torischem Schwerpunkt vertreten. Das verwundert: Trier ist neben Köln die wichtigste römische Stadt auf deutschem Boden, in jedem Fall die bedeutendste Ansammlung römischer Denkmäler des Landes Rheinland-Pfalz; das römische Trier hat Welterbestatus. Dennoch gibt es dort keine in Forschung und Lehre vollwertige Provinzialrömische Archäologie oder Vor- und Frühgeschichte, die sich dieses wissenschaftlichen Potentials annehmen würde – im benachbarten Saarbrücken sieht es nicht viel anders aus.

Die Ursache dafür liegt kaum in Personen und deren individuellen Forschungsschwerpunkten – welcher Archäologe kann schon voraussehen, ob seine jetzigen Forschungen in 20 Jahren als wegweisend betrachtet werden? Der Betreuer von Frau Weidners Arbeit beschäftigte sich "aufgrund seiner Grabungstätigkeit neben dem ptolemäisch-römisch-byzantinischen Ägypten besonders mit der Kunst und Kultur Zyperns" (Themenheft "Zentrum für Altertumswissenschaften [ZAT]". Unijournal – Zeitschr. Univ. Trier 29, 2003, 24). Weitaus schwerer wiegt die schlechte finanzielle Ausstattung deutscher Universitäten, besonders zwischen Rhein und Mosel. Rez. möchte hier keinesfalls der Heimattümelei vergangener Zeiten das Wort reden – aber eine umfassendere Beschäftigung mit antiken Trierer Befunden dürfte im öffentlichen Interesse liegen. Angesichts der essentiellen Bedeutung von Universitäten für die archäologische Landesforschung scheint die Archäologie in diesem Teil der Bundesrepublik vergleichsweise schlecht ausgestattet.

Die Arbeit Monika Weidners ist sehr gut und geistreich, aber sie lässt den Leser etwas ratlos zurück: Welchen Nutzen bringt sie bei der Bearbeitung nicht kunsthistorischer Fragestellungen der Römerforschung?

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ALEX R. FURGER / MAYA WARTMANN / EMILIE RIHA, Die römischen Siegelkapseln aus Augusta Raurica. Mit Beiträgen von Katja Hunger, Erwin Hildbrand, Vera Hubert und Marie Wörle sowie Jorge E. Spangenberg. Forschungen in Augst Band 44. Verlag Augusta Raurica, Augst 2009. CHF 100,—. ISBN 978-3-7151-0044-9. 251 Seite mit 130 Abbildungen, 27 Tabellen und 41 Tafeln.

The 'Forschungen in Augst' series is one of the most successful enterprises of its kind in its presentation of the structural remains and material culture of a Roman fortress and the subsequent large civilian settlement. Several of the reports are the work of the redoubtable scholar Emilie Riha, sometimes in collaboration with others: the volumes on brooches (1979; 1994), spoons (1982), toilet and medical instruments (1986), jewellery (1990), boxes and other wooden furniture (2001). She began the volume on seal-boxes in her 81<sup>st</sup> year but did not unfortunately live to see it through to completion, a task undertaken after her death in 2005 by Alex Furger.

As well as being a fine tribute to Riha's work, the book is an example of the ideal way to deal with a collection of this kind from a single site, viewing it both extrinsically within the wider context of similar objects from other places and intrinsically to extract the information inherent in the varying forms and their dated archaeological contexts. The first part of the book explains how and why seal-boxes were used, with sections on writing tablets, waxes, production, provenance, materials etc. The earliest examples appeared in the Mediterranean region c. 100 BC, were purse-shaped and made of either bone or bronze, with the bone ones possibly preceding their metal counterparts by some decades. A range of forms and decoration developed from these early plain beginnings. The boxes

appear principally to have been used to seal writing tablets, clearly demonstrated by a relief from Solin (*Salona*) in Croatia showing styli and a polyptych of tablets secured by a lozenge-shaped seal-box, but they may also have been used on packages of documents or valuables. This last has yet to be proven, but evidence supporting the possibility is provided by seal-boxes from Kalkriese and Trier found in close association with bags or purses of coins.

The major central section of the book deals with the typology and chronology of seal-boxes across the Empire. Clusters along the major rivers and the limes, at other military sites and in major towns reveal seal-boxes to be excellent markers of both military and civilian lines of communication and centres of administration, as well as of changing styles in seal-box form and probable workshop sites. A statistical summary of the comparative material from selected find-spots backs up the data and the results in the typology. The accompanying lists of comparative material for the various types show that both maps and lists can be taken as representative rather than absolute. There are financial and time constraints on even the best-researched study, and any search based largely on published literature is dependent upon both the bibliographic material available and the varying publication policies for archaeological excavations and museum collections in different countries. Nevertheless, a distinct pattern of seal-box use has emerged, showing that over the course of the early Imperial period they spread north-west from the Mediterranean through Gaul and Germany to Britain and north-east to Noricum, Pannonia and Dacia. There then seems to have been a negative version of this pattern, with seal-boxes disappearing from the Mediterranean but continuing in use in the northern provinces. An exploration of whether or not differences in climate across the Empire led to different preferences in writing and sealing media is inconclusive. A shift in perspective would suggest that it is far more likely that the disappearance of the seal-box from the more southerly areas reflects a shift to other sealing methods in the Mediterranean zone that again rippled gradually outwards.

An important point to arise from this study is that many earlier researchers tended to overstress the military aspect of seal-box use. Civilian and religious use is evident in the contexts of many of the boxes, and the latter was highlighted by T. Derks' study of the seal-boxes found on sanctuary sites in the Netherlands (T. Derks, The ritual of the vow in Gallo-Roman religion. In: J. Metzler et al. [eds], Integration in the Early Roman West. The role of culture and ideology. Dossiers Arch. Mus. Hist. et Art 4 [Luxembourg 1995] 111-127). There the boxes may have been used to close wax tablets on which a nuncipatio was written - a formal contract between a devotee asking for divine assistance from a particular god and promising a donative in return. The seal would have been broken when both the request and the gift were considered to have been fulfilled, releasing the box for re-use or for deposition as a votive object in its own right. A number of seal-boxes from other sanctuary sites suggest that this practice was fairly widespread but was not universal. A very few sealboxes also occur in burials, but in some graves they need not relate directly to writing but rather to cultural practices connected with religious beliefs or superstitions. The girl buried in the Flavian period at Winchester (GB) with a penknife and styli also had a seal-box lid in a bag collection of amulets and keepsakes (crepundia), and to identify her as a scribe on this basis is rather over-stretching the evidence. Her bag collection, dinner service and writing implements identify her rather as an unmarried member of the literate élite. Her seal-box lid can be directly compared to one in a bag collection of amulets and other magico-medical curiosities found recently in the mid-later first century grave of a priestess in a rural sanctuary at Partney in Lincolnshire (GB). There was no evidence for literacy on this site, and in such a context a detached seal-box lid surely falls into one of the categories of amulets defined by L. PAULI, Keltischer Volksglaube, Amulette und Sonderbestattungen am Dürrnberg bei Hallein und im eisenzeitlichen Mitteleuropa. Münchner Beitr. Vor- u. Frühgesch. 28 (Munich 1975) 116-135 - either as an item of special shape, of special appearance, or as a curiosity.

In the latter part of the volume the perspective narrows to concentrate on the Augst seal-boxes themselves. A study of the distribution of the various forms found at Augst show that they first appeared in military contexts of the Tiberian-Neronian period and were then concentrated in civilian areas over the later first and second centuries, particularly in the *insulae* south of the forum that contained both dwellings and workshops. The catalogue is detailed and precise, giving the find-spot, context date, concise description, technical details and bibliography (where appropriate) for each box. The accompanying illustrations are both clear and innovative, mixing line drawings not only with colour photographs but also, where possible, with 'painted' reconstructions that show the boxes as they would have been when new — with bright metal and crisp, colourful enamel.

Metallurgical analysis of a few of the seal-boxes shows a range of alloys were used in their manufacture; some were of brass, others of bronze or leaded bronze, with both lid and base almost always made from the same alloy and no evidence for a strong link between alloy and typology. Enamelling and applied reliefs were frequently used as decoration, but various analytical techniques also provided evidence for tinning and niello inlay, as well as for the identification of the original colours of the enamel. Analysis of the traces of lipids remaining in three of the boxes showed that they were filled with beeswax. The methods of manufacture were also studied, with most examples having been cast but some of the round boxes probably produced by turning the metal on a lathe. One oddity may have been an ancient copy poorly cast in a mould taken from a well-made example. Detailed reports on all these analyses are given in the book, not consigned to the archive or to a CD-ROM and this will widen its appeal, making it of interest to conservators, metallurgists and replica makers as well as to small finds specialists.

The volume is a welcome addition not only to the Augst series but also to the growing body of literature on the writing equipment of the Roman world. It is a thorough and well-presented study that addresses the cultural aspects of the material as well as its typology and dating, and uses modern analytical methods to enhance the information that can be extracted from these artefacts. It will no doubt become a standard work on the subject and inspire similar research on assemblages from individual sites, regions or provinces.

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Andreas Fischer, Vorsicht Glas! Die römischen Glasmanufakturen von Kaiseraugst. Mit einem Beitrag von Markus Peter. Forschungen in Augst Band 37. Verlag Augusta Raurica, Augst 2009. € 62,–. ISBN 978-3-7151-0037-1. 194 Seiten mit 140 Abbildungen, 2 Konkordanztabellen und 12 Tafeln.

In seiner an der Universität Basel eingereichten Lizentiatsarbeit stellte sich Verf. die Aufgabe, zwei Altgrabungen, Kaiseraugst – Äußere Reben 1974.003 und 1978.004, auszuwerten. Der erste Teil der darauf aufbauenden Monographie befasst sich mit den Bauten und den Straßen im Grabungsbereich, der zweite Teil mit den Glasmacheröfen und den Funden wie Glashäfen, Glas, Produktionsabfällen, Werkzeugen, Gebrauchskeramik und Münzen. Verf. legte den Schwerpunkt des Buches auf die "Untersuchung der technologischen Aspekte der römerzeitlichen Glasverarbeitung respektive der Interpretation und Rekonstruktion der vorgefundenen Glasöfen".