (the price) as it sells at the time of that threshing-season, so he shall sell, so that he would not covet on behalf of the monastery' (L.423, 25).

At that period, such 'monk-made' price fluctuation also was a serious issue in Skēthis [M.348] where fathers urged their monastic disciples to keep to the prices they had previously set up (L.101A, VI, 15). Price stability was crucial to inspire confidence in the monastic product and avoided the shame that would have come upon monks who took money for '*which there was no need*' (*ibid.*, VI, 21). Those who deceived others with prices, as stated in the *Rules of Isaias* (d. 491), were the secular, and should not by any means be those in the monastic garb (*Rule LIX: 'si abieris ad vendendum opus manuum tuarum, ne disceptes de pretio, ut saeculares'*; ed. Migne 1844: 433). The quotation on top of page 341 – from Tabennēsē [M.100] – further illustrates this concern.

VI.3.4.2 Modes of payment

Payments are attested both in cash and in kind. Details of these payments are again given in chapters III and IV³⁵. The best documented commodity to make

³⁴ Cf. sect. II.3 and IV.2. Another illustration of monastic charity is P.Bad. IV 94 (5th c., Apollonopolis) which lists the income of a *diakonia* of a church. Those liable to financial contributions are more than five monasteries. On the *diakonai* in Egypt, cf. Sternberg (1988).

³⁵ E.g. III.1.3 (cereals), pl. X; III.1.5 (wine), pl. XII.

payment was wine, which is well attested in the documents from Wādī Sarġā [M.172], Dayr al-Balā'iza [M.174], Dayr Anbā Abullū' [M.190] and Dayr Abū Mīnā [M.378]. Wine also was the commodity to settle financial affairs and to pay laymen for the services they provided to these monasteries. More expensive products (e.g. books), however, tend to have been paid for in cash³⁶. In late antique Egypt, agriculture, manufacture, commerce and trade, as Bowman (1986: 90) recapitulates, all had an important and interrelated role to play in a complex, highly monetarized economy, where individuals and groups (including the monasteries) were frequently engaged in more than one of these types of activity. In Palestine, Syria and Mesopotamia we may only assume a similar reality.

VI.3.4.3 Standardization and measurements

With the trust put in monasteries, the monasteries were the 'logical' institutions next to the Church to watch over the weights and measures used in the late antique economy. In section III.1.3.4.2 I have shown that standardization of cereals – at Apa Sourous [M.162] and Aphroditō, Dayr Anbā Abullū [M.190] (the monastery with one of the most complex economies) – was obtained through the parallel use of measures of capacity and units of square (for the arable land). The gazetteer of monasteries that kept watch over measures can be enlarged with 'weighing-machines' at Thebes (O.Crum 459), a 'balance with its ring' in Wādī Sarġā [M.172] (O.Sarga 101) and a measure sealed by a monk in Oxhyrynchus (P.Oxy. I 157);

³⁶ Cf. sect. IV.1.1 and IV.1.2.1.2.

measures for grain at Dayr Nazlat Tūnā [M.198]³⁷ and Dayr Apa Jeremiah [M.334]³⁸; for oil at Dayr Anbā Abullū [M.190] (P.Mich.Copt. 20); for wine at Abba Agenēs [M.024] (P.Grenf. I 90). Measures for length (steelyards) are attested in the monasteries of Cyriacus [M.066]³⁹, Anbā Abullū' [M.190] (P.HermitageCopt. 7) and, in Phoenicia, near Šelōmi [M.826]. The surveyor's iron measuring rod found in the monastery near Šelōmi is unique in its dimensions, it was 5 Roman *cubits* (or 2.59 metres) long; presumably, it was used for taxation (Dauphin - Kingsley 2003: 66-67). Elsewhere, it cannot be ascertained whether the geometrician at Dayr Apa Jeremiah [M.334] (I.QU. IV 287) was a monk or, as in O.Crum 308, a layman. Neither do we know what the 'measure of the poor' (ζυγὸς πενήτων) in P.Rein. II 107 (AD 550-600), from Dayr al-Gizāz [M.086], actually corresponded to.

VI.3.5 Banking and money-loans

Despite early opposition⁴⁰, the practice of banking and money-loans is well attested in the papyri from Egypt and Palestine. These transactions are summarized in the following table (no. **22**), which indicates sums, interest and money-flow:

Document	Monastery	ID	Sum	Creditor(s)	Debitor(s)	Period	Interest
BKU 178	Patūbastn [M.048]	M.048	1 gold ducat	monastery [M.070]	monastery [M.048]		
	Dayr Apa Phoibammōn II	M.070					
KO 761	Apa Joannēs	M.078	2	Harau (monk)	Markos		

³⁷ P.Horak 10: 'Athenian measure'.

³⁸ I.QU IV 227: *oipe*-measure.

³⁹ Illustrated in Winlock – Crum (1926: I, 95).

⁴⁰ Notably by Pseudo-Rabbūlā: L.425, 15; Shenoute: L.309, p. 278; BM Add. 17,216 fol. 43r, Canon 9, the only preserved *Rules* for nuns (Fiey 1965: 294); cf. also Barone Adesi (1990: 315-317).

	'of Diabathra'		<i>holokottinoi</i>		(village headman)		
P.Rein. II 107	Dayr al-Gizāz	M.086	1 <i>solidus</i>	monastery	Aurelios Allamōn (blacksmith)		
P.Apa Apollos 28	Apa Apollōs	M.144		money-lender	monastery		
P.Sarga 166	Wādī Sargā	M.172	1 <i>solidus</i> ⁴¹	unknown monk	Germanus (carpenter, monk)		
P.Balā'izah 112	Dayr al-Balā'iza	M.174	4 <i>solidi</i>	monk	monk		
P.Athen.Xyla 10	Dayr Anbā Abullū'	M.190		Apa Phibi (monk)	Aureliōs Phoibammōn		
P.Med.Copt. inv. 76.21			>1 <i>solidus</i> (?)	Apa lenōch (monk)	Pia/Dioskre (layman?)		
BL Or. 13886.35			5 <i>solidi</i>	Hōr (monk)	Enōch (monk)		
BL Or. 6201 B230			2 <i>solidi</i>	<i>dikaion</i>	monk		
BM EA 75315			>1 <i>solidus</i> (?)	[individual monks]	[individual monks]		
BM EA 75324			<3 <i>solidi</i> ⁴²	monk	Pesōou (monk)		
BM EA 75332			1 <i>solidus</i> ⁴³	Kōsma (monk)	Anoup, Kolthe (village-headmen)		
P.Camb. UL Green 6			½ <i>solidus</i>	Šoi (monk, of Apa Mēna [M.182])	Paule (monk)		
P.Camb. UL Michael. 1201			>1 <i>solidus</i> (?) ⁴⁴	monk	monk		
P.Ryl.Copt. 192	--	--	2 <i>solidi</i> less 6 carats	nun (?)	laywoman		¼ of [...]
P.Cair.Masp. II 67162	Apa Biktor	M.212	2 <i>nomismata</i>	Flavius Chrisotophoros	John (deacon, monk?)	2 months	none
P.Oxy. LXIII 4397	Apa Hierax	M.272	80 <i>solidi</i>	monastery	Diogenēs (layman)		0.5 % (per month)
P.Ness. 147	Nessana Church Complex I	M.560		Patrich (<i>hegoumenos</i>)			

Table 22: Money-loans involving monasteries as attested in the papyri. Within a single monastery, documents are grouped in chronological order.

The notable documents in table **22** include P.Apa Apollos 28 [M.144], a letter which refers to sloth and lazy mismanagement, and which instructs the monks to

⁴¹ Repayment in cheese.

⁴² Wine to be repaid in cash.

⁴³ Repayment in *lachanon*-oil and wheat.

⁴⁴ Wine to be repaid in cash.

keep tighter control over their financial affairs. On the other hand, the corpus of papyri related to Dayr Anbā Abullū' [M.190] allows one to see something of the credit facilities offered to the monks by the monastery. At Dayr Anbā Abullū' the monks arranged loans of money among themselves, and one monk even borrowed money from a monk of another monastery, of Apa Mēna [M.182]. The sums – from 0.5 to 5 *solidi* – were substantial⁴⁵. In one instance (BL Or. 6201 B230), as noted by Clackson (2000: 27), we may even infer that, due to a cancellation mark, the debtor was able to repay. In contrast to the other monasteries, the credit transactions at Dayr Anbā Abullū' largely reflect internal affairs.

VI.3.5.1 Usury

The practice of charging, taking, or contracting to receive excessive rates of interest for money on loan was a practice that had to be stopped on various occasions by the authorities. The Cappadocian Fathers Basil, the two Gregories and the fourth-century councils of Elvira, Arles, Carthage and Laodicaea all agreed on the condemnation of usury⁴⁶. Repeated attempts were made to crack down on such practice in seventh- and eighth-century Mesopotamia (L.404, 17).

VI.3.6 Patronage

The last source of income to consider was patronage, private, ecclesiastical and imperial. While senatorial city patronage and civic private munificence saw a

⁴⁵ Cf. above, fn. 32.

⁴⁶ On literature on this issue, cf. Seipel (1907: 167. 175-177).

serious decline in various parts of the Roman Empire during the third and fourth centuries, bishops, clergymen, monks, laymen and the *christianissimus* emperor – here Valens (361-363) to Mauricius (582-602) – took over as patrons. They increased their power by building churches, endowing monasteries and feeding the poor. Such patronage can be traced through the literary accounts, papyri, building inscriptions and iconography⁴⁷.

As to the monasteries – and despite the evidence of production as demonstrated in chapters III and IV – one has to recall the reality that many establishments depended – or, at least, pretended to depend⁴⁸ – on the receipt of alms. The ostrakon O.Brit.Mus.Copt. I 63/3, a letter by a superior and the monks of a desert monastery to a wealthy layman, is a powerful expression, the *vox populi monachorum* of this concern. The letter refers to the layman's offering (προσφορά) and asks him not to lose interest in them.

This type of patron-client binding, the patron being the aristocrat, the client the monastery, is well reflected in the Egyptian papyri. Keenan (1984; 1991) and MacCoull (1993: VII), sifting through the papyri from Aphroditō with regard to this issue, have shown that the late antique monasteries of Aphroditō were as much

⁴⁷ Cf. Mango (1984; forthcoming), Thomas (1987: 59-110). On the inscriptions in Arabia and Palestine, cf. Piccirillo (1992), Di Segni (1999); in Syria, Donceel-Voûte (1988). On patronage as a facet of late antique social life, cf. Brown (1992; 2002), Horn (2004). Cf. also Schachner (forthcoming: sect. D.3).

⁴⁸ Reference is being made here to the 'Geldkomplex'/'complexe de l'argent' as attested by Wipszycka (1996: 287).

beneficiaries⁴⁹ as the Oxhyrynchite monasteries, which benefited from the benevolence of the Oxhyrynchite Apion family⁵⁰. The sums could be considerable. In P.Oxy. LXIII 4397 the monastery of Apa Hierax [M.272]⁵¹ acknowledged the receipt of the last instalment of a sum of no less than 130 *solidi* as a pious donation (*διὰ δὲ τὸ εὐσεβές*) and declared that it had no claim against the Apions in respect of a piece of irrigated land. The type of patron-client binding on the great estates of Egypt is presently being re-investigated by Banaji (2001) and Sarris (2004). It remains a *desideratum* to extend such investigation to the ecclesiastical and monastic estates⁵².

The most prestigious in character and substantial in quantity, imperial patronage as a source of non-labour income also benefited some of the monasteries. Most of these endowments were buildings, often not for the monks themselves, but for their provision of charity (e.g. guest-houses, poor-houses, hospitals, etc. – i.e. 'indirect patronage' towards the poor). A selection of monastic beneficiaries is listed in table **23**. Occasionally, monasteries were also granted nutritional supplies or a share in the *dēmosios sitos*, of which 5,759 *artabas* were on one occasion given to the monastery of the Metanoia [M.370] by the *prōtokōmētai*

⁴⁹ Above all, Dayr Apa Apollōs [M.144]; other monasteries receive donations of wine bestowed *in perpetuo* (cf. sect. III.1.5., pl. XII) or wheat from Ammonios and Aurelios Pankab, members of the Aphroditō élite (Psinabla [M.136]). On the other hand, Abba Michael [M.140] acted as the patron of a neighbouring nunnery.

⁵⁰ Abbas Andreas [M.264]: P.Oxy. LV 3804 (approx. 50 *solidi* plus 1,112 *artabas* of wheat); various: PSI VII 791 (feast-related donations); Abba Sarmatas [M.268] and Pela [M.292]: PSI VIII 953 (vinegar, wine). Elsewhere (P.Cair.Cat. 10078 and 10079; P.Oxy. I 148), the monastery of Abbas Andreas supplies the house of the Apions with mats and ropes for their bath. Cf. sect. III.2.1.5.2.

⁵¹ Apa Hierax, too, supplied the house of the Apions with ropes (P.Oxy. LI 3640). The quantities referred to in this document are extremely low.

⁵² On monastic landownership, cf. above, sect. II.2.2.

of Aphroditō (AD 527/528) (P.Cair.Masp. III 67286). A smaller donation is recorded for the emperor Maurice (582-602), who made the annual endowment to a monastery near Sykeon of 200 *modii* of grain (L.141, 54). Inverse money-flow (i.e. from the monasteries to the State) is attested in AD 620/621 (AM 6113) when, according to Theophanes, the emperor Heraclius, being short of funds, took on loan the moneys of the churches and monasteries (L.165, AM 6113 (p. 435)).

Monastery	ID	Valens 361-363	Arcadius 395-408	Theodosius II 408-450	Marcian 450-457	Zeno 474-491	Anastasius 491-518	Justinian 518/527-565	Justin II 565-578	Mauricius 582-602	non-imperial	Type of endowment	Reference
Dayr Anbā Maqār	M.342					x						oil, cheese, wine; building materials	L.666, p. 448-449
[Jerusalem, Bethlehem, Jericho:] various	---			x				x				monasteries built (by Eudokia); restored (by Justinian)	L.160, I, 22; L.161, V, 9, 1-13; L.560, LXXXVII, 22-23
St. John the Baptist	M.736						x					church built, maintenance ⁵³	L.295, 20
[Al-Andarīn]	--- (44)							x				stylite (?) sanctuary	I GLS 1675
Dayr Dabbāna (al-Bāra)	M.922									x		[AD 563]	Tchalenko 1953, III, appendice II, inscr. 35
Mār Mārūn (Ġabal al-A'lā)	--- (465)				x							monastery built	Fleischer 1831: 112; Vööbus 1958, II, 252
Burġ as-Sab' (Ġabal Ḥalaka)	M.1192								x			tower	PAES, IV B, inscr. 19
Dayrā Mār Rūmanā (Ġabal Sim'ān)	--- (485)							x				poor-house (πτωχείου) restored	L.161, V, 9, 27
Mār Gabriel (Ṭūr 'Abdīn)	M.1440		x	x			x					domed octagonal building; 'great temple', 7 villages	L.436; Hawkins 1973; Palmer 1982: 49-72 (discussion)
Mār Jōḥannan Ūṛṭayā	--- (419)					x						'substantial gifts'	L.419, XIX

⁵³ Church and maintenance: 'In qua ecclesia monachi morantur, qui monachi senos solidos per annum de fisco accipiunt pro vita sua transigenda'.

[Isauria:] Apadnas (Alahan Manastırı)	---						x		x				monastery restored by Justinian	L.161, V, 9, 33; Elton 2002
--	-----	--	--	--	--	--	---	--	---	--	--	--	---------------------------------------	--------------------------------

... beyond *Oriens*, but considered in the sources:

[Galatia:] Sykeon	---									x			wheat	L.141, 54
[Chios:] Kašiš	---								x				hospital (by Theodora)	L.419, LI (hospital)

Table 23: Imperial patronage towards Near Eastern monasteries: selection

VI.3.7 Appendix: taxation

Subject to Byzantine and Islamic law, monks and monasteries were, in different ways and in different periods, liable to taxation also. The taxation of land has been discussed in section II.2.1, the issue of grain, taxation and the Roman *annona* (*dēmosios sitos*, *embolē*), with regard to the monasteries, in section III.1.3.4.5. The corpus of papyri considered, however, reveals a still more complex reality. Taxes were paid in cash and in kind, such as in salt⁵⁴, lentils and honey (P.Bala'izah 102), and – most prominently – in wine. In her study of the papyri from Dayr Anbā Abullū' [M.190], Clackson (2000: 17-27) could show that wine not only played an important part in the economy of the monastery and was consumed locally, but that the payments for *pactum* and to members of the local administration were actually made in wine⁵⁵.

Similar observations can be made for the neighbouring monastery near al-Balā'iza [M.174] for which there is a miscellany by Gonis (2004) which re-considers some documents published by Kahle (P.Bala'izah) and relative to eighth-century

⁵⁴ Dayr Anbā Abullū' [M.190]: 'Ex-von Scherling 27'. On salt stored in various monasteries, cf. above, sect. III.1.2.3, fn. 71. On natron, *ibid.*, fn. 74.

⁵⁵ Cf. also Kahle (1954: I, 41-45) and sect. III.1.5, pl. XII.

taxation at that monastery. Most of these documents concern the poll-tax (διάγραφον) of the individual monks; P.Bala'izah 242 stipulates a tax-payment – again in wine (επι) – due to the local 'amīr. Unfortunately, as with most documents that relate to taxation, we cannot be sure whether these texts concern an annual quota or single instalments throughout the year. Furthermore, the corpus of documents from Dayr al-Balā'iza introduces us to another type of government duty, the weaving-garment tax. It has been dealt with in section **III.2.5.5**.

CONCLUSION

Chapter VII

A re-appraisal of the economy of the monasteries in Egypt and *Oriens*, AD 320-800, this thesis aims to assess production, the condition of production and the marketing of monastic products. This study demonstrates the quasi-ubiquitousness of some types of production in almost every monastery. The 'big picture', however, is highly ambiguous and must be refined against the background of individual monasteries.

Conditions of Production (chap. II) shows the *modus* and the enormous extent to which monks and monasteries, for the most part situated at only short distances from the villages and the cities, or in 'the desert' (a literary *topos* rather than a reality), made use of natural resources (water, available land), existing structures (including temples) etc. Contrary to the image conveyed by the texts, the case-study on rural settlement and monastic location in Northern Syria reveals a pattern of unexpected vicinity. Such proximity to 'the world' must have had serious implications for life in these monasteries.

Landownership, as discussed in section II.2, was one of the 'easiest' sources of income for many monasteries. Ownership is well attested in the Egyptian papyri and, occasionally, in inscriptions (boundary stones) and hagiography. Furthermore, the evidence suggests that the acquisition of land by monasteries – above all, by bequest – was an unavoidable reality. These donations led to the unusual situation of some monasteries owning a high number of unrelated, individual plots. In AD 524, the monastery of Apa Sourous near Aphroditō [M.162] owned no less than 44 tiny individual estates. A high degree of estate fragmentation, as known from the

modern periods, must have been detrimental for the monastery's agricultural-based economy. From the sixth century, monastic land was subject to non-alienation law.

Finally, the treatment of monastic attitudes towards work and manual labour also sheds new light on the positive perspectives for the ancient monastic economy. Though there was occasional disapproval (above all, by the Edessene bishop Rabbūlā), there was actually a far higher number of statements pronounced in favour of a monastic involvement in economic affairs. There was no need to explain the purpose of labour, as work was substantiated by the Bible itself. All in all, apart from estate fragmentation, the conditions were highly beneficial to a monastic engagement in the ancient economy.

With this in mind, the following chapters on *Production (III)* and *Services (IV)* investigated agricultural production and manufacture, commodity by commodity. Nevertheless, the picture drawn by the evidence is complex. It shows that by the fifth century monasteries were definitely part of the late antique, primarily agricultural society. Throughout the centuries, agricultural production was dominated by the daily concern to bake bread. In some monasteries (e.g. Dayr Anbā Šinūda [M.122]), the provision of bread and the storage of grain were a thoroughly organized economic affair (evidence of a mill, bakery, *Precepts* for the bakers, four ovens, a double-storeyed granary, etc.). This organization enabled the community of Shenoute's *coenobium* even to feed a high number of refugees. Like the peasants, monks were bread-eaters, *artophagoi*. Thus, the concern for bread was vital for the physical survival of any community. Furthermore, some monasteries

also paid grain-tax to the fiscal authorities.

By producing oil and wine, the monasteries fit best the agricultural pattern of the ancient society. 'Productive communities' are attested in a vast number of monasteries, from Upper Egypt – with 'clusters' in Palaestine and Northern Syria – to Mesopotamia. The vineyard, the press, the potter, the pot and the pottery are the most unambiguous witnesses of the ancient monastic economy. The production of oil (e.g. at Dayr Apa Jeremiah [M.334], Palaestina I (Bethlehem [M.610-], Jerusalem [M.640-]), Dayr Déhès [M.1080], Symeon 'of the Olives' in Mesopotamia *et al.*) and wine (above all, in Abū Mīnā [M.378], Wādī Sarġa [M.172] and Dayr Anbā Abullū' [M.190]) were extremely common economic activities. As the planting of olives was expensive, and vintage and pressing labour-intensive activities, the handling of olives and grapes required a high degree of organization on the part of the monasteries. As the monasteries cited also feature in many other domains of production, it is in these monasteries where we expect the highest degree of economic sophistication and complexity. Besides, the presses of the monasteries and their technological standards often matched those in the villages. Furthermore, some documents allow us to link oil and wine-production to landholdings and to the production of local pottery (amphorae of the type Carthage Late Roman 7 (LR7) *etc.*). It has not been possible to link high output numbers (where reconstructible) with the many records of individual transactions whose extents seem, as a whole, to be rather small.

Chapter III also considered manufacture. Though less numerous in the

documentation, manufacture played a rather important role in monastic economy. It is only in manufacture (basketry, leather goods, textiles) and book-production where we have evidence of professional training in monasteries. Basketry – the *topos* in the description of the 'holy man' – has been, until present, a low-profit economic activity. Using different fibres (palm-fibre, flax, tensile *ḥalfā*, etc.), however, the making of ropes and mats was a slightly more profitable activity – many of these mats, ropes and nets (as opposed to the baskets) may actually have been made by cenobitic communities.

The manufacture of leather may also be explained against the background of its universal demand in many monasteries: for clothing, footwear and the binding of books. Furthermore, leather brings animal husbandry into play. Most of the monastic leather was made from the skins of goats. Goats (and pigs) were profitable resources, as they required minimal resources for animal shelter, the meat could be sold (e.g. at Tabennēsē [M.100]; not attested in the monastic diet) and the skin be tanned. Tanners' workshops have also been identified in a number of monasteries. Textile production was equally common and sophisticatedly organized. As female labour is poorly documented in late antique monasteries, it is the more instructive to learn that in the production of textiles also nuns were brought in to the plan (e.g. the 'mother of the loom'). The study of *monastic* pottery production, as shown in this thesis, has enlarged the repertory of identified late antique potteries. This is in contrast to glass whose production cannot be traced at all.

Chapter IV (*Services*) shows, amongst others, the complexity of the

relationship between monks, monasteries, pilgrims and pilgrimage in late Antiquity. One aspect to consider is pilgrims' accommodation and the management of the local shrines. But, monasteries were themselves also the homes of holy men. Considering the archaeological and epigraphical evidence for the presence of venerable monks, hermits and stylites in these monasteries (collective tombs, towers, columns and stylite representations, graffiti), we face a far more complex ancient reality. Though we may firmly conclude that the accommodation and care of the pilgrims were widespread activities (as were various acts of charity, not considered in this thesis), it remains an open question how these monasteries, as sacred spaces themselves, influenced the religious behaviour of their environment. It is sufficiently well known that places of pilgrimage, acts of conversion and baptism must all have generated micro-economies.

Chapter **V** considers the human resources (including the 'forgotten issue' of slavery) and the organization of labour. Unfortunately – and in contrast to the evidence of production – the evidence is not sufficient to explain how these monasteries could master complex economies. The role of the steward is only vaguely defined. Some sort of specialization, tangible in the institution of craftsmen units ('houses'), can be recognized in the larger *coenobia*.

Output and the financial issues are discussed in chapter **VI**. Expensive in the long term, ordinary life and the provision of services also required resources of labour and financial income. Usually, labour was provided by the monks, laymen (often on a contractual basis) and the pilgrims who came to the monasteries (often in

repayment of a 'moral debt' for healing *etc.*). As with donations of land, donations of money were a constant source of monastic income. Few monasteries, as outlined in the last section, even benefited from the generosity of the imperial court. It goes without saying that such donations – jointly with the low cost of labour – created an unparalleled, privileged economic setup for these monasteries.

Output (chap. VI) also summarizes the previous chapters by posing the essential question of how much had actually been produced. This chapter drastically brings home, as outlined in an introductory section, the limitations of quantifying production and determining 'productivity'. Despite the strong documentation of *individual* transactions (usually recording small quantities, a consequence of documentation?) in the papyri, nowhere can we reconstruct, by quantification, the all-embracing economy of a monastery. Occasionally, such as at Dayr Déhès in Ġabal Barīša, is it possible to quantify *one* aspect of the ancient economy. In this Syrian monastery, over 90% of its olive production may actually have been surplus. On the other hand, the 'breadth' of monastic production can well be grasped in a number of monasteries, whereof the datasheets in volume 2, section C.5.3 give the most impressive account (cf., e.g., Dayr Apa Epiphanius [M.068], Dayr Apa Jeremiah [M.334], Euthymius [M.788] *etc.*). The last chapter also suggests that issues of finance, including taxation, must strongly have conditioned life and production in many monasteries. Monasteries were also involved in banking and the keeping of volumetric and length standards at various times.

However, investigating the evidence of production of over one thousand

monasteries, this thesis also drastically brings us back to the *status quo* with, first of all, the lack of a definition of 'the monastery' (cf. sect. 1.1). In a balancing act to combine a micro-level with an integrative perspective in its narrative, this thesis shows that, strictly speaking, many questions related to monastic production have as many answers as there are monasteries. Certainly, many monasteries, as summarized in section VI.3 (*Specialisation versus generalisation*), had a highly diverse and complex economy. But others, for reasons not stated, focused only a small number of (or no) commodities. Particular emphasis has once again to be given to the fact that any attempt of generalization would irreversibly conceal the individuality of the monks and their monasteries.

However, the integrative approach, based on the complete coverage of data, allows us to identify regional trends and patterns in subsistence and productivity. In many regions we may now assume different economic profiles and degrees of monastic involvement in the local economy. Still, these equations do not fully consider inter-monastic relations (widely unknown), competition by agents of the non-monastic economy, issues of auto-consumption, the diversity of the monastic setup (*coenobia*, *laurae* and hybrid types), financial status and how to deal further with data incongruencies.

All in all, the evidence is highly ambiguous. However, having considered the vast number of texts and archaeological remains, how do these observations change the view of ordinary life in an ancient monastery? I suggest there is no doubt that for thousands of monks, in *coenobia* and *laurae*, economic issues were

integrative parts of their daily routine. These monks were exposed to issues of labour organization (evidenced by the steward, *Rules for the working monks, sundials etc.*), professional training and the acquisition of marketing skills. Through work these monks, who lived 'beyond', were brought back to 'the world' to various extents. And the evidence suggests that these monks were by no means in the minority. Furthermore, production also influenced the monks' prayer routine: it remains an issue for further investigation whether work actually created 'disturbance' (from prayer), nuisance (due to physical effort) or 'fresh wind' for their minds. Such perception could well be different from the perception of the authorities. Unfortunately, in the sources the monks never speak themselves.

After this thesis, to take such analysis further, one would need – as begun in some sections – to apply a micro-level perspective on monastic economy. This would include the thorough investigation, in a small number of micro-regions, of the regional, monastic and non-monastic economies, of settlement, soil, climate, landownership, history of sacredness of the region, technical sophistication and transport facilities. The evidence of manufacture (as opposed to agriculture, often non-monastic) would also have to be dealt with further there. The strength would again lie in interdisciplinarity.

Palladius (d. 431) and the early Fathers drew a very sketchy, but complex picture of the economy of the then-impressive monasteries. It is against this background that many monasteries studied in this thesis, through texts and archaeology, could be re-assessed as to their 'productivity': the statement 'Les

moines deviennent de grands propriétaires sans en avoir ni la vocation ni les capacités' (Kaplan 1997 : 121) most likely describes only one side of the ancient reality.