THE FUNCTION OF CYLINDER SEALS
IN SYRIAN PALACE ARCHIVES

The reconstruction of political systems in ancient societies proceeds on two bases : archaeological and textual [1]. The former provides a wealth of detail about architecture, subsistence economy, settlement hierarchy, social hierarchy and certain facets of long-distance trade. All segments of the society are represented in the archaeological record, but only long-term changes are identifiable. Textual evidence consists of historical and economic documents. Royal inscriptions, letters, treaties and annals usually document the short span of individual accomplishment and refer only to the highest level in the political hierarchy. Economic texts record a broader spectrum of administrative activities, but often in such minute detail that their precise purpose is almost incomprehensible to investigators outside the original system. Reconciling such diverse sources is by no means easy, but it is necessary if we are to be fully informed about the nature and development of ancient political systems. One means of effecting such a reconciliation is by examining seals and sealings as administrative tools that function in both archival and archaeological contexts [2].

Here I will examine the textual and archaeological evidence of seals and sealing in order to assess the political implications of seal use in palace archives in second millennium B.C. Syria. The excavated palaces at Mari, Alalah, and Ugarit provide the evidence for the administrative function of seals in Syria west of the Euphrates. While each site is of different size and degree of political independence, seal use at the three sites can be compared because seals were used systematically in the same administrative context, the palace. The geographical proximity of western Syrian sites to the Mediterranean and their temporal proximity to the Aegean cultures that used seals make Mari, Alalah and Ugarit particularly appropriate for discussion at a symposium on Aegean seals and seal use.

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1   This paper summarizes the findings in B.S. MAGNESS-GARDINER, *Seals and Sealing in the Administration of the State : A Functional Analysis of Seals in Second Millennium B.C. Syria* (1987) Unpublished PhD Dissertation, University of Arizona.

2   As P. FERIOLI and E. FIANDRA have made clear for the Near East ("The administrative functions of clay sealings in proto-historical Iran", *Iranica* [1979] 307-312) and for the Aegean (E. FIANDRA, "Ancora a proposito delle cretule de Festós", *Bolletino d'Arte* 40 [1975] 1-25), one of the earliest sphragistic functions of both stamp and cylinder seals was to secure the closure of containers in administrative buildings. Recent dissertation research has greatly expanded our knowledge of seal use in very early periods : A. ALIZADEH, "Socio-economic complexity in Southwestern Iran during the fifth and fourth millennia B.C.", *Iran* 26 (1988) 17-34; M. ROTHMAN, *Centralization, Administration, and Function at Fourth Millennium B.C. Tepe Gawra, Northern Iraq* (1988) Unpublished PhD Dissertation, University of Pennsylvania; H. PITTMAN, *Glazed Steatite Glyptic Art : The Structure and Function of an Image System* (1989) Unpublished PhD Dissertation, Columbia University. Although seal-impressed closures continue to be used throughout the second millennium in Syria as well, this paper will focus on seal-impressed texts.

This investigation will proceed on the premise that the occurrence of seal impressions on objects that could be either marked or unmarked indicates that the marked objects are in some way more important than unmarked objects. My goal is to understand more precisely why objects and texts were marked and to delineate the implications of marking for the political or administrative objectives of the institutions in which the seal impressions occur. To do so I will first survey the types of information that contribute to our understanding of seal use, and then briefly summarize how and why seals were used in palace administration in Mari, Alalah and Ugarit. I hope that a clearer understanding of how seals function in these Near Eastern contexts will provide a basis for a clearer understanding of Aegean seal use in similar contexts.

Sources and contexts for seal functions

The function of sealings can be established through examination of physical and historical evidence in a variety of forms : **1.** the seal itself; **2.** its archaeological context; **3.** the objects subject to seal impression; **4.** and textual references to seals and to seal use. The following section reviews in general terms the information on second millennium B.C. Syrian seal use derived from these sources (see chronological chart on p. 74).

1. Cylinder Seals

Cylinder seals themselves have a long history in Western Asia [3]. Mesopotamia is the area in which they were first used for administrative purposes, and as early as the Uruk period we find both bullae and seals in use at sites on the Syrian Euphrates [4]. In the southern Levant excavations have revealed clay sealings produced by Egyptian cylinders to seal Egyptian commodities, while local cylinder seals in western Syria and Palestine were used to mark the leather hard clay of ceramic vessels before the vessels were fired [5]. Apparently sealing closures of containers with engraved cylinders or stamps were not recognized as useful in western Syria until jar closures marked with cylinder seals are found at Palace G, Ebla in the Early Bronze IV period (c. 2250 B.C.) [6].

At Ebla the seals used to impress closures are differentiated from the seals used to mark fired ceramics by their size, fine workmanship, and Mesopotamian iconography and style [7]. More importantly, however, the sealings themselves also bear cuneiform inscriptions that identify the users as very high ranking officers in the Ebla court [8]. Moreover, the majority of the identifiable impressions on sealed jar closures belong to two officials, and the sealed closures occur only in this palace context. Here we can identify for the first time individual sealings with individuals who are empowered to restrict access to goods within a western Syrian palace. The seal style and use of cuneiform to identify seal owners suggest that use of seals to control commodities is a function borrowed from Mesopotamia, probably at the same time and for the same reason the cuneiform writing system was adopted. Just as a seal controls access to a commodity through marking a physical impediment, cuneiform writing on clay

3   H. FRANKFORT, *Cylinder Seals* (1939); D. COLLON, *First Impressions* : *Cylinder Seals in the Ancient Near East* (1987).

4   For Habuba Kabira, see K. KOHLMEYER, E. STROMMENGER (eds.), *Land des Baal* (1982) 35-42; for Jebel Aruda, see G. VAN DRIEL, "Seals and sealings from Jebel Aruda 1974-1978", *Akkadica* 33 (1983) 34-62; for Malatya (Arslantepe), see P. FERIOLI, E. FIANDRA, "Clay sealings from Arslantepe VI", *Origini* 12 (1983) 455-509.

5   A. BEN-TOR, *Cylinder Seals of Third-Millennium Palestine* (1978).

6   P. MATTHIAE, *Ebla* (1980) 84-87.

7   S. MAZZONI, "Seal-impressions on jars from Ebla in EB 1(V) A- B", *Akkadica* 37 (1984) 18-45.

8   MATTHIAE (*supra* n. 6) 86.

tablets controls access through records of individual accountability for production, distribution and transformation of goods within bureaucratic systems. However, seals are not commonly used on texts until the advent of the "Amorite" Dynasties at Mari in the Middle Bronze Age (c. 1850 B.C.).

Cylinder seals provide a variety of information via material, design and inscription. The material of which they are made varied considerably from locally available limestone, chert and faience to the more popular hematite and the valuable and rare lapis lazuli [9]. Incised designs range from simple geometric patterns to complex figural scenes, and several recent analyses of Mesopotamian and Iranian cylinder seal design suggest that in some cases seal image is related to seal function [10]. However, the most explicit information is conveyed by inscription. These appear on Syrian seals at the beginning of the second millennium B.C. and usually consist of one or more lines with owner's name, patronymic, political affiliation, profession or patron deity [11]. With regard to seal function in administrative contexts, it is interesting to note the prevalence of inscribed seals on impressions found in the palace at Mari, for example, in contrast to the far greater number of uninscribed seals actually produced [12] (Table 1). The discrepancy suggests that inscription plays a greater role in administrative functions of seals than other types of seal function. The fact that seal inscriptions most consistently report the personal name of the seal owner [13] also suggests that the individual identity of the sealer is important to the function of seals in administrative contexts.

2. Archaeological Context

In Bronze Age Syria we are fortunate to find seals and seal impressions in great quantities in buildings that can be securely identified by form and contents as palaces. Documents found in these palaces also reveal a common pattern of socio-economic and political organization : society is divided into two basic sectors, public and private [14]. The public sector encompasses the palace both as an institution of state government and as the royal residence. Therefore, I assume that seal impressions in palatial contexts are the result of behavior that relates to government or royal household administration. Although seals are used in different ways for different ends in each of the palaces examined here, the institutional framework within which seals were used remains the same.

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9   D. COLLON, *Catalogue of the Western Asiatic Seals in the British Museum, Cylinder Seals III* (1986) 4-11.

10 PITTMAN (*supra* n. 2); I.J. WINTER, "Legitimation of authority through image and legend : seals belonging to officials in the administrative bureaucracy of the Ur III state", in M. GIBSON, R. BIGGS (eds.), *The Organization of Power* (1987) 69-116; M. MARCUS, *The Seals and Sealings from Hasanlu IVB, Iran* (1988) Unpublished PhD Dissertation, University of Pennsylvania and contribution to this volume.

11 For a discussion of seal inscription, see I.J. GELB, "Typology of Mesopotamian seal inscriptions", in M. GIBSON, R. BIGGS (eds.), *Seals and Sealing in the Ancient Near East* (1977) 107-126.

12 This information is based on the published material from Mari which is incomplete but does portray a pattern of use.

13 This is true in Mesopotamia generally, see GELB (*supra* n. 11) 115-126, and at Mari (G. DOSSIN, "Légendes des empreintes", in A. PARROT, *Mission archéologique de Mari*, Vol. II, *Le Palais : Documents et Monuments* [1959] 251-257, and J.-M. DURAND, "A propos des légendes des empreintes de sceaux des Šakkanakku de Mari", *Revue d'assyriologie* 75 [1981] 180-181).

14 I. M. DIAKONOFF, "The structure of Near Eastern society before the middle of the second millennium B.C." *Oikumene* 3 (1982) 6-99; B. FOSTER, "The Late Bronze Age palace economy : a view from the East", in R. HÄGG, N. MARINATOS (eds.), *The Function of the Minoan Palaces* (1987) 11-16.

3. Objects Subject to Impression

Evidence for the use of seals to secure rooms, jars, baskets, bags and boxes exists in archaeological contexts [15] and in archival texts [16]. The physical restraint presented by a sealed closure in combination with the name inscribed on the sealing served to control access to the goods stored in sealed containers and to identify the individual accountable for the sealed containers. However, the broken sealings off containers do not seem to have been kept systematically as accounting records. When we have detailed information on the archaeological context in which sealings were found, they usually cluster in a rather haphazard fashion around doors that would have been sealed [17]. Only at Mari is there some limited evidence for the deliberate retention of container sealings [18]. Therefore it seems likely that container sealings usually functioned in second millennium B.C. Syrian administrative contexts as short-term security and for identifying the person immediately accountable for the goods in the containers, while sealed (and unsealed) documents provided for long-term budgeting and accountability [19].

The value of various types of commodities to the palace administration can be assessed by examining the amount of textual documentation for each commodity, the frequency of seal use and the rank of sealer on containers or textual records of transfer or receipt [20]. For example, at Mari we can attribute a very high institutional value to precious metals and wine because of the frequent use of the royal seal on the containers where these goods were stored and on texts authorizing their use. The reason for high institutional value lay in how these objects were used. Both precious metals and wine played a role in international gift exchange, the means by which heads-of-state often initiated and reinforced political alliances with their peers [21]. The presence of the royal seal on the precious objects or wine also implied the king's direct role in the choice of the gift, a fact that was observed and appreciated by the royal recipient [22].

Texts themselves also constitute a class of objects subject to seal impression. By examining the language of the texts, types of texts sealed, their contents, the role of the sealer(s), and their physical distribution we can establish how seals functioned on documents in administrative archives [23]. The majority of the texts at Mari, Alalah and Ugarit are written in

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15   For recent analyses of the evidence for sealed containers at Mari, see D. BEYER, "Stratigraphie de Mari : remarques préliminaires sur les premières couches du sondage stratigraphique (chantier A)", *MARI* 2 (1983) 52-55, D. BEYER, "Scellements de portes du palais de Mari", *MARI* 4 (1985) 375-384, and A. MALAMAT, "'Doorbells' at Mari : a textual-archaeological correlation", in K.R. VEENHOF (ed.), *Cuneiform Archives and Libraries* (1986) 160-167. Alalah Level VII produced very few, scattered non-document sealings (D. COLLON, *The Seal Impressions from Tell Atchana/Alalakh* [1975] Plate II). For container sealings in Level IV, see COLLON, 213-217. No container sealings have been published from Ugarit, although their presence has been noted by P. BORDREUIL, J. LAGARCE, E. LAGARCE, A. BOUNNI, N. SALIBY, "Les découvertes archéologiques et épigraphiques de Ras Ibn Hani (Syrie) en 1983", *Comptes rendus de l'Academie des Inscriptions et Belles-Lettres* (1984) 418 note 30.

16   J. SASSON, "Some comments on archives keeping at Mari", *Iraq* 34 (1972) 55-67.

17   See references in note 15.

18   BEYER (*supra* n. 15) 382.

19   FIANDRA and FERIOLI point out in their contribution to this volume that elsewhere in the Near East sealings are retained systematically for book-keeping purposes.

20   MAGNESS-GARDINER (*supra* n. 1) 278-291.

21   C. ZACCAGNINI, *Lo scambio dei doni nel Vicino Oriente duranti i secoli XV-XIII* (1973).

22   This is exemplified in El Amarna Text no. 7, lines 63-72 (W.L. MORAN, *Les lettres d'El-Amarna* [1987] 75-76) where the Kassite king notes that a delegate of the pharaoh has sealed the gold sent to him as a gift, not the pharaoh himself, and the Kassite king attributes the unsatisfactory quality of the shipment to the pharaoh's delegation of this duty.

23   The initial approaches to this topic in Mesopotamia and Egypt can be found in the contributions to M. GIBSON, R. BIGGS (eds.), *Seals and Sealing in the Ancient Near East* (1977). More recent treatments include M. VAN DE MEIROOP, "The administration of crafts in the early Isin period", in VEENHOF

Akkadian, an East Semitic language that served diplomatic and administrative needs even where the spoken language was quite different, as at Ugarit. Sealed texts in most palace archives can be divided into two major categories, legal and economic [24]. Economic texts consist of receipts, orders, inventories, audits and the like. In Bronze Age Syrian palaces the king as head of state was the ultimate "owner" of the movable property produced, collected, and circulated within the palace. The palace bureaucrats acted as his agents in distributing or transforming various commodities, and economic texts document their activities as agents of the crown. In contrast legal texts usually record contractual relations in which both parties agree to do or not to do a particular thing [25]. In this relationship both parties are principals, not agents, although they may be subject to the jurisdiction of a third party. As we will see, the subject of the transaction and the degree of subordination of the state in which property transactions take place dictate the form in which transactions were recorded and the function of sealing on the records.

4. Textual References to Seals and Seal Use

References to seal production, distribution and use in the archival texts allow us to evaluate how individuals within these societies regarded seals and the act of sealing. For example, at Mari references in letters and administrative documents reveal a very close association of the individual to his or her seal. In these texts the use of the word *kunukkum*, "seal", and *kaniktum*, "sealing", are almost always modified by a pronominal suffix [26] or personal name [27]. Only rarely are the terms for seal and sealing modified by the office of the user at Mari [28]. The responsibility for the goods or actions certified by a seal rests with the individual sealer : this is clear in a letter [29] in which a woman defends herself against the accusation of conspiracy to rob another woman of her jewels. Veenhof translates the relevant passage as follows [30] : "When I were (wished) to do such a thing, I must have sent my instruction somewhere. Now then, let either my messenger come here or (else) let them give me my sealed order (proving) that it was in consequence of my writing that they stripped the girl of her jewels at my behest!" From this we can deduce that the impression of the woman's seal was sufficient to identify and authenticate her authorship of these written orders and thus establish

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(*supra* n. 15) 87-95 and J.N. POSTGATE, "Middle Assyrian tablets : the instruments of bureaucracy", *Altorientalische Forschungen* 13 (1986) 10-39, and W. ROLLIG, "Notizen zur Praxis der Siegelung in mittelassyrischer Zeit", *Welt des Orients* 11 (1980) 111-116.

24 Letters, literary and school texts also occur in administrative archives but usually constitute only a small part of the total. For a discussion of the composition and function of archives at different institutional levels of Mesopotamian society, see B. FOSTER, "Archives and record-keeping in Sargonic Mesopotamia", *Zeitschrift für Assyriologie* 72 (1982) 1-27 and K.R. VEENHOF, "Cuneiform archives : an introduction", in *Cuneiform Archives and Libraries* (1986) 1-36. References to articles on the composition and organization of Syrian archives can be found in the latter work.

25 H. BLACK, *Black's Law Dictionary* (1979) 291.

26 *Archives royales de Mari* (1950+), hereafter *ARM*. In all the following references to texts the first number refers to the volume, the second to the text and the line numbers follow the colon. *ARM* 2.104 : 13, *ARM* 9.254 : 14, *ARM* 10.82 : 5, *ARM* 10.136 : 15, *ARM* 10.175 : 18, *ARM* 13.6 : 20, *ARM* 13.8 : 18, *ARM* 13.22 : 18, *ARM* 13.36 : 19, *ARM* 13.144 : 19, *ARM* 14.94 : 25, *ARM* 18.20 : 17, *ARM* 21.112 : 3.

27 *ARM* 9.5 : 7-8, *ARM* 9.221 col II : 11, *ARM* 9.258 tr lat, *ARM* 10.12 : 28, *ARM* 10.116 : 30, *ARM* 12.712 : 13-14, *ARM* 13.14 : 17, *ARM* 21.231 : 29, *ARM* 25.117 : rev 1, *ARM* 25.368 : 3, *ARM* 25.491 : 2, 6, 9.

28 Office of the king : *ARM* 7.236 : 5, *ARM* 18.64 : 9, *ARM* 22.143 : 7, *ARM* 22.252 : 8; Office of the *ebbu* : *ARM* 21.204 : 3, *ARM* 22.316 col II : 5.

29 *ARM* 10.114 : 14-21.

30 K.R. VEENHOF, "Observations on some letters from Mari", *Revue d'assyriologie* 76 (1982) 140.

her culpability. The rare references to sealing on legal texts at Alalah [31] and Ugarit [32] illustrate the same attitudes towards the value of seals and sealing : it is an act which denotes the individual's knowledge of or responsibility for the actions or property described on the tablet [33].

Administrative Use of Seals in Syrian Palaces

Mari

In order to determine the pattern of seal use, the sealed administrative documents published in *Archives royales de Mari* (*ARM*), volumes 1-25 were analyzed by keyword, sealer and subject of sealed document. Here this pattern is summarized as it relates to the function of documentation within the administrative system. The value of sealing in these transactions is inferred from the sealers' participation in the transactions and audits performed with sealed documents.

Mari archives, like many others, contain primary documents and secondary compilations. Primary texts normally record a single transaction noting the source and destination of goods (implicitly or explicitly) as well as the quality and quantity of the objects transferred. The keyword expresses the nature and direction of the transfer. It is usually a verb or preposition which allows us to assess the conditions under which goods occurred at any one point in the institutional system. A primary text also transfers the need to account for material from one "sphere of reckoning" to another [34]. At Mari, the "sphere of reckoning" is the bureau or service (níg-su); in other bureaucracies, the "sphere of reckoning" may be composed differently. Duplicate texts play an important role here by providing identical documentation of any one transaction for accounting in more than one bureau. Unfortunately, only in very few cases are copies identifiable as such, since the same transaction might be documented according to different formulas in different bureaus. Therefore tracing goods through the system is difficult, if not impossible. Secondary texts are compilations of primary documents for the purpose of tabulating income or expenditure and balancing accounts. Compilations would have been used internally for information and budgeting and externally for audits. Most secondary texts contain less specific information than primary accounts and are rarely sealed, unless they represent audits.

Any single format, commodity, transaction or authority connected with a sealed text can be found in an unsealed version that is practically identical to it. Therefore no single format or text type absolutely required an impression. According to published textual references, sealed administrative documents, tags and door sealings, at least 54 individuals at Mari owned or used seals [35]. However, very few individuals used their seals in all categories of containers and texts, and the king alone sealed large numbers of texts and container sealings. With one exception [36], the individuals who sealed administrative documents in large numbers specialize in the commodities that they seal. Amadugga sealed only oil and occasionally grain receipts (for Ilukanum); Asqudum sealed only disbursement orders for sheep; Ilukanum sealed only grain

31   D.J. WISEMAN, *Alalakh Tablets* (1953-54), hereafter *AT*. AT 8 : 28.
32   *Palais royal d'Ugarit*, hereafter *PRU*. PRU 4 17.346 : 5-21.
33   For a recent discussion of seal impressions on legal texts, see W.F. LEEMANS, "La fonction des sceaux, apposés à des contrats vieux-babyloniens", in G. VAN DRIEL (ed.), *Zikir Šumim* (1982) 219-244.
34   FOSTER (*supra* n. 24) 24.
35   MAGNESS-GARDINER (*supra* n. 1) Table 2, pp. 210-211. This list is not complete, of course, because not all the texts or seals from the Mari excavations have been published, but it does portray a pattern of ownership and use.
36   ROUAULT, *ARM* 18 216-217.

receipts; Zimri-Lim sealed receipts for precious metals and wine (Table 2). Almost all the other seal users sealed only one or two receipts, door sealings or tags, indicating that while almost every member of the palace staff owned a seal, very few individuals were required to use their seals regularly on administrative documents or door sealings. To a large degree, it seems that sealing practices were dependent on the requirements of the transaction, the nature of the goods transacted, or even the work habits of the individuals who sealed the texts.

At Mari sealed texts refer to the collection, storage and distribution of movable property within the physical confines of the palace; only very rarely do the sealed administrative documents refer to the distribution of land, personnel or goods outside the Mari palace, and sealed legal documents are very rare. As we will see below, in the other Syrian administrative archives the use of seals is rare on administrative documents and common on legal documents. Why is this so? I would suggest that the size and political circumstances of the government at Mari required that the king keep a close watch on the internal bookkeeping. The king as the proprietor of all products received through government prerogatives (taxation, corvée, palace fields and workshops) had the right to dispose of these goods as he wished. However, the number and complexity of government and household requirements for goods and services dictated that the king make policy for the allocation of goods and leave the implementation of that policy to his subordinates. One of the major functions of administrative records and the seals on them was to insure that the actual distribution of goods was carried out in accordance with royal wishes.

The records of receipt and expenditure were sealed after inscription to prevent falsification and/or alteration. The seal's inscription identified the individual who received the goods or authorized their expenditure. In both activities, the presence of an inscribed seal impression allowed investigators to trace the actual sources, amounts and uses of materials against the original order [37]. At Mari such investigations were carried out by the "trustworthy men" (ebbū) [38], usually at the king's request. In this case seals served as tools to control the flow of goods by making records traceable to individuals who were personally accountable for the goods recorded in those texts [39].

Several organizational and historical factors converge to account for this particular function of seals at Mari. First, Mari's geographical proximity and close political ties to southern Mesopotamia during the Ur III period undoubtedly affected the development of administrative techniques during the tenure of the šakkanakku at Mari. Both door-sealings and at least one sealed tablet-shaped bulla were found in those levels at Mari [40]. Thus Mari's longstanding and virtually unbroken economic and diplomatic interaction with southern Mesopotamia must account in some degree for sealing practices at Mari in the second millennium B.C.

Second, Mari under Zimri-Lim was far larger and more powerful than Alalah and Ugarit, and the number of bureaucrats needed to administer the state prevented any close personal

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37 The elaborate use of seals on receipts and expenditures described by VAN DE MEIROOP (*supra* n. 23) for an Early Isin craft workshop follows a similar pattern and presumably serves the same purpose. Essentially, a few officials sealed one of the duplicate receipts for the delivery of raw materials and for the disbursement of goods manufactured in the workshop. The majority of the receipts in the Isin Craft archives were unsealed copies : VAN DE MEIROOP suggests that the sealed originals were kept by the institution that issued raw materials to the workshop.

38 For a discussion of this role of the *ebbū*, see J. DURAND, "Relectures d'*ARMT* VIII, II", *MARI* 2 (1983) 123-127.

39 An example of the use of duplicate sealed and unsealed receipts in an audit at Mari is discussed in MAGNESS-GARDINER (*supra* n. 1) 221-223.

40 D. BEYER, "Stratigraphie de Mari : remarques préliminaires sur les premières couches du sondage stratigraphique (Chantier A)", *MARI* 2 (1983) 52-55.

interaction with, or evaluation by the king who had the ultimate power to make policy. Of course, the king had the option of appointing trusted officers to oversee the implementation of his policies [41]. However, the circumstances of Zimri-Lim's succession to the throne precluded the possibility that the bureaucracy in place at Mari would be loyal to him personally or even to his dynastic line. In fairly rapid succession, Zimri-Lim's father ousted his predecessor from the throne only to be overthrown himself by an internal revolt which allowed yet another dynast (Šamši-Addu) to install his son at Mari. That regime was also short-lived, and Zimri-Lim took over a functioning palace bureaucracy whose members may have had little loyalty except to their own interests [42]. Requiring detailed documentary evidence of the collection, storage and use of goods, with a seal impression to acknowledge responsibility, was one means of preventing the unauthorized use of material in an institution whose members probably did not identify closely with the organizational leadership. Such methods may not have been necessary in smaller states like Alalah and Ugarit where sudden fluctuations in wealth or misdirection of goods might be more apparent to the king. These states also had much more stable political histories, thus allowing the ruling family generations in which to develop firm social, economic and political ties with their administrators. It is also possible that other methods of financial control were developed that did not require the use of seals.

The vast majority of sealed documents at Mari are economic texts. In the state archives of Alalah and Ugarit, on the other hand, legal texts rather than economic documents most often bear seal impressions. The use of legal texts to attain political or diplomatic ends is more common during the period of the great empires in the second half of the second millennium B.C. in Syria, than it is in the first half. Perhaps the physical and cultural distance from their vassals in Syria required that the Hittite and Mittannian "Great Kings" use a form of interchange whose legitimacy was accepted throughout ancient Western Asia [43]. The imagery on Syrian royal seals used on legal texts refers to the divine sanction of kingship that also is Mesopotamian in origin [44]. These shared elements in the ideology of kingship and law, a common bureaucratic language, and legal protocol allowed the act of sealing to function in a similar manner in a very diverse set of administrative and political circumstances at Alalah and Ugarit.

Alalah Level VII 5

Alalah in Level VII dates to c. 1720-1650 B.C., approximately a generation later than the period of Zimri-Lim and the archives at Mari [45]. Located in the plain of Amuq, Alalah was a small principality within the larger state of Yamhad whose capital was Halab, modern Aleppo. Unlike Mari very few texts are sealed and all of the sealed texts in Level VII are legal documents (or their envelopes) rather than economic texts [46]. The sealed documents at Alalah were

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41   The king exercised this option to a degree by having the *ebbū* audit specific accounts. However, the office of *ebbu* was not permanent, but rotated among a number of officials who were appointed to carry out specific tasks.

42   D. CHARPIN, J.-M. DURAND, "La prise du pouvoir par Zimri-Lim", *MARI* 4 (1985) 293-303.

43   E.A. SPEISER, "Authority and law in Mesopotamia", in J.J. FINKELSTEIN, M. GREENBERG (eds.), *Oriental and Biblical Studies* (1967) 313-323.

44   B. MAGNESS-GARDINER, "Royal seals in second millennium B.C. Syria : function, style and iconography", Archaeological Institute of America, Annual Meeting, Baltimore (1989).

45   COLLON (*supra* n.15) 143. While there has been a great deal of discussion about the absolute chronology of the various levels of Alalah, the middle chronology advocated originally by S. SMITH in *Alalakh and Chronology* (1940) still seems to work the best. M.-H. GATES proposes a low chronology (Level VII = 1650/30; Level IV = 1460) in "Alalakh and chronology again", in P. ÅSTRÖM (ed.), *High, Middle or Low ?* (1987) 60-86.

46   COLLON (*supra* n. 15) 206.

contracts, for the most part, deposited in the royal archives to back up claims of the royal family or dependents to various types of immovable property and labor. Witnesses and participants sealed these transactions, a practice which follows Old Babylonian conventions [47]. The seal of the king of Yamhad, overlord of the king of Alalah, is impressed on those transactions of interest to the sovereign, but not necessarily on transactions in which he has a direct role. Seals of local residents of Alalah (including the king) occur as parties to legal transactions. Because the majority of the texts with impressions of the royal seal of Yamhad concern transfer of landed property, Gaal [48] suggests that in supervising these transactions the king of Yamhad seeks to maintain a majority ownership of land in the dependencies within the state of Yamhad. Thus, the function of the royal seal here is one of approval of transactions performed within the king of Yamhad's jurisdiction.

The local king of Alalah is far more involved in transactions concerning loans of silver in return for labor. On these documents, the primary sealers are the recipient of the loan and at least one member of his family. By sealing the contract, the debtor acknowledges his obligations as described in the text. Other identifiable sealers are usually members of the court of Alalah or Yamhad [49]. The lender himself, the ruler of Alalah, did not seal the loan document but retained it in his archive to substantiate his claim to the services of the debtor. The tablet would have been returned or broken when the loan was repaid. The fact that the ruler of Alalah loaned silver to a number of government officials in return for service suggests that he did so for the benefit of the state rather than for himself in a private capacity. Eichler in discussing a similar sort of labor indebtedness at Nuzi, observes that the creditor seems to be more interested in continuing the services of the pledge than in securing the return of his money. He suggests that, in fact, such loans were made as a means of securing long-term indentured servitude, a relationship more profitable to the creditor than outright slavery because contractual clauses protected the creditor from the flight, disappearance or death of the pledge [50]. At Alalah the king used this means to obtain the services of individuals, families [51] and even a village. The type of service provided, when it is specified, includes weavers, fowlers and *kutturu*-men. Therefore at Alalah Level VII legal contracts emphasize the acquisition of skilled labor to staff the palace workshops, while the administrative ration texts describe a dependent workforce that consists primarily of unskilled agricultural labor [52]. Loan for labor (and purchase of slaves) seems to have provided the king with a method of acquiring skilled craftsmen when he was not able to requisition such labor through his authority as head of state. The fact that the king of Alalah Level VII was not able to enforce the contribution of skilled labor to the palace without a legal contract may reflect his own subordinate position within the kingdom of Yamhad, and lack of the prerogatives or the power of the king of Yamhad or earlier king of Mari.

Alalah Level IV

In the last half of the 15th c. B.C. [53], after an interval of occupation in which no tablets were found, Alalah Level IV became the capital of Mukish and again the site of a palace containing royal archives. However, the once-powerful state of Yamhad no longer existed and

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47 LEEMANS (*supra* n. 33).
48 E. GAAL, "The state sector as the guarantee of the territorial integrity (Alalakh VII)", *Oikumene* 1 (1976), 39-46.
49 Seal 79 and Seal 80. Seal numbers are those given by COLLON (*supra* n. 15)
50 B. EICHLER, *Indenture at Nuzi* (1973) 45.
51 *AT* 20-22, *AT* 24-28, *AT* 41.
52 G. BUNNENS, "Quelques aspects de la vie quotidienne au palais d'Alalakh d'après les listes de rations au niveau VII (XVIIIe/XVIIe s.)", *Archiv für Orientforschung, Beiheft* 19 (1982) 72-84.
53 COLLON (*supra* n. 15) 169.

Alalah now formed a part of the Mittannian empire [54]. There was also a change in local population : personal names in Level IV are largely Hurrian rather than West Semitic [55].

An examination of the pattern of seal use indicates that over a period of three generations in Alalah Level IV the royal seals occur predominantly on legal texts. However, with two exceptions, in this archive the royal seals belong to the kings of Alalah rather than their overlords. The exceptions are disputes over which the king of the Mittanni had the right of judicial review [56]. The rest of the legal texts sealed by the local kings of Alalah concern both international and internal affairs. Only internal affairs were dealt with by the kings in Level VII, and therefore the kings in Level IV can be said to demonstrate rather more autonomy than their predecessors in Level VII.

The sealed texts in Level IV relating to the conduct of the internal affairs cover the reigns of Idrimi, his son Niqmepa, and grandson Ililimma [57]. Almost all of the sealed juridical texts in the archive were sealed by the kings of Alalah, although privately sealed contracts also occur in this archive. As in Alalah VII most refer to the transfer and dispute over immovable property and labor by individuals under the direct jurisdiction of the king.

While in the other Syrian archives most of the juridical documents deal explicitly with land transfers, the transfer of land in Alalah Level IV is implied within the documented social transactions (testament, adoption, marriage, service to the crown). For example, Niqmepa sealed an adoption document [58], and the assignment of a man and his heirs to the position of *maryannu* and priest [59]; while Ililimma, his successor, sealed a marriage contract [60]. All of these relationships involve property rights, but these rights are not the subject of the texts. Royal supervision of land sales also occurs [61] in Alalah Level IV, but is rare. Royal supervision of [62] and participation in [63] the acquisition of labor through purchase of slaves and loans of silver made in exchange for service is much better documented than the transfer of land. Chattel slavery as well as debt-slavery is in evidence at Alalah Level IV [64]. In fact, the slave sale documents are in the same format and include precisely the same clauses as the sale of cattle [65]. As Mendelsohn points out [66], the sale documents rarely deal with more than one slave, and he concludes that such slaves, like the indentured servants, served as domestic servants in wealthy households, not as unskilled farm labor.

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54   H. KLENGEL, *Geschichte Syriens im 2. Jahrtausend v.u.Z.*, Teil 1, (1965), G. WILHELM, *Grundzüge der Geschichte und Kultur der Hurriter* (1982) 35-38.
55   M. DIETRICH, O. LORETZ, "Die soziale Struktur von Alalah und Ugarit. II", *Welt des Orients* 5 (1969) 57-93.
56   *AT* 13, *AT* 14. See R. BEAL, "The history of Kizzuwatna and the date of the Šunaššura treaty", *Orientalia* 55 (1986) 424- 445, and bibliography cited within it for a discussion of the historical context of these texts.
57   See COLLON (*supra* n. 15) 170-171 for a list of sealed texts attributed to each king.
58   *AT* 16.
59   *AT* 15.
60   *AT* 94.
61   *AT* 88.
62   *AT* 47-49, *AT* 66-69, *AT* 82, *AT* 83.
63   *AT* 71, *AT* 81, *AT* 84.
64   M.I. FINLEY, *Ancient Slavery and Modern Ideology* (1980) 77, defines the three components of ancient slavery as "the slave's property status, the totality of power over him, and his kinlessness", bringing the advantage of great control and flexibility to slave owners in the deployment of that labor and its disposal. These were probably the condition under which chattel slaves were owned in Alalah. Debt slaves, on the other hand, had rights specified in their loan contracts.
65   I. MENDELSOHN, "On slavery in Alalakh", *Israel Exploration Journal* 5 (1955) 65-72. AT 72, AT 74, AT 73
66   MENDELSOHN (*supra* n. 65) 72.

The question to be addressed here is why such sales documents were sealed by the king of Alalah and placed in the palace archives. In Level VII, a contract for sale [67] identified the king as the buyer. In the Level IV archives that is not usually the case : only *AT* 71 documents the sale of a slave to the king. In all other texts the slaves are purchased by non-royal individuals [68]. Other sealed legal documents deposited in the Level IV archives include the repayment of a private loan [69] and several private sales contracts for cattle [70]. Unlike Level VII, where the interest of the palace was in obtaining skilled labor, the Level IV archives show no comparable activity on the part of the palace in lending money against service. Instead, the texts reveal the business dealings by courtiers and their families. If litigation were to arise from one of these contracts, we assume it would be heard before the king. The constellation of witnesses with a constant core of two or three ranking administrators and a revolving body of other interested parties or local officials reinforces the assessment that these contracts were under crown jurisdiction. The advantages to the men who undertook contracts in this situation are clear. They were well-known to the king who would adjudicate any dispute and to the witnesses who would be called to give evidence. Although it seems likely that the interests of these men and the interests of the state coincided, the advantage to the state is not clear.

Ugarit

Located on the Syrian coast, the site of Ugarit was occupied throughout the Bronze Age. However, the palace archives date to c.1400-1200 B.C., the period in which Ugarit was under the hegemony of the Hittite empire [71]. Texts dealing with the administration of internal affairs were written in Ugaritic (a West Semitic language), while the international and legal correspondence was written in Akkadian (an East Semitic language) [72]. As at Alalah, the sealed texts at Ugarit are predominantly legal : many concern Ugarit's relations with the Hittite empire. These treaties and legal decisions were imposed on Ugarit by the Hittite kings, and were designed to encourage international commerce at Ugarit. Expanded international trade under Hittite protection benefited both empire and vassal. Internally, however, Ugarit's success as an international port had social consequences that are detailed in sealed legal texts relating to royal landgrants. These illustrate the rise of a class of wealthy but landless traders "buying" palace lands [73]. By the mid-13th c. at Ugarit, one of the men financing a ship [74] was able to "purchase" property (granted by the king) for 1500 shekels in one transaction [75], and 700 shekels in another [76]. Another wealthy merchant received the franchise to trade with Kaphtor (presumably Crete) [77]. Later the same merchant received landgrants from the king in exchange for over 3700 shekels of silver [78]. These wealthy merchants, then, had the money to "buy" land

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67   *AT* 61.
68   *AT* 66-70.
69   *AT* 46.
70   *AT* 73, *AT* 72, *AT* 74.
71   M. ASTOUR, "Ugarit and the Great Powers", in G.D. YOUNG (ed.), *Ugarit in Retrospect* (1981) 3-29 and M. LIVERANI, *Storia di Ugarit* (1962).
72   J. NOUGAYROL, "L'influence babylonienne à Ugarit", *Syria* 39 (1962) 28-35.
73   C. LIBOLT, *Royal Land Grants from Ugarit* (1985) Unpublished PhD Dissertation, University of Michigan.
74   *PRU* 6 138 : 16.
75   *PRU* 3 16.189.
76   *PRU* 3 16.285.
77   *PRU* 2 16.238 : 10. For a discussion of the term "Kaphtor", see M. WEIPPERT, "Kreta", in *Reallexikon der Assyriologie* 6 (1980-83) 226.
78   *PRU* 3 15.109.

from the kings of Ugarit, but under what conditions would the kings of Ugarit have been persuaded to sell it ?

The circumstances can be found in Ugarit's political relations with the Hittites after the death of the death of Šuppiluliuma I. During this period several small states in northern Syria, including Ugarit, staged a minor revolt [79]. Following the rebellion, the Hittite-Ugarit vassal treaty was renegotiated [80]. Although this treaty exists only in fragments, the political clauses remain substantially the same as the ones originally imposed [81], except that in the new treaty, Ugarit lost its own vassal city-state [82]. As this represented a loss in territory, and thus a loss in revenues for the state of Ugarit, Ugarit's tribute to the Hittites was reduced accordingly. However, Liverani suggests [83] that in redrawing Ugarit's boundaries the Hittite king reduced Ugarit by almost one third of its area. Even with a reduction in tribute to the Hittites, the loss of such a large portion of the country must have been a severe blow to a royal economy which derived a large proportion of its income from taxing the hinterland [84]. This economic setback was soon followed by Ugarit's participation in the battle with Egyptian troops at Qadesh [85]. Perhaps the strain of territorial reduction and military ventures on the royal treasury resulted in the distribution of royal land to individuals who could afford to deposit large sums needed by the royal treasury. We must also note the king of Ugarit's complaint to Hattušili III about the merchants of Ura followed on these events as well, and resulted in a restriction on the merchants' activities in Ugarit [86]. This also suggests there were some problems with the local economy in Ugarit.

Conclusion

The application of law to implement imperial policies and solve problems faced by local government varied with the size, constituency and political circumstances of each state. By examining the contexts of contracts, treaties and verdicts deposited in state archives and by examining the social and political background of the sealers, we have identified some of the problems of land, labor and goods that concerned the governments of Mari, Alalah and Ugarit.

At Mari legal documents are sparse. As the capital of an extensive territorial state, the king of Mari was responsible to no one for his actions. Therefore if legal documents were issued or sealed by him, they were probably kept by the subordinates affected by the contract. Alalah VII was a small city-state under the domination of the territorial state of Yamhad. The legal activities of the local rulers encompassed the purchase of property and acquisition of skilled labor through anticretic loan. Evidently the kings of Alalah in this period had little power to expand their economic base through royal prerogatives to corvée labor or prisoners-of-war. The use of the seals of the kings of Yamhad on these purchases and loans reveals an interest on the part of the larger territorial state in preserving its position as the major land-owner.

The archive of Alalah IV illustrates similar local concerns born of incorporation in the Mittannian Empire. A dispute between the king of Alalah and a member of his court was brought before the Mittannian king for settlement [87]. While service-to-the-crown was the

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79   LIVERANI (*supra* n. 71) 58-59.
80   G. KESTEMONT, "Le traité entre Mursil II de Hatti et Niqmepa d'Ugarit", *Ugarit Forschungen* 6 (1974) 85-127.
81   LIVERANI (*supra* n. 71) 68.
82   *PRU* 4, 71-78.
83   LIVERANI (*supra* n. 71) 72.
84   M. HELTZER, *The Rural Community in Ancient Ugarit* (1976).
85   LIVERANI (*supra* n. 71) 77.
86   *PRU* 4 17.130.
87   *AT* 13.

recorded subject of dispute, state service probably included rights to the use of palace-land. Again, the degree to which the local king had control over the landed property of the state and labor required of its inhabitants was compromised by his membership in a larger political entity. Yet the Mittannian king did not interfere in an arbitrary manner. A formal complaint was lodged and legal procedures were followed sanctioning his activity as judge. Too few verdicts exist to be sure that the Mittannian interest in adjudicating this dispute concerned the control of Alalah's land-fund. It is possible that maintaining the internal stability of the state of Alalah was the goal of the Mittannian king in this instance.

At Ugarit the treaties and legal decisions promulgated by officials of the Hittite Empire reflected its interest in expanding international trade. Internally, however, Ugarit's success as an entrepot and its incorporation in the Hittite Empire had social consequences. Landgrants sealed by the king and deposited in the royal archives were given in exchange for money to the merchants who ran international trade. As at Mari, a good many of these grants were heritable and that, I suggest, was the condition which determined the legal form of allocation and the use of the king's seal on it. As sovereign only the king had the right to permanently alienate palace property, but as a vassal of the Hittite Empire, he was answerable for this action to the Hittite king; therefore the kings of Ugarit, unlike the king of Mari, retained the grant documents in the palace archive.

The formulation and institution of policies designed to deal with the immediate political problems and historical realities of state government are difficult to reconstruct. Most of the vast mass of documents in palace archives relate to the implementation of policies on a day to day basis without ever explicitly stating source and substance of the policies themselves. Analysis of patterns of seal-use has allowed us to identify at least some of the areas in which property relations required physical evidence (texts) and acknowledgment of individual responsibility in order to facilitate the settlement of any later problems. It has also allowed us to evaluate the limits of royal sovereignty over state land, labor, and goods in a variety of historical and political settings in second millennium B.C. Syria.

Bonnie MAGNESS-GARDINER

	MARI	YAMHAD	ALALAH VII	ALALAH IV	UGARIT
1800	Zimri-Lim				
1720		Abban Yarim-Lim II Niqmepa Irkabtum Yarim-Lim III	Yarim-Lim Ammitakumma		
1650					
1600					
1500				Idrimi Niqmepa Ililimma	
1400					Ammistamru I Niqmadu II Arhalbu Niqmepa Ammistamru II Ibiranu Niqmadu III Ammurabi
1300					
1200					

Chronological chart

TABLE 1

Inscribed and Uninscribed Seals

		Inscribed	Uninscribed
Mari	seals impressions	1 % 76 %	95 % 24 %
Alalah VII	seals impressions	8 % 37 %	92 % 62 %
Alalah IV	seals impressions	— 31 %	100 % 68 %
Ugarit (LB)	seals impressions	4.5 % 95 %	95.5 % 5 %

TABLE 2

Activities of Frequent Seal Users at Mari

Name	Keyword	Subject	No. of sealed texts
Amadugga	*ana*	honey	1
	ana	sesame	2
	amhur	oil	68
	amhur	sesame	3
	namharti	grain	7
Asqudum	*ana*	sheep	79
	zi-ga	sheep	20
	none	sheep	24
Ilukanum	*namharti*	beans	2
	namharti	grain	12
	šu-ti-a	grain	1
Mukanni šum	*amhur*	lapis-lazuli	1
	mahir	gold	1
	si-la	precious metal	7
	šu-ti-a	precious metal	4
	šu-ti-a	garments	1
	šu-ti-a	tallow	2
Zimri-Lim	*ana*	precious metal	3
	ana	wine	4
	amhur	precious metal	13
	mahir	precious metal	4
	si-la	precious metal	4
	zi-ga	precious metal	16
	zi-ga	wine	2
	zi-ga	misc.	7

Response by Vassilis ARAVANTINOS

The economic and political history of Syria in the Bronze Age was determined by the region's position in the international exchange of goods, a factor that determined its economic and strategic importance. Prof. Magness-Gardiner's thorough analysis and successful synthesis contributes greatly to a better definition of the relation between the political and the economic-administrative systems in three Syrian states of the second millennium B.C. The method followed seems a sound one and the results are rewarding : political systems can and do affect economic and administrative systems, and vice versa.

The selection of these particular three states is not without significance. Mari, Alalah and Ugarit differ geographically, chronologically and politically, but all had relevant relations with contemporary Minoan and Mycenaean cultures. Moreover, these are some of the few sites whose archives are sufficiently well published to allow the reconstruction of political and economic history.

Cylinder seals are not the only sealing devices known in Syria. According to the general lines of political and cultural influence in Syria, the Egyptian tradition of scarabs was introduced in the areas along the coast. In the central and northern part of Syria during the Late Bronze Age, in areas of strong Hittite influence, the stamp seal tradition existed and was the particular tradition of the overlords. The local glyptic tradition, where it continues, is that of the cylinder seal until the end of the Bronze Age. The political situation in Syria in the second half of the second millennium B.C. is very complex, with each of the great powers vying for position, each with its own glyptic tradition. Within their own immediate domain and in vassal states, the Hittite rulers used stamp seals and metal finger-rings to authenticate clay tablets bearing cuneiform inscription. This is not the case in the administration of their client cities, as is evident from the sealed tablets in Ugarit and Emar. Here the representatives and agents of the Hittite king used cylinder seals as well as stamp seals. It is worth noting that the local tradition of the cylinder seal is very strong, despite the politically subservient position of the Hittite client kingdoms in Syria.

It would be interesting to compare the fundamental differences between sealing methods in the Syrian cities and the Mycenaean kingdoms. However, seal impressions are found for the most part on legal texts in Alalah and Ugarit, and this form of text is unknown in the contemporary Aegean world.

Discussion

E. Davis :

In the EBA in Syria is there something analagous to what we have already been arguing about in the Aegean ? Are there finds from settlements or tombs that suggest that people of at least moderate means owned seals ?

Magness-Gardiner :

Many of the burials are group interments over long periods of time, so that we often cannot identify individual burials.

E. Davis :

But are there large numbers of seals as in the Aegean ? How many are there and how regularly are they found in burials ?

Magness-Gardiner :

They are not found in large quantities, and they are not usually found in burials. They usually come from other kinds of domestic deposits. For example, several have been found in fields. They are sometimes made of bone, and I suppose that there are one or two of a kind of soft stone. The way that they are carved has suggested that they were perhaps made out of wood. This would explain why we do not have many cylinder seals : they were made out of perishable materials. But this is only a theory. There are far more seal impressions on pottery than there are seals to account for those impressions. Often we are not dealing with multiple impressions of the same seal. Therefore, these are not cases of a storage system in which a single seal marks a number of different pots that belong to a single person or institution.

Kopcke :

I am particularly interested in the uninscribed seals. Magness-Gardiner has discussed the highest level of seals. What about the uninscribed seals ? How are we to deal with those ? The Aegean seals are uninscribed seals. I ask this because I am thinking of Pini's publication of late Mittanian seals. These seals are of no great quality; but, in examining them, one feels that one is dealing with a group of people who were actually in contact with the Near East and may have imported certain customs and brought these to the Aegean. Therefore, it is important to think about seals in the Aegean that were imported from the Near East. How were they used ?

J. Smith :

I have been working on this problem. Both cylinder seals and cylinder seal impressions have been found in the Aegean [1]. To date I have located 124 cylinder seals found on Crete and the Greek mainland. These have a wide range of dates of manufacture, places of origin and materials. Their styles vary from Near Eastern and Cypriote types to several of Minoan or Mycenaean manufacture.

Since cylinder seals are used more commonly and for specific purposes in the Near East, we should ask what the functions of the relatively rare finds in the Aegean might have been. Two points are now clear. First, cylinder seals were used on occasion to impress clay, as were stamp seals in the Aegean. It is still not clear why they were impressed or the extent to which

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[1]   The most complete published catalogue of cylinder seals found in the Aegean is in H-G. BUCHHOLZ, "The Cylinder Seal", in G.F. BASS (ed.), "Cape Gelidonya : A Bronze Age Shipwreck", *TAPS* n.s. 57, Part 8 (1967) 148-159. In addition, the published volumes of the *CMS* contain many of the cylinders not included in Buchholz's work.

they were perceived as "seals". On Crete five cylinder seal impressions have been discovered [2]. None has been found yet on the mainland. The cylinders used to make these impressions are of both Near Eastern and Aegean varieties. Only in two of the five cases are the impressions made by rolling the cylinder in Near Eastern style. The other three impressions were made by stamping the cylinder seals as though they were stamp seals, undoubtedly the method more widely recognized in Crete. With these atypical or "non-Aegean" impressions, we should also include one Anatolian (?) stamp seal impression from Phaistos and two scarab impressions from Knossos [3].

The second use of the cylinder seal in the Aegean was probably as an amulet or bead. Most cylinders have been found in graves. In the two tombs where the locations of the finds were recorded precisely, the cylinders were found in the area of the wrists of the skeletons [4]. Seals were commonly worn on the wrist in the Near East, as well as in the Aegean. The group of 39 cylinders, mostly lapis lazuli, from Thebes in Boeotia differs from other cylinder seal finds in the Aegean not only in the non-burial nature of their context, but also in the large quantity of seals and the wealth of seal types found. With this group were found several undecorated and a few partially abraded cylinders which suggest that the value of the cylinders lay not in their function as seals, but in their value as raw materials and as beads [5].

Palaima :

I want to take up Kopcke's point about the importance of paying attention to uninscribed seals. I think that seals are traditional devices that eventually function parallel or complementary to fully developed written texts. Therefore it would have been vital for seals and sealings to continue to function in those areas of Minoan and Mycenaean economy and society where writing did not penetrate. Now in the Near East we do have sealed records of contractual obligations with individuals at the lower end of the social hierarchy, e.g., shepherds. Someone like a shepherd who owns and retains a simple uninscribed seal, but who is not directly involved with palatial administration, may use the seal in the rare cases where he is brought into contact with that administration. From an Aegean perspective, where all but the earliest hieroglyphic seals are functioning without being inscribed, it seems to be very dangerous to say that if a seal lacks an inscription, it cannot be used for a practical administrative purpose.

Magness-Gardiner :

A Near Eastern seal can be used for practical administrative purposes, but it usually is not. Having looked at every sealed tablet that I could find, I would say that about 95% of the seals that sealed the tablets are inscribed. The use of uninscribed seals in archives is not yet well attested.

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2   These five instances are :

    1) a Cypriote cylinder rolled impression from the Archives Deposit at Knossos (I. PINI, *JdAI* [1980] note 111 with further bibliography);

    2) a cylinder of uncertain origin stamped on a triangular clay bar from Khania (E. HALLAGER, "The Greek-Swedish Excavations at Khania", in *Proceedings of the Fifth International Cretological Congress at Ag. Nikolaos 1981* [Heraklion 1986] 144);

    3) a Minoan cylinder stamped on the side of a clay roundel from Knossos, possibly from the Temple Repositories (E. HALLAGER, *BSA* [1987] 61);

    4) an Akkadian cylinder stamped on one side of a clay nodule from Hagia Triada, Heraklion Museum Inv. No. 508 (I. PINI, *MarbWPr* [1977/78] 7-9);

    5) a cylinder of uncertain origin rolled on a clay sealing, unpublished (information about the existence of this impression from I. Pini).

3   The Anatolian (?) seal impression is published in *CMS* II 5 no. 282 with further bibliography. Only one of the scarab impressions is published : J.H. BETTS, *BSA* (1967) 39 no. 42.

4   See cylinders in *CMS* I nos. 284 and 285; *CMS* I Supplement no. 57.

5   For a comprehensive investigation of the cylinders from Thebes, see E. PORADA, "The Cylinder Seals Found at Thebes in Boeotia", *Archiv für Orientforschung* 28 (1981) 1-78.

Palaima :

But to focus on sealings on inscribed tablets is to focus almost exclusively on higher levels of administrative activity.

Aruz :

In recent studies of Syrian seals, careful definitions of styles have been made. In chronological sequence these are : (1) down to 1720 B.C., the Classic I style which is basically that of the Mari sealings and is very much related to Mesopotamia; and (2) down to 1650 B.C., the Classic II style which is the style of Alalakh. However, during the same periods we have seals in various local styles, many of which were not inscribed. The seals of Mari, which are very close iconographically and stylistically to the seals of the Old Babylonian period of Mesopotamia, are often inscribed; and the seals of Alalakh may also be inscribed. While outside of these two main centers the seals that were being produced locally in Syria are not often inscribed, I cannot imagine that these were not used for sealing.

Magness-Gardiner :

I think that it is necessary to have a look at texts belonging to small private archives where private uninscribed seals would have come into use in personal transactions.

Palaima :

Aravantinos's paper about seal use in Boeotia and outlying centers will have a bearing on this question. None of the Mycenaean seals is inscribed. None is used on the Linear B tablets. Yet seals were used on sealings in palatial contexts and the impressions were overinscribed or information was inscribed on the other faces of the sealings. The information written on the fuller Mycenaean sealings parallels the information discussed by Magness-Gardiner. It can likewise be placed into categories such as "key word", "subject" and so on.

S. Smith :

In the Egyptian New Kingdom, there are very few sealings with inscriptions on them that mention institutions. There are examples of seals without names on them used to seal containers within clearly private tombs. There seem to have been both public and private administrative uses of sealings that do not have overt inscriptions on them saying they came from a particular place or belonged to a particular person.

Kopcke :

This issue seems to me to be of paramount importance to the aims of this conference. Magness-Gardiner has defined the use of seals by the more highly placed members of society, those in control of and interacting regularly with the administration of major centers. This should give us a perspective from which to interpret the evidence of seal use at the other end of the spectrum. This should greatly interest the Aegean prehistorian because it is unlikely that the people of the Aegean were dealing with high officials. They met commoners from and in the Near East.

Magness-Gardiner :

We do need more excavations in non-palatial areas.

Palaima :

I do not think we can accept Kopcke's statement categorically. Contacts with the Near East must have been made at all levels, especially in light of evidence for royal gift exchange and Wiener's thesis about palatially motivated and organized Minoan trade for essential raw materials like metallic ores. Certainly interaction between Near Eastern and Aegean officials and their bureaucracies would have had a stronger effect on the borrowing and adaptation of seal and sealing systems than casual contacts among private individuals like small-scale traders.

Bass :

Magness-Gardiner has emphasized the close relationship between the owner and the seal. Is there any way of knowing how and when that relationship is broken ? For example, in the Amarna tablets, seals are sent to the Pharaoh as jewelry, not as functioning seals.

Magness-Gardiner :

Correct. The seals mentioned in the Amarna tablets are presentation seals. I do not think they were ever used. I think they were deposited directly in the palace treasury and they may have been recirculated later.

Bass :

What if someone had in his family a seal that was used for centuries ? After his death did the king take it away ? I ask this because we have Mycenaean, Egyptian, Cassite, Old Babylonian and Assyrian seals on the Ulu Burun shipwreck; and I am trying to figure out what relationship they have. I think the cylinder seals, along with the scrap, were just presents for somebody. But were Aegean seals ever taken out of circulation or used simply as gifts ?

Magness-Gardiner :

We do not know.

Bass :

Would you know the official procedures by which they were taken out of circulation and made into gifts ?

Magness-Gardiner :

At Mari there is documentation for the production of seals in palace workshops specifically as gifts for other kings. Seals that were coming into the palace as gifts would probably not have been used on local records. They simply would have been placed in storage and perhaps some of them would have been recirculated.

Palaima :

Is there information on Aegean seals found outside the Aegean, say, in the Near East ?

Pini :

There is a lentoid seal in Israel.

Younger :

There is a glass seal in Libya and eight seals from Gaza. They are very rare.

Palaima :

Are they Minoan or Mycenaean, and of what period ?

Younger :

They are all Late Bronze Age. The one in Israel was found in a good context corresponding to our LH III A :2.

Weingarten :

What happened to Mukanništum's sealings ?

Magness-Gardiner :

He has several bureaus that he is responsible to and for.

Weingarten :

Mukanništum is mentioned in the texts far more than any other high official as sealing doors and containers, yet only one extant tag and no door sealings are stamped by his seal. Much the same seems true of Yaqqim-Addu; we have nothing sealed by him, not even sealed documents. Could some major store-rooms have been outside the Palace ? Could these officials have also used uninscribed seals ? Could Mukanništum be using seals other than his own which would not bear his current name or office on them ?

Magness-Gardiner :

He could be using the king's seal. I think he is in a high enough position so that he would be given responsibility to use it under very prescribed circumstances. Zimri-Lim does send his seal to seal specific kinds of commodities and gives very specific directions for sealing them and choosing them and sending the seal back. So this might have happened with Mukanništum. We do not have any record of it.

Weingarten :

The one time we do have a record where he has been asked to open a door sealed by the king's seal, he balks. He refuses to do so without the queen being present. So I would say that he would be unlikely to be using the king's seal himself.

Magness-Gardiner :

Not unless he had a letter in his hand stipulating that he had the right to have the king's seal in the other hand.