

## BIBLIOGRAFIA

Olga Krzyszkowska, *Aegean Seals: An Introduction* (Institute of Classical Studies, School of Advanced Study, University of London, *BICS* Suppl. 85), London 2005, pp. i-xxx, 1-425, with 625 black & white and 4 colour plates.

*Aegean Seals: An Introduction* is beautifully produced and certainly timely<sup>1</sup>. The last general survey of Bronze Age Aegean glyptic was the magisterial chapter in John Boardman's *Greek Gems and Finger Rings* (1970; hereafter *GGFR*). Since then, perhaps 2,000 seals and sealings have come to light. Although most of this material and many older collections have been published in the *Corpus der minoischen und mykenischen Siegel*, *CMS* volumes are expensive and copies accordingly scarce. *Aegean Seals* offers 625 black & white plates plus a stunning set of 53 colour illustrations – an unrivalled display at a very affordable price.

*Aegean Seals* is also comprehensive. In ten chapters, it covers glyptic from “The Precursors” in the Near East through the whole of the Bronze Age on Crete, the mainland, and the islands. An eleventh chapter considers “The study of Aegean glyptic.” The book concludes with two appendices: (I) A User's Guide to the *CMS*, and (II) a glossary of glyptic terms. The bibliography is thorough and up-to-date<sup>2</sup>. The diachronic chapters begin with a capsule description of the period, followed by discussion of glyptic under three main headings: Sources of evidence and dating; Seals and seal-types (materials, shapes, techniques; motif, composition, style; the sites); Seal use (expanded into separate chapters for Neopalatial Crete [Ch.7] and Mycenaean Greece [Ch. 10]). As one would expect from Krzyszkowska (hereafter K.), whose own work focusses on ivory-working, the sections on materials and techniques are especially solid. Sealings, too, are treated in depth, a study that had only just begun when *GGFR* was published. More substantial than most Introductions, this book's very density makes it a useful resource, as well as a valuable reference for those without access to the *CMS*. But it does have a few drawbacks.

K. aims to provide “a broad introduction to glyptic development and to some of the many insights which seals and sealings can offer” (p. 2). Yet, students looking to identify the central issues of recent scholarship will be disappointed. Instead of a survey of trends and controversies, K. offers a single viewpoint to the exclusion of any others. Anything that smacks of “interpretation or even speculation” is rigorously excluded or dropped into disapproving footnotes. Of course, interpretative argument is risky, but the nature of glyptic sources – different in date, kind, purpose, and preservation – means that any significant study is, to

---

<sup>1</sup> I am grateful to the editors of *SMEA* for the opportunity to expand on my review of *Aegean Seals*, which will appear in *AJA* 110, 2006, forthcoming.

<sup>2</sup> To which, add: M.C. Heath-Wiencke, “Clay Sealings from Shechem, the Sudan, and the Aegean”, *JNES* 35, 1976, 127-130; N. Marinatos, *Minoan Religion: Ritual, Image and Symbol*, Columbia, South Carolina 1993; J. Weingarten, “A Tale of Two Interlaces”, in Y. Duhoux (ed.), *Briciaka: A Tribute to W.C. Brice, Cretan Studies* 9, 2003, 285-299; J.G. Younger, “A Balkan-Aegean-Anatolian Glyptic Koine in the Neolithic and EBA Periods”, paper read at the VIth International Aegean Symposium, 1987; an internet website (<http://people.ku.edu/~jyounger/articles/Neo/Neo-EBAKoine.htm>), inaugural date: 1 Dec 1995, last accessed: 30 Jan 2005; Idem, “New Observations on Hieroglyphic Seals”, *SMEA* 28, 1990, 85-93.

some extent, an exercise in probabilities. Description by itself explains nothing. Yet scholars who go beyond K.'s confines are seriously scolded and their work disparaged: comments such as "completely unfounded", "unreliable", "lacks rigour", "futile", "frankly inexplicable", "not a scrap of evidence", "fanciful", "absurd", and "no hard proof" are scattered throughout the footnotes. Such curt dismissal, however, does not do duty for argumentation (as for K.'s criticism of my own research, I leave that to others to judge). By often attaching derogatory comments to footnote references, it is not always clear if the cited scholar is responsible for the research discussed in the text *and* the (putative) error or only for the lapse. If one does not know the field intimately, one would not realise how much of the text is, in fact, owed to the very pieces of scholarship belittled in the notes. I suppose that it is something of an achievement for one's work to have become common knowledge, and no longer need specific citation, but I'm not sure that all scholars would agree. It is, to say the least, a peculiar way of going about things.

In addition, some important work is unexpectedly discounted. For example, discussing the MM IIB Phaistos sealings, K. provides one footnote (p. 106, n. 70) and a single dismissive sentence (p. 323) to describe Enrica Fiandra's pioneering work on sealings. No one reading this book would have the slightest idea that Fiandra opened an entirely new chapter in sealing studies with her publication of the Phaistos sealings, elucidating the function of seals in early bureaucracy and storeroom management – the very foundation of the ancient economy; nor that her work forms the basis of most subsequent research, not only in the Aegean but the Near East and Egypt as well<sup>3</sup>.

This narrowest possible acknowledgment of Fiandra's contributions is symptomatic, in my view, of two problems, both contentious issues in their own right, and about which scholars may legitimately differ: first, to understand the implications of Fiandra's work, one must be willing to look outside the Aegean, a standpoint that conflicts with K.'s general scepticism about Aegean relations with neighbouring cultures; and secondly, one needs to be open to a complex array of responses to the glyptic record.

While admitting the possibility that "some features of Aegean glyptic were inspired from the East or even derived directly through foreign contacts" (p. 24), K. prefers to credit *universal phenomena* or *independent local invention* (my italics) for all but the most unarguable evidence of foreign contacts. Only exact parallels (such as griffins and sphinxes), or irrefutable imports (e.g., ivory, some gemstones) get the nod. Compelling, but not indisputable evidence (e.g. peg and pommel sealings at EH II Lerna and MM IIB Phaistos, though identical in form and purpose to those long used in the Near East/Egypt) do not pass muster, since "it is nigh impossible to say how or indeed when the practice spread to new areas" (p. 28).

K. maintains that "in style and iconography Aegean glyptic proves to be remarkably immune to external influences.... (p. 32)". Common sense and a grasp of history suggests this is too limited a viewpoint. Without denying for an instant the originality of Aegean culture, it is doubtful that it was ever sphragistically isolated: from the decorative stamps (*pintaderas*) which appear to have spread from the Near East into Neolithic Greece, to the last gasp of Minoan palatial glyptic transformed into the Cypro-Aegean style, fairly constant, subtle interchange between the Aegean and the Near East/Egypt is the rule. No doubt, there is rarely any means of identifying the precise source of inspiration, much less the mechanisms for such transfers. But, as remarked by John Ray in a similar context, "A Rembrandt found in the attic is still a Rembrandt,

---

<sup>3</sup> From "A che cosa servivano le cretule di Festòs", in *Proceedings of the 2th International Cretological Congress*, 1, Athens 1968, 383-395, to the tributes in M. Perna, a cura di, *Studi in Onore di Enrica Fiandra*, Napoli 2005.

even if nobody can say how it got there<sup>4</sup>." Of course, the question of transmission will not easily go away. Resettings, reinterpretations, modifications (and misunderstandings) often make the relationship between original-cause and final-effect difficult to grasp. One needs a nuanced approach to appreciate the evidence for cultural contacts in glyptic art, and, preferably, the keener eye of the art historian<sup>5</sup>.

One needs also to look beyond the physical artefact. In her own field of expertise, that of ivory-working, K. notes, "The arrival of imported hippopotamus ivory [on prepalatial Crete] provided a major boost to the craft... (p. 59)". But did ivory arrive, like St Paul, blown off course and carried willy-nilly to the shores of Crete? Did no one go out looking for it? How did Minoan craftsmen learn to work it? Hippopotamus ivory is more difficult to carve than elephant, and unlikely to be preferred except where, as in Syria and the Near East, it was readily available and known to local craftsmen<sup>6</sup>. It does not seem indefensible to suggest an *active* importation, not merely of material but of skills. If craftsmen were travelling (as seems evident in the case of the slightly later Minoan scarabs and 'white pieces'), some traces of borrowings and mixing might still be found, if we are alert enough to search for all kinds of information-generating effects.

While being the work of an individual or workshop, a seal, like any other art object, is also the product of a society and culture. K. proposes to "emphasize the cultural framework in which seals and sealings were made and used," (p. xxv) but no such framework emerges. We come no nearer the glyptic artist than the meagre traces of tools and workshop debris, nor do we ever approach the seal-user. K. is, of course, aware that seals, "as personal possessions ... bring us far closer to the individual than is ordinarily possible" (p. 23), but nothing of the sort seems to happen. The sporadic attempts are naive, as in her description of the Vapheio prince "forming his collection of seals and *objets d'art* in the Minoan style" (p. 123), as if this early Mycenaean warrior were a Renaissance prince<sup>8</sup>. In short, there is no serious attempt to examine the artistic, political, or social impulses behind the images<sup>9</sup>.

In the introductory section on Style (pp. 17-20), K. stresses that differences in technique can produce stark differences in style. She is very strong on the technical side of this equation, and deals confidently with motif, composition and the use of space – aspects which can be assessed with reasonable objectivity; but is uneasy with style itself, "certain elements of [which] will always defy analysis, will always remain elusive" (p. 20). Admittedly, there is often great difficulty in expressing shades of degree and difference, but that is no reason to overlook the distinctive qualities that is style at its basic level, and which link the individual craftsman to the style of a time and place. At times, K. seems to confuse style and iconography: e.g., "for a reminder of the stylistic diversity during [MM III-LMI], we need only glance at the fantastic hybrid creatures produced by engravers at Zakro" (p. 20). Whether one

<sup>4</sup> Review of W. Burkert, *Babylon, Memphis, Persepolis*, *TLS* April 8, 2005, 30.

<sup>5</sup> Cf. J. Aruz, *Marks of Distinction: Seals and Cultural Exchange between the Aegean and the Orient [ca. 2600-1360 B.C.]*, *CMS Beiheft VII*.

<sup>6</sup> R. Moorey, *Ancient Mesopotamian Materials and Industries*, Winona Lake, 1999, 115.

<sup>7</sup> J. Weingarten, "How Many Seals Make a Heap: Seals and Interconnections on Prepalatial Crete", in R. Laffineur, E. Greco (eds.), *Emporia. Aegeans in the Central and Eastern Mediterranean, Proceedings of the 10th International Aegean Conference, Athens, Italian School of Archaeology, 14-18 April 2004 (Aegaeum 25)*, Liège/Austin 2005, 759-766.

<sup>8</sup> I much prefer Mervyn's Popham's suggestion (pers.comm.) that these seals were "scalps", taken from dead opponents.

<sup>9</sup> Cf. J.G. Younger, "The Spectacle-Eyes Group: Continuity and Innovation for the First Mycenaean Administration at Knossos", *CMS Beiheft 6*, 347-360.

accepts a single Zakro Master or more than one engraver (we shall return to this below), these seals are not distinguished by style – which falls well within the mainstream of Minoan naturalism – but by subject. That is to say, the Zakro engraver uses fundamentally the same aesthetic means in the same way as other LM I naturalistic artists.

Perhaps part of the problem is the very word, ‘naturalism’. I seriously doubt that any Minoan artist ever tried to make a literal representation or to reproduce anything as an exact portrayal of a given scene or object<sup>10</sup>. Whether portraying human figures or bulls in flying gallop or butterflies and flowers, naturalism was not the Minoan artists’ aesthetic goal. Nor were they, in any meaningful sense, “inspired by nature” (p. 146). One need only look at the Minoan male figure to see that they do not accurately represent the human body: wasp-waisted and wiry, the physical body is distorted in order to create an impression of youth and agility (*GGFR* 38). The image projects the focal points of the Minoan world view (not the world as it is). It also reflects the role and effects of social and cultural factors which it is our task to explore.

Minoan seal-carvers emphasised some aspects of the subject while minimising or omitting others. In the chapter on Neopalatial Crete, K. discusses human figures on LM I gold rings and argues that the aniconic or featureless heads result from the techniques of punching and engraving (p. 138, n. 63). While glyptic style and technique are undoubtedly entwined, technical restraints should apply equally to all parts of the ring – which is simply not the case: the women’s flounced skirts on the same rings are almost always so finely detailed that they explicitly “encourage attention” (*GGFR* 38). Put another way, whether the women are goddesses, priestesses, or worshippers is not the issue: they are wearing the skirt of the goddess and *that*, not human features is the focus of the scene. These images are statements. Where K. sees objective evidence for Minoan cult practice and religious belief (p. 142), I see rather what they wanted to show: in this case, that the women’s skirts are more important than their heads or limbs.

K. demands a rigorous and dispassionate approach to cult scenes, though presenting ecstatic religion and epiphanies as facts (p. 142 and n. 78)<sup>11</sup>, whereas I would consider them interpretations. She urges, *to begin with* (my italics), that we describe ‘all figures neutrally, as male or female, without designating role or rank. Pose, gesture, facial features ... need to be documented with care’ (p. 142). This has already been done<sup>12</sup>, and it did not, in itself, help us decode the images. So I conclude that if, after studying cult scenes for 100 years, the best we can do is to *begin again*, we are surely asking the wrong questions. We need fresh approaches. In the Neopalatial period, the study of gender is an obvious candidate, continuing the inquiry of A. Alexandri’s richly suggestive *Gender Symbolism in LBA Aegean Glyptic Art* (PhD diss., University of Cambridge, 1994). Alexandri turns the banal observation (repeated by K., p. 142) that women are *prominent* in cult scenes into the precept that they *only* appear in religious scenes – and this is as true on gold rings as on soft stone seals. In short, religion and that skirt (!) are the foci of female description. Men, on the other hand, are depicted in varied agonistic activities (hunt, war, bull-leaping) as well as in cult, suggesting that they occupy a greater number of social positions. Alexandri’s socially oriented perspective leads to a thought-provoking maxim: “The creation of a man seems to be a matter of

<sup>10</sup> Indeed, even Minoan ‘portraits’ are not individual portrayals, as discussed by I. Pini, “Minoische ‘Porträts’?”, in P.P. Betancourt, V. Karageorghis, R. Laffineur, W.-D. Niemeier (eds.), *Meletemata, Studies in Aegean Archaeology presented to Malcom H. Wiener (Aegaeum 20)*, Liège/Austin 1999, 661-670.

<sup>11</sup> As in Marinatos, *Minoan Religion* (*supra* n. 1), but it remains debatable, cf. C.D. Cain, “Dancing in the Dark, Deconstructing a Narrative of Epiphany on the Isopata Ring”, *AJA* 105, 2001, 27-49.

<sup>12</sup> J.G. Younger, *Iconography of Late Minoan and Mycenaean Sealstones and Finger Rings*, Bristol 1988.

social construction – men are made; women, on the other hand, simply **are** (another nail in the coffin of gynaeocracy?<sup>13</sup>).

The two chapters on Seal Use (Ch. 7, 9) are marred by an avalanche of detail. The description of each nodule type, form, and mode of fabrication is heavy-going. K. reproduces the CMS drawings, and that, with brief explanations, should have sufficed. The somewhat cumbersome CMS nomenclature is also translated directly into English, in one case misleadingly: *Päckchenplomben* may literally be “Packets” (p. 156), but these flat-based nodules, thought to have sealed documents, contain nothing.

These are quibbles, however. I should like to touch on two more complex issues: the vexed questions of “look-alikes” and “replica rings”, both of which K. is determined to deny (pp. 141, 167). By throwing out what she considers bathwater, we are left with no babies instead; yet we still hear the infants howling. While neither term is easy to define, both refer to clear and persistent sphragistic phenomena – with good parallels in other seal-using cultures. In the matter of “look-alikes” (p. 184), K. apparently confounds *parallels* (alike as art objects: as craftsmen commonly repeat themselves and copy others, this is quite unexceptional) with *look-alikes*, which have administrative import: i.e., they look so much alike that they must have been made intentionally similar in order to exercise similar authority. We cannot prove, of course, that similar seals were *expressly* created for this purpose, but it can be strongly implied: it is how they are *used* that counts. For Minoan Crete, the locus classicus is LM IB Zakro, where two or three different seals are commonly stamped on a single nodule (= the Multiple Sealing System [MSS])<sup>14</sup>. In the MSS we can see that seals that look alike are often stamped in regular patterns along with other seals that *also* look alike: A1 + B1 [+ C1]; A2 + B2 + [C2], and so on. The fact that some variations are apparent to the naked eye – while others are only visible under 10x magnification or even electron microscopy – does not exclude them as ‘look-alikes’; it is how they are *used* that counts. This is a striking Minoan sphragistic development (which also appears at Knossos and possibly at Thera), yet K. dismisses it, perhaps because “even the basics are hard to grasp, never mind their significance” (p. 184). Yet it is clear that the use of “look-alike” seals is fundamental to seal function at important sites, and, for that reason, the term deserves to be maintained, in lieu of a better one.

The section on the new sealings from Thera (pp. 167-168) unfortunately reproduces only two of the fifteen seal-types, many of which are from fine metal rings<sup>15</sup>. All but two of the ca. 66 nodules had sealed documents. K. fails to point out the crucial fact that most of the sealings were stamped by two *different* seals. Since the clay was not local, this habit of multiple stamping may track them back to their home port, quite possibly Knossos. One ring impression with a superb chariot scene (CMS V 3,2 391, stamped alone) is from *the same ring* that later stamped four document sealings at LM IB Sklavokampo (CMS II.6 260) and two at Ayia Triada (CMS II.6 19). One of the latter sealings was also stamped by a bull-leaping ring (CMS II.6 41) which *also* finds a very close parallel on Thera (= CMS V 3,2 392), so close that the excavator first believed it was the identical ring. Further investigation showed that it was not an exact match but a very, very similar image, undoubtedly made in the same workshop. In other words, the two bull-leaping rings are good examples of what is meant by “replica rings”.

<sup>13</sup> On which, now see G. Cadogan, “Gender Metaphors of Social Stratigraphy in Pre-Linear B Crete”, in K. Kopaka (ed.), *Engendering Prehistoric Stratigraphies in the Aegean and the Mediterranean*, Rethymnon, forthcoming.

<sup>14</sup> J. Weingarten, “The Multiple Sealing System of Minoan Crete and Its Possible Antecedents in Anatolia”, *OJA* 11, 1992, 25-37.

<sup>15</sup> One must still consult either CMS (V 3,2 391- 405), or C. Dumas, “Seal Impressions from Akrotiri, Thera: A Preliminary Report”, *CMS Beiheft* 6, 2000, 57-65.

A “replica ring” is not an exact copy – i.e., rings cast from the same mould (X-ray photography proves that this was not the LM I practice; and I accept K.’s correction of my suggestion that the famous Knossos “matrix” might have been used to cast such rings). While “replica” may not be the ideal term, it does describe the very similar, very slightly different rings (many large gold rings, often of bulls and bull-leaping) which *might* have been purposely fabricated to reflect a political high authority. Two points need be addressed: 1) how do we know if they were fabricated for such a purpose; and 2) if so, what was that authority? I would make a single observation: until the modern era of magnification, many of these seal impressions (even when intact) could hardly have been distinguished in the push and shove of sealing practice. If only close scholarly study now distinguishes some impressions, how would the document’s recipient have known who sent it? So, *either* the rings were made intentionally similar (whereby the usual slippery, partial impression sufficed to indicate the issuing authority), *or* the need for a seal to distinguish one aristocrat’s message from another was not important. Many scholars, following John Betts<sup>16</sup>, accept the first hypothesis.

Assuming that these scholars might be right, which authority was that? The quality and imposing imagery of the best of these rings indicate a central palatial workshop. While “there is no proof” (p. 189, nn. 97, 99), it does seem likely that the workshop was at Knossos and already at work in LM IA. This need not mean Knossian suzerainty (*pace* Betts); current evidence suggests no more than documents and messengers moving back and forth between LM I sites under the authority of a select group of ring-owners<sup>17</sup>. I do not know why K. finds this so astonishing that she denies any such possibility (pp. 141-142, 188-192), but this long-held theory now has the added support of the Thera sealings, most of which exhibit the Knossos practice of multiple stamping.

John Younger assigned many of these splendid bull and bull-leaping rings to his Group of the “Vapheio Cup” Bulls (in his immensely useful work of ordering LBA glyptic into stylistic groups), which he located at Knossos(?)<sup>18</sup>. He remarked that, while the dated contexts of the “Vapheio Cup” Group all fell within LM IB/LHIIA, their use of some traits characteristic of the earlier Mycenae-Vapheio Lion Group suggests they were made early in that period<sup>19</sup>. The Theran sealings now show that this Group was active as early as mature LM IA. This is good support for the utility of his identifications based on a complex of interaction and influences, and shared stylistic and technical traits. While description of style is always to some extent subjective, Younger presents explicit criteria for his definitions, with which other scholars can (and do) take issue. K. will have none of it! What Younger sees as diagnostic traits, she takes as “little more than aspects of a broad *Zeitstil*” (pp. 326-7). Where he sees a unity between some LM I artists working in different media (*Kadmos* 23, 1984, 46-56), K. holds that “the features which link these examples are minimal and, at best, reflect common trends in LB I figural art” (p. 327).

K. challenges the whole project of attribution studies for Aegean glyptic. She rightly contrasts the material available for the study of Athenian figure-decorated vases (huge quantity, restricted and known production area, vase size, richness of detail, occasional signa-

<sup>16</sup> “New Light on Minoan Bureaucracy. A Re-examination of Some Cretan Sealings.”, *Kadmos* 6, 1967, 15-40.

<sup>17</sup> J. Weingarten, “LBA Trade Within Crete”, in N.H. Gale (ed.), *Bronze Age Trade in the Mediterranean* (SIMA 90), Göteborg 1991, 308-310.

<sup>18</sup> “Aegean Seals of the Late Bronze Age: Masters and Workshops [later: Stylistic Groups], *Kadmos* 21-28, 1982-1989.

<sup>19</sup> In *Kadmos* 24, 1985, 55.

tures) with the paucity of evidence for LBA gems (p. 329). The prospects for comparable success are indeed nil (GGFR 16), but are the efforts as hopeless, and the obstacles as insuperable as K. thinks?

K. declares that, "for a clear verdict on style, close scrutiny of impressions under the microscope is a *sine qua non*" (p. 327). In 1990, I spent a month at the CMS Archives with Prof. Ingo Pini and Dr. Walter Müller, examining all the impressions of the Zakro sealings under the electron microscope. We discovered many more "look-alike" variations than had ever been suspected, and this was subsequently published in CMS II.7, a volume which indeed supersedes all previous work on the subject<sup>20</sup>. At the same time, I re-examined the "hand" of the Zakro Master: the electron microscope brings out the engraver's lines, tool marks, depth and modelling with the utmost clarity; one sees where he hesitates or is resolute; his every move is as clear as a bell. Pini and Müller remain sceptical of a single hand, and K. follows in their tracks, referring to "Zakro engravers," in the plural (pp. 150-153, 180-185). I, on the contrary, am more convinced than ever that there was a single Zakro Master (ZM), responsible for ca. 100 of the hybrid monster and related gems. However, he was not alone: a few gems imitate his subject matter and attempt to imitate his style. I take this opportunity to publish my brief notes:

*Hand 2: deeper lines, more detailed, neater engraving, copying ZM designs; as seen on CMS II.7 130 [cf. ZM's 129A/B], 136 [cf. ZM's 134], 197.*

*Hand 3: flatter heads, more schematic engraving, following ZM designs; as seen on CMS II.7 183, 184, 185.*

*Hand 4a,b: crudely and roughly engraved, following ZM designs; as seen on CMS II.7 84, 112.*

Hand 2 could be his son and successor; Hands 3 and 4 perhaps craftsmen who intruded on his turf<sup>21</sup>. I have no doubt that there is more valuable work to be done in this vein. While, obviously, a wholly stylistic analysis can never be proved to the sceptic's satisfaction, as John Boardman used to say, "Anyone with an eye can see...."

Non-specialised readers of *Aegean Seals* will probably be grateful to be spared the endless disagreements of glyptic debate, but they will also miss any investigation into the hypothetical causes behind the assembled facts. One cannot help feeling that some of this cautiousness is a bit rigid. At the very least, the interesting 'how' and 'why' questions inevitably lead beyond what can be established by objective description alone. This is not to say that *Aegean Seals* is unsuccessful overall (it is very valuable as a reference book and deserves to be in every library), but students and scholars should be at liberty to use it without any commitment to denying alternative views.

*Judith Weingarten*  
Via S. Croce, 13  
I - 53030 Belforte (SI)

<sup>20</sup> Including, of course, J. Weingarten, *The Zakro Master and his Place in Prehistory* (SIMA Pocket 26), Göteborg 1983.

<sup>21</sup> A few other monster seal-types, clearly not from the ZM, do not imitate either his style or designs, and need not be from a local workshop.