

# Towards a New History for the Egyptian Old Kingdom

*Perspectives on the Pyramid Age*

*Edited by*

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# Centralized Taxation during the Old Kingdom

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## Abstract

The government of the Old Kingdom is often thought to have exhibited strong tendencies towards centralization. The state is seen as the hand guiding economic policies, using taxation to support state activities such as (but not limited to) building. This paper reinvestigates the textual evidence for state-organized taxation in the Old Kingdom, including the Palermo Stone and late Old Kingdom exemption decrees. These documents show that taxation policies evolved from the early to late halves of the period; nowhere, however, does the state appear to rely on taxation as a regular or dominant mechanism for centralized wealth production. Instead, taxation appears to have been more an exceptional action instead of a regular, standard activity applied to the whole country.

## 1 Introduction

The Old Kingdom state is frequently perceived as monolithic, a perception nurtured by history's traditional bias towards "big man" history as well as monumental evidence like pyramids. Clearly related to this tradition are concepts such as complete ownership of land by the Egyptian state and assumption of state control of natural resources such as quarries.<sup>1</sup> The treasury supported such endeavors as pyramid building and long distance trade. Scholars have therefore proposed that the royal treasury was supplied through state run taxation, enabling government sponsored activity such as building projects.<sup>2</sup>

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1 For state ownership of land, see Málek, *In the Shadow of the Pyramids*, 76; Menu, "Ventes de maisons," 249–50; for control of natural resources see Warburton, *State and Economy*, 62; Shaw, "Pharaonic Quarrying and Mining," 110–11; Eyre, "Work and the organization of work," 15, 21.

2 The earliest discussion of Egyptian taxation practices, including state taxation, is Helck, "Abgaben und Steuern," 3–4. See also Katary, "Taxation (until the end of the Third Intermediate Period)" and "Land Tenure and Taxation," 187; Warburton, "Before the IMF"

However, in investigating the Old Kingdom textual record, we shall find it presents a picture of a state which was economically far less invasive into the provinces than often assumed. Its taxation procedures were far from codified (when extant at all) and need to be understood in the context of Old Kingdom bureaucracy, which was neither fully rational nor fully embedded in the provinces.<sup>3</sup> Thus, it seems unlikely that taxation formed the pillar upon which royal wealth rested.

The discussion of Old Kingdom taxation presented here will consider the evidence as divided into two phases: early (Dynasties 3–4) and late (Dynasties 5–6). This division broadly follows the pattern of administrative change in the period. In the Third and Fourth Dynasties, the administration's highest offices were largely in the hands of the royal family. Provincial administrators appear to have been based in Memphis, from which location they controlled several nomes.<sup>4</sup> The state bureaucracy shifted beginning in the reign of Menkaure, during which time the vizierate was moved into non-royal hands and a trend began where the number of bureaucratic offices increased, each with more specific responsibilities than before.<sup>5</sup> By the Fifth Dynasty reign of Djedkare Isesi, provincial administrators had relocated from the capital to the province that they governed.<sup>6</sup> The Fifth and Sixth Dynasty saw both continual change in all offices of the administration, particularly high offices like Vizier and Overseer of Upper Egypt, and administrative division and re-division of the country.<sup>7</sup> It seems highly likely that these bureaucratic upheavals would

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and *State and Economy*, 69. Janssen suggests that taxation was not the only input, though it was an important one; Janssen, "Prolegomena to the Study of Egypt's Economic History," 132, 146–47, 163. A more veiled allusion to the necessity of such a tax collection system can be found in Papazian, *Domain of the Pharaoh*, 87 and n. 17.

3 For a broad discussion, see Eyre, "Patronage, Power, and Corruption." The character of the Egyptian bureaucracy changed over time. Just as the Old Kingdom is a formative period in state administrative power, it was a period of experiment and change in state economic power. By the late pharaonic periods into the Ptolemaic Period the administration grew, becoming more systematized: Eyre, "Patronage, Power, and Corruption," 701–02; Manning, *Land and Power in Ptolemaic Egypt*, 4–5, 129–30. As a result, taxation in these later periods was structured differently than in the Old Kingdom and was much more expansive. We should not understand the Old Kingdom as a mirror or echo of later taxation policies.

4 Kanawati, *Governmental Reforms*, 2; Fischer, *Dendera in the Third Millennium BC*, 9.

5 Strudwick, *Administration*, 337–38.

6 Kanawati, *Governmental Reforms*, 2; Fischer, "Four Provincial Administrators at the Memphite Cemeteries."

7 Kanawati, *Governmental Reforms*, 11, 129–30; Fischer, *Dendera in the Third Millennium BC*, 65–68; Baer, *Rank and Title in the Old Kingdom*, 297.

have affected the economic policies of the country, especially as the aim of many of these administrative shifts appears to have been to change—or perhaps tighten—the central government’s interactions with the provinces.<sup>8</sup> The textual evidence further supports division between the early and late Old Kingdom, implying that economic policy in this case evolved together with administrative restructuring.

## 2 The Early Old Kingdom

Writing and the scribal administrative tradition were limited by decorum during the Old Kingdom writ large, with written genres being most restricted in the first half of the period.<sup>9</sup> When combined with the hazards of preservation there are few contemporary texts which speak to the question of taxation during the Third and Fourth Dynasties. The most notable is of course the Palermo Stone, which bears the annals of the kings from the First through part of the Fifth Dynasties. Each year of a king’s reign is given its own section, which contains, among other information, important events occurring in that year. Though the provenience of the document is open to question, recent analyses place its original home within a temple precinct in Memphis.<sup>10</sup> In such a case, the annals are unlikely to have been a strict recording of government activities. It would rather have been a document intended for consumption by the divine, presenting Egyptian history with the aim of aiding the king’s ritual responsibilities to the gods.<sup>11</sup> The king’s ritual role is not necessarily best mediated through objective history writing. History, when used as a representation of the reign for divine consumption, must be carefully chosen. Some events will be elevated above others, essentially becoming a type of royal propaganda. Thus, by the Fifth Dynasty, annals like the Palermo Stone had “developed into quasi-religious memorials which tend to conceal the individuality of reign behind the mask of a mythic prototype.”<sup>12</sup>

8 For example, it is evident that there were concurrent changes between the administration and the structure of funerary cults. See Baer, *Rank and Title in the Old Kingdom*, 297–301.

9 For restrictions in writing during the early Old Kingdom, see Baines, “Literacy and Ancient Egyptian Society,” 576–78.


10 Wilkinson, *Early Dynastic Egypt*, 92; Roccati, *La littérature historique sous l’Ancien Empire égyptien*, 36.

11 Wilkinson, *Royal Annals*, 62. See also Redford, *Pharaonic king-lists, Annals, and Day-books*, 128.

12 Redford, *Pharaonic king-lists, Annals, and Day-books*, 136.

Two events preserved in these earliest royal annals have often been understood as referring to government taxation: the Following of Horus (*šmsw ḥr*) and the Census/Cattle Count (*tnwt*). The Following of Horus is the earlier of the two institutions, being referenced sporadically from the First through the Third Dynasties. Its last appearance in the Palermo Stone is in an entry for the fifth year of Netjerikhet.<sup>13</sup> During the early half of the Old Kingdom, the Following of Horus is rarely referenced outside of the Palermo Stone.

The literature routinely identifies the Following of Horus as a royal procession through the country with the aim of provincial control and nation-wide tax collection.<sup>14</sup> Jürgen von Beckerath has convincingly argued that the Horus referred to in the phrase “The Following of Horus” was not the deity but rather the king in his divine aspect.<sup>15</sup> Toby Wilkinson described the *šmsw ḥr* as “... a royal progress in which the king, accompanied by his court, would travel throughout the country, presenting himself to the people, keeping a tight rein on economic and political developments in the provinces, and perhaps adjudicating on important judicial and civil matters.”<sup>16</sup> Dieter Arnold has posited a relationship between the Following of Horus and the early Fortresses of the Gods, suggesting that the Shunet al-Zabib, a Second Dynasty royal enclosure at Abydos, functioned as a gathering point for the Following of Horus as they travelled throughout the country.<sup>17</sup> On the other hand, Hans Goedicke has suggested that the Following of Horus were participants in the king’s household and likely had a military function.<sup>18</sup>

In total, the Following of Horus appears seventeen times on the Palermo Stone, with no set interval between appearances except during the reign of Ninetjer, when the Following occurs biennially. The writing is typically , with the boat determinative likely implying a travelling entity. The first entry, PS I.II.1, is representative of the references, where the whole record for the year

13 Wilkinson, *Royal Annals*, 139; Sethe, “Die Entwicklung der Jahresdatierung bei den alten Ägyptern,” 72.

14 Katary, “Land Tenure and Taxation,” 187–88; Wilkinson, *Royal Annals*, 67, 120 and *Early Dynastic Egypt*, 220–21; Helck, “Abgeben und Steuern,” 4; *KD*, 48–52; Beckerath, “*šmsj-ḥrw* in der ägyptischen Vor- und Frühzeit” and “Horusgeleit.”


15 Beckerath, “*šmsj-ḥrw* in der ägyptischen Vor- und Frühzeit.”

16 Wilkinson, *Royal Annals*, 67.

17 Arnold, “Royal Cult Complexes of the Old and Middle Kingdoms,” 37; though see O’Connor, *Abydos*, 177–81 for a more recent analysis of the uses of the Abydos enclosures which ties them less to administration and views them more as a conceptual unit with the nearby tomb and subsidiary graves.

18 Goedicke, “Cult-Temple and ‘State,’” 125–26 and *KD*, 44.

reads only: “Following of Horus; Creating [an image of] Anubis.”<sup>19</sup> There is no great detail in the entries, and the early years documented in the annals are notable for their brevity. It is thus difficult to ascertain the specific responsibilities of the Following of Horus without supplementary evidence. The choice to document this event rather than other royal activities that must have taken place in a year strongly suggests that the Following of Horus has a very important role vis-à-vis the king and his divine role as mediator to the gods. The use of a boat determinative in all seventeen iterations of *šmsw hr* on the Palermo Stone indicates that the Following of Horus likely traveled the country in the course of their activities. However, how far they traveled, to where, and to what purpose, are open questions with no real answers.

A fragmentary relief from the provinces provides additional evidence for the Following of Horus. Probably from the Early Dynastic Period, the fragment likely comes from the Hathor temple at Gebelein.<sup>20</sup> The Gebelein relief includes a caption referencing the *šmsw hr* at a royal foundation ceremony. Here, they appear in the royal retinue as part of what is presumably an important royal ritual activity.<sup>21</sup> The fragment contains portions of two registers. The upper bears an image of the king and several smaller individuals. The lower register contains the term *šmsw hr*, written as  without a determinative, though a corresponding lacunae suggests that one might have been present originally. The lower register also shows fragments of what may be a shrine and a boat; the actual Following of Horus, if understood as a procession of people, seems to be absent. Ludwig Morenz links this fragment to another Gebelein relief of a female figure bearing a pot on her head, both of which he feels relate to a foundation ceremony.<sup>22</sup> As a representation of a cultic activity, the reliefs relate the king to the gods and highlight his role as emissary to the divine on behalf of the community.<sup>23</sup> Valuable, too, is the likely provenience of the fragment. Its origins as part of a provincial structure, likely a temple, suggests that the Following of Horus was conceptually related to provincial activities and might have made an appearance at this small temple. Hathor was one of the deities most closely tied to the Old Kingdom king; such temples appear to have been one of the few clear nodes of royal ritual activity in the provinces during the early Old Kingdom.<sup>24</sup>

19 Wilkinson, *Royal Annals*, 90–91, fig. 1.

20 Smith, *A History of Egyptian Sculpture and Painting in the Old Kingdom*, 137.

21 Morenz, “Zur Dekoration der frühzeitlichen Tempel.”

22 Morenz, “Zur Dekoration der frühzeitlichen Tempel,” Abb. 1–2.

23 Morenz, “Zur Dekoration der frühzeitlichen Tempel,” 234–35.

24 Kemp, *Ancient Egypt*, 111–35; Goedicke, “Cult Temple and ‘State,’” 111–23.



All details which would point to the Following of Horus playing a role in taxation are absent; there are no real supplementary data to further this interpretation. It is striking that neither the Gebelein relief nor the Palermo Stone directly associate the Following of Horus with actual administrative activity or physical taxation. There is no reference to the collection of goods, and the event occurred only at irregular intervals. In the Gebelein relief, scribes are notably absent, as is any other mechanism of recording. Even a description or depiction of offerings, sometimes taken as being the products for redistribution, is absent.<sup>25</sup> Instead, these were objects whose purpose lay in the ritual sphere, effective in renewing and sustaining the connection between Egypt and the divine vis-à-vis the royal house. Without fluency in the political relationships of the time, a fluency which the passage of time and difference in cultures has made impossible, any administrative/political nuances embedded in the subtext of the objects is lost to us. The Following of Horus would appear to be, first and foremost, part of the ritual entourage of the king, a part of the relationship between the king and the divine which reinforced his legitimacy. A ritual function does not rule out an administrative reality, as ritual authority can supplement administrative or economic authority, but without further evidence from this early period any administrative or economic role for the Following of Horus is merely supposition. Ultimately, the pomp of such a traveling, ritual, entourage could have done much to reinforce royal authority in the provinces. Its function would then transcend basic administrative realities to become a fundamental support of the royal office. But such pomp does not equate with rationalized or institutionalized taxation policy.

One would seem to be on more solid economic footing with the Census or Count  $\overline{\text{𓄏𓄏}}$  (*tnwt*). The idea of accounting is explicit in the term. The Census appears on the Palermo Stone beginning in the Second Dynasty and is at first concurrent with the Following of Horus. However, the Census outlives the older Following of Horus, continuing to appear in the Palermo Stone through the annals' last documented reign, that of the Fifth Dynasty king Sahure. Totaling 13 records spread over four dynasties, the Census was a resilient institution. Indeed, texts such as the Abusir Papyri and the South Saqqara Stone document the Census through the end of the Sixth Dynasty. Outside of the Palermo Stone, early attestations to the Census come from the Fourth Dynasty Will of Nykare, the Exemption Decree of Shepseskaf, and graffiti, though in these cases it is simply part of the dating formula.<sup>26</sup>

25 For an example interpretation of lists of divine offerings as wealth to be redistributed, see Janssen, "The Role of the Temple in the Egyptian Economy," 511–12.

26 *Urk.* I, 16: 14; *Urk.* I, 160; Kuhlmann, "The 'Oasis Bypath' or the Issue of Desert Trade in Pharaonic Times."

The phrases *rnpt zp* “regnal year/year of the occasion (of the count)” and *rnpt m-ht zp* “the year after the occasion (of the count),” though written without the word *tnwt*, have been frequently translated as referring to the Census. The single term *zp*, followed by a number, is understood to stand in for the longer phrasing *zp* (number) *tnwt*.<sup>27</sup> This understanding was first forwarded by Kurt Sethe and generally supported by Alan Gardiner and Vassil Dobrev, becoming common usage within the field.<sup>28</sup> Seven dates published by Miroslav Verner, written *rnpt (m-)ht zp* (number) *tnwt* or *rnpt zp* (number) *tnwt* would seem to support this interpretation, as they co-occur with the shorter *rnpt zp/rnpt (m-)ht zp* formulae.<sup>29</sup>

In concept, at least, the Census denotes a clear counting of goods. However, how the accounting was determined and what was being tallied is ambiguous. Eleven of the *tnwt*'s thirteen references on the Palermo Stone appear simply as “*zp* (number) *tnwt*” without any further qualification.<sup>30</sup> The term *tnwt* is qualified only twice. The first qualification appears in the fourteenth year of a king, probably Khasekhemwy; in this case the Census is defined as *tnwt nbw shwt*, the census of gold and fields.<sup>31</sup> This designation is never repeated. However, in the reign of Userkaf in the Fifth Dynasty the Count is once again defined, this time being *tnwt ih*, the count of cattle.<sup>32</sup> Another variant appears in the Fourth Dynasty inscription at Djedefre's Water Mountain, where the year is given as *rnpt (m-)ht zp 13 tnwt ihw sw nb(t)*, “Year after the thirteenth census of all the large and small cattle.”<sup>33</sup> It seems possible that the Palermo Stone's references to the Count of Cattle are actually a truncated version of this broad formula. The Fourth Dynasty will of Nykare and the exemption decree of Shepseskaf, though referring to the Census through the abbreviated *rnpt (m-ht) zp*, also include a direct object for the Census—*ipt sw*, the large and small cattle.<sup>34</sup> In most cases, however, *rnpt zp*, *rnpt m-ht zp*, and *tnwt zp* appear without any reference to an object, leaving the commodity/ies being counted open to inference, but often understood to be cattle. Goedicke suggests that the shift from *šmsw hr* to *tnwt* in the Palermo Stone indicates a shift in

27 *Wb.* III, 26; Hannig, *Großes Handwörterbuch*, 501–02.

28 Sethe, “Die Entwicklung der Jahresdatierung bei den alten Ägyptern”; Gardiner, “Regnal Years and Civil Calendar in Pharaonic Egypt”; Baud and Dobrev, “De nouvelles annales,” 47.

29 Verner, “The System of Dating in the Old Kingdom,” 25, 27–28, 33.

30 For example: PS r.IV.1.

31 PS v.II.2.

32 PS v.II.2.

33 Kuhlmann, “The ‘Oasis Bypass’ or the Issue of Desert Trade in Pharaonic Times,” 136, 138, fig. 10.

34 *Urk.* I, 16: 14; *Urk.* I, 160.

Old Kingdom administrative procedures, with the Count replacing the functions of the older Following of Horus.<sup>35</sup> Of course, this premise is based on the idea that we understand the functions of the Following of Horus as related to taxation—which is highly unlikely. One should be cautious in paralleling these two institutions simply because both appear on the Palermo Stone.

The Census as a unified institution has been constructed by conflating the Count, the Count of Gold and Fields, and the Count of Cattle.<sup>36</sup> The fact that *tnwt* has a specific genitive construction in some cases should perhaps urge us to regard them as distinct. The *tnwt* was recorded with more consistency and regularity than the Following of Horus. Some scholars feel that frequent appearance of the Census indicates the central administration's attempt to increase revenues in the face of a rapidly dwindling treasury.<sup>37</sup> This viewpoint is based in part on inference, and in part on an assumption that ancient states must have created revenues in the same way as modern states. That royal revenues might have in large part derived from royal control over other economic spheres has found little discussion. Thus, when recent work on the Census convincingly argued that its apparent regularity was most likely intended as a manner to ritually reconnect the Egyptian lunar calendar to Sothic rising, and not due to administrative activity,<sup>38</sup> this model was discarded by one scholar on the premise that "it is hard to believe that the cattle count was not an actual administrative" event.<sup>39</sup>

The extant references to the *tnwt* do not seem to denote a regular, state-wide tax capable of supporting the royal treasury. Cattle, gold, and fields did not account for the mass of Egypt's wealth. Cattle would have been expensive animals; as such, they were frequently idealized, depicted in iconography to portray an ideal world of the wealthy. The archaeological record in fact indicates that herds of cattle were far less common than herds of sheep, goats, or pigs.<sup>40</sup> However, these more mundane livestock do not appear to have been

35 *KD*, 49.

36 For a recent example, see Katary, "Taxation (until the end of the Third Intermediate Period)," 5.

37 *KD*, 49; Verner, "The System of Dating in the Old Kingdom," 43.

38 For the Count as a calendrical tool, see Nolan, "Lunar Intercalations and 'Cattle Counts,'" 51, 56–59 and "The Original Lunar Calendar," 80.

39 Verner, "The System of Dating in the Old Kingdom," 40–41. Support for this viewpoint came from the suggestion that the associated papyrus records documenting the physical administration of a cattle count must have been lost. However, the only extant Old Kingdom account of cattle known to me comes from the verso of Papyrus Gebelein 11 (see Posener-Kriéger and Dimichelis, *I papiri di Gebelein*, 16); as this document is largely without context one should exercise caution in linking it to the *tnwt*.

40 For discussion, see Moreno García, "J'ai rempli les pâturages de vaches tachetées," 242.

submitted to a census. Additionally, the value of cattle, at least in the Fifth Dynasty, seems to vary widely, meaning that no simple head count could prove a true accounting of value.<sup>41</sup>

Taxing cattle, or gold, would at most have been a tax on the elite, who were almost exclusively linked to the royal administration. More accurately, counting cattle would have been more an ideological display of power over wealth, not a practical activity instituted at a level required to support the state administration. The most important commodity owned by Egyptians was grain, as is implied by the large number of grain silos located throughout the country.<sup>42</sup> Grain was, in turn, manufactured into the beer and bread which, together with linen, formed the basis of wage payments in the Old Kingdom.<sup>43</sup> Even a count of fields would have been a poor estimate for the true yield of grain due to environmental and labor variables, which would affect the harvest. The Egyptian bureaucracy was never large enough to do the sort of large-scale land survey required to tie revenue collection to changing flood patterns.<sup>44</sup>

Early Old Kingdom administration was not large or well embedded in the provinces; the massive-scale process of accounting wealth from throughout the country would have been a bureaucratic challenge the organs of the state were not structured to meet. However, understanding the Census as a ritual activity which maintained the Egyptian calendar, represented ideological control over the wealth of the country, and established order over chaos, eases the incongruity between a weak state bureaucracy and state-wide bureaucratic activity. The Census instead becomes a ritual parade, an ideologically charged moment for the king to emphasize his religious and political authority through limited supervision of elite wealth.

41 Vachala, "A Note on Prices of Oxen in Dynasty v."

42 For example, Hendrickx, *et al.*, "The 1955 Excavation of an Early Old Kingdom Storage Site at Elkab"; Adams, "Household Silos, Granary Models, and Domestic Economy in Ancient Egypt"; Lehner, "Fractal House of Pharaoh."



43 See Roth, "The Practical Economics of Tomb-Building in the Old Kingdom"; Posener-Kriéger, "Les papyrus d'Abousir," 133; Warden, *Pottery and Economy in Old Kingdom Egypt*. It is thus unsurprising that grain, beer, and linen form the core of the accounts found in the Gebelein Papyri: Posener-Kriéger and Dimichelis, *I papiri di Gebelein*, 15–23; Posener-Kriéger, "Les papyrus de Gébélein."

44 Eyre, "Peasants and 'Modern' Leasing Strategies in Ancient Egypt," 371–72, 375–76, 379. He suggests that land tenure was structured on a system similar to sharecropping. Alternately, for Egyptian land organization as largely feudal see: Eyre, "Feudal Tenure and Absentee Landlords." Either system promotes revenue collection that would have been administered locally, without fanfare and perhaps without much recording. These funds need not have supported the larger state structure, or have been tied into the royal house.

### 3 The Late Old Kingdom

The Fifth and Sixth Dynasties saw great amounts of change to the Egyptian administration. Written documentation from this period is more abundant than from the early Old Kingdom, including, but not limited to, such administrative records as the Abusir papyri, exemption decrees, and the South Saqqara Stone. In turning to this evidence, the appearance of *tnwt* in dating formulae makes it clear that the Census continued to occur through to the end of the Old Kingdom, though its frequency might have changed.<sup>45</sup> The South Saqqara stone, although poorly preserved, includes several references to the *tnwt ih* with no further details or description.<sup>46</sup> These annals would likely have played a similar ritual role to the Palermo Stone, with its Censuses playing the same ideological role.

The Following of Horus occurs rarely during this period, being referenced in only three sources from the combined iconographic and textual record. Whether the institution is a continuation of the Following of Horus of the First through Third Dynasties or a deliberate archaism is unclear. The *Heb-Sed* reliefs from the Fifth Dynasty Solar Temple of Niuserre in Abu Ghurob are the first of these late sources.<sup>47</sup> These reliefs lined the corridor of the Upper Temple; each depicts a portion of the ritual. The location of the rites is not obvious. Evidence from the New Kingdom and later shows that the *Sed*-Festival could be held in specially built facilities located throughout Egypt. There does not appear to have been one consistent, settled venue, at least in the later periods.<sup>48</sup>

In these reliefs, the Following of Horus is shown participating in the rituals of the *Sed*-Festival, particularly as accompaniment to the enthroned king. The label *šmsw hr* (written alternately as  or ) appears in three scenes labeling processions of men bearing multiple divine standards.<sup>49</sup> The standards bear images of falcons, jackals, or an enigmatic bag-like image.<sup>50</sup> The use of the divine flag (*ntr*), in the plural, as a determinative in two occurrences rather than the boat determinative is unique to these images. It is likely

45 For contrasting viewpoints, see Baud, “The Relative Chronology of Dynasties 6 and 8,” 153–56; Nolan, “The Original Lunar Calendar”; Beckerath, *Chronologie des pharonischen Ägypten*, 147.

46 Baud and Dobrev, “De nouvelles annales,” 37–38, 40.

47 Bissing, *Das Re-Heiligtum des Königs Ne-Woser-Re*, Blatt 11, 27; 18, 44d; 21, 50a.

48 Uphill, “The Egyptian Sed-Festival Rites,” 368–69.

49 A very similar image of the *šmsw hr*, though with a greater number of standard-bearers, occurs in the *Sed*-Festival reliefs from the Festival Hall of Osorkon. See Uphill, “The Egyptian Sed-Festival Rites,” 371, 376.

50 Beckerath, “Horusgeleit,” 51.

a direct reference to the gods themselves, represented in these images by standards appearing independently of human figures.<sup>51</sup> When coupled with the free-standing standards, the *ntr* signs can be understood as functioning as a determinative indicating divine support following the ritual enthronement of the pharaoh.

It should be noted that in all three reliefs the king is present; it would seem possible that in this ritual role the Following of Horus was supplemental to the king; his presence was required. The scenes illustrate a ritual role for the *šmsw hr* and do not connect the *Sed*-Festival to a function like tax collection. While it is possible that ritual activities bore a secondary or tertiary administrative function, such subtext would have to be understood as highly embedded—our own interpretation rests solely upon modern inference. These ritual reliefs were selected and presented for their ideological value, similar to the activities listed on the Palermo Stone.

Two texts known to me from the late Old Kingdom mention the Following of Horus: Coptos Decree A, from the Sixth Dynasty reign of Pepi I, and the biography of Harkhuf, dating to the reign of Pepi II. The reference to the Following of Horus in the biography of Harkhuf comes in a fragmentary line to the left of the entrance, following the details of Harkhuf's last journey to Yam, in which he notes:

... *im<sup>3</sup> nt šmsw . . . r rdit rh<sup>h</sup> hm n mr-n-r<sup>c</sup> nb(=i) . . . m-s<sup>3</sup> hq<sup>3</sup> im<sup>3</sup> hr sh<sup>h</sup>tp n hq<sup>3</sup> im<sup>3</sup> pf. . .*<sup>52</sup>

Line 12 is entirely missing, so much of this portion of the text is difficult to put together. Nigel Strudwick has reconstructed the section to read: “[Then I sent off an official with a man of] Iam to the Retinue of Horus (*the royal court*) to let the majesty of Merenre, my lord, know . . .,”<sup>53</sup> while Goedicke reads *išm n šmsw hr* as “*išm*-Mann des *šmsj-hr*.”<sup>54</sup> Either reading extends the role of the Following of Horus to include involvement with foreign missions. Perhaps this function was ritual, emphasizing the king's divine role even outside of Egypt, using ritual awe to strike the fear of Horus into foreign hearts. Perhaps instead they were merely members of the king's entourage who served as communication relays between the profane (Harkhuf) and the divine (the king) in aspects


51 Beckerath, “Horusgeleit,” 51.

52 *Urk.* I, 126: 7–11.

53 Strudwick, *Texts from the Pyramid Age*, 331, parenthesis and emphasis original. *AEL* I, 25 offers essentially the same translation.

54 *KD*, 51.

both ritual and administrative. The exact implications vary upon the reading of the *n*: when read as a dative, the Following of Horus is a group who is not currently with Harkhuf but is (presumably) awaiting the man of Yam in the capital. When read as a genitive, the man of Yam is with Harkhuf as a representative of the Following of Horus and perhaps bears a military role.<sup>55</sup>

Coptos A contains more detail and is better preserved. Written as an exemption decree for the *k3*-chapel of Pepi I's mother, Iput, it dates almost 400 years after the Palermo Stone's last reference to the Following of Horus. Both documents employ the same writing of *šmsw hr*: . In the context of Coptos A, the determinative seems to indicate that the Following of Horus was seen as partaking in royal travel, forming a part of a larger group composed of all traveling missions. It states:

I have ordered the exemption of this ka chapel [...] dependants, cattle, and goats [...] any emissary who shall travel upstream on any mission, my Majesty does not permit him to burden the soul chapel in any way. Nor does my Majesty allow that the Following of Horus take advantage of it. My Majesty has ordered the exemption of this ka chapel.<sup>56</sup>

These lines juxtapose the Following of Horus with the acquisition of goods from the provinces. As a result, Coptos A has been used to substantiate the involvement of the Following of Horus in taxation, possibly without requiring the royal presence for validation.<sup>57</sup> However, one must be cautious in asserting that tax collection could have been its primary or even secondary role. Coptos A does not isolate the Following of Horus. Rather, the king exempts the chapel from the advances of the Following of Horus only after it is exempted from being "burdened" by *any emissary*, on *any mission* presumably connected to the royal house.<sup>58</sup>

Thus, the exemption writ large might be intended simply to stop travelers from the royal administration from a) consuming the valuable agricultural holdings of the temple and b) abusing the labor and hospitality of those dependant upon the *k3*-chapel's produce. Royal dictate regarding provincial provision of royal missions is also documented in the biography of Harkhuf, where the young Pepi II writes a letter explicitly ordering that every chief of a New Town, every companion, and every priest supply Harkhuf's return by

55 *KD*, 51–52.

56 Strudwick, *Texts from the Pyramid Age*, 105, Goedicke, *KD*, 48–52, Abb. 4.

57 *KD*, 49–52.

58 Hays, "wḏ: the context of command in the Old Kingdom," 70–71.

boat down the Nile to Memphis.<sup>59</sup> For a traveling mission in the Old Kingdom to carry enough perishable supplies to sustain it would have been a challenge, especially when the mission was travelling long distances, as one might assume the royal retinue did. Coptos A does not lay out the purpose of the Following of Horus' travels so much as describe a code of conduct for when it traveled through Coptos on whatever its royal business might be.

Though reliefs show that the Following of Horus continued to be a ritually important entity in the late Old Kingdom, the two texts suggest that the institution was now active in a broader administrative role. However, these roles do not appear to be exclusive to this one institution and they do not speak to systematic taxation. How, or if, the *šmsw ḥr* of the Palermo Stone was related to the *šmsw ḥr* of the late Old Kingdom is unclear.<sup>60</sup> Administrative institutions evolve, decay, and expand over time, and the differences between early and late Old Kingdom administration are notable. The Following of Horus in the late Old Kingdom remained closely tied to the king and his ritual functions. In some cases they seem to have traveled, perhaps without the actual person of the pharaoh. Regardless, the ritual functions of the Following of Horus remain evident. None of the evidence indicates a clear role in taxation; the Following of Horus in the late Old Kingdom, like that of the early Old Kingdom, is a poor candidate for the routine or regular collection of taxes by the state.

Coptos A is just one example of an exemption decree. The texts commonly are introduced as decrees (*wḏ*) from the king.<sup>61</sup> This corpus of texts provides the most obvious evidence for the collection of goods in the late Old Kingdom. While many of these decrees are found at provincial sites, they always come from institutions that had a direct connection to the royal house, such as a *k3*-chapel of a royal family member. They speak of "exemption" from some sort of collection of goods or services. The decrees frequently include royal dictates for the distribution of divine offerings to both objects of worship (statues, *etc.*) and the priestly hierarchy. Additionally, some bear evidence for the crown's economic authority. Table 13.1, while not an exhaustive list of royal decrees, contains those decrees of the late Old Kingdom which reference exemption of people and/or produce from some sort of collection which the central administration may control.

59 Strudwick, *Texts from the Pyramid Age*, 33.

60 As Goedicke notes, Coptos A's reference to the *šmsw ḥr* could signal a "Renaissance" of the institution; alternately, such a possibility could be simply a product of differential preservation within the archaeological record. See *KD*, 48.

61 Hays, "*wḏ*: the context of command in the Old Kingdom," 68.



With the exception of Coptos A, the decrees do not mention the Following of Horus, nor do they reference the Census outside of dating formula. Rather, the royal decrees use different terms to describe and curtail collection activities; this change in terminology suggests that fiscal activities at this period take a different form, unrelated to the activities recorded in the Palermo Stone. The distribution of the decrees at sites throughout the country suggests that such documents were not uncommon, though their provenience from sites associated with the royal house does draw into question how widespread the practice was outside of institutions directly related to the royal sphere.

Each of the decrees in Table 13.1 issue  $\circ \text{ } \text{hwt}$ , “exemptions,” which are often further defined by subsequently prohibiting specific actions using the phrase *ni rdi.n hm(=i)*, “my Majesty does not permit.” In general, these “exemptions” appear to prohibit staff from performing work outside of the institution or to protect property such as livestock. The term *hwt* may also be applied to whole towns, making them “exempted towns.” Coptos D and the biography of Harkhuf shows the king may nullify such exemption at will by simply issuing new decrees or orders.<sup>62</sup>

While typically translated as “to exempt/exemption,” Hrach Papazian has suggested that in some of the decrees, *hwt* might best be translated as “to protect,” without implying a previously existing economic relationship.<sup>63</sup> The Decree of Teti from Abydos is perhaps the best example of this: “The *hw* fields (or cattle *hww*) [and . . .] are protected for Khenty[imentiu for eternity?] through the decree of the king of Upper and Lower Egypt Teti, may he live forever and for eternity.”<sup>64</sup> As opposed to an exemption, a protection of temple labor does not necessarily imply that the labor had been previously taxed and therefore does not indicate the existence of a structured, regular system of taxation. By the New Kingdom, the term seems to have conveyed a sense of being favored or privileged;<sup>65</sup> such an undertone might very well be read into the word’s Old Kingdom usage. It is probable that *hwt*, like many Egyptian terms, was employed to express several related concepts. To this end, it is notable that the specific object of the exemption varies by text. Only rarely do the decrees make reference to manufactured products such as bread, beer, or linen, all of which were common modes of exchange and keystones of the

62 *Urk.* I, 291: 15–16 and 131: 6–7.

63 Papazian, *Domain of the Pharaoh*, 252–53.

64 Abydos Teti decree. *Urk.* I, 208.

65 For New Kingdom uses of *hwt*, see Galán, “The Ancient Egyptian Sed-Festival and the Exemption from the Corvée,” 260–61.

TABLE 13.1 *Late Old Kingdom Exemption decrees potentially noting taxation*

Decree and Date	Museum Accession	Reference
Decree of Neferirkare, from Abydos Fifth Dynasty	MFA 03.1896	Leprohon, <i>Stelae I</i> , 49–53 <i>Urk. I</i> , 170–72
Decree of Teti, Abydos Sixth Dynasty	BM 1903, 1010.63	James, <i>The Mastaba</i> , pl. 31 <i>Urk. I</i> , 207–08
Decree of Pepi I, Dahshur Sixth Dynasty	Berlin 17500	<i>KD</i> , 55–77 <i>Urk. I</i> , 209–13
Decree of Pepi I, Coptos. (Coptos A) Sixth Dynasty	JE 41890	<i>KD</i> , 41–54 <i>Urk. I</i> , 214
Decree of Pepi II, Giza Sixth Dynasty	MFA 47.1654	Leprohon, <i>Stelae I</i> , 156–59 <i>Urk. I</i> , 277–78
Decree of Pepi II, Coptos. (Coptos B) Sixth Dynasty	JE 41893	<i>KD</i> , 87–116 <i>Urk. I</i> , 280–83
Decree of Pepi II, Coptos. (Coptos C) Sixth Dynasty	JE 41491	<i>KD</i> , 117–27 <i>Urk. I</i> , 284–88
Decree of Pepi II, Coptos. (Coptos D) Sixth Dynasty	JE 43052 MMA 14.1.10	Hayes, “Royal Decrees” <i>Urk. I</i> , 288–95

Egyptian economy.<sup>66</sup> The variability of exemptions for these royal institutions is in direct contrast with the predictable regularity one would expect of long-established revenue collection.

66 This is evident in the royal temple setting as well as within market exchanges. For the former setting, see Posener-Kriéger, *Les archives du temple funéraire de Néferirkarê-Kakai*, 326–27, 339, 407–09 for payments in beer and bread, and 357, 359–60 for payments in linen. For the latter setting, see Bárta, “Die Tauschhandelszenen aus dem Grab des Fetekty in Abusir.”

For the most part, however, these decrees focus on exempting labor.<sup>67</sup> The decrees specifically note labor exemptions in some cases even when the town or temple as a whole is exempted and such a protection could be seen as redundant.<sup>68</sup> The overall impression of such an emphasis is that labor was the most important product of a royal establishment and that labor (mis)use was the underlying reason for the exemptions. Work (*k3t*) is specifically noted in the Dahshur Decree, while both *k3t* and the *f3t* levy are exempted in the Abydos Decree of Neferirkare. People are exempted in a very general way in the Abydos Decree of Teti and Coptos A (which also exempts priests); as labor is the main product of a community, it seems likely that this is an oblique reference to the labor of the inhabitants of the temple or town. Labor exemptions appear more regularly in this corpus than the exemption of livestock (only directly mentioned in Coptos A), fields (only in Coptos B and the Teti Abydos decree), or waterways (noted solely in the Dahshur decree). Such labor protections in these cases are far different from modern labor laws; they are issued not to guarantee the health and safety of the individual laborer, but rather to assure the productivity of the institution to which the laborers belonged.<sup>69</sup> In addition, several of the decrees outline smaller details such as who should cultivate fields; these details, however, do not directly pertain to taxation procedures but rather emphasize the power and control of the royal house in these institutions.<sup>70</sup>

As Jac Janssen noted, Egyptian terminology for *tax* is problematic in that they applied often-used, generic phrases to sometimes quite specific actions, thus clouding the issue for modern readers.<sup>71</sup> Two specific nouns, typically translated as “tax,” play a part in this discussion. The first of these,  $\overline{\text{mdd}}$  *mdd*, “tax, obligation, duty,” appears in five of the decrees under discussion (Dahshur Decree, Coptos A, B, C, and D). For example, the Dahshur decree reads:

... My Majesty has decreed as follows: that these two pyramid towns be exempted on his [Snefru's] behalf from performing any work (*k3t*) for the house of the king, from being taxed (*mdd*) for any office of the Residence, or from (the performance of) any assignation (or work).<sup>72</sup>

67 See also Eyre, “Work and the organization of work,” 18–19.

68 For example, this is true in the Pepi II Giza decree. Strudwick, *Texts from the Pyramid Age*, 107.


69 See also Galán, “The Ancient Egyptian Sed-Festival and the Exemption from the Corvée,” 263.

70 For example, the Dahshur decree, *Urk.* I, 210: 13–17; Pepi II Giza decree, *Urk.* I, 277: 1–18 and 278: 1–4.

71 Janssen, “Prolegomena to the Study of Egypt's Economic History,” 174–75.

72 Dahshur decree: *Urk.* I, 210: 2–6.

Here, *mdd* “tax, obligation, duty”<sup>73</sup> is followed by the dative *st nb(t) nt hnw*, “for any office of the Residence,” making it very clear that the tax was intended to benefit the royal house. The same wording is found in Coptos A.<sup>74</sup> However, in neither case does the tax appear to be a levy on goods. In the Dahshur decree, the *mdd* “tax” is juxtaposed with several types of labor to be performed for the Residence such as *k3t* and *β3t* exemptions, between which it is presented. Therefore, it is not impossible that the *mdd* was another type of labor tax paralleling other forms of corvée. Further, both *k3t* and *mdd* are exempted using the same grammatical structure: *m irt* + noun, “from the doing of (noun).”<sup>75</sup>

Also commonly exempted is the  *srw n sp3t*—or, alternately, simply *srw*.<sup>76</sup> In Coptos B, C, and D alone, the *srw* is explicitly exempted nine times. In a recent English translation of these documents, *srw n sp3t* is translated as “levy of the nome” and thus might be confused for a regional collection of goods.<sup>77</sup> However, the translations offered in the *Worterbuch*<sup>78</sup> and *Großes Handwörterbuch*<sup>79</sup> make it clear that the levy should be understood as commanding the physical labor of the nome, not its produce. This is further reinforced by the use of the strong arm/striking determinative (Gardiner sign-list D40), which strongly suggests that *srw* was an activity necessitating manpower.<sup>80</sup> Thus, if *mdd* and *srw* can be accepted as often referring to labor taxes, when combined with the clearly labor-oriented *k3t* and *β3t*, all but one of the decrees listed in Table I discuss the exemption of labor. It seems likely that the stress on labor is not new to the Fifth and Sixth Dynasties. Papyrus Gebelein I, likely dating to the Fourth Dynasty reign of Menkaure, preserves a list of men and women who worked on temple construction (*hwt ntr nt snfrw*) within the town of *inrty-inpw*, thus providing early evidence that government access to provincial labor was not exclusive to the late Old Kingdom.<sup>81</sup>

It is evident that an array of goods and services may be *hwt* and that they enter into a royally protected status. There was some pattern of exploitation of temples’ and pyramid towns’ labor and, to a lesser extent, produce, at

73 Hannig, *Großes Handwörterbuch*, 406.

74 *Urk.* I, 214: 17.

75 See also Helck, “Abgeben und Steuern,” 4.

76 Abydos Decree of Neferirkare, Coptos Decree B, C, and D.

77 See the translations in Strudwick, *Texts from the Pyramid Age*, 101, 108, 110, 113.

78 “Befehl zur Einstellung von Leuten zur Arbeit” (*Wb.* IV, 193).

79 “Verlegungsbefehl” (Hannig, *Großes Handwörterbuch*, 788).

80 For an in-depth discussion of the nature and role of determinatives, see Goldwasser, *Prophets, Lovers and Giraffes*, 13–14, 33–35.

81 Posener-Kriéger and Dimichelis, *I papiri di Gebelein*, especially 14; Posener-Kriéger, “Papyrus de Gébélein,” 212. See also Moreno García, “Estates (Old Kingdom).”

minimum, and the king had the authority to bar it. The presence of exemption has been understood to indicate the presence of a centralized process of taxation.<sup>82</sup> However, royal collection agents are not the only people hindered by the protections, as one would expect were taxation regulated by a centralized bureaucracy. In fact, if the biography of Harkhuf can be taken as any indication, the royal house was the *least* affected of all institutions, as the king could revoke or invalidate previous exemptions.<sup>83</sup> Instead, the decrees appear to have protected royal institutions from a wide variety of agents, including the Following of Horus (Coptos A), any emissary (Dahshur decree, Coptos A), any potentate (Abydos decree of Neferirkare), and any man (Abydos decree of Neferirkare). Coptos B, C, and D are even more explicit about the types of officials banned in the exemption: an Overseer of Upper Egypt, any chief, great one of the tens of Upper Egypt, overseer of phyles of Upper Egypt, overseer of commissions, royal acquaintance, overseer of payments, or overseer of royal colonists. Clearly, these men were of different ranks, bearing different relationships to the crown, and should reasonably be understood as holding different fiscal responsibilities. Many of these individuals were specifically tied to the administration of Upper Egypt. As we have the barest understanding of how the state managed its funds—an understanding based largely on titles—it is by no means certain that collections made by different types of functionaries would have gone to the same treasury or the same financial institution. Diversity within state and local fiscal apparatuses would seem to be highly likely.<sup>84</sup>

The multiplicity of actors directly prohibited within these decrees suggests that a broad number of categories could take advantage of the temples and their labor force. While some of the people listed would fall under the broad umbrella of royal administration, there are no hints of systemization. The sheer number of officials listed in some of these decrees gives one the sense

82 Katary, "Taxation (until the end of the Third Intermediate Period)," 5–6.

83 See n. 59, above.

84 Titles show that there were fundamental distinctions within the state's financial administration. For example, some of the country's wealth was managed by the *pr-ḥd nswt*, the royal treasury, while agricultural wealth, including beer and bread, was controlled by the *šnwt nswt*, the royal granary (Strudwick, *Administration*, 295). During the Fourth Dynasty, the *pr-ḥd nswt* and *šnwt nswt* appear to have been controlled by a single person: the Vizier. By the Fifth Dynasty these two entities seem to have been broken into separate administrative units, headed by different individuals and no longer unified under the Vizier. As separate entities, both administrative units seem to have flourished, and more individual offices were created (Nolan, *Mud Sealings*, 335–38; Strudwick, *Administration*, 264–67, 276, 290–93). Thus, the state's financial system was far from monolithic.

of the plethora of administrators comfortable using their power to acquire more goods and services from provincial temples. It seems reasonable to assume that any funds collected would have been used for the activities of their office, not to fund or support a single royal treasury. They might have acquired produce and labor for legitimate government purposes; alternately, it is possible that some officials practiced low-level corruption, using the goods and services for private purposes.<sup>85</sup>

The decrees further substantiate the role of the state as economically important, but not as a fiscally united entity. As a rule, they present taxation but show almost no regularization of the process. Rather, they are illustrative of brief moments and instances of taxation, suggesting that centralized taxation was both sporadic and poorly defined. Collection agents vary from decree to decree and taxation seems to have been largely concerned with different types of labor. These events are quite difficult to put into an overall economic picture. It would appear that the power of the government was spreading in the late Old Kingdom, a fact indicated by the growth of the pharaonic administration and the increasing presence of officials in the provinces, but that this power stopped far short of a regular, systematized framework which could have reliably filled the royal treasury. Additionally, one should note that all of the evidence remaining to us comes from royal institutions. We ultimately do not know how these irregular policies would have affected the life of the average Egyptian outside of crown institutions.

#### 4 Diversity and Change in Old Kingdom Taxation Policy

Economies change over time, just as administrations do. The Old Kingdom state appears to have grappled with the issue of taxation, expanding its access to provincial wealth over time while never regularizing or systematizing. The Following of Horus and the Census, normally identified as the most likely groups to serve as organs for Old Kingdom central taxation, instead appear more likely to have been ritual institutions rather than the primary agencies of the financial administration. There is no firm evidence that either were

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85 Patterns of low-level bureaucratic corruption are clear in later periods where more documentation is available. The Edict of Horemheb specifically addresses this practice by establishing penalties for royal officers who seize slaves for labor, troops who steal leather hides, and the like (Breasted, *ARE* III, 27–30). It seems very likely that royal officers who took advantage of their privileges were not limited to the New Kingdom and later: see Eyre, “Patronage, Power, and Corruption.”

ever involved in the true collection of goods; their identity as tax or collection activities has been based largely on inference and assumption. By the late Old Kingdom, royal decrees clearly document some provincial taxation which does not rely on either of the older bodies. However, the decrees detail a murky, un-systematized collection of labor, for the most part, —not goods—, which appears to have been sporadic, and collection authorities which were varied and haphazard. At no point does the evidence suggest that taxation of the provinces was routine or systematized. There is no sign that the products made their way to a single royal treasury. The king seems to have held a position whose authority was so respected or feared that he could exempt royally-established temples from being taxed. This does not necessarily mean that labor and goods otherwise collected were going into the royal purse.

It is impractical to assume that royal coffers were dependant upon popular taxation. The decrees show the existence of provincial production centers attached to *k3*-chapels in some provincial temples: the *pr-šn*<sup>c</sup>. Papazian has suggested that the proliferation of *pr šn*<sup>c</sup> show the presence of royal economy rooted in provincial temple infrastructure during the late Old Kingdom.<sup>86</sup> However, the presence of royal power within local temples does not mean that royal fiscal policy devoured provincial economic realities. Royal networks would have existed side-by-side with private granaries,<sup>87</sup> private ownership of land,<sup>88</sup> and private payment of wages.<sup>89</sup> That the royal economic network only supported the crown and crown-sponsored elite and was not applied to public support or provincial works seems most likely, as the state was neither strong enough nor far-flung enough to be embedded in the lives of its populace.

The average Egyptian farmer possessed little of real worth to the sphere of the elite. To a limited degree, taxing the elite would have been an exercise in redundancy, as their status and wealth depended in large part upon the royal house.<sup>90</sup> Instead, one should turn to royal domains and trading/mining missions as reliable sources of royal capital.<sup>91</sup> There was a surfeit of land in the Old

86 Papazian, *Domain of the Pharaoh*, 272–83, 298–99; for more information on the appearance of *k3*-chapels, see Papazian, “Perspectives on the cult of Pharaoh.”

87 Adams, “Household Silos, Granary Models, and Domestic Economy in Ancient Egypt.”

88 Allam, “Affaires et opérations commerciales,” 135; Menu, “Ventes de maisons.”

89 Chauvet, *The Conception of Private Tombs in the Late Old Kingdom*, 191–211; Roth, “The Practical Economics of Tomb-Building in the Old Kingdom;” Eyre, “Work and the organization of work,” 24–25.

90 Kemp, *Ancient Egypt: Anatomy of a Civilization*, 232.

91 Several such excursions are known, for example the Dakhla expedition sponsored under Khufu: Kuper and Förster, “Khufu’s ‘mefat’ expeditions into the Libyan Desert.” For additional mining expeditions, see Möller, *Die Felseninschriften von Hatnub*; Shaw,

Kingdom, much of which was owned by the crown through an ever-growing network of royal domains.<sup>92</sup> Even during the early Old Kingdom, the economic strength of the crown was in part based on provincial domains and provincial pyramids.<sup>93</sup> As a result, what the central administration needed to stock its treasuries was not goods but labor to bring these lands into productivity and to build royal monuments.<sup>94</sup> Labor could be purloined by many different arms of the government with little regularization; as long as the labor was applied to royal projects and lands this practice would have helped to build the wealth of the crown. As long as the king had ritual power to support his authority, widespread regular taxation of goods would have been unnecessary for the vitality of the Old Kingdom crown. There is no need for a government to tax the produce of its citizens if the treasury can be filled independently.

### Abbreviations

All abbreviations not included in this list follow those used in the *Lexikon der Ägyptologie*.

AEL I	M. Lichtheim. <i>Ancient Egyptian Literature</i> . Volume I: The Old and Middle Kingdoms. Berkeley: University of California Press, 1975
AOS	American Oriental Series
ARE III	J.H. Breasted. <i>Ancient Records of Egypt</i> . Volume III: The Nineteenth Dynasty. Urbana: University of Illinois Press, 2001
BM	British Museum
Gardiner sign-list	A.H. Gardiner. <i>Egyptian Grammar</i> . 3rd edition, revised. London: Oxford University Press, 1969.
JE	Journal d'Entrée (Cairo Museum)
JESHO	<i>Journal of the Economic and Social History of the Orient</i>

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“Pharaonic Quarrying,” 113–19; Arnold, *Building in Egypt: Pharaonic Stone Masonry*, 31. Large scale exploitation of mineral wealth would have required state resources and involvement, though it is impossible to determine how far such activities served as a source of Egypt’s wealth. See also Eyre, “Work and the organization of work,” 10.

92 Moreno García, “Estates (Old Kingdom),” 1–2 and Hwt *et le milieu rural égyptien du III<sup>e</sup> millénaire*, 206–08, 236, 265; Jacquet-Gordon, *Les noms des domaines*.

93 In addition to bibliography cited in the above note, see also Papazian, *Domain of the Pharaoh*, 85–108.

94 Central control and collection of goods from the *hwt* are evident both in relief, for example, in the mastaba of Khentika (James, *The Mastaba of Khentika called Ikhekhi*, pl. 9), and in the Abusir Papyri (Posener-Kriéger, “Les papyrus d’Abousir”).



- KD* H. Goedicke. *Königliche Dokumente aus dem Alten Reich*. ÄA 14. Wiesbaden: Harrassowitz, 1967.
- LdÄ* E. Otto, W. Westendorf, and W. Helck, eds. *Lexikon der Ägyptologie*. 7 vols. Wiesbaden: Harrassowitz, 1975–1991.
- MFA* Museum of Fine Arts, Boston
- MMA* Metropolitan Museum of Art, New York
- PS* Palermo Stone
- UGAA* *Untersuchungen zur Geschichte und Altertumskunde Ägyptens*
- Urk. I* Kurt Sethe. *Urkunden des Alten Reiches*. *Urkunden des ägyptischen Altertums* 1. Leipzig: J.C. Hinrichs'sche Buchhandlung, 1932–33
- WA* Writings from the Ancient World
- Wb* A. Erman and H. Grapow. *Wörterbuch der ägyptischen Sprache, Band 1–v*. Berlin: Akademie Verlag, 1971

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