

UNIVERSITÀ DI TORINO

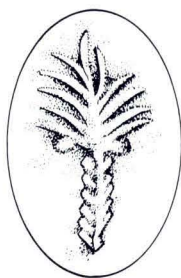
# MESOPOTAMIA

RIVISTA DI ARCHEOLOGIA, EPIGRAFIA E  
STORIA ORIENTALE ANTICA

*a cura del  
Centro Ricerche Archeologiche e Scavi di Torino  
per il Medio Oriente e l'Asia*

**XXV**

1990



CASA EDITRICE LE LETTERE  
FIRENZE



## LOCKY AND KEY IN ANCIENT MESOPOTAMIA

Ancient Mesopotamian sealing practice has received considerable attention in recent years<sup>1</sup>, and it is hardly surprising to find that this in turn has spawned several articles dealing with early locking mechanisms. A reading of two recent studies<sup>2</sup> prompted the present reflections on the problem of lock and key in ancient Mesopotamia.

Both E. Leichty and J.A. Scurlock wrestle valiantly with the Sumerian and Akkadian phraseology of locking, each trying to assign the various *termini technici* mentioned in cuneiform sources to one or another part of the locking system they believe to have been common in Mesopotamia. The results are completely different, as they must be, given the fact that each believes a different sort of locking mechanism was prevalent in the region. But if the results of Leichty's and Scurlock's investigations differ, their approaches are similar in that both assume ancient Mesopotamian locking to have been technically very simple. For Leichty, the physical model for the terminological identifications put forward is the allegedly «indisputable evidence for what was probably the most common method of securing doors in ancient Mesopotamia» advanced by R. Zettler<sup>3</sup>. Zettler and Leichty, basing themselves on evidence derived from clay sealings found at Nippur, suppose a simple latch attached to the inside of a door and fastened to a knob on the side of an adjacent wall to have been the most widespread technique for keeping doors shut. Scurlock, on the other hand, following the late R. Ghirshman's reconstruction of the lock on the «prote royale» at Tchoga Zanbil<sup>4</sup>, prefers the concept of a cross-bar, fastened with a pin or peg, to block the opening of a door or gate.

<sup>1</sup> See most recently R.L. ZETTLER, «Sealings as Artifacts of Institutional Administration of Ancient Mesopotamia», *JCS* 39/2 (1987): 197-198, with earlier bibliography.

<sup>2</sup> E. LEICHTY, «Omens from Doorknobs», *JCS* 39/2 (1987): 190-196, and J.A. SCURLOCK, «How to Lock a Gate: A New Interpretation of CT 40 12», *Or* 57 (1988): 421-433. Although I do not share the opinions of either scholar regarding the nature of ancient Mesopotamian locking systems, I hasten to express my gratitude to them both for tackling this difficult problem and for inspiring me to do likewise. Sincere tanks go to Aage Westenholz and Sylvie Lackenbacher for reading and commenting on an earlier draft of this article. Needless to say, their agreement with all that is suggested here is not therebody implied.

<sup>3</sup> *JCS* 39/2 (1987): 190-196, and Figs. 3-4.

<sup>4</sup> R. GHIRSHMANN, *Tchoga Zanbil (Dur-Untash)* I, MDP 39, Paris 1966, pp. 73-76.

It should be noted that neither Zettler, Leichty, nor Schurlock has a single reference to any of the specialist literature on early, primitive and pre-modern locks. Leichty dismisses entirely the notion that anything more mechanically complicated than the latch was used in ancient Mesopotamia. Critical of the CAD and AHW definitions of *namzaqu* as «key», he writes, «To the best of my knowledge, key operated locks were not introduced into the ancient world until Classical times»<sup>5</sup>. A glance at the specialist literature on locking, however, would have revealed that this is hardly a view shared by lock historians. The entry in the 1975 edition of the *Encyclopaedia Britannica*, after defining a lock, baldly declares, «The lock originated in the Near East; the oldest known example was found in the ruins of the palace of Khorsabad»<sup>6</sup>, and while this statement cannot, as we shall show, be taken at face value, more attention is due to both the archaeological and cuneiform evidence of locking mechanisms in the ancient Near East than hitherto has been paid.

Two early accounts of excavations in Assyria record the discovery of a key and a lock. Writing of his second expedition to Koyunjik of 1850, A.H. Layard noted the recovery of a copper (or presumably bronze) key, «in the same shape as the Egyptian»<sup>7</sup> key illustrated in Wilkinson's *Ancient Egyptians*<sup>8</sup>. Shortly thereafter, during his excavations at Khorsabad, P.E. Botta found what J. Bonomi in 1857 described as the gate of passage chamber X between two courtyards that «was fastened by a huge wooden lock, like those still used in the East... and by a bar which moved into a square hole in the wall»<sup>9</sup>. The locking mechanism alluded to by Layard and Bonomi is that known in the parlance of locking as the Egyptian lock. This is described in the *Encyclopedia Britannica* as follows: «It consists of a large wooden bolt, which secures the door, through which is pierced a slot with several holes in its upper surface. An assembly attached contains several wooden pins positioned to drop into these holes and grip the bolt. The key is a large wooden bar, something like a toothbrush in shape; instead of bristles it has upright pegs that match the holes and the pins. Inserted in the large keyhole below the vertical pins it is simply lifted, raising the pins clear and allowing the bolt, with the key in it, to be slid back»<sup>10</sup>. Bonomi, struck by the fact that

<sup>5</sup> JCS 39/191.

<sup>6</sup> «Lock», *The New Encyclopædia Britannica* 11 (1975): 10.

<sup>7</sup> A.H. LAYARD, *Discoveries in the Ruins of Nineveh and Babylon*, London 1853, p. 596 and n.\*.

<sup>8</sup> SIR GARDNER WILKINSON, *The Manners and Customs of the Ancient Egyptians*, London 1847, p. 112, Fig. 103.

<sup>9</sup> J. BONOMI, *Nineveh and its Palaces*, London 1856, pp. 170-171

<sup>10</sup> «Lock», *The New Encyclopædia Britannica* 11 (1975): 10.

19th century Cairene merchants carried their long, pegged keys (called *muftah*) slung over their shoulders, also suggested that the well-known reference in Isaiah, xxxii, 22, «And the key of the house of David will I lay upon his shoulder», referred to precisely that type of key used to open an Egyptian lock, and pointed out that the word for key in Biblical Hebrew and modern vernacular Arabic were identical.

Pitt-Rivers, in his seminal study of primitive locks and keys published in 1883 cited Bonomi's observations, while noting that the antiquity of the Egyptian lock in Egypt itself did not appear to antedate the Roman period<sup>11</sup>. Uncritical readers of Pitt-Rivers' treatise, however, such as Vincent J.M. Eras' in his 1957 catalogue of the collection of Lips' Safe and Lock Manufacturing Company in Dordrecht<sup>12</sup>, have misconstrued the information given there regarding the Khorsabad find, attributing far greater antiquity to it than is warranted, and from Eras the unfounded statement entered the *Encyclopaedia Britannica* to the effect that the Khorsabad lock was «possibly 4,000 years old».

Nevertheless, although the archaeological evidence for early locks remains slight, the lexical field has been so well-surveyed by Meissner, Salonen, Leichty and Scurlock that, in combination with a judicious use of specialist lock literature, it is possible to suggest identifications for some of the troublesome terms that occur in cuneiform sources. I would not wish to suggest that the locking mechanisms reconstructed by Ghirshman and Scurlock, or Zettler and Leichty, were not in use in ancient Mesopotamia, merely that they were not the only ones used<sup>13</sup>, and that the literature on traditional and ancient locks, particularly the so-called Egyptian lock, offers much of relevance to the study of Mesopotamian locks and keys.

The Egyptian lock has been studied extensively, both in its supposed

<sup>11</sup> LT.-GEN. PITT-RIVERS, *On the Development and Distribution of Primitive Locks and Keys*, London 1883, p. 10. My sincere thanks to P.R.S. Moorey (Ashmolean Museum, Oxford) for sending me a copy of this work, which was unobtainable in Copenhagen.

<sup>12</sup> V.J.M. ERAS, *Locks and Keys throughout the Ages*, Dordrecht 1957, p. 21.

<sup>13</sup> It may not be inappropriate to note in passing that the reconstruction of the Nippur system may have to be modified in light of a second type of Egyptian locking mechanism incorporating a cord or rope which was often sealed. See D. KRENCKER and H. SCHÄFER, «Eine neue Art altägyptischer Riegelschlösser», *ZÄS* 43 (1906): 60-65; O. KOENIGSBERGER, *Die Konstruktion der Ägyptischen Tür*, *ÄF* 2, 1936, p. 60 and Abb. 74; and E. GRAEFE, «Die Versiegelung der Naostür», *MDAIK* 27/2 (1971): 147-155. Cf. Kuhlmann, «Schloss», 661, who writes, «die Zugschnur konnte zur Kontrolle durch Wächter außen versiegelt werden». It is also possible that the simple system advocated for the palace of Mary by D. BEYER, «Scellements de Portes du Palais de Mari», *M.A.R.I.* 4 (1985): 375-384, should be modified in light of the Egyptian evidence.

Egyptian place of origin<sup>14</sup>, and in Greece, where it was known as the «lako-nian» or «balanos» loock<sup>15</sup>. Undoubtedly the most concerted effort to identify the Egyptian lock in ancient Mesopotamia was that made early in this century by the German ethnologist F. von Luschan. In an article published in 1916 von Luschan tried to show «daß Schlösser mit Fallriegeln in Ägypten und in Babylonien ganz allgemein verbreitet waren»<sup>16</sup>, an idea that was immediately embraced by no less an authority than Bruno Meissner<sup>17</sup>. Where von Luschan went astray was in following Eduard Hahn's suggestion that a series of cylinder seals believed to depict the god Šamaš showed him holding the key of an Egyptian lock before the gate of heaven<sup>18</sup>. The identification of the object held by Šamaš as a key was nevertheless accepted by many scholars, including R. Koldewey<sup>19</sup> and O. Weber<sup>20</sup>, until B. Landsberger<sup>21</sup> and Th. Dombart<sup>22</sup> showed convincingly that the key was in fact a saw.

<sup>14</sup> See generally, K. KUHLMANN, «Schloss», *Lexikon der Ägyptologie* V (1984): 658-661. For a good survey of locks in ancient Egypt, see W.M. FLINDERS PETRIE, *Tools and Weapons*, London 1917, 59-60, Pl. LXXV. For one of the earliest discussions of the topic see Wilkinson, *The Manners and Customs of the Ancient Egyptians*, p. 112.

<sup>15</sup> H. DIELS, «Antike Türen und Schlösser», in *Antike Technik, sieben Vorträge von Hermann Diels*, 2nd ed., Leipzig and Berlin 1920, pp. 52-55. Diels noted, p. 52, that in *Women at the Thesmophoria* 421, Aristophanes has the women express their annoyance at the introduction of secret keys with three teeth, an obvious reference to the introduction of the Egyptian lock. According to Pliny NH VII 198, Theodoros of Samos «discovered» the balalos system, a tradition which Diels explained by noting the technological sophistication of Samos and the frequency of its relations with Egypt, from whence, he felt, the technology of the Egyptian lock must have been borrowed. On the lock in ancient Greece generally, from Homeric times through the Hellenistic period, see also F. EBERT, *Fachausdrücke des griechischen Bauhandwerks I. Der Tempel*, Inaugural-Diss, Würzburg 1910, pp. 57-58; A. NEUBURGER, *Die Technik des Altertums*, Leipzig 1919, pp. 338-340; and F.M. FELDHAUS, *Die Technik der Vorzeit, der geschichtlichen Zeit und der Naturvölker*, Munich 1965, col. 967.

<sup>16</sup> F. VON LUSCHAN, «Über Schlösser mit Fallriegeln», *Zeitschrift für Ethnologie* 48 (1916): 424, cf. «Primitive Türen und Türverschlüsse», *MVAG* 22 (1917): 365, Abb. 9.

<sup>17</sup> *Babylonien und Assyrien* I, Heidelberg 1920, p. 247 and Abb. 115-116.

<sup>18</sup> *ZfE* 48:422. As von Luschan noted, p. 425, the same idea was suggested independently by H. Prinz. According to Dombart (cf. n. 23). Prinz first suggested that the object held by Šamaš was a key in his Habilitationsschrift, *Astralsymbole im altbabylonischen Kulturkreise*, Breslau 1910, p. 28. A revised and more accessible account can be found in *Altorientalische Symbolik*, Berlin 1915, p. 82, where an illustration is given of a wooden lock of Egyptian type then in use on a door in the house of the German Assur expedition.

<sup>19</sup> R. KOLDEWEY, «Der babylonische Turm nach der Tontafel des Anubelschunu», *MDOG* 59 (1918): 11-12.

<sup>20</sup> O. WEBER, *Altorientalische Siegelbilder*, AO17/18 (1920): 99, 102.

<sup>21</sup> B. LANDSBERGER, «Die Säge des Sonnengottes», *OLZ* 15 (1912): 149-151.

<sup>22</sup> «Das babylonische Sönnentor und die 'Säge' des Šamaš», *JSOR* 12 (1928): 1-24, esp.

Nevertheless, Dombart did not dispute the existence of the Egyptian lock in ancient Mesopotamia, referring to Layard's discovery at Nineveh, noted above.

Mysteriously, this entire field of discussion has been ignored in those recent studies of locking cited above, yet it seems to me that the specific form of the Egyptian lock and the key which opened it provide the most plausible model for identifying the consistently recurring constellation of terms associated with locking which formed the focus of both Leichty's and Scurlock's recent articles. In the following treatment of this problem, I have not attempted to offer a translation of every word in the lexical field under discussion, but rather to focus on those terms which consistently recur together, viz. *aškuttu*, *šigaru*, *sikkuru*, *sikkatu*, *namzaqu*, *uppu*, and *mušēlu*. The difficulty of identifying these parts correctly lies, to begin with, in the choice of the correct lock system as a model, and thereafter in finding identifications which, in association with all of the other relevant terms, make mechanical sense. In contrast to Leichty and Scurlock, I propose to use the Egyptian lock as a model for the identification of the most important terms (Fig. A). It seems that a different locking system lies behind a second constellation of terms including *andūhu*, *hargullu*, *pingu* and *sanhu*, but these will not be dealt with here.

The essential elements of the Mesopotamian lock in question were the bolt; the assembly, or lock proper, the pins; and the key. The pins were

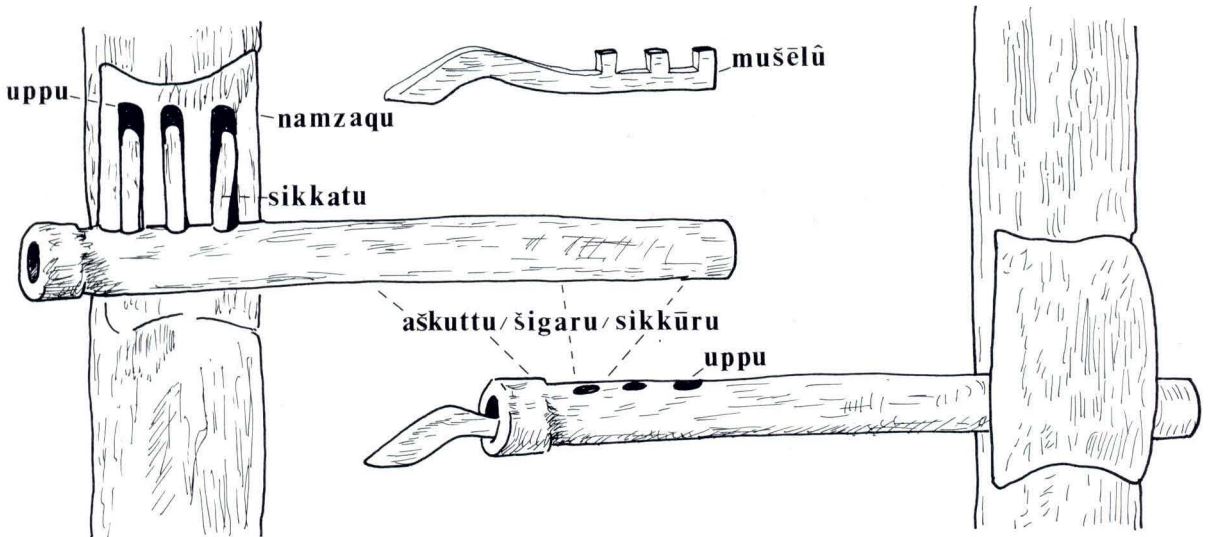


Fig. A - Lock system in Ancient Mesopotamia.

lodged in hollows within the assembly, down from which they dropped, passing through holes in the bolt which kept the door from opening. To open the door, a toothed key was inserted into the hollow bolt, and lifted so as to push the pins up into the lock assembly, thereby allowing the bolt to be removed. After considering the body of text references indexed in the dictionaries, I propose that the terms *aškuttu*, *šigaru*, and *sikkuru* were synonyms denoting the bolt. In contexts where the function of a lock is described, these words almost never occur together. One exception is in Sargon II's list of booty from his eighth campaign, where both *aškuttu* and *sikkuru* are listed, but this could easily reflect the scribe's use of synonyms in his enumeration of the booty. The part of the lock itself, or assembly, that was mounted on the door or gate, I identify as *namzaqu*. The pins in the assembly which were responsible for holding the bolt and thus keeping the door closed can be identified by the term *sikkatu*. There were housed in a series of holes, called *uppu*, in the assembly, and fell through another series of holes, also called *uppu*, in the bolt. As the pins were lifted to unlock a door or gate, we find that the key which performed this action was given the literal name of «lifter», or *mušelu*.

The following table illustrates the use of the relevant terms for the parts of the Mesopotamian version of the Egyptian lock in a selection of text. The fact that the terms for the parts of a lock are listed under wooden objects in the lexical series Hh<sup>23</sup> surely reflects the fact that these locks were originally and perhaps normally made of wood, even if many of the literary texts attest to the use of both base and precious metals for different parts of the lock. Texts mentioning only one or two parts of the lock are not included here, for the essential aim is to present those contexts which most faithfully reflect the complete function of the lock.

TEXT REF.	BOLT <i>aškuttu/šigaru/sikkuru</i>	ASSEMBLY <i>namzaqu</i>	PIN <i>sikkatu</i>	HOLE <i>uppu</i>	KEY <i>mušelu</i>
Šamaš Hymn (BWL 136:138)	*	*	*	*	
CT 40 12:21	*	*	*		
CT 40 12:10	*	*	*	*	
4R 17:5f		*	*		
TCL 3 372-5 (Sargonid)	*		*	*	
KAR 7:5		*		*	*

<sup>23</sup> Hh V 276-299a in MSL 6 28ff.

In light of the identifications proposed above, we can re-examine some of those well-known passages in Mesopotamian literature concerning locks on which Leichty and Scurlock have commented.

CT 40 12:7-15, according to my interpretation, is concerned with the problem of the pins (*sikkatu*) in the lock (*namzaqu*) of the Ištar temple getting stuck repeatedly, and not being properly positioned above the holes (*uppu*) of the bolt (*aškuttu*). Given the nature of the Egyptian lock, this sort of difficulty is easily imaginable. We can modify the CAD's translation (E 133) of line 10 as follows: «if the pin (*sikkatu*) of the lock (*namzaqu*) of the temple of Istar is lifted and lies on top of the hole (*uppu*) of the bolt (*aškuttu*)», i.e. if the pin of the lock is lifted (with a key) and lies above the hole in the bolt.

4 R 17:5ff, in which the unlocking of the heavens is described, can be understood, following the definitions proposed here, in the following terms: «when you lift the pin (*sikkatu*) of the lock (*namqaqu*) from the bolt (*šigaru*) of the pure heavens».

A number of references to the bolt (*sikkuru* = GIŠ.SAG.KUL) show that it was a sizeable object measuring up to one meter in length (YOS 4 256 i 5, iii 44), that could be cast of copper or bronze and take the form of an animal, such as a dragon (PBS 9 20:2 [= OSP II 29:2]), or a human hand (TCL 3 373); that a tunic could be hung from it (Syria 18 246:23, Ugaritica 5 83:9); and further that a snake could coil itself around it (KAR 386:57). As Scurlock has noted, when manipulated the *sikkuru* is described as being «driven home», which I take to mean inserted into the assembly in the locking position, or «released», i.e. removed from the assembly<sup>24</sup>. All of these characteristics are consistent with the definition of *sikkuru* as «bolt».

The lock assembly (*namzaqu*) might be chosen by swallows to nest in (CT 41 2, K.676:4). Leichty has identified the *namqaqu* as a latch-hook, while Scurlock believes it to have been a bar or bolt. Neither possibility seems to me very conducive to nesting. That this could occur is only imaginable if the *namzaqu* had a protected niche into which the birds could fly and in which they could remain. If the bolt (*sikkuru*) was kept out of the lock (*namzaqu*) for a period of time, the interior spaces (*uppu*) of the assembly would have provided an ideal nesting place for swallows. The only reference which is somewhat obscure is one in which it is said that a woman will bring the *namzaqu* «out» (YOS 10 36 iv 2). As my colleague A. Westenholz pointed out to me, however, this could occur if a person or family were moving i.e. leaving a house altogether, and took the lock (and probably door) with them when they left (as is common in the Near East today where wooden doors

<sup>24</sup> Or 57:424.



are often salvaged from abandoned mudbrick houses).

The pins, or *sikkatu*, in the lock assembly, were called by a generic term which could be used to describe a wide variety of wooden or metal pegs, sticks, or dowels not specifically associated with locking. Scurlock has noted, «our text [CT 40 12] informs us that the *sikkatu* was supposed to fit into the *ašškuttu's uppu*»<sup>25</sup>, in other words, that the pin (*sikkatu*) was supposed to fit into hole (*uppu*) in the bolt (*ašškuttu*).

In TCL 3 376, the *sikkuru*, *sikkatu*, and two *namzaqu's* are called collectively *markasbābī*, or «fastening of the doors».

As A.D. Kilmer showed in the Finkelstein memorial volume<sup>26</sup>, *uppu* refers to sockets or cavities, and this is what we suggest were the holes, hollows, or sockets into which the lock pins fit, both in the bolt and in the lock assembly.

Finally, the term for key, *mušelu* is a literal description — viz. «lifter»<sup>27</sup>, «that which makes [x] go up»<sup>28</sup>, «der Herauftholer»<sup>30</sup> (22) — of the function of a key in a Egyptian lock, which is to push the pegs (*sikkatu*) of the lock (*namzaqu* up into their holes (*uppu*) so that the bolt (*ašškuttu/šigaru/sikkuru*) can slide out. As Scurlock himself wrote, «the association of the *mušelu* with the *sikkatu*... suggests that the latter was the object which the former was supposed to make go up».

To return to the *Encyclopedia Britannica's* definition of the Egyptian lock, we may annotate it as follows: «It consists of a large wooden bolt (*ašškuttu/šigaru/sikkuru*), which secures the door, through which is pierced a slot with several holes (*uppu*) in its upper surface. An assembly (*namzaqu*) attached to the door contains several wooden pins (*sikkatu*) positioned to drop into these holes (*uppu*) and grip the bolt (*ašškuttu/šigaru/sikkuru*). The key (*mušlu*) is a large wooden bar, something like a toothbrush in shape, instead of bristles it has upright pegs that match the holes (*uppu*) and the pins (*sikkatu*). Inserted in the large keyhole (*uppu*) below the vertical pins (*sikkatu*) it is simply lifted (e), raising the pins (*sikkatu*) clear and allowing the bolt (*ašškuttu/šigaru/sikkuru*), with the key (*mušelu*) in it, to be slid back».

DAN T. POTTS

<sup>25</sup> Or 57:423.

<sup>26</sup> A.D. KILMER, «Notes on Akkadian *uppu*», in M. DE JONG ELLIS (ed.), *Essays on the Ancient Near East in Memory of Jacob Joel Finkelstein*, Mem. Conn. Acad. Arts and Sciences XIX, Hamden 1977, p. 130.

<sup>27</sup> JCS 39/2:191.

<sup>28</sup> Or 57:424.

<sup>29</sup> E.G. B. MEISSNER, «Die fünfte Tafel der Serie harra = *ḫubullum*», *Assyriologische Forschungen I*] = AOAT/1], Leiden 1916, p. 38.

<sup>30</sup> A. SALONEN, *Die Türen des alten Mesopotamien*, AASF 124, Helsinki 1961, p. 80.