

LAND-MANAGEMENT AND FOOD-PRODUCTION IN EARLY EGYPT
(DYNASTIES 0-2)

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1. INTRODUCTION

The present analysis concerns the economical administration within the Egyptian State during the dynasties 0-2nd, i.e. the so-called “Thinite period”.¹ Written sources will be mainly used to create a model of lands and goods management as complete as possible. Most of these inscriptions come from a funerary context (tombs and dumps in royal and private cemeteries), as they were used by the central administration to manage and control the redistribution system (in this case, connected with the funerary cults supply). The objects bearing these texts include cylinder-seals impressions; ivory, ebony and bone labels; clay jars with black ink-inscriptions; stone vessels. They were found in the main cemeteries of the Thinite period, where archaeologists worked between the late XIX and the middle of the XX centuries. They include the B cemetery (dynasty 0) and the Royal Cemetery (1st and late 2nd dynasties) in Abido/Umm el-Qaab;² the cemetery of the officials in North Saqqara;³ Netjerikhet’s Step Pyramid in Saqqara.⁴ Moreover, the new excavations of the German Institute in Abydos cemeteries B and U (since 1977)⁵ led up to the publication of the earliest Egyptian writings, most of them coming from U-j tomb.⁶ Further seal-impressions come from the supposed royal tombs of the early 2nd dynasty in Saqqara and from the cemeteries of officials in Naqada, Tarkhan, Abu Rawash, Zawyet el-Aryan, Helwan and Bet-Khallaf.⁷ Moreover, we can mention few other groups of written items: stone palettes and mace-heads; clay jars with inscriptions from Palestine; rock-drawings; later annalistic stones (such as the Palermo Stone or the Cairo and London fragments). Between the previous researches related to the early Egyptian State, we can mention the studies by Edwards,⁸ Helck,⁹ Wilkinson¹⁰ and Moreno Garcia.¹¹ From a linguistic and philological point of view, the most remarkable work has been made by Kaplony,¹² followed by the most recent works by Kahl¹³ and Morenz.¹⁴ In relation to a socio-linguistic

¹ Here the term “Thinite” is used to indicate the period spanning from Naqada IIIa2 (about 3300 BC) to the reign of Netjerikhet (about 2700 BC) (see Lanna 2008).

² Petrie 1900; 1901; Petrie - Weigall 1902.

³ Emery 1939; 1954; 1958.

⁴ Firt - Quibell - Lauer 1935; Lacau - Lauer 1959; 1961; 1965.

⁵ See the excavation reports on: *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 1979; 1982; 1990; 1993; 1996; 1998; 2000; 2003; 2006.

⁶ Dreyer 1998.

⁷ See Kaplony 1963, 66-170.

⁸ Edwards 1971.

⁹ Helck 1987.

¹⁰ Wilkinson 1999.

¹¹ Moreno Garcia 1999.

¹² Kaplony 1963.

¹³ Kahl 1994; 1995; 2001; 2002-2004; 2003.

¹⁴ Morenz 2004.

perspective we can mention two recent publications by Baines.¹⁵ Finally, for a further analysis of Thinite written sources see the recent volume by the author.¹⁶

2. LAND AND RESOURCES MANAGEMENT

During the IV millennium BC Egypt knew a long aggregation process of settlements. This can only be discerned from the archaeological data, as written sources are available just for the last part of the unification process (from Naqada IIIa2). There was a great difference between the Nile Delta and the valley: the former was a region with a complex hydrology, divided into swamp areas, seasonally flooded areas (used for farming) and areas being over the flood level year-round (appropriate for human settlements). The northern culture presented similar regional pottery traditions and a slightly stratified society, as we can deduce by the simple and homogenous oval burial pits.

Along the valley, on the other hand, we could find several villages of farmers, organized according to tribe and family based groups. During the Predynastic period, they joined together in small clusters called “chiefdoms”, i.e. political aggregations with a double-layer organization: a capital city surrounded by small homogeneous villages; a ruling elite supported by food producers. During the second part of the IV millennium BC Naqada, This and Hierakonpolis became the capitals of the three main chiefdoms, competing for the leadership of the country. The city of This probably moved against the Delta, achieving at first a cultural hegemony (Upper-Egyptian pottery appeared in Naqada IIc-d Delta layers) and then an economic and political rule (from Naqada IIIa).¹⁷

Archaeological data, some stone palette representations and various rock drawings provide us with some indications about the dynamics of this process, which could be have been caused by three different, jointly working causes: 1) climatic-environmental deterioration in north-eastern Africa (reducing the available land for farming and settling and increasing the demographic pressure);¹⁸ 2) a rising demand of exotic and luxury goods (being necessary for power ostentation by the new-born elite);¹⁹ 3) territorial pre-emption, due to permanent occupation of land.²⁰

During the last centuries of the IV millennium BC the political organization of occupied land was no longer based upon a double-layer pattern, which typically characterized chiefdoms: a triple-layer pattern was developed and this brought to the transformation of a chiefdom into a State organization. There was a capital with a Royal Palace, workshops, storage buildings and administrative archives; there were several intermediate installations outside the capital, with specialized crafts, fortresses for land and routes controlling and State farming installations; finally, there were theoretically independent and self-sufficient farming villages. These latter were practically subdued to the central administration, providing workers and goods surplus to maintain a specialists class (with no tangible

¹⁵ Baines 2004; 2007.

¹⁶ Lanna 2008.

¹⁷ Wilkinson 2000.

¹⁸ Hoffmann - Hamroutch - Allen 1986; Hassan 1988; Adams - Cialowicz 1997; Bard 1987; Midant Reyes 1992.

¹⁹ Wilkinson 2000; Hassan 1988; Adams - Cialowicz 1997; Bard 1987.

²⁰ Kemp 1989.

benefit). Written and archaeological sources documented just the first and second levels (capital and State installations), although rural villages existed, being the core of Egyptian economy (they were, however, located within the flood-plan and, therefore, later disappeared).

2.1. Capital and Main Urban Centres

Few urban centres are mentioned on the labels coming from U-j tombs in Abydos. The city of *3bw* (Elephantine) is connected with a bird²¹ (interpreted as the representation of an economical installations)²² or with a plant²³ (interpreted as “centrally administrated land”).²⁴ The reading *B3st* (the city of Bubastis)²⁵ is probably given by the hieroglyphs *b3* and *st*. The reading *Hm* (the city of Letopolis)²⁶ is probably given by a stork with the Min standard. The city of *Nhn* (Hierakonpolis) is represented both on U-j labels²⁷ and on stone vessels from Saqqara (where we find the official *Hsf-k3* connected to the *hwt Smr* of *Nhn*).²⁸ Finally, on few U-j labels three other cities are unclearly attested: *3h*,²⁹ *Htp(?)*³⁰ and *Km3*.³¹ The name of this latter was indicated by two men fighting around a ring (as we can also see on the Cities Palette) and it could name a city of Delta.³²

The city of Memphis (*Inb-hd*, the “White Wall”), where the Royal Palace and the central administration departments were located, is attested on few seals (for example, connected to the scribe *N-nkh-shm*, bearing the title *s3 Inb-hd*³³ under Netjerikhet’s reign). The temple *Dbbwt* of Buto is attested on U-j labels,³⁴ while *Šri-š*,³⁵ *fnwt*³⁶ and *Nbt* (Ombos)³⁷ are attested on seal-impressions from the reign of Peribsen. Furthermore we can suppose that the city of Sais had been established as we have found the temple of Neith being mentioned on a label³⁸ from the reign of Aha.

²¹ Dreyer 1998, figs. 76:52-58; 82:X184.

²² Lanna 2008.

²³ Dreyer 1998, fig. 76:59a-b-60.

²⁴ Lanna 2008.

²⁵ Dreyer 1998, figs. 78:103-104.

²⁶ Dreyer 1998, fig. 78:106.

²⁷ Dreyer 1998, fig. 81:152-154.

²⁸ Lacau - Lauer 1965, 64, fig. 105.

²⁹ Dreyer 1998, figs. 80:130-131; 82:X189.

³⁰ Dreyer 1998, fig. 81:157.

³¹ Dreyer 1998, figs. 76:44; 82:X183.

³² Dreyer 1998, 140; Kahl 2003, 122; Morenz 2004, 95.

³³ Kaplony 1963, fig. 327.

³⁴ Dreyer 1998, figs. 80:127-129; 82:X188.

³⁵ Kaplony 1963, fig. 284.

³⁶ Kaplony 1963, fig. 285.

³⁷ Kaplony 1963, fig. 750.

³⁸ Petrie 1901, pls. X:2; XI:2.

2.2. State Installations: the Estates

Thinite texts set the transition from chiefdoms to State in a period spanning from late dynasty 0 to early 1st dynasty (3100-3000 BC), when delimited lands managed by the central administration (here called “estates”) appeared. The estates were farming and food-collecting centres, used by the Egyptian State as “agents of economic exploitation”³⁹ in each region, including both older fields and recently improved lands. They were mainly located in the Delta, where the farming lands were more dispersed and communication was more difficult (for this reason the estates were probably located in strategic position, along the main branches of the Nile). Today it is obviously impossible to individuate the right location of these estates, due to the hydro geological and geographical changes occurred during the last 5000 years.

Several new estates were probably established during Dynasty 0, when the jar inscriptions mentioned very generally *sp3wt Šmꜥw* (“Upper-Egyptian centrally administrated lands”) or *sp3wt [T3]-mhw* (“Lower-Egyptian centrally administrated lands”), already distinguishing northern and southern collecting departments. These lands were not so as yet delimited as to have a specific name yet (so we cannot call them “estate”) but they were probably managed and controlled by the central administration by means of the officials who wrote the inscriptions on the jars.⁴⁰

From the reign of Djer (to the end of the Old Kingdom) the name of each estate is attested on vessels and seal-impressions. The representations of these estates show two different handwritings: in the first one, the name is set in an oval frame representing a wall with buttress (“*niwt* estate”); in the second one, the name of the estate is set inside a rectangular frame with a small square on the lower left corner (“*hwt* estate”). This graphic differentiation corresponds to topographical, functional and administrative differences as explicated by the texts:

niwt estates: all the 1st and 2nd dynasty kings established a new *niwt* estate (probably in the Delta). Functionally, they were created as “production centres” for the royal funerary cult, as demonstrated by two observations: 1) the name of the estates always contained the Horus name (the king being his incarnation) and some allusions to the “starry sky” (where the king’s soul was supposed to go after the death); 2) secondly, from the reign of Djer (with *ꜥm-k3*) the official connected with the estates management bears the *shn-3h*⁴¹ title. Although ideologically these estates were established for the royal funerary cult, in practice, their goods have been found both in royal and private tombs (as a result of the redistribution system). Topographically, the oval enclosure with buttress can be connected to the same kind of frames on the “Cities Palette”,⁴² where they are interpreted as a “city-walls” representation containing the name of the urban settlement. As the determinative for “city” (*niwt*) was used in the Old Kingdom to specify the *niwt* estate, we can suppose a connection between *niwt* determinative and oval enclosure. Perhaps the need to surround royal lands with walls can be due to the dangerous situation in western Delta, where nomadic people from Libya were a real problem. There were two officials managing the

³⁹ Wilkinson 1999, 117.

⁴⁰ For an interpretation of the three horizontal lines as “centrally administrated lands” see: Lanna 2008, 39-40.

⁴¹ Helck 1987, 181.

⁴² For the different interpretations about this palette see: Dreyer 1998.

niwt estates: a) the ϵd -*mr* managed lands and canalization systems⁴³ and is attested on seal-impressions; few names are attested for this title: *S(w)d-k3*;⁴⁴ *S-tiw*;⁴⁵ ϵnh -*k3*;⁴⁶ *Hm3-k3*;⁴⁷ *H3-sw*;⁴⁸ *Mdd-k3*;⁴⁹ *S3b*;⁵⁰ in few further examples, where the ϵd -*mr* is only connected with the Horus-name of the king, the name of the official is missing; b) the *hrp* controlled the human workforce⁵¹ and is attested as the same on seal-impressions; few names are attested for this title: *S-tiw*;⁵² ϵnh -*k3*;⁵³ *Hm3-k3*;⁵⁴ *Mdd-k3*;⁵⁵ it is often connected with the ϵd -*mr* title (just in one case ϵnh -*k3* bears the *hrp* title alone),⁵⁶ while in few other attestations the name of the official is missing and the *hrp* title is connected with the Horus-name of the king.

Furthermore, there was a *wr š* (attested since Naqada IIIa2),⁵⁷ with an unclear task linked to *niwt* estates, and three titles that we will analyze later: *hry-nhnw* (or *nhnw*),⁵⁸ *hrp-hry-ib*⁵⁹ and *hry-wd3*.⁶⁰ Here is a list of *niwt* estate's names attested during the Thinite period: *Hr-shnty-dw* (Djer), which lasted until the reign of Den; *Hr-w3d* (Djet), which lasted until the reign of Den; *Hr-tpy-ht* (Den); *Hr-sb3-ht* (Adjib); *Hr-dsr-ht* (Semerkhet); *Hr-nbw-ht* (Qaa); *Hr-h3i-(m)-sb3* (Hetepsekhemwy); *Hr-sb3-pt* (Ninetjer); *Iti-wi3w* (Peribsen); *Hr-sb3-b3w* (Khasekhemwy); *Hr-sb3-hnti-pt* (Netjerikhet).

hwt estates:⁶¹ about twenty *hwt* estates have been established during the 1st and 2nd dynasty. Their exploitation lasted one or two generations, with just two exceptions: the *P-Hr-msn*⁶² estate is attested from Djer to Khasekhemwy, with a longevity possibly connected with its conversion into a peripheral royal residence (where the king could stay during his travels in the northern part of the country),⁶³ the *hwt S3-h3-Hr*⁶⁴ estate lasted from Adjib to

⁴³ See also: Pirenne 1932, 156; Helck 1987, 227; Wilkinson 1999, 122, 139.

⁴⁴ Kaplony 1963, fig. 189.

⁴⁵ Kaplony 1963, figs. 277, 320-321.

⁴⁶ Kaplony 1963, figs. 220A-B, 221A, 234, 276A-B, 298, 731.

⁴⁷ Kaplony 1963, figs. 215, 216, 233, 305A-B, 732.

⁴⁸ Kaplony 1963, fig. 273

⁴⁹ Kaplony 1963, figs. 219, 230, 231.

⁵⁰ Kaplony 1963, fig. 300A-B

⁵¹ Pirenne 1932, 156.

⁵² Kaplony 1963, fig. 277.

⁵³ Kaplony 1963, figs. 235, 276A-B.

⁵⁴ Kaplony 1963, figs. 216, 233, 305A-B.

⁵⁵ Kaplony 1963, fig. 231.

⁵⁶ Kaplony 1963, fig. 235.

⁵⁷ This title is attested on some labels from U-j tomb (Dreyer 1998, figs. 78:108-109, 124; 79:122-125; 82:X186) and on some others from Umm el-Qaab cemetery (Petrie 1901, pls. III:10; V:3). See also: Morenz 2004, 95.

⁵⁸ Kaplony 1963, fig. 189.

⁵⁹ Kaplony 1963, figs. 215, 219, 220A-B, 225A-B, 234, 276A-B, 277, 305A-B.

⁶⁰ Kaplony 1963, figs. 228, 306A-B.

⁶¹ For an analysis of the *hwt* in the III millennium BC see: Moreno Garcia 1999.

⁶² Petrie 1900, pls. 8:13-14; 9:1, 3; 30; Quibell 1923, pl. XI:2-3; Lacau - Lauer 1959, pls. 8:40; IV:3; Kaplony 1963, figs. 246, 250A-B, 735, 748, 767; Lacau - Lauer 1965, figs. 164-166.

⁶³ Helck (1954, 57) considered *P-Hr-msn* and *S3-h3-nb* as the name of two northern royal palaces.

⁶⁴ Petrie 1900, pl. 8:11; Petrie - Weigall 1902, pl. 5:1; Lacau - Lauer 1959, pls. III:6-7; 17:83; Lacau - Lauer 1965, pls. 6-7.

Qaa, with ambiguous attestations under the reign of Hetepsekhemwy and Ninetjer. Functionally, the goods from *hwt* estates had a less certain destination: on the one hand, they were collected by the *pr-nsw* for the king, his family and his Court; on the other hand, they were found within the tombs as funerary offerings (as in the *niwt* estates, it must be the result of the redistribution). Within these estates there were both production areas (for agriculture and pastures) and processing installations (for slaughtering, oil-pressing, etc.). Topographically the representation of the *hwt* enclosure is very explicit: it had to be a rectangular area surrounded by a wall or enclosure, with a mud-brick building in the lower left corner, where the estate-managers lived with their family. During the Thinite period several officials are attested for *hwt* estates: an *ꜥd-mr*⁶⁵ under the reign of Meretneith and Den; a *hnty-š*⁶⁶ under the reign of Den; a *hk3-hwt*,⁶⁷ attested from the reign of Ninetjer to the end of the Old Kingdom as *hwt* estate administrator. From late 1st or early 2nd dynasty several titles connected with this kind of estate are attested: the *hnty-ꜥ3*,⁶⁸ the *hrp*⁶⁹ and the *hrp-hry-ib*⁷⁰ under the reign of Qaa; the *iry-hr*⁷¹ under the reign of Nebra; the *imy-r*⁷² under the reign of Ninetjer. Nonetheless, we can suppose that the *hk3-hwt* had gotten the whole estate management (both lands and workforces). More difficult is the understanding of the *hk3-hwt-ꜥ3t* tasks in the Thinite period: it is attested on several vessels from Saqqara⁷³ together with a name of official and, during the Old Kingdom, it was the general overseer of all the estates in a certain *nomos*.

As the estates were established *ad hoc* to supply the royal funerary cult, the royal family and the Court, they did not pay “taxation”. The central administration probably withdrew the production as a whole, subtracting just the necessary rate of goods for the seeding of the following year and the maintenance of people and animals.⁷⁴ We can provide a confirmation of this pattern in the black ink jar inscriptions of the dynasty 0 and 1st dynasty, where few terms are usually repeated on different jars in a fixed pattern. Here we propose an alternative interpretations for these terms: the terms interpreted as “taxation notes” were indications of the vessels content.⁷⁵ Following this hypothesis, the term  (*df(3)*), usually translated as “supplying”,⁷⁶ could be considered as “goods from estates” in a general way;  (*ip/ipwt*), translated as “payments”,⁷⁷ could be considered as a defective

⁶⁵ Kaplony 1963, figs. 118, 182.

⁶⁶ Kaplony 1963, fig. 182.

⁶⁷ Lacau - Lauer 1965, pl. 16:3.

⁶⁸ Lacau - Lauer 1959, pl. 8:40.

⁶⁹ Petrie 1900, pl. 30.

⁷⁰ Kaplony 1963, fig. 737.

⁷¹ Kaplony 1963, fig. 295.

⁷² Lacau - Lauer 1965, pl. 27:1-3, pl. 22:5-6.

⁷³ Emery 1958, pl. 39; Lacau - Lauer 1965, pls. 9:6-9, 30; 23:5; 24:5; 27:4, 78; 34:4; 34:6; 31:7-9; Firth - Quibell - Lauer 1935, pl. 58:2.

⁷⁴ Liverani 1988, 120.

⁷⁵ For a complete analysis of these terms and a final interpretation of them as indications of vessels content see: Lanna 2008, 30-43.

⁷⁶ Kaplony 1963, 293; Kahl 1994, 545; Helck 1987, 177.

⁷⁷ Kaplony 1963, 294; Kahl 1994, 671.

writing of *irp* (“wine”);  (*dh(3)*), translated as “taxation”,⁷⁸ must be considered as “sieved wheat”;  (*inw*), translated as “tax”,⁷⁹ could be read *int* “Nile-fish *tilapia*” (as tax-*inw* is attested from Peribsen onwards with handwriting  and such a permutation  >  is quite improbable);  (*iwt*), translated as “income”, must be rather read as  (*ʿ3t*): as the chemical analysis of two jars inscribed with this term contained cheese,⁸⁰ we can suppose that  means “cheese made of female donkey milk”;  (*hm-n⁸¹/nhbr⁸²*), translated “tax” without real support, could be considered an indication of “liquid contents”, perhaps “beer” (although this latter interpretation is really uncertain). As we saw before, the three horizontal lines (≡) we always find below the king’s *serekh* and usually being considered as “an indication of oil-quality”⁸³ can be read “*sp3wt*”, indicating generally “administrated lands” under the reign of a certain king. Following these interpretations, the formula on the jars can be read: “Horo-*X*, good-*Y* from the centrally administrated lands of Upper/Lower Egypt”.

Apart from the *hwt* and *niwt* estates, there were three additional kinds of central managed lands: 1) the vineyards,⁸⁴ whose products were collected by the *pr-dsr* or the *is-df3 pr-dsr*; 2) the *pr-rsy* (or “southern domain”),⁸⁵ whose products were collected by the *pr-nsu*; 3) the peripheral regions (*h3swt*),⁸⁶ i.e. unmanned areas (swamp in the Delta; semi-deserted steppe in the Valley) surrounding the settled and cultivated lands, where hunting, fishing and plant-collecting products could be obtained. The presence of a *ʿd-mr* and a *hrp* of the peripheral regions (as well as the estates) suggests that State administration was strongly involved in the exploitation of these regions.

2.3. Rural Villages and Corvée Workers

In Thinite written sources there is no reference to rural villages: this lack of information can be considered normal, due to the funerary origin of the text, where rural communities were part of a civil administrative (not cultic) context. Moreover, as these villages were located in the flood-plain, their archaeological remains now lie under later villages, cities and fields. Furthermore, the change of the course of the Nile, as well as the different height of its flood during the last millennia caused most of the villages located on the riversides to be completely destroyed by the water and the mud.

We can suppose that in rural communities some heritage from the pre-State period remained in decisional matters (with the elder statesmen councils); in hand-crafting (such as in pottery and clothing production); in economic activities (with the permanence of common trading areas between the villages).

⁷⁸ Kahl 1994, 548; Helck 1987, 177, 186.

⁷⁹ Kaplony 1963, 294; Kahl 1994, 552; Helck 1987, 178.

⁸⁰ Zaky - Iskander 1942, 295-313.

⁸¹ Kaplony 1963, 394, 994, 999.

⁸² Kahl 1994, 102.

⁸³ Kaiser - Dreyer 1982, 233; Kahl 1994, 851. Afterward Kahl (1995, 172-173) reconsidered its interpretation.

⁸⁴ Kaplony 1963, figs. 213, 272, 309, 310, 311, 312, 316, 317, 318, 747, 748, 764, 765.

⁸⁵ Emery 1954, pl. 39; Lacau - Lauer 1965, pl. 22:9, figs. 161, 162, 164.

⁸⁶ Emery 1954, pl. 39; Kaplony 1963, figs. 336, 352; Lacau - Lauer 1965, fig. 152.

Instead Thinite texts inform us just about the relationship between rural villages and State estates. Following the pattern suggested by the “Mesopotamian model”,⁸⁷ rural villages probably provided estates with *corvée* workers, especially when there was a greater need of them (for instance, during the harvest). These workers were paid with daily rations just in order to support themselves, as their respective families remained in their villages working on their own fields. Following this pattern, we can suppose that the central administration could save about 2/3 of the total production from the estates.⁸⁸ Of course, the number of workers from the villages could not be so high as to destabilize their inner economy, and one working man in about ten, for 2-3 months per year, can be hypothesized.⁸⁹

In regard to the organization of this *corvée* workforce, Thinite texts give us little information about the “*phyles*” organization,⁹⁰ i.e. the division of the workers in groups temporarily serving in State activities, both cultic (such as rituals performed on the holy statues of gods) and practical (such as wine and meat processing within the estate). For the Thinite period just three *phyles* (of five in the Old Kingdom) are attested: *wr*, *w3dtiw* and *nds*. Phyle *wr* is attested (from Adjib to Ninetjer) on several stone vessels from the Step Pyramid;⁹¹ phyle *w3dtiw* is found in connections with the *nsw-bity* names of Senti (Den), Merepbia (Adjib), Iry-nebty (Semerkhet) and Qaa-nebty (Qaa) on a stone vessel from the Step Pyramid;⁹² phyle *nds* is attested on a stone vessel from the Step Pyramid.⁹³

The title *hnty* (“the one in charge of”) is the most frequently connected with the *phyles* (from Qaa to Ninetjer).⁹⁴ The attestations of these *phyles* concern priestly activities connected with the supplying of the goddess Bastet’s cultic statue⁹⁵ and of a two or three falcons standard⁹⁶ (perhaps connected with a cult in the 5th upper-Egyptian *nomos*); a *w3dtiw* phyle is connected with a Sed-festival of Qaa;⁹⁷ a *shn-ḥ* of the *phyles* named *Min-k3* (reign of Den) is connected with the *hnw*-Residence;⁹⁸ another one (reign of Netjerikhet) is connected with wine production in a vineyard called *Str*;⁹⁹ one last phyle is connected with the “slaughtering department” of Upper Egypt.¹⁰⁰ The length of phyle service was probably one month in ten, after that the worker went back to his village.

⁸⁷ For a complete overview of a State model for the late IV-early III millennium BC Mesopotamia see Liverani 1986; 1988; 1998.

⁸⁸ Liverani 1998, 47-48.

⁸⁹ Liverani 1998, 48.

⁹⁰ See Roth 1991.

⁹¹ Petrie 1900, pl. 9:1; Kaplony 1963, figs. 244, 736; Lacau - Lauer 1959, pls. IV:7, 10, 11; V:1, 13:63-66, 17:82.

⁹² Petrie 1900, pl. 8:6; Lacau - Lauer 1959, pls. 4:19, 20; 14:69; 15:71.

⁹³ Lacau - Lauer 1959, pl. 14:68.

⁹⁴ Petrie 1900, pl. 9:1; Lacau - Lauer 1959, pls. IV:7, 10, 11; V:1; 14:69; 17:82.

⁹⁵ Lacau - Lauer 1959, pls. 13:63-66, V:1.

⁹⁶ Lacau - Lauer 1959, pl. 14:68-69.

⁹⁷ Petrie 1900, pl. 8:6.

⁹⁸ Kaplony 1963, fig. 299.

⁹⁹ Kaplony 1963, fig. 272.

¹⁰⁰ Kaplony 1963, fig. 293.

Through a unique attestation from the reign of Den¹⁰¹ we know that *corvée* workers (the *rhyt* people) were also exploited for canal digging and, therefore, for all the essential works that improved the productivity of the land.

About the juridical *status* of the land in rural villages, it is quite likely that by the end of IV millennium BC each family was owner of its fields, with few common pastures. During the Thinite period land ownership moved toward a State monopoly, as the central administration itself reclaimed new lands and exploited them. For this period we do not have any information about private lands: we could think that officials and courtiers exploited funerary offerings from royal estates, as indications of these come also from the vessels found in the private tombs. This phenomenon is well attested in the Old Kingdom,¹⁰² when in their tombs the officials boasted of receiving goods for their funerary cult from the personal estates of the king. This “royal income” ideologically meant “proximity to the king”, but in practice it was the result of the redistribution system.

Another consideration concerns the autobiography of *Mtn*, where we find that a large quantity of private lands were given by the king to his official: if such an “informal privatization of the lands” (officially the king retained land ownership) was attested at the end of the 3rd dynasty, it had probably originated in the Thinite period.

3. THE REDISTRIBUTION SYSTEM

The economy of Egypt was based on the redistribution, where the State collected the surplus from estates and rural villages (farming, herding, fishing and weaving production) and redistributed it to the specialist workers and the different cultic services, in the form of rations, salaries and offerings (mainly consisting of bread and beer).

3.1. *Goods Typology*

If compared to the relieves from the private Old Kingdom tombs, we have few indications about the typology of goods coming from the estates and their processing in the Thinite period. As we saw, the inscriptions painted on jars, incised on labels or impressed on the clay-sealings dated to dynasties 0 and 1st provide us with a first list of goods typology. Moreover, some analysis of the contents of few jars from Naqada IIIa2 to 1st dynasty provide us with further data: the content of the jars from U-j tomb was a not better specified “vegetal fat”;¹⁰³ the content of a wavy-handled jar from a Naqada’s tomb excavated by Petrie was “vegetal butter” (probably processed from palm-oil or *š3*-wood oil);¹⁰⁴ the analysis of the contents of ten jars from the Djer’s tomb at Umm el-Qaab included animal fat, oil, beer and resins; finally, a further analysis concerning the offering in some 2nd and 3rd dynasty tombs indicated animal fats.¹⁰⁵

¹⁰¹ On Palermo Stone (recto - III.4): “Organizing the western and eastern canal digging [by means of] all the people [subject to *corvée* working]”.

¹⁰² Posener-Kriéger 1976.

¹⁰³ “*Pflanzenfett*” (Dreyer 1998).

¹⁰⁴ Petrie 1896, 39-40.

¹⁰⁵ Lucas - Harris 1962, 327-328.

All of these data indicate that a great variety of goods was produced in the estates: wheat, bread, beer, wine, oil, cattle and pork meat, animal fat, fish, milk, cheese (also made from donkey milk), vegetal butter, resin, clothing and linen-weaving.

3.2. *Taxation Estimate*

Such a system of redistribution needed an exact and periodic estimate of harvests (subordinated to the flood-level),¹⁰⁶ other kinds of taxable goods (mainly cattle) and *corvée* workers. On the one hand, it was a task of the peripheral administration; on the other hand, Thinite texts inform us that every two years the king and his court performed an official journey through the country: the “Following of Horus” (*šms Hr*). If this travel had an ideological explanation (the king displayed his power to the people, reinforcing subjugation), the practical purpose was clear: the king exercised his supreme juridical authority, judging the most important disputes, while his officials collected the tributes and estimated the oncoming harvests.¹⁰⁷

The “Following of Horus” is attested under the reign of Aha,¹⁰⁸ Djer,¹⁰⁹ Den,¹¹⁰ Semerkhet,¹¹¹ Qaa,¹¹² Ninetjer,¹¹³ Khasekhemwy¹¹⁴ and Netjerikhet.¹¹⁵ Since the eighth year of the reign of Ninetjer a new kind of census appeared beside it: *tmw*. It included a census of the cultivated field dimensions (*šhwt*),¹¹⁶ of the cattle (*bhs*),¹¹⁷ of the *corvée* workers (*rhwt*),¹¹⁸ of the quantity of gold (*nbw*).¹¹⁹

3.3. *The Redistribution Paths*

Goods collecting was achieved in two different ways: rural villages paid a part of the harvest to the central administration (probably one tenth);¹²⁰ the whole production of the State estates, on the contrary, was collected entirely, once the rate for seeding, workers and animals was subtracted from it.

Thinite texts distinguish four different “paths of redistributions”, each one connected with a particular place of origin:

¹⁰⁶ Menu 2001, 167.

¹⁰⁷ Wilkinson 1999, 220-221.

¹⁰⁸ P(alermo)S(tone).r.II.1.

¹⁰⁹ PS.r.II.4; PS.r.II.6; PS.R.II.8; PS.r.II.10; C(airo)F(ragment)1.r.II.1; CF1.r.II.3; CF1.r.II.5; CF1.r.II.7; CF1.r.II.9.

¹¹⁰ Petrie - Weigall 1902, pl. 11:5.

¹¹¹ Petrie 1900, pl. 17:26; Petrie - Weigall 1902, pl. 11:9; CF1.r.III.4; CF1.r.III.6; CF1.r.III.8; CF1.r.III.10.

¹¹² Petrie 1900, pl. 17:29; RTII.8.6.

¹¹³ PS.r.IV.1; PS.r.IV.3; PS.r.IV.5; PS.r.IV.7; PS.r.IV.9; PS.r.IV.11; PS.r.IV.13; PS.r.IV.15; Lacau - Lauer 1965, fig. 173.

¹¹⁴ L(ondon)F(ragment).r.I.1; LF.r.I.2; LF.r.I.3; PS.r.V.1; PS.r.V.3; PS.r.V.5.

¹¹⁵ PS.r.V.10; PS.r.V.12.

¹¹⁶ PS.r.V.3; PS.r.V.5.

¹¹⁷ Lacau - Lauer 1965, fig. 173.

¹¹⁸ LF.r.I.3.

¹¹⁹ PS.r.V.3; PS.r.V.5; LF.r.I.1.

¹²⁰ Liverani 1988, 120.

1) “*pr-nsw* path”: this department was located in the Royal Palace and collected the supplying goods for the king, the royal family (queens, princes and princesses), the members of the Court in charge of looking after the king and some Palace officials. In the Thinite period these goods came from the *hwt* estates,¹²¹ whereas peripheral areas¹²² and vineyards¹²³ are also attested only in the late 2nd dynasty. In connection with this department we found a “controller” (*hrp*),¹²⁴ a “friend” (*smr*)¹²⁵ and a “great” (*wr*)¹²⁶ of the *pr-nsw*. Within this path, the processing of goods is connected with: a) an “oil-press” (under the reign of Djet, Den and Qaa),¹²⁷ probably located within *hwt* estates; b) a “pigpen” (under the reign of Meretneith and Adjib),¹²⁸ entrusted with pigs raising and slaughtering; c) a “butchery” (*nmt*),¹²⁹ entrusted with cattle breeding and slaughtering. The storage of goods is connected with: a) a “department of the stores” (*pr-šn^cw*),¹³⁰ entrusted with wheat and game storing for the royal family and the Court and directed by an “overseer” (*iry-ht*); b) several “*is*-stores”,¹³¹ containing value goods (such as oils or metals) and located inside the Palace (*ḥ*) and the *hwt* estates. In the texts the goods coming from “*is*-stores” supplied the royal family and a *šm-t3*;¹³² this department had an “administrator” (*hrp*)¹³³ and a “director” (*imy-r*);¹³⁴ c) some “granaries” (*šnwt*),¹³⁵ located in the Great Court (*wšht*) and directed by an “administrator” (*hry*)¹³⁶ and a “treasurer” (*sd3wty-šnwt*)¹³⁷ (perhaps connected with the Treasure). We also found two examples of the whole *pr-nsw* redistribution path (both of them from the reign of Qaa): in the first one,¹³⁸ some meat was produced and processed by the butchery (*nmt*) in the *hwt* estate *S3-ḥ3-nb*, it was collected by the *pr-nsw* and delivered to the Palace *Ḥst-ntr*; in the second one,¹³⁹ an uncertain kind of goods from the *hwt* estate *S3-ḥ3-nb* was collected by the *pr-nsw* being delivered to the “chief of the *phyle*” *Rnpt-htp*.

2) “Office-*nb* path”: since the reign of Iry-Hor the *nb* department collected the whole production (minus the rate for fixed expenses) from the *niwt* estates, which were officially

¹²¹ Petrie 1900, pls. 8:12; 14, 9:3; Petrie - Weigall 1902, pl. 5:2; Lacau - Lauer 1959, pls. 9:46; IV:7-11; Kaplony 1963, fig. 229.

¹²² Firth - Quibell - Lauer 1935, pl. 89:3.

¹²³ Kaplony 1963, figs. 318, 764.

¹²⁴ Petrie 1900, pl. 31:8.

¹²⁵ Petrie 1900, pl. 30.

¹²⁶ Lacau - Lauer 1965, fig. 25.

¹²⁷ Petrie 1900, pls. 8:3; 15:16-15; Vikentiev 1959, fig. 1.

¹²⁸ Kaplony 1963, figs. 110, 246, 735.

¹²⁹ Lacau - Lauer 1959, pl. 9:46; Kaplony 1963, fig. 293.

¹³⁰ Kaplony 1963, fig. 367; Lacau - Lauer 1959, pl. 18:90; Lacau - Lauer 1965, pl. 16:4.

¹³¹ Kaplony 1963, fig. 258; Emery 1958, 39; Lacau - Lauer 1959, pl. V:7; Lacau - Lauer 1965, pls. 22:5-6; 27:5-6.

¹³² Lacau - Lauer 1965, pl. 27:5.

¹³³ Emery 1958, 39.

¹³⁴ Lacau - Lauer 1965, pls. 22:5-6; 27:5.

¹³⁵ Kaplony 1963, figs. 73, 130, 217, 366.

¹³⁶ Kaplony 1963, fig. 217.

¹³⁷ Kaplony 1963, fig. 366.

¹³⁸ Lacau - Lauer 1959, pls. IV:8-11; 9:46.

¹³⁹ Petrie 1900, pl. 9:1-2, 4-5.

assigned to the royal funerary cult. In practice, also the private funerary cults received these goods too, as a result of the redistribution system. A “controller” (*hrp*)¹⁴⁰ directed the *nb*-office, whose salary came from a particular store (the “*wḏ3*-store”), with an “overseer” (*hry-wḏ3*).¹⁴¹ During the reign of Ninetjer the *nb*-office disappeared and the *is-df3*¹⁴² replaced it. The processing of goods is connected with: a) a “butchery” (*nmt*) with an “offerings director” (*hrp htp*);¹⁴³ b) a “house of the bovine fat” (reign of Khasekhemwy);¹⁴⁴ c) a “department of every fat thing”.¹⁴⁵ The storage of goods is connected with: a) a *wḏ3*-store,¹⁴⁶ where the rations for the *hrpw* and *hrpw nb* were stored; b) a series of “vessels stores”,¹⁴⁷ located both in *niwt* and *hwt* estates and directed by an administrator (*iry-ht*).¹⁴⁸

3) “Upper-Egyptian Treasure path”: this department of the Treasure collected the taxation from upper-Egyptian rural villages. Most of this income was used in salaries and rations to support the specialized activities of the administration (*in primis* officials and craftsmen). This is the less known path, as most of Thinite texts come from a funerary context, where the Treasure had no importance. At an earlier stage, this department was named *Pw-wr* (from Narmer to Djer).¹⁴⁹ We know few officials belonging to it and we can suppose that this department worked only in the Nile valley (and not in the Delta). From the reign of Djet (or at the latest from Den), this southern Treasure was named *pr-hḏ*¹⁵⁰ and was characterized by several officials: an official “in charge of” (*hnty*)¹⁵¹ and a “master” (*hry-ḥ*)¹⁵² (both of them under the reign of Meretneith); a “great” (*wr*)¹⁵³ in the 2nd dynasty. Moreover, during the Thinite period two treasurers are attested: a “treasurer of every golden thing” (*sd3wty ht nbt nbwt*)¹⁵⁴ and an “upper-Egyptian treasurer of each document” (*sd3wty-Šmꜥw htp nb*).¹⁵⁵ The processing of goods is connected with: a) a “house of the natron” (*hwt bd*);¹⁵⁶ b) two weaving departments: a “house of the linen” (*hwt mh*)¹⁵⁷ and a “department of

¹⁴⁰ Kaplony 1963, figs. 88, 92, 95, 116, 200, 204, 221A-B, 223, 227, 257A-B, 263, 264, 265, 275, 277, 282, 298, 320, 321, 746.

¹⁴¹ Kaplony 1963, figs. 276A-B, 277.

¹⁴² Kaplony 1963, fig. 862; Lacau - Lauer 1965, figs. 142, 143.

¹⁴³ Petrie 1900, pl. 31:24.

¹⁴⁴ Kaplony 1963, fig. 314.

¹⁴⁵ Kaplony 1963, fig. 214.

¹⁴⁶ Kaplony 1963, figs. 279, 286, 303, 304, 306A-B.

¹⁴⁷ Kaplony 1963, figs. 110, 180, 210, 236, 243, 246, 294, 296, 306A-B, 757, 758.

¹⁴⁸ Kaplony 1963, fig. 294.

¹⁴⁹ Kaplony 1963, figs. 137, 138, 139, 140, 141, 145, 146, 147, 148, 149, 152, 891.

¹⁵⁰ Emery 1954, figs. 115, 116, 117-120, 123; Petrie 1900, pl. 5:2; Lacau - Lauer 1965, pls. 32:3; 34:10, figs. 143, 147a; Kaplony 1963, figs. 106, 177, 751, 753, 757, 759, 760, 762.

¹⁵¹ Petrie 1900, pl. 5:2.

¹⁵² Kaplony 1963, fig. 106.

¹⁵³ Lacau - Lauer 1965, figs. 143, 147a.

¹⁵⁴ Kaplony 1963, fig. 368.

¹⁵⁵ Kaplony 1963, fig. 266.

¹⁵⁶ Kaplony 1963, fig. 177.

¹⁵⁷ “*Mr-k3* [official of] the “house of the linen” (Kaplony 1963, fig. 322).

the *ntry(?)*-cloth”,¹⁵⁸ this last one located in the 5th or 18th upper-Egyptian *nomos*. No connection with the storage of goods is attested for the *pr-hd* path.

“Lower-Egyptian Treasure path”: due to the exact alternation of *pr-hd* and *pr-dsr* depending on the reign,¹⁵⁹ some scholars¹⁶⁰ supposed a real alternation between the two departments under the reigns of different kings, in connection with a northern or southern political predominance. Nonetheless, the analysis and contextualization of the attestations of *pr-dsr* lead up to a different hypothesis: in six of ten attestations the *pr-dsr* is connected with the vineyards.¹⁶¹ As most of the vineyards were located in the Delta, Gardiner’s suggestion¹⁶² that the *pr-hd* managed the taxation from the south, while the *pr-dsr* managed those ones from the north can be considered correct. They could be unified in a single “*pr-hd* Treasure” during the 3rd dynasty. As the *pr-dsr* is first attested under the reign of Adjib,¹⁶³ we can suppose that before its appearance the *hwt* estates functioned also as collecting centres for the surrounding villages in the Delta. A further explanation introduces a new pattern: the State might not have needed goods from the northern villages, as the lands of the Delta were already exploited enough by means of the State estates. What the State could really have needed was the workforce to be employed in these estates. Therefore, we can suppose that there was a double kind of taxation: the first one consisting of goods from the upper-Egyptian villages; the second one consisting of human workforce from the lower-Egyptian rural communities. A further consideration could confirm this hypothesis: the *pr-dsr* is attested almost everywhere as collector of the vineyards (just twice it is connected with the estates).¹⁶⁴ Since the reign of Den, a high official is attested for this department (later becoming the highest Treasure title): the *sd3wty-bity*, “treasurer of Lower Egypt”.¹⁶⁵ In this period, this title was connected with the vineyards, as indicated by a seal-impression from the reign of Den with a “*sd3wty-bity* of the wine-press of Neith”.¹⁶⁶ Few further titles were connected with the *pr-dsr*: a “treasurer of everything in the garden” (*sd3wty hry-š-nbt*)¹⁶⁷ (reign of Qaa); a “treasurer of lower-Egyptian supplies” (*sd3wty inw Mhw*);¹⁶⁸ a “treasurer of bovine fat” (*sd3wty ʿd k3*);¹⁶⁹ a “treasurer of every fat thing” (*sd3wty*

¹⁵⁸ Kaplony 1963, fig. 259A-B.

¹⁵⁹ The *pr-hd* under Djed (Emery 1954, figs. 115-120), Meretneith (Petrie 1900, pl. 5:2; Kaplony 1963, fig. 106) and Den (Kaplony 1963, figs. 151, 167, 177); the *pr-dsr* under Adjib (Kaplony 1963, fig. 213), Qaa (Kaplony 1963, figs. 209, 738; Petrie 1900, pl. 30) and Ninetjer (Kaplony 1963, figs. 746, 748); the *pr-hd* under Peribsen (Kaplony 1963, figs. 751, 753, 757, 759, 760, 762); the *pr-dsr* under Khasekhemwy (Kaplony 1963, figs. 309, 764, 765, 771) and Netjerikhet (Kaplony 1963, fig. 318).

¹⁶⁰ Wilkinson 1999, 127-128.

¹⁶¹ Kaplony 1963, figs. 213, 309, 318, 748, 764, 765.

¹⁶² Gardiner 1947, A455.

¹⁶³ Kaplony 1963, fig. 213.

¹⁶⁴ Kaplony 1963, fig. 738; Petrie 1900, pl. 30.

¹⁶⁵ Kaplony 1963, figs. 120, 183, 292, 1080; Petrie 1900, pls. 14:12, 15:15, 16; Firth - Quibell - Lauer 1935, pl. 58:2.

¹⁶⁶ Kaplony 1963, fig. 240.

¹⁶⁷ Kaplony 1963, figs. 335, 362.

¹⁶⁸ Kaplony 1963, fig. 289.

¹⁶⁹ Kaplony 1963, fig. 314.

hjt nbt ʿdt);¹⁷⁰ a “treasurer of Asian supplies” (*sd3wty inw Stt*).¹⁷¹ The processing of goods is connected with an “wine-press” department,¹⁷² related to installations located in the eastern and western Delta by the presence of inscriptions (in particular, one of them was located close to Sais,¹⁷³ the main centre for the cult of Neith). No connection with the storage of goods is attested for the *pr-dšr* path.

3.4. *Ninetjer’s Administrative Reform*

During the reign of Ninetjer a new department in charge of a unified goods-collection and management was created: the *is-df3*.¹⁷⁴ It worked on all the different typologies of land exploitation and absorbed the functions of *pr-nsw*, *nb*, *pr-hd* and *pr-dšr* (although sometimes these latter are mentioned beside the *is-df3*; instead *nb* office suddenly disappeared, probably replaced by the *is-df3*). We can find this department supplying a prince, collecting goods from a “vessel store”¹⁷⁵ or collecting wine from a northern vineyard.¹⁷⁶

3.5. *The Redistribution*

The analysis of the redistribution system in the Thinite period sheds light upon a problem that needs solving: although some clues suggest that the different kinds of land exploitations corresponded to different destinations (for example, the names of the *niwt* estates suggest a royal funerary destination), the archaeological context contradicts the textual data. In fact almost all the inscriptions we analyzed come from both royal and private tombs: therefore, all the typologies of land seem to supply the funerary cult.

This incongruence must be the result of the redistribution system: we know that in the Old Kingdom there was a unique redistributing department called *pr-hry-wdb*. It supplied both daily administrative activities (with salaries and rations) and cultic activities (with offerings), using goods from different types of land (both estates or villages). The same pattern could be suggested for the Thinite period, as a *pr-hry-wdb* is attested on few seal-impressions from Den to Khasekhemwy.¹⁷⁷ This apparent lack of attestations from redistributive department can obviously be explained by a practical consideration: the vessel’s caps were sealed inside the estates (when the jars were closed) and not during the redistribution stage. However, once the goods went through the doors of the central stores they were all considered “income” and managed in an unitary way.

Therefore, the incongruence between the textual and the archaeological data is due to the “real moment” they refer to: the inscriptions provide us with information about “the goods within the estates”, when they had not yet been collected and they maintained their

¹⁷⁰ Kaplony 1963, fig. 214.

¹⁷¹ Kaplony 1963, fig. 287.

¹⁷² Kaplony 1963, figs. 238, 239.

¹⁷³ Kaplony 1963, fig. 240.

¹⁷⁴ Kaplony 1963, figs. 214, 267, 268, 309, 310, 311, 312, 316, 317, 318, 751, 753, 757, 760, 769, 785, 862; Lacau - Lauer 1965, figs. 142, 143; Lacau - Lauer 1959, pl. V:8.

¹⁷⁵ Kaplony 1963, fig. 757.

¹⁷⁶ Kaplony 1963, figs. 309, 310, 311, 312, 316, 317, 318.

¹⁷⁷ Kaplony 1963, figs. 217, 313, 366, 895.

role as “*ad hoc* goods” for a certain purpose; the archaeological context provides us with information about the same goods after being buried in the tomb, when the redistribution had already worked.

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