



## Craft Specialization in Administration in Pre- and Protodynastic Egypt

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### Abstract

Administration in Egypt is one of the key areas of research, which reflects on the organization of the government and the complexity of The Centralized Economy as well as of Society. Its evidence almost entirely depends on textual evidence that contains information about the titles and hierarchy of officials, their responsibilities and administrative units, and the nature of the bureaucratic transactions involved. Therefore, at the most basic level, administration deals with the recording of bureaucratic processes in the form of written records (Köhler 2010: 41). In addition, Bureaucracy/administration is one of the parameters of Statehood in Predynastic Egypt. It is the most rational known means of exercising authority, and its administrative apparatus are well represented in Pre- and Protodynastic Egypt by Various artifacts (Anđelković 2008: 1048).

**Keywords:** Administration, Bureaucracy, Statehood, Authority, Organization, Complexity.



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### **Abstract**

Administration in Egypt is one of the key areas of research, which reflects on the organization of the government and the complexity of The Centralized Economy as well as of Society. Its evidence almost entirely depends on textual evidence that contains information about the titles and hierarchy of officials, their responsibilities and administrative units, and the nature of the bureaucratic transactions involved. Therefore, at the most basic level, administration deals with the recording of bureaucratic processes in the form of written records (Köhler 2010: 41). In addition, Bureaucracy/ administration is one of the parameters of Statehood in Predynastic Egypt. It is the most rational known means of exercising authority, and its administrative apparatus are well represented in Pre- and Protodynastic Egypt by Various artifacts (Anđelković 2008: 1048).

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### **Introduction**

perhaps more important is the influence of our own biased about what provincial administration should look like in a pre-modern bureaucratic state like Ancient Egypt. Thus, concepts like 'nomarch', 'province/nome', 'bureaucracy', and even 'administration', usually convey a full array of preconceived meanings, latent characteristics, and practices taken for granted which risks to completely overshadow our comprehension of provincial administration and the mechanisms of power actually operative within it. In fact, several principles were operative at the same type; the royal will be one of

them, an efficient official, having proved his organizational skills. In other case, provincial potentates seem to have acted as mediators between the king and the local society (Moreno Garcia 2013: 85-6).

I will discuss administrative items includes a numerous fragments of clay seals and mud jar sealings/ stoppers with impressions of ropes fabrics or hieroglyphic characters, several cylindrical seal matrices, Ivory Labels, as well as a number of small clay artefacts probably also serving as complex tokens that appear to indicate potential administrative activities at settlement sites. The fact that they were intended for daily, clearly utilitarian use. They may have been related to trade activities once carried out in these sites with varying intensity, being a collection of objects with commercial and bookkeeping applications (Kołodziejczyk 2012: 267; Anderson 2006: 237). Researchers agree that the first glyptic in Egypt were inspired from carvings of Greater Mesopotamia (Honoré 2007: 33). In the next paragraph, the following questions should be addressed:

1. What forms of Administration occurred in Egypt during the 4<sup>th</sup> and 3<sup>rd</sup> millennium BC?
2. Can we discern a pattern in the changes we recognize for this period?
3. How was the improved technology used in relation with development of society?

### **The stamp-seals**

The clay sealings are pieces of mud originally attached to door bolts, vessels, knots/ cords, bags and baskets with several impressions of geometric, zoomorphic and hieroglyphic elements. Also Numerous fingerprints can be noticed on them, resulting from the forming process, along with impressions of ropes, fabrics and organic elements to which these items were attached (Regulski 2014: 230-40; Bussmann 2013: 23; Kołodziejczyk 2012: 271-72).

Mesopotamian glyptic preceded the Egyptian ones. Sealings are known in the North of Mesopotamia at the end of 7<sup>th</sup> millennium BC, in the form of stamp-seal impressions on plaster or gypsum, at tell Buqras and tell el-Kowm for instance. The earliest clay sealings are from Tell Sabi Abyad where hundreds of impressions dating back to the end of 6<sup>th</sup> millennium have been found there. The

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Stamp-Seal is widely used in the North of Mesopotamia at that date. The practice is originated in the Halafian and Obedian Cultures and then diffused southward and into Iran at the Obeid Period. To date, no Seal of Obeidian type or Obeidian Ceramic has been found in Egypt (Honoré 2007: 33).

In Naqada II we are fully aware that archaeological evidence is scanty in Egypt as to when glyptic first appeared in Egypt. The earliest two Stamp-seals have been found in Egypt. They could be dated from Naqada IIB-C: The first one is a "lentoid" seal at Harageh, at the edge of fayoum. The Harageh seal has no Parallel in Egypt (Honoré 2007: 31). (fig. 1: 1) Moorey (1990: 63) identified it as a syrian seal. It could closely be compared to a stamp- seal from Telloh. The telloh stamp-seal is classified among the Dynastic Archaic material (Genouillac 1934: pl. 70, fig. 1). (fig. 1: 2) Some ten other similar stamp- seals have been found in situ in the susa B layers (Amiet 1972: 52), which correspond to the first phase of susa II, *i. e.* The Middle Uruk Period. Most of them represent one or two animals (Quadrupeds or Serpents), Just as does the Haragh seal (Honoré 2007: 33). (fig. 1: 3)

The second stamp seal with circular perforations at Naqada ed- Dêr from grave 7501 in southeast of the necropolis, a sector dominated by Naqada IIB tombs (Podzorski 1990: 5). (fig. 1: 4) This is probably the most ancient glyptic known in Egypt, since the Harageh stamp- seal, according to luc. wartin (2007: 81-83), could be dated from Naqada IIB or IIC, which correspond to Mesopotamia seals since several similarly drill perforated specimens from yorgan Tepe/ Nazi. The drill perforations are reminded us of round stamp- seals or of "baggy style" cylinders from Middle Uruk (Honoré 2007: 31, 34). (fig. 1: 5-6)

There are four seals (or clay sealings) found in Nekhen, their inscriptions were produced by rolling a cylinder seal over the surface of the still moist clay before it dried. One of these four seals is oval and completely preserved bulla, probably enclosing a knot of the string whose impressions can be seen on the sides, what kind of object the string was attached to is not clear, the seal was rolled five times over the surface resulting in overlapping 'inscriptions' involving a human figure flanked by wavy lines on all faces of the bulla (Bussmann 2013: 23). (fig. 1: 7) On another sealing, a seated man is depicted probably facing a pile of offerings. This interpretation is based on the

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prevalence of offering table scenes on early dynastic cylinder seals, and it is supported by two further sealings from the site. (fig. 1: 8) one shows a walking man with what look like a number of pots arranged between jagged lines. (fig. 1: 9) the other, much more fragmentary, shows a seated man and woman in poses that resemble offering table scenes in later periods (Bussmann 2013: 23). (fig. 1: 10)

In addition to eleven sealings from the palace (the Early Dynastic temple) at Hierakonpolis were found at the site, seven of them were found in one of the palace rooms, while the other four were found near the niched gateway of Palace. Although fragmented, the sealings offer insight into the material context of administration and what "palace" might have been in Early Egypt. one seal inscription represents the serekh and name of Qa'a, the last king of the first Dynasty, the royal name might indicate that the palace was in use during the reign of Qa'a, along with title of a royal official, probably to be read imi-khenet or 'chamberlain' (fig. 1: 28). The other seal inscriptions represent an individual probably local official seated in front of a pile of offerings or an offering table scenes, these seals were employed in actual administrative practices. (fig. 1: 29-31) The sealing pattern includes a vertical standard on the left, followed by a ram, the standard represents the goddess Neith, the ram is the hieroglyph of the god Khnum, both were especially popular during the Early Dynastic Period (Bussmann 2014: 30-1). (fig. 1: 32)

Significantly, The Italian mission team mission's investigation of the Naqada south town settlement excavations from 1982 to 1986 also discovered some 300 bullae or clay sealings, some still adhering to wooden pegs, string or pot rims. The majority are considered to be door- locking devices. Only about a half-dozen bore impressions of cylinder seal (Barocas *et al.* 1989: 301).

Seal impressions depict rows of animals, and, although still unpublished, they are of a very early type which can now be dated back to Nagada IIIA2 (Dynasty 0) according to examples found in grave U-J at Abydos (Dreyer 1992: 293-300). These symbols of authority seem to have been associated with the mud-brick structure in the Naqada south town settlement (Friedman 1994: 524-25). Thus, this large, internally subdivided, structure is comparable in both date and function to the remains of early dynastic palace of Nekhen, the town- mound of ancient Hierakonpolis (Friedman 1994: 677-87). Both sites are comparable as

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administrative centers in central locations in areas with a long history of occupation (Friedman 1994: 525, 677-87; Holmes 1989 I: 195).

About sixteen fragments of sealings and jar sealings or stoppers have been recovered to date at el-Mahâsna. Nine of these are fragments of sealings, from which only six of these were recovered from excavation block 3 and the remaining three examples come from Excavation Block 1 ( $n= 2$ ) and Excavation block 2 ( $n= 1$ ). The sealings are fragments of unfired, untempered Nile clay and have impressions of either cordage or fabric on one face, while the other face is either a convex, unshaped form, or has a depression, sometimes with visible fingerprint markings. None of these items have discernable seal impressions such as those found from later periods (Anderson 2006: 237).

Seven jar sealings or stoppers were recovered in Mahâsna. Two of them were recovered in association with a possible brew kiln (Locus 36) identified at the far southern end of the site, and most likely associated with the kiln structures identified by Garstang (1903: 7). These two examples, were unbaked and did not contain seal impressions on their upper surfaces, but did still preserve impressions of the modeled rims of the jars that they were used to seal. Of the remaining five examples, two originated in deposits associated with habitation phase 3B, while one each was recovered from phases 3C and 3D in Excavation Block 3. These are deposits directly associated with the floor of the large structure identified in this area. The jar sealings or stoppers are lumps of unfired Nile mud, sometimes tempered with straw or chaff. These are typically circular with a rounded or shaped upper surface, with the lower surface usually roughly flat, with the exception of an impression running around the circumference caused by the rim of the vessel that it sealed (Anderson 2006: 238). (fig. 1: 11) In addition to fifteen seals (or clay sealings) were found in Adaima (Midant-Reynes 2002: 455).

In Naqada III 162 seal in Tell el-Farkha, 126 of them were undecorated, while 36 were decorated. One of the most interesting seal impressions (ca. over 100 in total) is a fragment found at the central kom, depicting treading animals- most probably gazelles, one animal is almost entirely preserved, while the other one- only partially (Kołodziejczyk 2012: 269). (fig. 1: 12) The apartially preserved seal impression come from the western kom, are

dated to Naqada IIIB-IIIC1, and was probably placed on a clay seal of a vessel or rope, as markings on its internal section may suggest. It is 4.7cm long and 3.1 cm wide. The essential element of the preserved part of the decoration consists of one register with boats arranged alternately (Kołodziejczyk 2012: 269). (fig. 1: 13)

Similar dating can be ascribed to an almost round flat clay circle with ca. 3 cm diameter, originating from the central kom. Its obverse features an impression of a small seal with decorations in the form of two registers separated and limited by diagonal lines and a sort of diagonal grid. The decoration is largely abraded, so the existence of other decorative elements cannot be excluded (Kołodziejczyk 2012: 270). (fig. 1: 14)

An impression found at the Eastern Kom is also dated to the same period. on the obverse it has decorations including illegible hieroglyphic characters, While on the reverse there is a clearly visible impression of a rope or- What is even more probable- a rim of the vessel on which it was originally placed (Kołodziejczyk 2012: 270). (fig. 1: 15)

The objects found on the central and eastern koms are dated to Naqada IIIC2-IIIC3 period. Those are fragments of seal impressions containing not only geometrical decorations but also hieroglyphic characters. one of the most interesting items is an almost entirely preserved vessel stopper in the Central Kom. Measuring 4cm in diameter and 1.1 cm in length, it was accurately matched to the vessel's spout already before baking. its outer surface was marked with a seal impression containing signs and symbols, but they are now hardly visible. the damaged image may be a representation of a bird (Kołodziejczyk 2012: 270). (fig. 1: 16)

A particularly valuable finding in Eastern Kom is an impression with complex of hieroglyphic inscription and on the reverse an impression of a rope with clearly visible binding pattern as well as an impression of fabric that was probably used for additional protection of the vessel or a small container on which the impression was made (Kołodziejczyk 2012: 271). (fig. 1: 17)

A seal impression has on the surface decorations with barely decipherable vegetal and zoomorphic. It was found on Eastern Kom, and dated to the Naqada IIIC2- IIIC3 period. In the upper section of this object, there are openings, which were probably used for attaching seals (Kołodziejczyk 2012: 271). (fig. 1: 18)

Also, The only clay sealing have been found in buto; particularly in occupation layers III-V (Schmidt 1988: 293). (fig.1: 19)

Throughout the excavation seasons of 2006-2010 in Tell el-Iswid 99 fragments of sealings and sealings jars or stoppers were found at the site, Of them 71 seal impressions with only 20 out of them have inscriptions and 28 jar sealings or stoppers (or closing piece) with an epigraphic. The majority are cord sealings where the imprint of the cord is often still visible. A few small bag sealings could be identified and one sealing shows the imprint of a small vessel lid. All the seals were private; royal names are absent and only one case indicates a high ranking title reading *(htm.w (hr.it)- šī nb.t)* "Seal bearer of all districts" (Midant-Reynes *et al.* 2015: 13-4; Regulski 2014: 230-40). (fig. 1: 20)

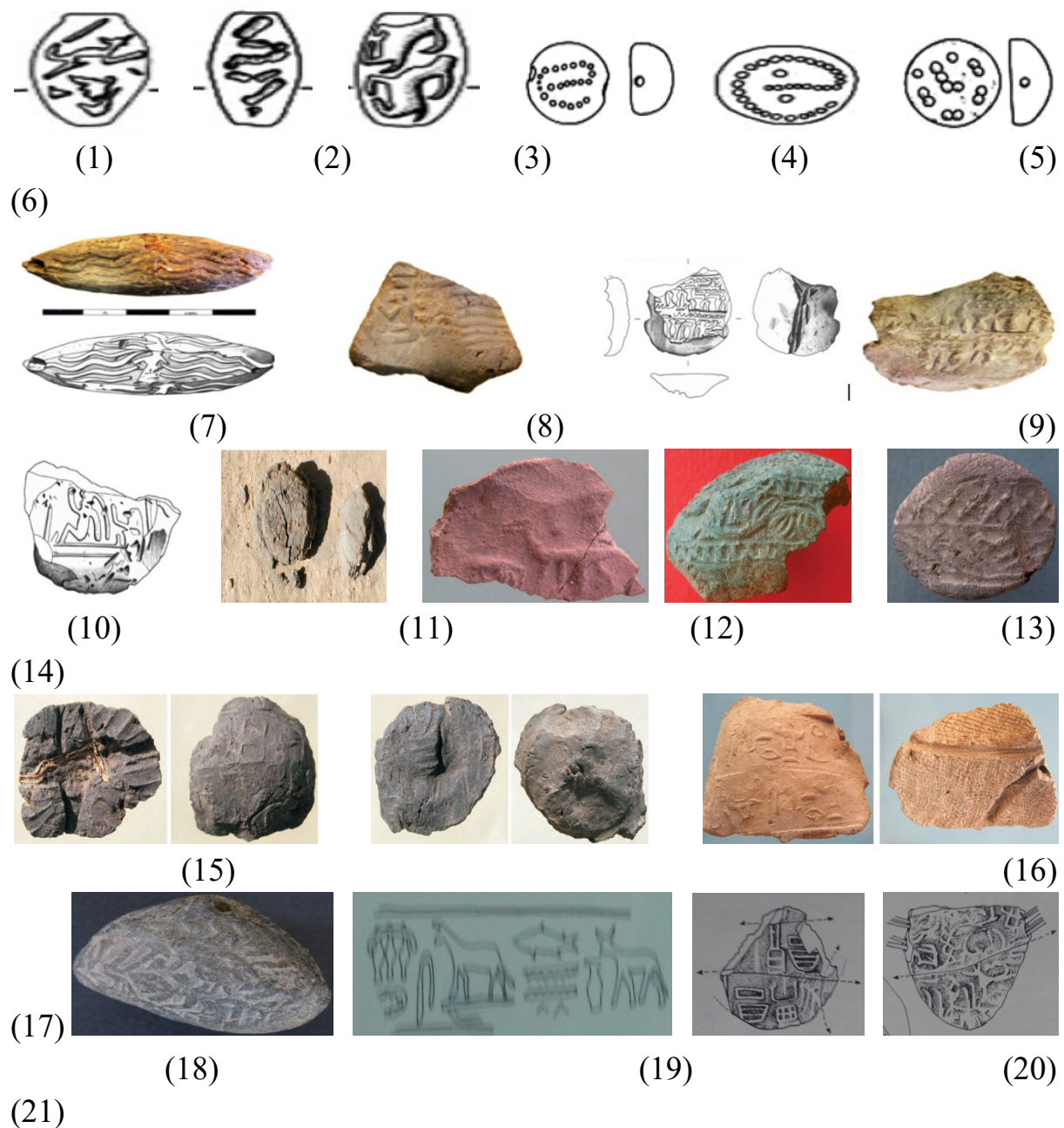
Most of the inscriptions, however, are difficult to read, Although a number of signs can be identified, their combinations cannot often be read within the framework of the formalized writing, as we know it at that time. in one case, a personal name can be reconstructed. Nonetheless, the identifiable signs allow for dating on the basis of paleography. The proposed dates correspond well to the 1<sup>st</sup> dynasty, and seem to be confirmed by the archaeological context (Midant-Reynes *et al.* 2015: 13; Regulski 2014: 230-40). (fig. 1: 21-22)

Nearly 250 sealings were found in tomb U-J, are divided into five types. The suggested reconstructions of the Umm el-Qa'ab seal impressions and the assumption that they were made by cylinder seals have been generally accepted, in spite of their unique appearance compared with predynastic glyptic. The clay sealings are made of Nile mud, which means there must have been authorities within Egypt who controlled the content and protected it by sealing. They all show the same general design- a central picture surrounded by a geometric pattern. More recently, a similar construction was found on even earlier, Naqada IID seal impressions (Hartung 1998: 44-48). Although the individual meaning of these seals is not yet decoded, there is no doubt that they are Egyptian. Single



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signs like the rosette: an attribute of the king on the Narmer Palette or on the Hierakonpolis macehead, and the man with stick may point to the ruler, or at least to person of high administrative level in charge of the imported goods. These seals must have characterized generally the authorities, but may have indicated also different administrative branches or officials. The place where the jars were sealed has not yet been identified. Perhaps commodities coming across the Northern Sinai were controlled by a kind of Egyptian customs at the edge of the Eastern Delta before being loaded onto ships to Upper Egypt, but it cannot be excluded that this procedure took place elsewhere, e.g. only after arrival at Abydos (Hartung 2002: 442-44; 2001: 216-29, 230-38; Dreyer 1998: 108-12). (fig. 1: 23-27)



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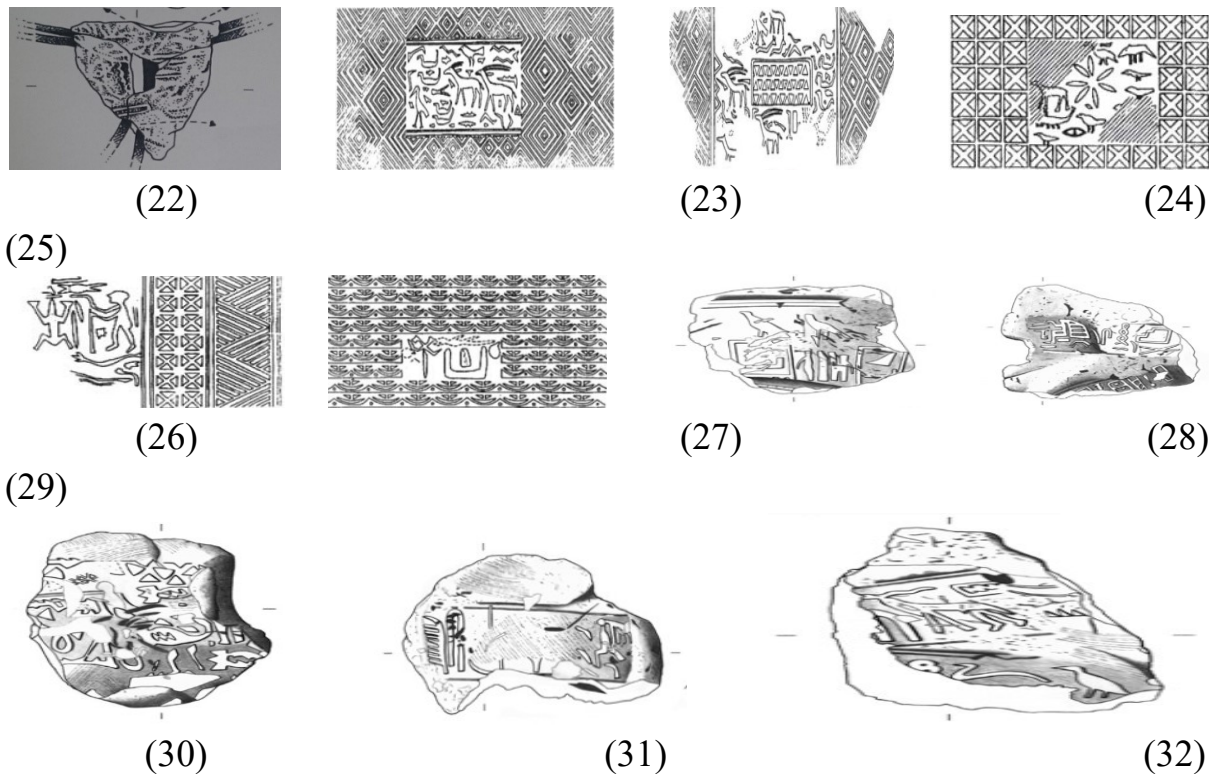


fig 1. The stamp seals in Egypt and Mesopotamia: (1) clay stamp seal at Harageh, tomb 470; (2) clay stamp seal at Telloh; (3) clay stamp seal at susa B; (4) clay stamp seal at Naqa ed-Dêr, tomb 7501; (5) clay stamp seal at susa B; (6) clay stamp seal at Nuzl, G 50 (after Honoré 2007: 35, fig. 2); (7-10) clay stamp seals in Nekhen (after Bussmann 2013: 23-4); (11) Mud jar sealings recovered from Locus 36 from el-Mahâsna (after Anderson 2006: 239, fig 6.56); (12) clay fragment of seal impression at Central Kom (after Kołodziejczyk 2012: 268, fig. 4); (13) clay fragment of seal impression at Western Kom (after Kołodziejczyk 2012: 269, fig. 5); (14) clay circular seal impression at Central Kom (after Kołodziejczyk 2012: 269, fig. 6); (15) clay seal impression at Eastern Kom (after Kołodziejczyk 2012: 270, fig. 7); (16) Clay Vessel stopper in Central Kom (after Kołodziejczyk 2012: 270, fig. 8); (17) clay seal impression at Eastern Kom (after Kołodziejczyk 2012: 271, fig. 9); (18) Clay plug at Eastern Kom (after Kołodziejczyk 2012: 271, fig. 10); (19) clay stamp seal in Buto (Schmidt 1988: 296, Abb.8); (20-22) clay seal impressions in Tell el-Iswid (after Regulski 2014: 230-40); (23-27) clay seal impressions in tomb U-J (after Brandl 2016: 208, fig. 1); (28-32) Clay Seal impressions from the palace at Hierakonpolis (after Bussmann 2014: 30-1).

### The Cylinder-seals

According to many authors, the custom of using cylindrical seals originates from Mesopotamia during the first half of IV<sup>th</sup> millennium BC (Honoré 2007: 33; McC Adams 1981: 69), taking into account that they appeared almost simultaneously in Egypt during the Naqada IIC-D period. The oldest artefacts of this type came from the Uruk culture, some of them resemble Egyptian seals. Cylindrical seals are preserved both in original forms and in the forms of Various impressions (Kołodziejczyk 2012: 267).

The earliest cylinder-seals were found by flinders petrie in Naqada during the 1894-1895 excavations. The two seals discovered by Petrie can be dated to Naqada IIC-d1, *i.e.* 3500-3300 BC (Ciałowicz 2001: 14): One of them come from tomb N 1863, (Naqada IIC), made of limestone, now at the university college in london. It displays a series of slightly concaves lines from each side of the middle of barrel (two or three on each side), marked by short straight lines. All These lines are deeply incised and freely, indeed even irregularly executed (Kantor 1952: 247, fig.1: c). (fig. 2: 1) Baumgartel already stressed that the cylinder had been imported from outside the Nile Valley. She suggested connections with Jemdet Nasr glyptic (Baumgartel 1955: 47; Wilkinson 2002: 241). Only the impressions dating from Middle Uruk can be connected to the seal of tomb 1863 at Naqada, this means mainly some impressions from susa and perhaps others from telloh whose context is less clear (Honoré 2007: 38).

The second cylinder seal is from grave 29 of T Cemetery at Naqada, which dates to Naqada IIC. It is made of limestone too. Its pattern is composed of a row of almond or "eye" shapes running along the middle of the barrel, each surrounded by two concave lines (Kantor 1952: 247, fig.1: a). (fig. 2: 2) This seal has the same parallels in Mesopotamia as that tomb 1863 because the motif is remarkably the same, with a difference just in execution (Honoré 2007: 38). (fig. 2: 3)

Four cylinder-seal were found: the first one in tomb 3039 at Matmar, which dates to Naqada IIC-D, It made of Limestone (fig. 2: 4), which correspond to Mesopotamia seal since similar specimen have been unearthed in susa (fig. 2: 5). Another seal in tomb B 307 at Ballas, which dates to Naqada IIC-D, It made of Limestone (fig. 2: 6), which correspond to Mesopotamia seal since similar specimen have been unearthed in Tepe sialk IV (fig. 2: 7). one seal in tomb

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1035 at Abusir el- Melek, which dates to Late Naqada IId, It is made of Ivory (Honoré 2007: 36, fig 2). (fig. 2: 8) one seal in tomb 7304 at Naqada ed- Dêr, which dates to Naqada IId1, It is made of Limestone (Lythgoe and Dunham 1965: 179-83, fig. 79) (fig. 2: 9), which correspond to Mesopotamia seal since similar specimen have been unearthed from Susa (Honoré 2007: 35, fig 2). (fig. 2: 10)

In Mesopotamia, the use of cylinder-Seal glyptic in the middle of 4<sup>th</sup> millennium BC is proven by hundreds of impressions with different motifs in settlement contexts (e.g. Susa) or in prestigious and/or storage buildings (e.g. Uruk-Warka) (Honoré 2007: 33).

In Naqada III, the Excavations in Tell el-Farkha have provided several examples of cylinders and even more of impressions. The oldest preserved artefact originates from the central kom, from layers dated to the Naqada IIIA2-III B period. It is a clay cylinder- made from crudely prepared mixture- with a 2.8 cm body diameter, 5.9 cm length, and 0.5 cm hole diameter. Its decoration is contained in two registers, apparently representing a royal name written in the form of serekh and nebti, the oldest one currently known in the lower Egypt area. the remaining part of the inscription is difficult to interpret (Kołodziejczyk 2012: 267, fig. 1). (fig. 2: 11)

Another artefact, which is of crucial importance, came from the western kom. It was found in the northern wall of a western chapel in an administrative - cultic centre. It is a damaged faience object with a 1.9 cm diameter and a length of 2.4 cm. The decorative area is limited by two circumferential lines grooved in a manner similar to the scene depicted between the lines, in a relative deep relief. The preserved seal surface depicts two treading gazelles or ibexes with long horns curved backwards. between them there is a diagonal X mark, probably symbolizing a rosette, and above there is a schematic representation of a falcon (Ciałowicz 2012: 175, fig. 25). (fig. 2: 13)

A Number of artefacts dated to a similar period were found at the central kom, where in layers 29 half a cylindrical stone seal (2.1 cm Long) was discovered. As in the above example, its preserved decoration- represents treading animal is

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depicted between two circumferential lines. In this case, an entire ostrich can be seen, while in front of it is depicted the back (leg and tail) of another animal—most probably a gazelle (Kołodziejczyk 2012: 268, fig. 2). (fig. 2: 12)

Seal dated to the Naqada IIIC period (Eastern kom) is a cylindrical clay artefact with a length of 4.5 cm and diameter ca. 2 cm. Although considerably damaged, its surface clearly shows remnants of some signs among which only longitudinal and transversal lines are now legible. On the contrary to other cylinder seals, this object is not drilled through, while its state of preservation and the raw material may suggest that it used to serve as a model seal or a poor copy of an original artifact of this type or also unfinished item (Kołodziejczyk 2012: 268, fig. 3). (fig. 2: 14)

Three cylinder seals were also found: the first one at Zawiyet el- Aryan, from Late Naqada IIIb?, made of Glazed Ceramic. Another one in tomb U 364 at Abadiyeh, from Naqada IIIB, made of Ivory. Another one in tomb B 91 at EL-Amrah, from Naqada IIIB, made of Steatite (Honoré 2007: 41).

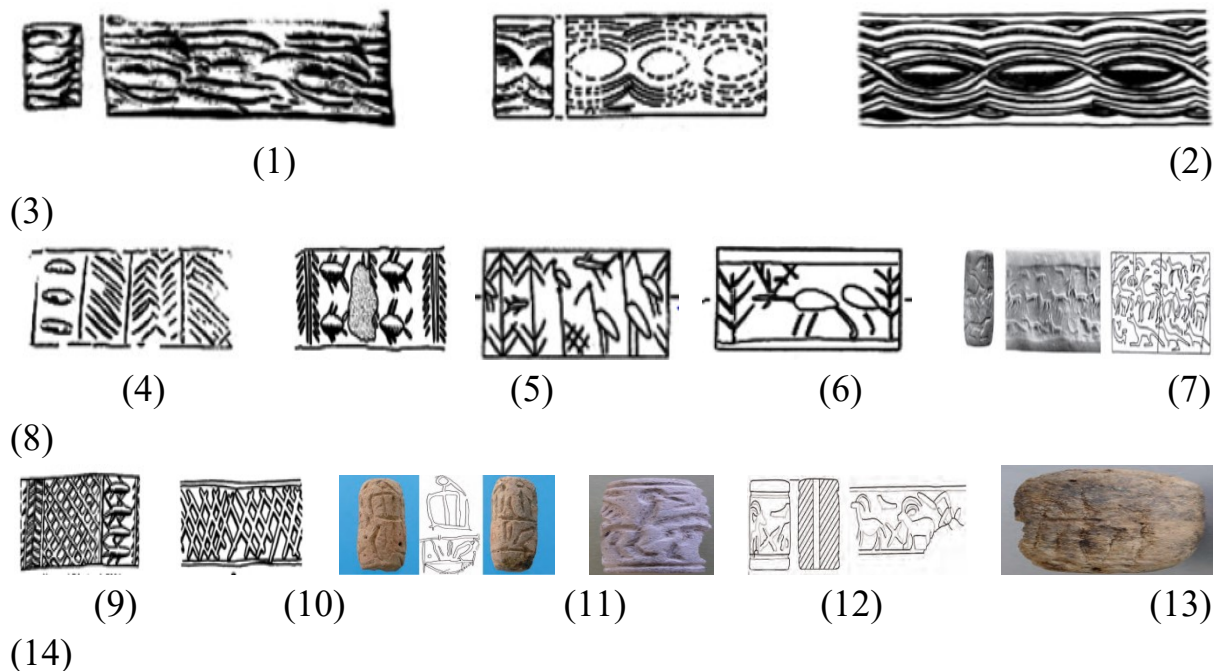


fig 2. The cylinder seals in Egypt and Mesopotamia: (1) a limestone cylinder seals in Naqada, tomb N 1863; (2) a limestone cylinder seals in Naqada, tomb T 29; (3) cylinder seal at susa in Mesopotamia; (4) a limestone cylinder seals in Matmar, tomb 3039; (5) Cylinder seal at susa in Mesopotamia (6) A limestone cylinder seal in Ballas, tomb B 307; (7) Cylinder seal at Tepe sialk IV in

Mesopotamia (after Honoré 2007: 35, fig. 2); (8) ivory Abusir el- Melek, tomb 1035 (after Watrin 2007: 81, fig. 4: B); (9) a limestone cylinder seal at Naqa ed-Dêr, tomb 7304; (10) Cylinder seal at Susa in Mesopotamia (after Honoré 2007: 35, fig. 2); (11) A clay cylinder seal in Central Kom (after Kołodziejczyk 2012: 267, fig. 1); (12) A Marlstone half of a cylindrical seal in Central Kom (after Kołodziejczyk 2012: 268, fig. 2); (13) Cylindrical faience seal in Western Kom (after Ciałowicz 2012: 175-76, fig. 25); (14) A clay cylinder seal in Eastern Kom (after Kołodziejczyk 2012: 268, fig. 3).

### Various tokens

The group of artefacts is comprised by various tokens from Tell el-Farkha mostly clay ball (ca. 216 in total), cones (ca. 189 in total) as well as circles or circles with a central hole (ca. 315 in total: of 126 with a central hole and 189 circles). It seems more probable to link them with commercial activities and the development of proto- hieroglyphic elements of an abstract mathematic system (Kołodziejczyk 2012: 272, 274). (fig. 3: 1-3)

A small group of 18 small clay objects from Tell el-Farkha, probably also serving as complex tokens. One of them is in the shape of plates or plaques with punctures or incised lines. their function was probably closely related to economics- they may constitute an intermediate category between the objects used for counting or valuing, and fully developed hieroglyphic writing. They have been found in all sections of the site. Among the objects discovered at the Eastern Kom, there are two oval clay artefacts, intentionally shaped and baked, with longitudinal and transversal lines grooved on one side before baking. one of artefacts found on the Western Kom, in turn, was probably made of ceramic formed into an oval shape with recessed sections visible on the side (Kołodziejczyk 2012: 274-75). (fig. 3: 4-5)



(5)

fig 3. various tokens: (1) clay ball; (2) circles or circles with a central hole (after Kołodziejczyk 2012: 273, fig. 12-13); (3) cones (after Kołodziejczyk 2012: 274, fig. 14); (4-5) complex tokens (after Kołodziejczyk 2012: 275, fig. 16).

### Potmarks

The potmarks have always been one of the most interesting matter of study for all who are involved in Egyptian pottery studies. They are present on the pottery coming from almost every single predynastic and early dynastic site in Egypt. However, They usually appear on pottery dated to dynasties 0 and 1st Dynasty. The most frequent reasons for studying potmarks are: Their still uncertain function, unknown rules governing their application and their possible connection to Egyptian writing system (Mączyńska 2012: 138-39).

The interest in potmarks among scientists working on the egyptian pottery gave rise to the international potmark workshop, a scientific platform gathering all researchers interested in this subject and used by them to study potmarks and to exchange information on the topic (Van den Brink 2011: 1005-13). Additionally, it is well known that their application was limited to *hard smoothed ware, red polished bowls, rough ware bag- shaped jars* and on early dynastic or old kingdom bread moulds (Mączyńska 2012: 138-39, 143-44).

Potmarks were noticed separately from surface treatment potmarks occur in four basic forms: 1) Signs scratched onto the surface of a vessel at some point after firing, 2) Symbols impressed or incised when the vessel was still wet, 3) Signs painted on the surface, 4) Dry incised lines. The post-Firing potmarks have been considered as "owner" marks, while the wet incised potmarks have been called "potters" marks. Marks include geometric elements such as short or long and strokes either vertical or horizontal, perpendicular, rectangular, divergent, and convergent, curvilinear, and cupule strokes, crosses, circles, hooks, chevrons and S-lines. floral and figurative motives (either humans or animals) and particular signs were also represented. Although the complete shape of most potmarks was, unfortunately rarely Preserved (Bréand 2009: 53-7, 64, Tab.1; Friedman 1994: 200; Payne 1993: 32; Rizkana and Seeher 1987: 51; Brunton and Caton-Thompson 1928: 55; Randall-Maclver and Mace 1902: pl. 17: 21; Petrie 1901: pl. 20: 19-20, 34; Petrie and Quibell 1896: PL. 51: 1-36, 55-9, 70-1, 77-98, 53-5).

It remains therefore unclear whether the marks are to be considered symbols to identify the individual potters, part of a counting system for pre-fired pottery, instructions for stacking in the kilns, or indication of something requested before the vessels were distributed (Hendrickx 2008: 74). The resemblance between a number of these potmarks and hieroglyphic ideograms has long been noted. While they cannot be considered as the beginning of the hieroglyphic script, It is probable that many of them were incorporated into this system in its

early stages (Payne 1993: 32).

Then, These Lines contained incised serekh signs may consist of lines: straight, parallel, perpendicular and/ or crossing one another sometimes forming a square or a rectilinear; by which the leaders expressed themselves in three evolutionary stages (Mączyńska 2012: 138, 143-44; Jucha 2012: 82; 2008: 133-49, figs. 1-2, Tab. 3-4; Van den Brink 1996: 140-58; 1992: 53; Rizkana and seeher 1987 I: 40-51): 1) serekh (Dreyer 1999: 6, Abb. 4: a-b, (U-t, U-s); 1996: Tab. 1: nr. 11-12 (t.1210.21, t.520.3); Kaiser and Dreyer 1982: 263: fig. 14-15: nr. 9-10, 289: fig. 16: nr. 1, 2; Clédat 1913: 115-21), from which el-beda jar; name reading beside the plain serekh: (Bark?)- Neith (?), (fig 4: 1) 2) falcon or double falcon or *hd* signs (Van Den Brink 2001: 24, (Group 2a-5); Numane 1987: 94; William and Logan 1987: 245, fig. 1; Williams 1986: 142, 168, fig. 55, 58a, PL. 33 (t. L11), 34, 84, 78a (t. L2); Kaiser and Dreyer 1982: 263: fig. 14-15: nr. 4-5, 34, 228: fig. 6; Fischer 1958: 82, fig.19; Clédat 1913: 119, fig. 3-4, 6, PL. 13), (fig 4: 2-3) 3) Royal names of Abydene rulers also appeared: H3t (y) Hr / HAT(Y)-HOR (Van den Brink 1996: Tab. 1, nr. 9, pl. 26a (Tarkhan t 1702)), (fig 4: 4) Ny- (Hr) / NY-(HOR) (Van Den Brink 1996: Tab. 1, nr. 21; 2001: 38; Kaiser and Dreyer 1982: fig. 14-15: nr. 7-8, Turah (T 16g6/T64, 19g1/ T89)), (fig 4: 5-6) Iry- Hr / IRY-HOR (Kaiser and Dreyer 1982: 234, fig. 14-15: nr. 13-15, 16, 19, 21-2, 10d; Kaplony 1963 III: fig. 1), (fig 4: 7) Hddw Hr / HEDJW-HOR (?) (Van den Brink 1996: Tab. 1: nr. 18-19 (Turah t. 15g2/T54, t. 1717a/313); Fischer 1963: fig. 1), (fig 4: 8) P-Elephant (?) (Wilkinson 1995: fig. 1a-b), (fig 4: 9) P- Hr / PE-HOR (?) (Williams 1986: pl. 77), (fig 4: 10) HORUS CROCODILE (Kaplony 1963 III: pl. 1: t.1549, fig. 18: t.414), (fig 4: 11) HORUS KA (?) (Grimal 1999: 451, fig. 1; Kaiser and Dreyer 1982: fig. 14-15: nr. 23 (Helwan t.1627H2), 24: (Helwan t. 165H2), 26-29, 31-33 (T. B7/9); Petrie 1902: pl. 2: nr. 15); (fig 4: 12) Hwt Hr/ HWT HOR (?) (Castel *et al.* 1998: 57, 87: fig. 12); (fig 4: 13) Ny Nt / NY-NEITH (Köhler and Van den Brink 2002: fig. 2: 2); (fig 4: 14) SCORPION II (Adams 1974: pl. 1; Quibell and Petrie 1900 I: pl. 26a, c); (fig 4: 15) HORUS NARMER (Dreyer 1987: fig. 3, (t. Den); Kaiser and Dreyer 1982: fig. 14-15: nr. 35 (t. 414), 37 (t. Z 401), 39 (t. 1100), 40, 43; Kaplony 1963 III: fig. 25 (t. 414), 5; 1964: fig. 1061; Quibell and Petrie 1900 I: pl. 29). (fig 4: 16)



# Craft Specialization in Administration in Pre- and Protodynastic Egypt

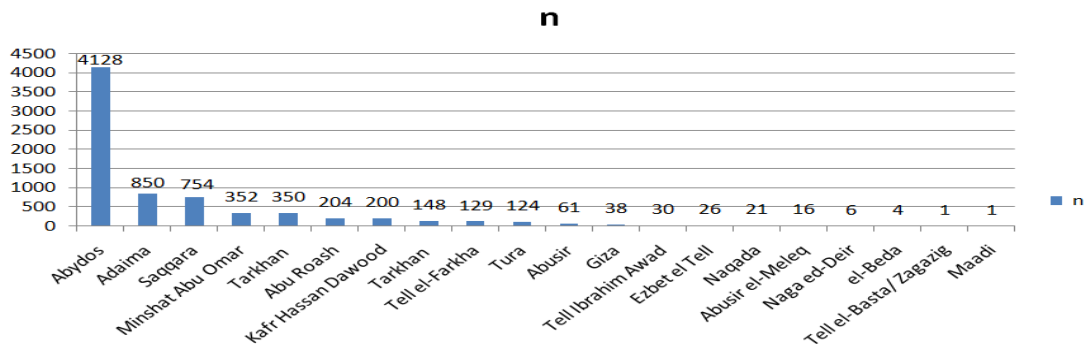


Fig.1: Chart show the number of potmarks in majority of settlement and cemetery sites in pre- and protodynastic period.

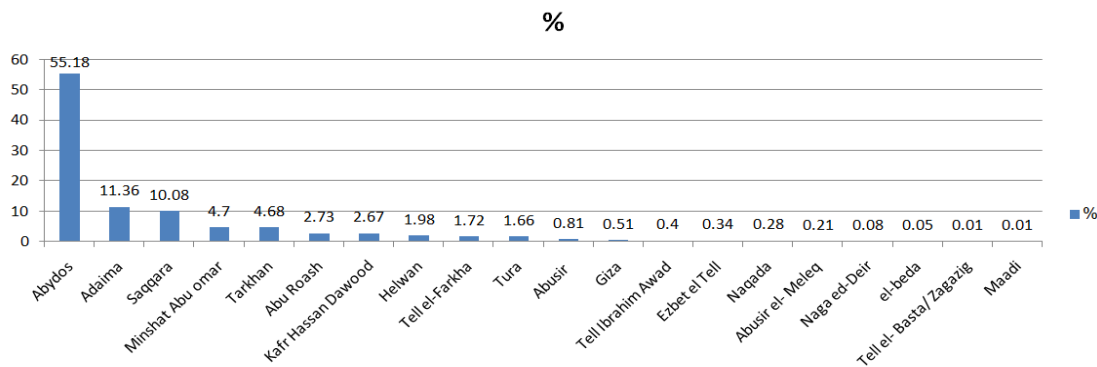


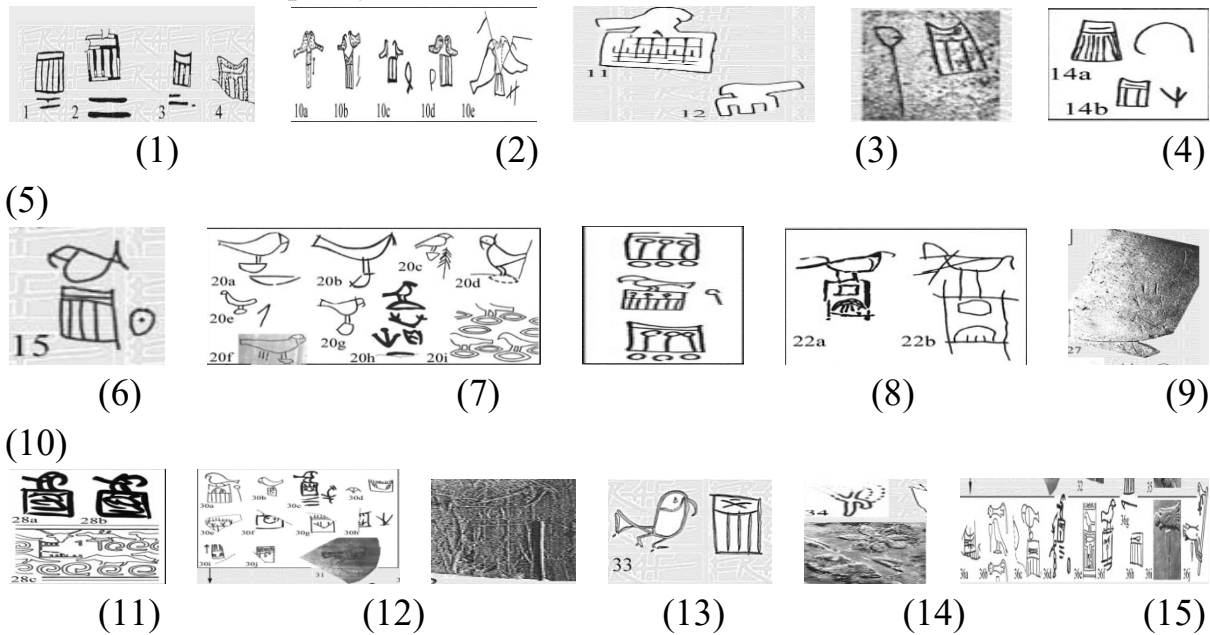
Fig.2:

Chart show the proportion of potmarks in majority of settlement and cemetery sites in pre- and protodynastic period. (after Van den Brink 2011: 1005-13; 1992: 273).

As the chart results show that the vast majority of potmarks have been found in Abydene cemetery in Upper Egypt (55.18%), one of the most important of these signs: *serekh* is providing valuable insights into the early development of writing in Egypt, also the appearance of *serekh* with thinite royal names as such in most of both Upper and Lower Egyptian Sites (including the oases and deserts). Seem to be instrumental in bringing all provincial heads under thinite control imply some sort of direct interaction between the elites and the thinite administration as such probably controlled the exchange networks as prestige goods. it might be that these vessels represent gifts from these thinite king - made in regional administration workshops under royal authorization- to local chieftains or rulers to align or consolidate their allegiance to the newly established thinite rule in their area. As such, the contents of these vessels from the thinite kings may have been used in local ceremonies thereby enhancing the prestige of the local rulers, and also correspond with a period where the thinite nome had an intensive contact of with the southern levant (Tassie *et al.* 2008: 205-10). This could possibly indicate that owners of such large early tombs were high-status persons (Wilkinson 1996: 72) and members of the elite who

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benefited from the distribution of centrally produced commodities within this ruler's polity (Köhler 2010: 45).



(16) fig 4. Potmarks.(1-16: after <http://xoomer.virgilio.it/francescoraf/hesyra/Dyn0serekhs-fig.htm>).

## Ivory Labels

The world's earliest known writing systems emerged at more or less the same time, a round 3300 BC, in Egypt and Mesopotamia (Wengrow 2011: 102). It has been suggested that the inscription on labels had a primarily administrative (as opposed to ceremonial or ritual) function, recording the provenance of goods and their date of manufacture. Generally, the practical motivating reasons for developing a sophisticated Writing system was for measuring, counting, calculating and taxing purposes (Postgate *et al.* 1995: 459-80). However, that does not detract, in any way, from the very beginning of writing in Egypt: the extremely evocative rock-art, the scene on Gebelein cloth and in tomb 100, or the decoration on the pottery of Naqada I and II. Also, recording of the country's resources in temples, palaces and funerary offerings, as well as to immortalise specific cultic events pertaining to the king (Hendrickx 2011: 75-81).

At Abydos the use of writing in Labeling high-status goods can now be traced back to the very earliest stages of script development, as a result of the

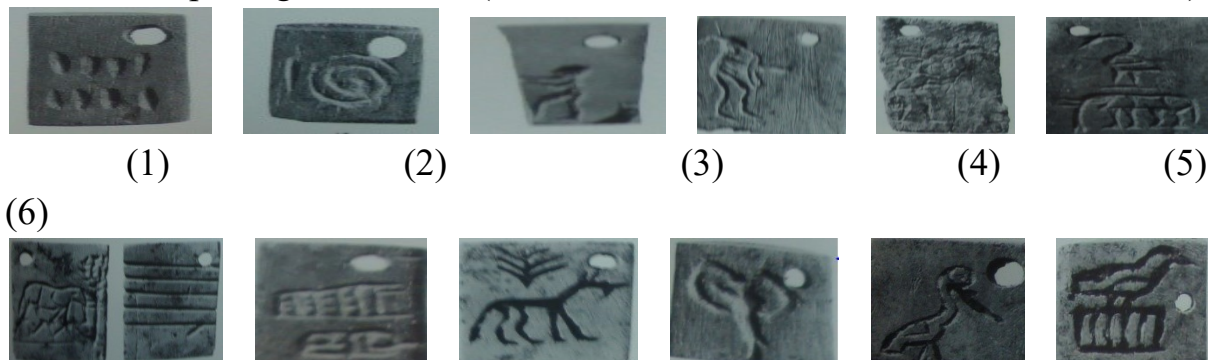
## Craft Specialization in Administration in Pre- and Protodynastic Egypt

remarkable finds from tomb U-J, which includes the earliest known evidence for writing in Egypt, dating to around 3300 BC (Dreyer 1998: 113).

One of the most important category of the finds in the tomb U-J in the royal cemetery of Umm el-Qaab (the burial of predynastic kings of Egypt), were those of over 200 labels of different sizes. All of these have one round perforation for tagging onto an item of inventory, was used to identify the provenance of object or its quantity= 43 labels. These numerical signs are the earliest recognizable writing from Egypt. (fig. 5: 1-2) the labels that do not show a numbering system bear various figures (sometimes two or three on the one tag) of people (hunters with bow and arrow (fig. 5: 4), wrestlers (fig. 5: 3), man with throwing stick (fig. 5: 5)) as well as animals (fig. 5: 10) including (Possibly) canines (fig. 5: 9), serpents (fig. 5: 16), elephants (fig. 5: 6-7), and scorpions (fig. 5: 17). Different kinds of plants (fig. 5: 7, 9) are also depicted. Other objects such as birds (fig. 5: 5, 6, 12, 14-16), boats (fig. 5: 13), buildings (fig. 5: 8, 10, 12, 15), and mountains (fig. 5: 7, 16) are also represented, as well as some objects that are difficult to identify (Jones 2008: 119; Dreyer 1998: 113-36).

Generally, the labels were inscribed on only one side, although the few exceptions are those that are thought to have been reused. Each label (or tag) was bored with a hole in the upper right corner, so that it could be tied to the relevant grave offering. The labels themselves recorded the deliveries of commodities, *i. e.* oil and linen, and served to identify either the site name, from which they come perhaps a town or city, a shrine, an estate, or an institution (O'Connor 2011: 148-50, fig.16.6; Wengrow 2011: 99-103; Dreyer 1998: 113-36).

The early use of hieroglyphic writing was possibly due to political and economic motivations, probably beginning during Dynasty 0 (Naqada III). However, The very earliest "writing" may have developed from an expression of ideology, religious or ceremonial Iconography, or a more straightforward means of depicting a narrative (Baruch 2016: 214-19; Hendrickx 2011: 75-81).



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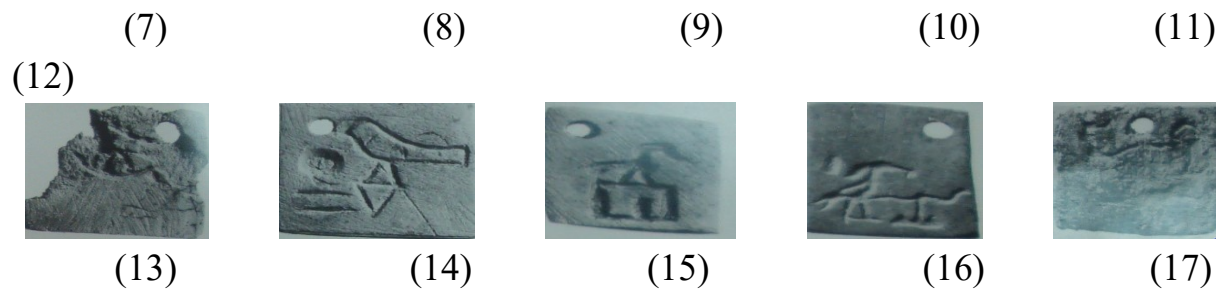


fig 5. Ivory labels: (1-2) numerical signs (after Dreyer 1998: taf. 28: 24, 42); (3) Wrestler (after Dreyer 1998: taf. 29: 44); (4) Man with bow (after Dreyer 1998: taf. 29: 45); (5) Man with throwing stick and a falcon (after Dreyer 1998: taf. 29: 51); (6) Elephant and Bird (thought to be a crane) (after Dreyer 1998: 29: 52); (7) Tree, elephant and hills (after Dreyer 1998: Taf. 29: 59); (8) *pr wr* shrine (after Dreyer 1998: taf. 30: 63); (9) Canid with a Plant (after Dreyer 1998: taf. 30: 75); (10) animal heads (after Dreyer 1998: taf. 31: 83); (11) stork (after Dreyer 1998: taf. 31: 99); (12) falcon on a shrine or palace façade (after Dreyer 1998: taf. 32: 108); (13) a barque (after Dreyer 1998: taf. 32: 110); (14) falcon on standard (after Dreyer 1998: taf. 32: 120); (15) heron on palace façade or shrine (after Dreyer 1998: taf. 33: 129); (16) Ibis, hills and serpent (after Dreyer 1998: taf. 33: 135); (17) falcon and scorpion (after Dreyer 1998: taf. 33: 141).

### conclusion

The invention of writing played a major role in the study of Egypt's development from prehistory to early civilization. In addition, the introduction of a writing system during the Naqada III period may indicate the existence of specialists for administration. It is often assumed that writing facilitated the emergence of the bureaucracy necessary. The primary evidence for writing in the early stages of Pharaonic history was seal inscriptions. Excavations over the past thirty years have increased the evidence available for administrative activities in settlements. What is striking, however, is that these 'inscriptions' do not provide names and titles of officials or refer to specific institutions, which one might expect an administrative context. Instead, they demonstrate that sealing and writing are two different things. Certainly, rolling a seal over a piece of mud does not require any writing skills. Further, it should also be noted that in later periods of Egyptian history, the use of writing on seals is actually an exception rather than the rule.

The earliest evidence for such bureaucratic processes relates to the recording and controlling of access to goods to accumulate revenue for economic and political leverage, evident in the form of cylinder seals and clay sealings of

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Naqada IIB-C period. However, this period administration still operated without a writing system as the seals carried largely pictographic and geometric signs that hardly bear any relation to the later hieroglyphic writing system, such evidence only come from the early stages of Naqada III or the protodynastic period. This evidence suggests that certain commodities were produced, packed, and stored under the control of a person or an institution whose interest to this commodity.

The Administration Items concentrated in the most known regional commercial centers in Upper Egypt: Abydos, Naqada (south town), Nekhen, Mahâsna, adaima and Lower Egypt: Tell el Farkha, Tell el Iswid.

The development of craft specialization societies was strongly associated with their social organisation, which is one of the key factors to be considered in the formation of the state. Stable economy permitted the accumulation of surpluses not only for times of Hunger. The accumulated goods Could be further transformed into other forms of wealth - pottery, stone or flint objects etc. The growing disparity in wealth between member of The same communtiy resulted in The emerging of new elites in Naqada II period.

The earliest evidence for phonetic hieroglyphic writing currently come from cemetery U at abydos, where the relatively recent discovery of tomb U-J, dating Naqada IIIA, contributed most significant results. The evidence primarily comes in the form of commodity labels, which were originally attached to goods, such as oil jars and textiles, and which denote their quantity or their provenance. this would indicate that owner of this tomb received commodities from different parts of Egypt, where they were manufactured and either recorded by an authority at the point of production or when they arrived at the tomb owner's storage.

There were also ink inscriptions on ceramic vessels which show a variety of specific signs in combination with a plant sign, which the excavator has identified as the estate names of early rulers. From then on, hieroglyphic writing developed quickly as a means of administrative control, while the realm of writing remained largely in the context of state administration and religion, private individuals also occasionally employed it for the purpose of administrations of their own estates, for funerary inscriptions, or simply to denote ownership of certain goods.

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