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or something else entirely. The ambiguity of the gesture is its most striking and interesting feature, so that the woman adopting the pose could be seen as *either* covering her face, *or* preparing to uncover it. The gesture is a frozen moment and the viewers of a vase painting or a sculpture are allowed to decide for themselves whether the gesture is about covering or divesting.

None of this is challenged by Resco who, instead, opts to follow and support my original findings, expanding, however, on the evidence I was originally constrained from using. Many of the 92 figures which usefully pepper the text are taken from the line-drawings I had prepared for Aphrodite's Tortoise (with my permission, I should add). Resco carefully traces the development of the veil-gesture in Greek art, referencing my previous study frequently and quoting passages (in Spanish translation). He agrees with my reading of the anakalypteria as a series of wedding unveilings and in a brief chapter on the veil in society he employs, as I did, anthropological models in trying to understand the meaning of the veil in Greek life. He follows too my ideas on the inherent eroticism of the veil and emphasizes, as I formerly did, the ambiguity of the veil in concealing and revealing the body.

How much, then, is fresh about this work? Enough, I am happy to confirm, to make this short study a useful addition to my longer work. Resco's aforementioned chapter on the anthropological material contains much useful discussion and cites important work published since 2003, while his chapter on the use of the veil-gesture in the iconography of death is very good and fills a gap in our knowledge. Appropriately he links the death-imagery to marriage scenes where, of course, the veil-gesture takes centre stage. A very useful epilogue explores the subsequent use of the veil-gesture in Etruscan and Roman art (although further work is needed here; we cannot assume that the gesture was understood in the same way as in Greece) and Resco briefly explores the motif in Renaissance and Baroque art (this could form a major study in itself).

Resco's monograph is a short, well-written, clear and focused overview of a long-standing artistic motif which clearly had important cultural resonances. It is self-consciously deferential to *Aphrodite's Tortoise* (perhaps too much to be called 'original'), but when used alongside my 2003 work it will provide a useful companion to the earlier work and will present new evidence for the reader's consideration.

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Ancient textiles in their economic context

Kerstin Droß-Krüpe (ed.). *Textile trade and distribution in antiquity/Textilhandel und -distribution in der Antike* (Philippika 73). pp. xii + 228, 61 b/w figures. 2014. Wiesbaden: Harrassowitz Verlag. ISBN 978-3-447-10220-9 hardback €48.00.

New scientific techniques, increasingly precise excavation strategies, and an upsurge in interest in the ancient economy-and in particular in identifying new datasets that might contribute to our understanding of it-mean that ancient textiles are finally receiving the attention they deserve. While research on ancient dress and textile production has a long history, it has tended to be something of a lonely one. Only in the past ten years have economic historians begun to appreciate the potential of this area, and only over the same period have textile specialists begun to explore how their work can inform debates in economic history. Demand for textiles in antiquity must have been enormous. As Jongman notes, 'in most pre-industrial economies, the production and consumption of clothing is the most important non-agrarian economic activity after building.'1 However, the evidence for textile production is problematic. Textiles perish over time and are only preserved in particular conditions—the dry soil of Egypt and the Levant or the water-logged ground of more northerly climes. Literary evidence is also skewed towards discussions of domestic spinning and weaving, mainly undertaken by women. The epigraphic record is varied and patchy, and tends to provide glimpses of information about specific individuals or groups involved in textile manufacture or trade but without much context. The different stages of work involved in textile production also often necessitated multiple groups of people doing very different things: sourcing different types of raw materials (from plants and animals), spinning, weaving, tanning, fulling, trading, selling. Each of these tasks leaves behind different traces which have often been examined by researchers in entirely separate disciplines, a point made by Mary Harlow and Marie-Louise Nosch, the editors of another recent volume on ancient dress and textile production.2

This volume, like Harlow and Nosch's, seeks to overcome this fragmentation of the scholarship on textile production and trade by pulling together scholars from various backgrounds: archaeologists, historians, scientists, and textile researchers. Its focus is also multi-period: there are five papers on evidence

¹ Jongman 2007: 609.

² Harlow and Nosch 2014. See review, this Volume.

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from the third and second millennia BCE, one on Classical Greece, eight on the Roman period, and one on later Chinese material. These contributions were originally given, as both papers and posters, at a conference in Marburg in April 2013. This conference and the resulting volume, unlike the Harlow and Nosch volume, were set up with a very specific aim: to explore what textiles can tell us about economic matters in the context of increasing interest in all aspects of the ancient economy. Kerstin Droß-Krüpe, in fact, begins her introduction to the volume with Pietra Rivoli's study of the lifecycle of an American t-shirt, which traces the garments' production and distribution, from the sourcing of the raw material through to the final sale across two continents.3 The question being posed here is the extent to which the different stages of textile production can be reconstructed for the ancient world and what they reveal about consumption habits.

Following a short introductory section by Droß-Krüpe, the first contribution, by Miko Flohr, deals directly with the main question of the volume: to what extent can we write an 'economic history' of textile production? Flohr notes that while significant work has been done on textile production in distinct regions of the Roman world (notably Italy and Egypt), the evidence that would allow such studies to be knitted together into some form of supraregional analysis is limited. He also makes the point that studies of textile production and trade to date have tended to be relatively static (e.g. what was the textile industry of Pompeii like? How prevalent was domestic spinning?) and urges instead that we consider changes in the textile industry in the context of broader macro-economic developments. To this end, Flohr divides his analysis into sections focused on globalization, long distance trade, and investment patterns. Regional garments (British hooded cloaks or Raetian fibulatoria) acquiring pan-imperial cachet, as well as van Driel-Murray's analysis of footwear at various sites across the empire, certainly point to a remarkable degree of interconnectedness.4 When it comes to long-distance trade, Flohr draws primarily on the epigraphic evidence for specialised wool and textile traders (vestiarii), who often came from places far from the findspot of the inscription (e.g. the Paphlagonian negotiator sagarius named in a text from Rome [CIL VI 9675]). Moving away from the epigraphic evidence in the final section of his paper, Flohr draws on the archaeological evidence provided by fullonicae to argue for increasing intensification of textile production and investment in infrastructure to support this from the first century CE. Much of this is based on his important monograph on the

Wim Broekaert, like Flohr, is interested in testing existing models of the textile industry and finding new ways forward (chapter 4). In this paper he reexamines John Drinkwater's model of Gallic textile production, which is centred on the Secundinii family responsible for the Igel column.⁶ Where Drinkwater sees a wealthy family who were able to capitalise on local woollen production but not fundamentally shift the socio-economic balance within society towards entrepreneurs like themselves, Broekaert take a more positive view. Most of the elite individuals who paid for inscription in Gaul make no reference to their profession, so judging the extent to which businessmen like the Secundinii achieved elevated status using the epigraphic evidence is problematic. Drawing on Béal's reassessment of several scenes on the Igel column, Broekaert also argues that we should not rule out the possibility of the Secundinii being landowners as well as merchants.7 A key point in Broekaert's argument, and a significant one for wider economic studies, is that it would have made sense for elite land owners to be involved in textile production because the raw materials in this industry, of which they were often the suppliers, were comparatively expensive. On the basis of costs preserved in Diocletian's Price Edict he shows that the raw materials needed for a Gallic sagum could have cost nearly half the price of the finished product. Labour, on the other hand, was relatively cheap. Whoever controlled the production of the raw materials, therefore, had the ability to garner substantial profits. No new model is proposed here but the significant criticisms of primitivist approaches to elite engagement in production and trade that Broekaert makes are well argued.

Where Flohr and Broekaert consciously focus on the macro, other authors are more concerned with the micro. Iron tags used to label bundles of textiles are discussed by Herbert Graßl (chapter 3). These include five tags from Magdalensberg and two from Virunum, both in southern Noricum. These are similar in form to the tags from Siscia analysed by Radman-Livija.⁸

Roman *fullo*.⁵ Importantly, Flohr's handling of this evidence is nuanced. He does not argue that these large *fullonicae* (at Pompeii, Rome, Ostia and Florence) show that capital was pumped into this industry everywhere; small-scale and domestic production must have remained the norm, he states. Nevertheless, these much larger facilities show that some enterprising individuals took advantage of the sizeable market for textiles opened up by long-distance commerce.

³ Rivoli 2005.

⁴ van Driel-Murray 2016.

⁵ Flohr 2013.

⁶ Drinkwater 2001.

⁷ Béal 1999.

⁸ Radman-Livaja 2010.

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On one side they name individuals—one per tag, many with local Celtic names (though a Monic(a) is mentioned in one instance). On the other side, they seem to give abbreviated commodity labels and numbers/weights: byssus or white cloth is listed on one tag along with the abbreviation PLX, probably referring to either ten (P(ondo) L(ibrae) X) or sixty (p(ondo) LX) pounds in weight; paenulae or hooded cloaks, probably eight pounds of them, are listed on another tag. These tags seem to have accompanied newly-produced commodities and hint at the scale of local textile output. Where Graßl is interested in the tags attached to garments, Maciej Szymaszek turns to the marks woven into garments themselves (chapter 15). Textiles with letter-shaped signs woven in to them are known from various sites in Egypt and the Levant, while single examples are known from Les Martres-de-Veyre in France and Vindolanda in Britain. Szymaszek dismisses previous suggestions that these are actually Greek letters and identifies three main types of mark that are found on textiles and representations of garments across Egypt and the Levant. While no conclusions about the meaning of these signs are provided here, the regularity of these marks and their geographic spread is very striking and deserves further exploration. Documentary sources of a different source, are the focus of Juliane Meyenburg's analysis of the job titles of women in papyri datable to the Roman Imperial period (chapter 14). These show that women are attested in jobs relating to childcare and education, commerce and trade, entertainment, hygiene, health and domestic services, but textile production does not figure. On the one hand, this shows that women were more active in the workplace than often assumed, on the other, it does not really shed much light on whether textile production was predominately domestic or otherwise, and the extent of female involvement in this industry.

Unsurprisingly, considering the nature of the evidence for textile production, trade and use, three papers in this volume deal with Rome's eastern frontiers. Kai Ruffing (chapter 5), drawing on literary and epigraphic evidence, examines the import of silk into the Roman empire and its internal distribution. The Red Sea and Palmyra both figure prominently in the sources as entry points for silk. Our best evidence for the movement of this product around the empire is provided by inscriptions attesting to individuals calling themselves σιρικοποιός, siricarius or siricaria and negotiator sericarius which are known from Rome and its surroundings and the Bay of Naples. These individuals seem to have operated as the end points of distribution networks stretching from the eastern frontiers westwards. The actual impact of the textile trade on the eastern frontier regions is picked up by Eivind Heldaas Seland in

his paper on caravans, smugglers and trading fairs in Syria (chapter 6). Seland notes, in particular, that the movement of caravans across the Syrian Desert is only attested in the Roman, and the early Ottoman, periods. In other historical periods, the normal route for traders was to follow the Euphrates and then cross to the Mediterranean via Aleppo. The desert route was favoured in the early Ottoman period to bypass the issue of potentially troublesome local authorities along the Euphrates taxing or preying on caravans, and indeed merchants in the Roman period would have had to pass through an even greater constellation of states along this route. Passing straight from Mesopotamia to Syria meant paying off only the desert Bedouin, a point Strabo stresses. The active role played by the Palmyrenes in maintaining this link is especially clear: they appear as traders in Mesopotamia and are accused of acting as smugglers in the epigraphic and literary record. Seland makes a particular point of highlighting the role of New Institutional Economics to consider the network of operators who had a stake in trade across the Syrian Desert.

Archaeological evidence for the textile trade in the East, finally, is examined by John Peter and Felicity Wild, who draw principally on the evidence from Berenike (chapter 7). This is one of the most interesting papers in this volume. Taking the *Periplus* Maris Erythraei as their starting point, the authors consider how the garments mentioned in this source compare to the textile finds from the excavations at Berenike (on which they worked from 1995 to 2001). One set of textiles excavated at Berenike compare well with the descriptions of garments that the Periplus tells us could find a market along the Red Sea at Adulis: fringed linen cloaks or spreads that might be connected to the dikrossia (doublefringed textiles) named in the Periplus; lightweight dyed textiles that would have been suitable for the abolla cenatoria (dining cloak); heavy cotton knotted-pile mats, probably of Indian manufacture, which might be the gaunakai that the Periplus tells us were favoured by Zoscales, ruler of Adulis. At Muza in southern Arabia a higher class of textiles was preferred. Purple textiles are listed, which they authors interpret as unspun dyed wool, as is 'ordinary clothing in the Arabic style with sleeves', which is an astonishing indication that textile producers in Egypt were actually manufacturing garments specifically for the Arabian market. Other garments suitable for the market at Muza include distinctively Roman garments, such as the checked scutulatus, which are here illustrated by a fragment of checked-wool fabric from Berenike. Perhaps the most significant textiles finds from Berenike, however, are the large number of fragments of Indian cotton fabrics, including one piece which seems to be part of a sail. If traders at

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Berenike were using Indian cotton to make their sails then this material might not have travelled any distance into the Roman Empire at all.

While the majority of papers in this volume relate to the Roman world, six concentrate on the pre-Roman period. Marie-Louise Nosch (chapter 2) deals with the question of flax growing and linen production in Classical Greece and whether, contra earlier options, either of these practices ever took place. Flax growing in Messenia is mentioned in the Linear B records from Pylos, while sources from Egypt refer to it there in the Hellenistic and Roman period, but Classical sources are silent on commodities. Archaeological evidence for linen-use is more widespread but limited to funerary contexts. One remarkable body of evidence that Nosch draws on when discussing where flax was grown in the Mediterranean, is a series of inscribed vessels, dated to the third century BCE, from the Kafizin cave on Cyprus. The inscriptions on these vessels mention flax and also include pictures of flax plants; they also attest to a koinonia of linen or a linen company.

Nosch's is the only paper that has anything much to say about evidence from the Classical or Hellenistic periods, which is a pity in a volume of this scope. There is certainly interesting work being done on textile production in Classical Greece, as Barbara Tsakirgis' recent paper on domestic manufacture shows.9 A rich range of evidence from the third and second millennia BCE, however, is analysed in five papers in this volume. Of these, Cécile Michel's paper on nineteenth-century BCE Assyria is the only one originally presented as a paper rather than a poster (chapter 8). During this period considerable trade in high-quality (and very expensive) textiles between Mesopotamia and Anatolia boomed, as evidenced by documentary sources, especially Old Assyrian texts. Anatolia was an important market for Assyrian producers and in one instance we even see them trying to prevent their Anatolian customers buying cheaper local alternatives. Mesopotamian evidence figures again in Agnès Garcia-Ventura's chapter (10), in which the assumption that weaving at Ur was an exclusively female craft is tested. Her conclusion is that that weaving was occasionally carried out by men, a point that has recently been made by Ulrike Roth for the Roman period. 10 Where Garcia-Ventura is interested in who did the weaving, Agata Ulanowska is concerned with the economics of it (chapter 12), in this case in the Bronze Age Aegean. Reconstructing a chaîne opératoire for the wool preparation process, complete with labour figures derived from practical experiments, the author argues that weaving is not

Two further papers deal directly with archaeological evidence. David Lumb turns to the evidence provided by late Iron Age 'textile tools' from the site of Tell Tayinat in the Hatay province of southern Turkey (chapter 11). What Lumb is able to argue is that the form of the excavated loom weights and spindle whorls reflects the nature of the finished product. The loom weights reduce in size over time, corresponding towards increased production of light, fine fabric, while the spindle whorls show that different thicknesses of thread were being spun in all periods. The cylindrical non-perforated loom weights found at the site find close parallels with examples around the eastern Mediterranean, suggesting that the site was tied into broader technological networks. At Late Bronze Age Tiryns, the evidence from which is examined by Małgorzata Siennicka (chapter 13), cylindrical spools replace loom weights, while rounded and perforated ceramic discs were used alongside purpose-made whorls. The author argues that these discs, in particular, were either preferred for the spinning of certain fibres or the production of certain threads over the actual spinning whorls or were simply cheaper/easier to manufacture. The cylindrical spools also hint at a shift in the manufacture of textile tools, if not actually the textiles themselves, since they are simply and easier to make than the discoid loom weights of Minoan type. These roughly made but effective spools and pottery discs peak in numbers in the Post-Palatial period, and the author is tempted to connect them to a shift away from the palace administered weaving industry towards more fragmented, domestic production.

Two papers, finally, take a slightly different approach from the others. Wool is the focus of Margarita Gleba's contribution (chapter 9) and, in particular, the way in which wool can be analysed to reveal patterns in its use and trade. Written and archaeological evidence have a role to play here but both have their limitations. In the case of archaeological evidence, bone remains are particularly unhelpful for distinguishing between breeds of sheep and so offer only partial information. Fibre analysis is potentially more useful and can allow distinctions to be drawn between ancient and modern sheep varieties. Analysis of fibres in textiles from across a region can also allow a picture of typical local wool resources to be built up, against which imports stand out. Isotopic analysis has the potential to highlight similar patterns, as work on northern European wool has shown. The ability to be able to distinguish between wool deriving from different regions could add considerably to our understanding of this overlooked trade.

nearly as labour intensive as the other stages of the textile manufacturing process, despite the fact that it was highly specialised.

⁹ Tsakirgis 2015.

¹⁰ Roth 2011.

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Hang Lin's chapter, the final one in the volume (16), is the only one to significantly shift attention away from the Mediterranean. Presenting an extraordinary series of silk hats, robes and boots from Liao dynasty tombs of the Khitan people in northern China, the author focuses on the role played by silk in the diplomatic jostling between the Liao dynasty and the Song to the south in the tenth and eleventh centuries CE. Payments of silver and silk given to the Khitan are recorded in treaties and it is possible that Chinese silk-workers even operated under the Liao dynasty. Either way, these well-preserved finds from Liao tombs indicate the prestige value of this material.

The wide range of papers presented in this volume makes it an extremely important contribution to the debate on ancient textile production. The array of approaches employed and the variety of material drawn on show the potential of this field for informing broader discussions in ancient economic history. It is always a difficult task to try and produce an edited volume with an overriding sense of coherency. Here, as often in similar volumes, the papers seem to be stand alongside each other rather than engaging with each other. Cross-references are avoided and interesting connections between papers are not flagged up. One example of this kind of interaction are the labour figures examined by Ulanowska, which potentially support some of the economic modelling discussed by Broekaert; one might also point to the references to specific garments in the Periplus, highlighted by Peter and Wild, which could feed directly into Flohr's work on globalization of demand for textiles. It is especially surprising that the two papers on loom weights/spools and spindle whorls in no way interact. The place for such synergies to be raised would have been Droß-Krüpe's introduction—or perhaps a concluding chapter—but instead the focus was placed on justifying the inclusion of all these papers rather than exploring their impact. It should also be said that the ordering of the papers does not encourage coherency: we move from an overview of the Roman period (Flohr), to Classical Greece (Nosch), then back to a series of papers on evidence from the Roman provinces, before a paper on nineteenth-century BCE Assyria (Michel). These caveats aside, this volume brings together a very useful range of scholarship, which finally puts ancient textiles and their economic significance in the spotlight.

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losif Hadjikyriako and Mia Gaia Trentin (eds). Cypriot cultural details: proceedings of the 10th Annual Meeting of Young Researchers in Cypriot Archaeology. pp vii+234, 106 b/w illustrations, 17 tables. 2015. Oxford: Oxbow. ISBN 978-1-78570-066-8 paperback £38; ISBN 978-1-78570-067-5 e-publication £19.

Arguably the archaeology of Cyprus has in the past few decades grown to a subdiscipline of archaeology in its own right. Today, a new generation of researchers boldly extend the frontiers of Cypriot archaeology, as it seeks to explore different themes, pose novel