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Fujiwara Kintō's Dual Poetical Taste in *Wakanrōeishū* 485-494

Fujiwara Kintō (966–1041) is said to have chosen "interesting things" (*okashiki koto*) from what he knew and liked of both, Japanese and Chinese poetry, and collected them in *Wakanrōeishū*. It certainly is exciting to look back at the two volumes of the *Wa* (Japanese) and *Kan* (Chinese) chants from the distance of one thousand years and to learn – by comparing the choices of Japanese and Chinese poems – about the processes of accommodating foreign poetry in the Japan's domestic milieu. Comparisons can be made on several levels. We can also ask, why did Kintō choose one hundred and forty poems by Bai Juyi (772–846) for his collection, while about thirty other Chinese poets were only represented by a few lines. The most interesting point, however, seems to be the complex composition of *Wakanrōeishū*, especially the resemblance of its two main parts to musical pieces.

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Václav Blažek:

Semitic Etymological Dictionary I 495-510

The first volume of of the first *Semitic Etymological Dictionary* (= *SED*) is devoted to *Anatomy of Man and Animals*. The authors, two Russian semiticists, Alexander Militarev and Leonid Kogan,

were able to realize the initial project of the team originally headed by their teacher, Professor Igor M. Diakonoff, who died only one year before the publication of the first volume of the prepared series. With respect to the project *Dictionnaire des racines sémitiques*, started by David Cohen (1970f) and organized according to the Hebrew alphabet, it was a fortunate decision to arrange the present dictionary according to semantical fields. In contrast to Cohen's dictionary, *SED* contains a detailed introduction into comparative-historical Semitic phonology and nominal morphology, in which the authors operate with vocalized reconstructions of the nominal stems. Their choice of language material is comprehensive, from the ancient languages including Eblaite to the modern varieties of Aramaic, Arabic, Modern South Arabian or Gurage. Occasionally quoted parallels from other Afroasiatic branches bring valuable additional information.

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Archaeological Remarks on the 4th and 5th Dynasty Chronology

Miroslav Verner, Praha

Not surprisingly, the more we return to the beginning of the history of Ancient Egypt the scarcer becomes the available historical evidence – especially the direct sort, that is based on the contemporaneous written documents – and the more complex and difficult is its examination. Even more axiomatic is the realisation that the closer we get to the beginning of the historical age in Egypt, the wider is the differential for any one given date. The dates suggested for the beginning of the 1st Dynasty thus differ by 100–150 years, those for the 4th and 5th Dynasty by several decades.¹

Regrettably, the invaluable source of information on the 4th and 5th Dynasty chronology, the Annals, has survived only in few fragments.² Other available, contemporaneous written evidence referring to this period – masons' marks, papyri, rock stelae, ostraca, inscriptions in private tombs, etc. – presents us with a set of dates fraught with difficulties: in some cases the attribution of the date to a king is doubtful, the series of actual dates relating to individual kings are largely incomplete, the reading of some dates is uncertain, and the like.

Two other important sources of information, the Royal Canon of Turin (hereafter RCT)³ and the Manethonian tradition⁴, are not problem-free either. However, no matter how damaged and incomplete the chronological dates in both kinds of sources on the 4th and 5th Dynasty are, the RCT has become over time a sort of a standard against which the contemporaneous evidence is commonly measured. The data from the Manethonian tradition are generally considered to be far less credible.

In addition to the large incompleteness of chronological dates, the reconstruction of the very base of the 4th and 5th Dynasty relative chronology, the

¹ Concerning the present state of the discussion on the chronology of Ancient Egypt, and the relevant bibliography, see J. v. Beckerath, *Chronologie des Pharaonischen Ägypten* (hereafter *Chronologie*), 1997 (MÄS 46); as for the chronology of the 1st up to 5th Dynasties, see also W. Barta, in: ZÄS 108, 1981, 11–23.

² H. Schäfer, *Ein Bruchstück altägyptischer Annalen*, 1902 (APAW: Phil.-hist Kl. 4), 29–41 (hereafter *Annalen*); H. Gauthier, *Quatre nouveaux fragments de la pierre de Palerme*, in: G. Maspero, *Le Musée égyptien*. III (hereafter *Quatre fragments*), Le Caire 1915, 29–53 and pls. 25–31.

³ G. Farina, *Il papiro dei re restaurato*, Roma 1938, 27–30; A. H. Gardiner, *The Royal Canon of Turin* (hereafter *RCT*), Oxford 1959, pl. 2; J. Málek, *JEA* 68, 1982, 93–106.

⁴ W. G. Waddell, *Manetho*, London 1948; W. Helck, *Untersuchungen zu Manetho und den ägyptischen Königslisten* (hereafter *Manetho*), (UGAA 18) 1956.

sequence of the kings of that period of time, remains in several cases uncertain. For instance, this concerns the position of Manetho's Bicheris within the 4th Dynasty or the nebulous end of the same Dynasty. In the 5th Dynasty, especially the position of the mysterious king Shepsekara and the sequence of kings between the end of Neferirkara's and the beginning of Niuserra's reign can be questioned.

Another problem of crucial importance for the reconstruction of not only the 4th and 5th Dynasty, but the whole Old Kingdom chronology represents the understanding of the dating system applied in that time. Since the publication of A. H. Gardiner's article on *Regnal Years and Civil Calendar in the Pharaonic Egypt*⁵, an opinion prevailed that the biennial count of cattle represented the foundation of the system of dating in the Old Kingdom through to the end of the reign of Pepi II. At the end of the Old Kingdom, the biennial rhythm of the census of the country's wealth is supposed to have become annual.⁶ First serious doubts about the regularity of the biennial system were raised by the evidence of the 7th and 8th cattle counts held, according to the Palermo Stone fragment⁷, during Snofru's reign in two successive years.⁸ These doubts were further increased after P. Posener-Kriéger's publication⁹ of masons's marks with dates coming from the Meidum pyramid.¹⁰

Unfortunately, only a limited contribution to the discussion on the reconstruction of the 4th and 5th Dynasty chronology bring the so far few available pieces of absolute dating based on the natural scientific methods. Though recently increased by several new pieces (see the conclusions), the absolute dates for the 4th and 5th Dynasty, gathered often in a haphazard way, are still not only very sporadic but also far from being unequivocal. Their interpretation being often fraught with technical problems, the absolute dates for this period of time are hazy (with the margin error up to ± 250 years) – except for several recently suggested astrochronological dates concerning the beginning of the construction of some 4th and 5th Dynasty pyramids (with the presupposed margin error of ± 5 years)¹¹ – within a range of several decades.

No doubt, the reconstruction of the 4th and 5th Dynasty chronology continues to be a multitiered problem largely complicated by the incompleteness of the contemporaneous evidence and its interpretation. Concerning the dated contemporaneous texts, a pioneering work has already been done by A. Spalinger who, inspired by an earlier work of W. S. Smith on the *Inscriptional*

⁵ In: *JEA* 31, 1945, 11-28.

⁶ V. Beckerath, *o. c.* 10.

⁷ Schäfer, *o. c.* pl. 1.

⁸ Concerning a more detailed discussion on the problem, see e. g. T. Wilkinson, *Royal Annals of Ancient Egypt* (hereafter *Annals*), 2000, 145f.

⁹ *Graffiti on the revetment blocks of the pyramid*, in: Ali el-Khouli, *Meidum*, (*ACE Report* 3) 1991, 17-21.

¹⁰ R. Krauss, in: *JEA* 82, 1996, 47f.

¹¹ K. Spence, *Ancient Egyptian chronology and the astronomical orientation of pyramids*, in: *Nature* 408, 2000, 320-324.

evidence for the history of the Fourth Dynasty¹² gathered and published some time ago *Dated Texts of the Old Kingdom*¹³. Since the publication of A. Spalinger's work, however, a number of new dated written documents have been revealed, especially in the excavations in Abusir. Besides these new materials, some of the earlier known dates can also be now examined from a somewhat different point of view especially, as far as the broader archaeological context in which some dated texts were found is concerned. This paper will therefore concentrate mostly on two aspects of the chronology problem namely, the examination of the dated contemporaneous written documents and some relevant archeological observations. In the following brief statistical overviews, a question mark follows the citations of *rnpt sp* / *rnpt m-ḥt sp* when some specific instance is open to question.

4th Dynasty

SNOFRU

RCT col. III.9: 24 years

Manetho: Sôris – 29 years

W. Barta (ZÄS 108, 1981, 21): 29 full + 2 incomplete years

J.v. Beckerath (*Chronologie*, 159): 35 years (?)

Besides the King-lists, there is a relatively rich collection of dated contemporaneous written documents relating to the reign of Snofru. Most of the dates come from masons' inscriptions found at the king's pyramids in Meidum and Dahshur.

rnpt sp

- *rnpt sp* 2 (*n*) *tnwt* (Cairo frg no. 4)¹⁴
- *rnpt sp* 7 (*n*) *tnwt* (Palermo Stone, recto 6)¹⁵
- *rnpt sp* 7, *3bd* 3 (Meidum pyramid)¹⁶
- *rnpt sp* 8 (18 ?), *3bd* 3 *šmw*, *šw* 21 (Meidum pyramid)¹⁷
- *rnpt sp* 8 (*n*) *tnwt* (Palermo Stone, recto 7)¹⁸
- *rnpt sp* 12, *3bd* 4 *šmw*, *šw* 1 (?) (Meidum pyramid)¹⁹
- *rnpt sp* 13, ... *prt* (?), *šw* 10 (Meidum pyramid)²⁰
- *rnpt sp* 13 (16 ?), *3bd* 1 *šmw*, *šw* ... (Meidum pyramid)²¹
- *rnpt sp* 13, ... *šmw*, *šw* ... (Meidum pyramid)²²

¹² JNES 11, 1952, 113-128.

¹³ SAK 21, 1994, 275-319.

¹⁴ Gauthier, *o. c.* 50ff.

¹⁵ Schäfer, *o. c.* 30.

¹⁶ Posener-Kriéger, *o. c.* 20 and pl. 8, A 20.

¹⁷ Posener-Kriéger, *o. c.* pl. 8, A.27.

¹⁸ Schäfer, *o. c.* 31.

¹⁹ Posener-Kriéger, *o. c.* pl. 8, A.33.

²⁰ Posener-Kriéger, *o. c.* pl. 7, A.1.

²¹ Posener-Kriéger, *o. c.* pl. 7, A.11.

²² Posener-Kriéger, *o. c.* pl. 7, A.5.

- *rnpt sp* 13 (16 ?), ... *šmw, šw* ... (Meidum pyramid)²³
- *rnpt sp* 13 (Meidum pyramid)²⁴
- *rnpt sp* 13 (Meidum pyramid)²⁵
- *rnpt sp* 14 (17 ?), *3bd 2 šmw, šw* ... (Meidum pyramid)²⁶
- *rnpt sp* 14 (17 ?), ... *prt* (Meidum pyramid)²⁷
- *rnpt sp* 14 (17 ?), *3bd 1 + x* (Meidum pyramid)²⁸
- *rnpt sp* 15, *3bd 2 prt, šw* 14 (Dahshur, Red Pyramid)²⁹
- *rnpt sp* 15 (?), *3bd 3 prt* (Meidum pyramid)³⁰
- *rnpt sp* 15, *3bd 3 šmw, šw* 10 + x (Meidum pyramid)³¹
- *rnpt sp* 15 (?), *3bd 4 šmw* (?), *šw* 10 (Meidum pyramid)³²
- *rnpt sp* 15 (?), ... *šmw* (?), *šw* ... (Meidum pyramid)³³
- *rnpt sp* 15 (Dahshur, Red Pyramid)³⁴
- *rnpt sp* 16, *3bd 1 3ht, šw* 13 (Dahshur, quarry mark)³⁵
- *rnpt sp* 16, *3bd 3 3ht* (Dahshur, Red Pyramid)³⁶
- *rnpt sp* 16, *3bd 4 3ht, šw* 14 (Meidum pyramid)³⁷
- *rnpt sp* 16, *3bd 2 (?) šmw, šw* 12 (Meidum pyramid)³⁸
- *rnpt sp* 16 (?), *3bd ... prt, šw* 2 (Dahshur, Red Pyramid)³⁹
- *rnpt sp* 16 (?), *3bd 1 prt* (Meidum pyramid)⁴⁰
- *rnpt sp* 16 (?), *3bd 3 prt* (Meidum pyramid)⁴¹
- (*rnpt sp*) 16 (Meidum pyramid)⁴²
- *rnpt sp* 17, *3bd 2 prt, šw* 10 + x (Meidum pyramid)⁴³
- *rnpt sp* 17, *3bd 1 prt, šw* 20 (Meidum pyramid)⁴⁴
- *rnpt sp* 17, *3bd 1 prt, šw* 22 (Meidum pyramid)⁴⁵
- *rnpt sp* 17, *3bd 3 prt, šw* ^ϵ*rk* (Meidum pyramid)⁴⁶
- *rnpt sp* 17, *3bd 3 prt, šw* ... (Meidum pyramid)⁴⁷

²³ Posener-Kriéger, *o. c.* pl. 7, A.9.

²⁴ Posener-Kriéger, *o. c.* pl. 7, A.2.

²⁵ Posener-Kriéger, *o. c.* pl. 8, A.31.

²⁶ Posener-Kriéger, *o. c.* pl. 8, A.23.

²⁷ Posener-Kriéger, *o. c.* pl. 8, A.24.

²⁸ Posener-Kriéger, *o. c.* pl. 8, A.26.

²⁹ R. Stadelmann, in: *MDAIK* 43, 1986, 234f. and fig. 2.

³⁰ Posener-Kriéger, *o. c.* pl. 7, A.4.

³¹ W. M. F. Petrie, E. J. H. Mackay, G. A. Wainwright, *Meidum and Memphis III*, 1910, 9 and pl. V,6.

³² Posener-Kriéger, *o. c.* pl. 7, A.6.

³³ Posener-Kriéger, *o. c.* pl. 7, A.9.

³⁴ Stadelmann, in: *MDAIK* 43, 1986, 233-5 and fig. 1.

³⁵ *LD II*, Bl. I g.

³⁶ Stadelman, in: *MDAIK* 43, 1986, 234f. and fig. 2.

³⁷ A. Rowe, in: *The Museum Journal* 22, 1931, 26 and pl. 38, fig. 2.

³⁸ Posener-Kriéger, *o. c.* pl. 7, A.3.

³⁹ H. Sourouzian, in: *MDAIK* 38, 1982, 389f., fig. 5.

⁴⁰ Rowe, in: *The Museum Journal* 22, 1931, 26.

⁴¹ Posener-Kriéger, *o. c.* pl. 8, A.22.

⁴² Posener-Kriéger, *o. c.* pl. 7, A.7.

⁴³ Petrie, Mackay, Wainwright, *o. c.* 9 and pl. 5, 2 left.

⁴⁴ Posener-Kriéger, *o. c.* pl. 7, A.13.

⁴⁵ Posener-Kriéger, *o. c.* pl. 7, A.14.

⁴⁶ Petrie, Mackay, Wainwright, *o. c.* 9 and pl. 5,4.

⁴⁷ Petrie, Mackay, Wainwright, *o. c.* 9 and pl. 5, 3.

- *rnpt sp* 17, *3bd* 3 *3ht*, ... (Meidum pyramid)⁴⁸
- *rnpt sp* 17, ... *prt* (Meidum pyramid)⁴⁹
- *rnpt sp* 17, (*3bd*) 1 + x *prt*, (Meidum pyramid)⁵⁰
- *rnpt sp* 17, (*3bd*) 1 + x (Meidum pyramid)⁵¹
- *rnpt sp* 17, *3bd* ... (Meidum pyramid)⁵²
- *rnpt sp* 17 (Meidum pyramid)⁵³
- *rnpt sp* 18, *3bd* 1 *prt*, *św* 21 (Meidum pyramid)⁵⁴
- (*rnpt*)-*sp* 23, *3bd* 2 *śmw* (Meidum pyramid)⁵⁵
- (*rnpt*)-*sp* 24, *3bd* 3 *3ht*, ... (?) (Dahshur, Red Pyramid)⁵⁶
- *rnpt sp* 24, *3bd* ... *prt*, ... (Dahshur, Red Pyramid)⁵⁷

Damaged evidence of *rnpt sp*

- (*rnpt sp*) 10 + x, *3bd* 4 *śmw* (Meidum pyramid)⁵⁸
- *rnpt sp* 10 + x (Meidum pyramid)⁵⁹
- (*rnpt sp*) (1)6 (?), *3bd* 1 + x, *św* 12 (Meidum pyramid)⁶⁰
- *rnpt sp* (1)6 (?), *3bd* 1 + x *śmw* (?), *św* 22 (Meidum pyramid)⁶¹
- *rnpt sp* (1)7 (?), *3bd* 4 *śmw*, *św* 21 (Meidum pyramid)⁶²
- *rnpt sp* ..., *3bd* 4 ..., *św* ... (Meidum pyramid)⁶³
- *rnpt sp* ..., *3bd* 3 *śmw*, *św* ... (Meidum pyramid)⁶⁴
- *rnpt sp* ..., *3bd* 3 *śmw*, ... 10 + x (Meidum pyramid)⁶⁵

*rnpt (m-)ht sp*⁶⁶

- *rnpt (m-)ht sp* 10, *3bd* 1 + x (Meidum pyramid)⁶⁷
- *rnpt (m-)ht sp* 13, ... (Meidum pyramid)⁶⁸
- *rnpt (m-)ht sp* 18, *3bd* 4 *śmw*, *św* (?) 5 (Meidum pyramid)⁶⁹

⁴⁸ Posener-Kriéger, *o. c.* pl. 7, A.12.

⁴⁹ Posener-Kriéger, *o. c.* pl. 7, A.16.

⁵⁰ Posener-Kriéger, *o. c.* pl. 7, A.17.

⁵¹ Posener-Kriéger, *o. c.* pl. 7, A.18.

⁵² Posener-Kriéger, *o. c.* pl. 8, A.21.

⁵³ Posener-Kriéger, *o. c.* pl. 7, A.19.

⁵⁴ Posener-Kriéger, *o. c.* pl. 8, A.29.

⁵⁵ Posener-Kriéger, *o. c.* pl. 9, A.42.

⁵⁶ Stadelmann's hypothetical reconstruction of a mason's mark (in: *MDAIK* 43, 1986, 234-6 and fig. 3) published by Lepsius, *LD Text* I, 206;.

⁵⁷ Stadelmann, in: *MDAIK* 43, 1986, 239f. and fig. 4.

⁵⁸ Posener-Kriéger, *o. c.* pl. 8, A.34.

⁵⁹ Posener-Kriéger, *o. c.* pl. 8, A.35.

⁶⁰ Posener-Kriéger, *o. c.* pl. 7, A.8.

⁶¹ Posener-Kriéger, *o. c.* pl. 7, A.10.

⁶² Posener-Kriéger, *o. c.* pl. 7, A.15.

⁶³ Posener-Kriéger, *o. c.* pl. 9, A.36.

⁶⁴ Posener-Kriéger, *o. c.* pl. 9, A.37.

⁶⁵ Posener-Kriéger, *o. c.* pl. 9, A.41.

⁶⁶ In this paper, the consistent transcription of the preposition "after" as *m-ht* follows E. Edel' opinion that the writing *ht* is probably a graphically abbreviated variant of *m-ht* only, see *Altägyptische Grammatik* (hereafter *Grammatik*). I, (*An Or* 34) 1955, 180 § 413.

⁶⁷ Posener-Kriéger, *o. c.*, pl. 8, A. 30.

⁶⁸ Posener-Kriéger, *o. c.* pl. 8, A. 32.

⁶⁹ Posener-Kriéger, *o. c.* pl. 8, A. 28.

damaged evidence of *rnpt (m-)ht sp*:

– *rnpt (m-)ht sp* ... (Meidum pyramid)⁷⁰

Attested *rnpt sp*: 2; 7; 8; 12; 13; 14; 15; 16; 17; 18; 23; 24

attested *rnpt (m-)ht sp*: 10; 13; 18

rnpt sp : *rnpt (m-)ht sp* – 12 : 3

Masons' inscriptions with the dates discovered in the Red Pyramid, especially a graffito with the date of *rnpt sp* 24, led Stadelmann⁷¹ to the conclusion that the length of Snofru's reign could have ranged from 44 up to 48 years. Obviously, Stadelmann's estimation was based on the premise of a biennial census in Snofru's time, except for two previously mentioned cattle counts, the 7th and 8th, which took place in two successive years.⁷² Moreover, Stadelmann's estimation of a long reign for Snofru was further enhanced by the large scale building activities of the king amounting, as far as only royal monuments are concerned, to a volume of 3,75 million cubic metres of stone masonry. The examination of all available data referring to Snofru also enabled Stadelmann⁷³ to propose the following relative chronology for the king's pyramids:

1. *rnpt sp* 1–7: stepped pyramid (E 1 – E 2) in Meidum
2. *rnpt sp* 8–14: lower portion ("Pyramidenstumpf") of the Bent Pyramid in Dahshur
3. *rnpt sp* 15–24/26: Red Pyramid; completion of the Bent Pyramid; conversion of the stepped pyramid in Meidum into a true pyramid (E 3).⁷⁴

A new and important impulse to the discussion on the length of Snofru's reign was given by Ali el-Khouli's excavation at the pyramid in Meidum in the 1980s. The excavations took place mostly along the northern side of the pyramid and in the area of the mortuary temple in front of the eastern side of the pyramid. From the debris along the northern side of the pyramid over three thousand blocks were extracted, some of them bearing quarry-marks and masons' inscriptions. Interestingly, as emphasized by Ali el-Khouli in his report⁷⁵, not a single block of any size was found when the excavation was extended along the western side of the pyramid. There were five or six courses of dressed casing blocks on the northern facade, but the other courses remained unfinished.

⁷⁰ Posener-Kriéger, *o. c.* pl. 9, A. 38.

⁷¹ *MDAIK* 43, 1986, 229-239.

⁷² According to Stadelmann, *o. c.* 236, the fact that the census was carried out in these two successive years was influenced by the transfer of the royal residence from the area of Meidum and Seila to Dahshur. Spalinger (*o. c.* 281) assumed that "the 7th census may have been delayed by one year owing to (Snofru's) military action to the south" whereas O'Mara (*The Palermo Stone and the Archaic Kings of Egypt*, 1979, 94) took it for a scribal copying error rather than a change in the biennial rhythm.

⁷³ *O. c.* 238.

⁷⁴ Though quarry marks were revealed on the masonry stones, no inscriptions with the dates were reported from the Seila pyramid, see J. Leclant, G. Clerc, in: *Or* 57/3, 1988, 336; 58/3, 1989, 368; 59/3, 1990, 369. Nevertheless, it is probable that this monument was built at the same time as the final stage of the Meidum pyramid.

⁷⁵ *Meidum (ACER 3)* 1991, 12.

Ali el-Khouli's report does not make it clear where precisely and in which archaeological context the blocks were found, nor does it specify which marks and inscriptions were inscribed on what type of stone (i. e. whether on a casing, a backing or a core stone). According to Posener-Kriéger,⁷⁶ the blocks came from the casing and were found near the north-west corner of the pyramid.

Most of the Meidum data published by Posener-Kriéger mention census years 13, 14, 15, 16 and 17 and it is only rarely that the years 7, 8, 12, 18 and 23 are attested, too; there occur also data with years following the 10th, 13th and 18th census. It is also worth mentioning that there is a great disproportion between the occurrence of census years and the years following the census (ca 7 : 1). Posener-Kriéger⁷⁷ commented on this disproportion as follows: "As it is rather unlikely that work was conducted on the royal pyramids only every two years, we have to accept, it seems to me and until proof to the contrary is produced, that it was only rarely that a distinction was made between the years *rnpt sp* and *rnpt (m-)ht sp*."

With regard to the largely unclear archaeological context in which the blocks were found, any conclusions that might be drawn from this undoubtedly very important written evidence should be made with great prudence. For instance, it seems very strange that all blocks unearthed around the north-west corner of the pyramid and bearing quarry marks or masons' inscriptions were found on the northern side, while not a single block with a date was discovered on the western side of the monument (see the above-mentioned observation by el-Khouli). Does it mean that the blocks had been gradually concentrated in this place between the 7th and 23rd census of Snofru? Moreover, since the blocks with dates come according to Posener-Kriéger from the casing (obviously, the last building stage of the pyramid, E 3 by Borchardt), it is hard to believe that only the western part of the northern side of the pyramid's casing had been under construction during this time span – yet this is what this body of evidence seems to be telling us. There can, therefore, be little doubt that the casing blocks were prepared in advance, kept in a local storage place and delivered to the building site in accordance with the needs of the pyramid's construction. If so, the dates would have only an *ante quem* meaning: the NW corner of the casing of the pyramid in Meidum was built before the 23rd census of Snofru. However, the blocks could have also been concentrated in this place in later times by stone robbers which would better explain the above mentioned broad variety of dates. It can only be regretted, that the archaeological context in which the blocks were found, was not examined more carefully by the excavator.

In the mid 1990s, the dates relating to Snofru's reign were discussed by Spalinger⁷⁸. He expressed his opinion that "on certain occasions 'odd' counts could be ignored and both Stadelmann and Posener-Kriéger have adduced good

⁷⁶ *O. c.* 17-21.

⁷⁷ *O. c.* 19.

⁷⁸ *O. c.* 316-319.

reasons for Snofru's abandonment of one such year". At the same time, however, Spalinger stressed that a biennial system was in operation from Dynasties IV to VI.

Recently, R. Krauss⁷⁹ has offered a critical note in regard to Stadelmann's calculations concerning the length of both Snofru's reign and the construction of the Red Pyramid. As a result, he rejected the latter's estimations of Snofru's length of reign and the period of time taken to build the pyramid. Following his examination of all the dates relating to Snofru, Krauss⁸⁰ concluded that "...24 dates known for Sneferu, whether years of the count or intervening years, represent eight occasions of the count followed by an intervening year and sixteen counts that occurred in successive years, yielding a reign of about 32 rather than 48 regnal years for the king."

In both Krauss's and Stadelmann's calculations, special importance was attributed to several blocks (or fragments of blocks) bearing following masons' inscriptions with the dates:

- a) A foundation stone with an inscription mentioning the beginning of building works on the Red Pyramid in *rnpt sp* 15, found *in situ* in the south-west corner of the pyramid⁸¹.
- b) A "backing stone" with the date *rnpt sp* 15, *3bd 2 šmw, šw* 14, found not *in situ* near the level of the 12th course;⁸²
- c) Another stone, this time bearing the date *rnpt sp* 16, *3bd 3 3ht, šw*, found not *in situ* at a height of about 12 m, probably in the 16th or 17th course.⁸³

Stadelmann saw in the above cited dates an evidence that the lower part of the Red Pyramid, up to the 17th course, had been built within few years involving the 15th and 16th census. The same dates led eventually Krauss⁸⁴ to the construction of a mathematical equation enabling him to determine the rate of the construction of the Red Pyramid (or, as the case may be, any pyramid). He calculated that the building of the Red Pyramid lasted cca 10,6 years. His calculations concerning the Red Pyramid are based, among other things, on these premises:

1. The average height of a block was 0.7 m.
2. The technology for transporting the blocks vertically did not change fundamentally (consequently, Krauss calculated "the mean deceleration coefficient" and concluded that it took 15 times longer to lay a block in the uppermost course than it did in the first one at the bottom of the pyramid).

⁷⁹ *JEA* 82, 1996, 43-50; *id.* in: *ZÄS* 125, 1998, 29-37.

⁸⁰ *JEA* 82, 48.

⁸¹ Stadelmann, *MDAIK* 43, 1986, 233f.

⁸² Stadelmann, in: *MDAIK* 39, 1983, 235: "Unmittelbar über der 12. Steinlage fand sich ein abgesprengter 'backing stone', der aufgrund der Fundlage nicht sehr viel weiter von oben kommen kann ...".

⁸³ Stadelmann *loc. cit.*: Sechs Steinschichten darüber (i.a. above the stone with the date *rnpt sp* 15, *3bd 2 šmw, šw* 14) lag ein weiteres Bruchstück mit einem Datum des "16. Jahres, 3. Monats der *3ht* – Jahreszeit und letztem Monatstag" (in fact, the explicit mention of the "last" (*rk*) day is missing in the facsimile of the date published by Stadelmann, see *o. c.* p. 235, fig. 7.

⁸⁴ In: *JEA* 82, 49f.; see also *id.* in: *Orientalia* 66, 1997, 1-14 and in: *ZÄS* 125, 34ff.

3. In his calculations, Krauss presupposed (and so did Stadelmann, too) that the aforesaid inscriptions with dates related to the moment when the stones bearing them were put in the pyramid's core in position.
4. According to Krauss, these dates enable us to determine the rate with which the casing together with the core, between the 12th and 16/17th course (i. e. from the height of 9 up to 12 metres) of the Red Pyramid, were constructed by Snofru's workers.

Albeit interesting and stimulating, the calculations raise caution since their premises are based on some data and considerations which are not quite exact:

- a. The size of the blocks used in the construction of a pyramid is not the same throughout. Usually, with the increasing height of the pyramid, the size of the blocks decreases. According to V. Maragioglio and C. Rinaldi⁸⁵ "the courses on the exterior (of the Red Pyramid) are regularly horizontal and their height is rather constant, but variable from course to course."
- b. Although no thorough examination of the structure of the Red Pyramid's core has been made to date, the available archaeological evidence from other contemporaneous monuments enables us to presume that all courses, from the bottom up to the top of the pyramid, were not built of the same material, i. e. limestone blocks. In this context, very interesting seems to be the observations made by Maragioglio and Rinaldi⁸⁶ in the immediately subsequent monument of the 4th Dynasty, the Great Pyramid. The observations concern the more than 9 metres deep breach opened by Vyse in the southern face of the Great Pyramid. According to the Italian scholars, it "is clearly noticeable that in the building of the inner part of the nucleus very little account was taken of following the well defined and aligned outer courses. In the inner masonry, larger and smaller and sometimes very small blocks are placed side by side without any order". Other questions concerning the homogeneity of the core's masonry were raised by French and Japanese geophysical investigations (including microsondages into the masonry) in the Great Pyramid in 1980s.⁸⁷ There is evidence, for instance from the 5th Dynasty pyramids at Abusir, that large portions of the pyramid's core were built of "refuse" materials as the lumps of stone, rubble, sand, potsherds, etc. It seems needless to emphasize that stones of different size or, as the case may be, various building materials required different working methods. This in turn had differential consequences for the number of workmen, the output, the time needed for the construction of the pyramid, etc.⁸⁸
- c. Two of the above mentioned fragments of backing stones bearing the dates *mpt sp* 15 and 16 were loose stones, i. e. they were not found *in situ*. Moreover, there is no clear-cut proof that the dates on the backing-stones in question would have been written after the stones were placed in position in the pyramid's core. The inscriptions could have been written elsewhere and might well refer to other activities (e. g. to the time of their supply from the quarry or to the revision of building materials in a storage place near the building site) Therefore, these dates can hardly be seriously considered as evidence on which any precise calculations of the time needed for the construction of the pyramid would be safely based.

⁸⁵ *L'Architettura delle piramidi menfite* (hereafter *L'Architettura*) III – Text, 1964, 126.

⁸⁶ *O. c.* IV – Text, 1965, 14.

⁸⁷ Concerning the bibliography of the interim reports on these investigations see e. g. J. Leclant, G. Clerc, in: *Or* 56, 1987, 310; 57, 1988, 324; 58, 1989, 356f.

⁸⁸ Similar doubts about the value of any theoretical calculations involving the time it took to build a pyramid were expressed e. g. also by M. Baud, *Ménes, la mémoire monarchique et la chronologie du III^e millénaire*, in: *Archéo-Nil* (hereafter *Ménes*) 9, 1999, 121. Baud pointed out especially such factors as the incompleteness of the available dates, the impossibility of quantifying the

Concerning the attempt to calculate by means of a mathematical equation the time needed for the construction of a pyramid, there is still one principal objection of a methodological character. The economic, social and political conditions have been gradually changing in the course of time and so did specific circumstances under which individual pyramids were built, too; moreover, the conditions could have dramatically changed even within the reign of one and the same king.⁸⁹

As shown by the previously mentioned list of dates relating to Snofru's reign, the dates of *rnpt sp* 2, 7, 8, 12, 13, 14, 15, 16, 17, 18, 23 and 24 are attested with certainty. Concerning the years following the census, there is a doubtless evidence for *(m-)ht rnpt sp* 10, 13 and 18. No matter how many pieces of evidence of *rnpt sp* and *rnpt (m-)ht sp* years remain yet unrevealed, there exists in the available written documents an apparent disproportion between the two sets of dates. The former group is mentioned four times more frequently than the latter group. Such a great disproportion does not seem to indicate the occasional omission of "odd" years as surmised by some of the authors previously cited. As a matter of fact, the absolute majority of these dates come from the same type of documents – masons' inscriptions and very probably have the same meaning namely, a sort of a control (of the supply of building materials, the output of workmen, etc.). There is, therefore, no reason to assume that sometimes "the odd years" were mentioned in the masons' inscriptions whereas sometimes not. From the very principle of the recording of these dates, they were important and should have always been written. Eventually, the irregularity signalled by the available documents, and the large gaps in the data (cca only 50 % of *rnpt sp* years remain yet unattested) should also prompt a great caution before any attempts to estimate the length of Snofru's reign – be it long as proposed by Stadelmann or essentially shorter as suggested by Krauss.

KHUFU

RCT col. III.10 (?): 23 years

Manetho: Súphis (I) – 63 years

W. Barta (ZÁS 108, 1981, 21) – 23 full and 2 incomplete years

J. v. Beckerath (*Chronologie*, 159): 23 years

rnpt sp:

– *rnpt sp* 4 (?), 3bd ... (G 2130, Khentika)⁹⁰

delays connected with the construction of the rooms in the pyramid, the fluctuation in the number of workmen on the building site during periods of intense agricultural work.

⁸⁹ For instance, according to Krauss (*Or* 66, 1997, 11), the construction of Menkaura's pyramid lasted 1.1 year. In approximately the same period of time, Neferefra was able to build just an incomplete first step of the core of his pyramid (M. Verner, in: ZÁS 126, 1999, 76) which was planned, when finished, to be smaller than that of Menkaura.

⁹⁰ Attributed to Khufu by Smith, *o. c.* 118 fig. 6 and 127 no. 4; the tomb is dated to the time of the king also by Y. Harpur, *Decoration in Egyptian Tombs of the Old Kingdom* (hereafter *Decoration*), 1987, 269, too.

- *rnpt sp* 5, ... *šmw* (?), *šw* 5 (G 1203)⁹¹
- *rnpt sp* 8, *3bd* 1 *prt*, ... (?) (a loose (?) block found at the upper end of Khufu's causeway, near the entrance to the mortuary temple)⁹²
- *rnpt sp* 8, *3bd* 3 *šmw*, *šw* 20 (G 4000, Hemiunu)⁹³
- *rnpt sp* 10, *3bd* 4 *prt*, *šw* 23 (or 24) (G 4000, Hemiunu)⁹⁴
- *rnpt sp* 10, *3bd* 1 *šmw*, *šw* 10 + x (G 4000, Hemiunu)⁹⁵
- *rnpt sp* 10, *3bd* 2 *šmw*, *šw* 10 + x (G 4000, Hemiunu)⁹⁶
- *rnpt sp* 12, *3bd* 2 *šmw* (G 2120, Seshatsekhentiu)⁹⁷
- rnpt sp* 12, *3bd* 2 ... (G 7130–40, Khufukhaf I)⁹⁸

attested *rnpt sp*: 4, 5, 8, 10, 12

rnpt (m-)ht sp: not attested

rnpt sp: *rnpt (m-)ht sp* – 5 : 0

The hitherto highest date referring to Khufu was reported by W. M. F. Petrie according to whom “the name of the king is found repeatedly written in red paint with the date of the 17th year on the blocks of the masonry above the King's chamber ...”.⁹⁹ Unfortunately, Petrie published neither the precise location nor a copy of the inscription with this date. A careful search for evidence of this date in Petrie's archive has brought so far no results (kind personal communication of S. Quirke).

During Reisner's¹⁰⁰ epigraphic survey in the Great Pyramid several inscriptions containing Khufu's name were found and recorded but, surprisingly, none with a date. Such important written documents as the highest dates of Khufu's reign would certainly have not remained overlooked and unrecorded by the American team.

Lauer¹⁰¹ has later failed to identify this date: “... Cependant, nous n' avons pu retrouver cette date sur aucune des inscriptions publiées par Perring ou par Lepsius. Petrie l'aura-t-il relevé lui-même sur la place, mais sans la publier?” It seems from his brief remark, however, that he had simply checked the published evidence from the Great Pyramid, as recorded by Perring or Lepsius,

⁹¹ Attributed to Khufu by Smith, *o. c.* 118, fig. 6 and 127 no. 2, and by Reisner, *A History of the Giza Necropolis* (hereafter *Giza*). I, 1942, 76 n. 2 and 391 /19/.

⁹² Attributed to Khufu by Smith, *o. c.* 119 fig. 7 and 126f. no. 1; originally, A. Rowe read this date “year 13”, see Reisner, *Giza* I, 71.

⁹³ Attributed to Khufu by H. Junker, *Giza* I, 1929, 159, fig. 24 /10/ and 161.

⁹⁴ Attributed to Khufu by Junker, *Giza* I, 161, no. 12.

⁹⁵ Attributed to Khufu by Junker, *Giza* I, 158, 160 and 159 fig. 24 /1/.

⁹⁶ Attributed to Khufu by Junker, *Giza* I, 159 fig. 24 /2/ and 160.

⁹⁷ Attributed to Khufu by Smith, *o. c.* 118, fig. 6 and 127 no. 3, and by Spalinger, *o. c.* 285; according to N. Strudwick, *The Administration of Egypt in the Old Kingdom* (hereafter *Administration*), 1985, 117 no. 6, the dating to the reign of Khafra is possible, too.

⁹⁸ Attributed to Khufu by Smith, *o. c.* 119, fig. 7 and 127 no. 8, and by W. K. Simpson, *The Mastaba of Khufukhaf I and II*, 1978, 9. This dating is also in accordance with Stadelmann's theory that Khufukhaf I might have succeeded Djedefra and, when ascending to the throne, assumed the name Khafra, see SAK 11 (*Fs Helck*), 1985, 165–172.

⁹⁹ *A History of Egypt. I*, London 1924, 60.

¹⁰⁰ *Mycerinus*, 1931, 273 ff., plan XII.

¹⁰¹ BIFAO 73, 1973, 134, n. 1.

and did not personally investigate the masons' marks and inscriptions on the walls of the chambers in the pyramid.

Regarding Petrie's information, Stadelmann took a more prudent position and did not explicitly exclude the existence of such a high date for Khufu: "Eine Verdoppelung der aller späteren Angaben von Regierungsjahren der 4. Dynastie liesse sich von den Bauten und von den Baugraffiti her durchaus begründen: von Cheops ist ein 17. Mal der Zählung in einer der Entlastungskammern durch Petrie beobachtet worden ...".¹⁰²

Spalinger¹⁰³ expressed a suspicion that Petrie confused his records from Snofru's pyramid at Meidum (where the dates of *sp* 17 – of course, not accompanied by any king's name – occur) with those from the Great Pyramid in Giza. Petrie's assertion that such a date occurred in the Great Pyramid repeatedly seems to corroborate Spalinger's theory. Importantly in this context, no information on the dates *rnpt sp* 17 is present from the earlier editions of Petrie's quoted book. Those editions were closer to his excavations in the Great Pyramid in the years 1880 to 1882. On the other hand, the claim occurred in those editions which followed his excavations in Meidum in 1891 and 1909. Anyway, it is strange that Petrie was so confident about the date suddenly as late as in early 1920s.

Currently, Zahi Hawass is surveying the inscriptions in and on the Great Pyramid. According to his kind personal communication, the date of the *rnpt sp* 17, reported by Petrie, has not yet been identified in the pyramid. Before the termination of this survey (new and interesting chronological evidence is also not excluded from private tombs currently under examination by Z. Hawass in the neighbourhood of the Great Pyramid), any definite conclusions concerning the length of Khufu's reign would be premature.

Eventually, a reference remains to be made to the recently suggested new, recalibrated accession date of 2480 ± 5 BC for Khufu¹⁰⁴. The suggested date means the lowering of the lower estimate of Khufu's accession to the throne¹⁰⁵ by 74 years.¹⁰⁶

DJEDEFRA

RCT col. III.11 (?): 8 years

W. Barta (ZÄS 108, 1981, 21) : 8 years

J. v. Beckerath (*Chronologie*, 159): 9 years

rnpt sp

– *rnpt sp* 1, *3bd* 3 *prt*, ...” (Djedefra's pyramid in Abu Rawash)¹⁰⁷

¹⁰² MDAIK 43, 1984, 239.

¹⁰³ O. c. 285, n. 20.

¹⁰⁴ Spence, o. c. 320.

¹⁰⁵ 2554 BC, see von Beckerath, *Chronology*, 159.

¹⁰⁶ Concerning this and other astrochronological dates suggested by K. Spence, see the Conclusions of this paper.

¹⁰⁷ M. Valloggia, in: *Études sur l'Ancien Empire et la nécropole de Saqqara (Fs Lauer)*, 1997, 419.

– *rnpt sp* (or *m-ht sp* ?) 11 (or 10 ?), *3bd 1 pr(t)*, *św 24* (?) (boat pit at the southern side of Khufu's pyramid, near the south-east corner)¹⁰⁸

attested *rnpt sp*: 1, 11 (or 10 ?) (?)

attested *rnpt (m-ht) sp*: not attested (?)¹⁰⁹

rnpt sp : *rnpt (m-ht) sp*: 2 : 0 (?)

The date of *rnpt sp* 11, *3bd 1 pr(t)*, *św 24* (?) was found on a roofing block in the aforesaid boat pit of Khufu together with a number of other masons' marks and inscriptions including names of crews and their sections, measurements, etc. In the crew names, either Djedefra's throne name or his Golden Horus name occur exclusively.¹¹⁰ Nevertheless, the attribution of this date is far from being unambiguous.

Unfortunately, in the first and very brief report¹¹¹ on the marks and inscriptions found on the blocks from the boat pit, the date has remained completely unnoticed, and so it did when Abubakr and Mustafa¹¹² later published its facsimile.

At present, the opinions of scholars concerning the identification of the date basically differ. Stadelmann, for instance, inclines to the attribution of this date to Djedefra¹¹³ and so does e.g. also Vallogia¹¹⁴, the present excavator of the king's pyramid in Abu Rawash, I. E. S. Edwards¹¹⁵, V. Dobrev¹¹⁶ and P. Jánosi¹¹⁷. Some other scholars, however, prefer to attribute the date to Khufu rather than Djedefra – e. g. W. S. Smith¹¹⁸, W. Helck¹¹⁹, A. Spalinger¹²⁰ or J. Vercoutter¹²¹ – assuming that the ceiling block with the date had been brought to the building site of the boat pit already in Khufu's time and placed in position as late as during the burial of the funerary boat in Djedefra's reign.

Undoubtedly, one of reasons for the uncertainty concerning the identification of the date is the way it was documented and published. Firstly, not all marks and inscriptions were published, only those from five out of 41 ceiling

¹⁰⁸ Judging by a brief remark made by I. E. S. Edwards, in: *The Unbroken Reed. Studies ... in honour of A. F. Shore*, 1994, 101 n. 20 on p. 110, Posener-Kriéger read the date as "year 10" (obviously, a short-cut for "the year of the 10th cattle count"). Although both interpretations are understandable, it must be said that the reading of the left column with the date is not doubt-free, the right column of the graffito is almost unreadable, see A. M. Abubakr, A. Y. Mustafa, *The Funerary Boat of Khufu*, in: *BÄBA 12 (Fs Ricke)*, 1971, 11 and fig. 6 bottom left.

¹⁰⁹ See above n. 108.

¹¹⁰ Abubakr and Mustafa, *o. c.* 9-11.

¹¹¹ Z. Nour *et al.*, *The Cheops Boat*. I, Cairo 1960, 7.

¹¹² *Loc. cit.*

¹¹³ "...selbst Djedefre scheint nach den Aufschriften auf den Deckblöcken des Cheopsbootes ein 11. Mal der Zählung gehabt zu haben.", see *MDAIK* 43, 1986, 239.

¹¹⁴ *Loc. cit.*

¹¹⁵ *O. c.* 101.

¹¹⁶ In: *Égypte Afrique & Orient* no. 15, nov. – dec. 1999, 20.

¹¹⁷ *Giza im Alten Reich* (hereafter *Giza*), 2000, 63 (the manuscript of an as yet unpublished second doctorate dissertation, Faculty of Arts, University of Vienna).

¹¹⁸ In: *CAH* I, 3rd ed. 1971, 173).

¹¹⁹ *Geschichte des Alten Ägypten*, 2nd ed. 1981, 54 n. 6.

¹²⁰ In: *SAK* 21, 1994, 285.

¹²¹ *L'Égypte et la Vallée du Nil*. I, , 1992, 276.

blocks which had originally covered the pit. Moreover, the published marks and inscriptions were arranged on the plate¹²² in such a way that it is not clear from which side of which block the date comes and what was its relation to other inscriptions on the block. Unfortunately, relevant photos, and any information on the colour of the inscriptions, etc., were also omitted.

Regardless of all the shortcomings in recording and publishing the inscriptions and marks from Khufu's boat pit, it seems to be difficult to extract the date from the historical context of other marks and inscriptions found in the pit. Of course, there is a lot of evidence of earlier quarry marks or masons' inscriptions superimposed later by newer marks or inscriptions, but this is not the case of the blocks from Khufu's boat pit. These marks and inscriptions seem to form a coherent collection relating to different stages of the same building project realised by Djedefra's crews¹²³. Such marks and inscriptions usually pertain to the breaking of the blocks in the quarry, their transportation, their storage and manipulation in the building site itself, etc.¹²⁴ In this context, the attribution of just a single inscription – and what is more, the only one with a date – on all the blocks from the boat pit to somebody other than Djedefra does not seem to be very plausible.

Those who ascribe the date in question to Khufu usually presume that the pit had already been excavated before Khufu's death and that only the burial of the boat, including the roofing of the pit, took place after Djedefra's accession to the throne. In fact, the very different shape of the five boat pits found around the Great Pyramid does not *a priori* exclude different dates for any of the boat burials.

The discrepancies surrounding the original use of such a boat further complicate the problem of the meaning and dating of the boat burial.¹²⁵ For instance, it has recently been suggested by Dobrev¹²⁶ that the boat pits on the southern side of the Great Pyramid were built only additionally¹²⁷ by Djedefra as a filial piety gesture connected with the establishment of the

¹²² Abubakr, Mustafa, *o. c.* fig. 6.

¹²³ See e. g. Di. Arnold, in: *MDAIK* 37, 1981, 28.

¹²⁴ M. Verner, *Baugraffiti der Ptahschepses-Mastaba* (hereafter *Baugraffiti*), Praha 1992, 184.

¹²⁵ For instance, after the examination of the boat, Nour (*o. c.* 9) concluded that the vessel had never been used on the Nile because of "the absence of any trace for the effect of water on the side parts of the boat". On the other hand, B. Landström (*Ships of the Pharaohs*, 1970, 28) presumes (without clarifying his argument) that "the boat was built only after the death of Kheops, and made only one voyage with the remains of the king to one of the traditional places of pilgrimage, to Abydos or Buto". According to Hawass (in: W. M. F. Petrie, *The Pyramids and Temples of Egypt. An Update*, 1990, 113), the traces on the gangplank indicate that the boat was actually used on the water. This judgement is, however, inconclusive, since the gangplank may have been used on an earlier occasion before it came to be used for Khufu's journey. More important is the obvious absence of any traces of the Nile water on the hull of the boat – as reported by Nour.

¹²⁶ *O. c.* 17f.

¹²⁷ That the pyramid complex of Khufu was probably a place of some additional building activities is attested e. g. by the pyramid G 1 c, see P. Jánosi, *Die Pyramidenanlagen der Königinnen*, 1996, 13.

local divine cult of Djedefra's father and founder of the royal necropolis in Giza, Khufu.¹²⁸

More light on the problem of the length of Djedefra's reign is gradually being shed by the current Franco-Swiss excavation in the king's pyramid complex in Abu Rawash.¹²⁹ It has, for instance, already been discovered by the Franco-Swiss team that the monument was not left unfinished by Djedefra, as assumed by many archaeologists before.¹³⁰ To date, the "unfinished" construction of Djedefra's pyramid was the major archaeological argument for the king's markedly shorter reign in comparison with both his two predecessors and the immediate successor. The fact that pyramid of Djedefra was finished could thus become an argument *for* rather than *against* the attribution of the above discussed date *rnpt sp* (or *m-ht sp* ?) 11 (10?), *3bd 1 pr(t)*, *šw 24* (?) to Djedefra.

Regardless of all the so far presented arguments for or against the attribution of the discussed date from the ceiling block of Khufu's boat pit to Djedefra, the length of the latter king's reign continues to remain uncertain. Though eight years attributed to the king by the RCT also do not need to be considered for a dogma¹³¹, the relatively few monuments and records left by Djedefra do not seem to favour a very long reign of the king. Obviously, no clear cut solution of this problem will be possible before the conclusion of the excavation of Djedefra's pyramid in Abu Rawash.

KHAFRA

RCT col. III.12: 20 + x years

Manetho: Suphis (II) 66 years

W. Barta (*ZAS* 108, 1981, 21): 26 years

J. v. Beckerath (*Chronologie*, 159): 26 years

rnpt sp

– *rnpt sp*1, *3bd 4 3ht*, *šw 5* (ostracon from Helwan tomb 299 H 2)¹³²

¹²⁸ Dobrev (*o. c.* 18) also suggested that it was probably Djedefra who built the Great Sphinx – an image of the divine Khufu. In his opinion, Khafra continued his predecessor's policy and incorporated the monument in his own pyramid complex.

¹²⁹ Though only one inscription with a date has been revealed in this excavation so far, there is a great probability that a number of masons' marks and inscriptions will be brought to light in the future, among them some mentioning the crew names, dates, etc.

¹³⁰ According to Vallogia, (*o. c.* 418), the pyramid largely made use of a natural rock promontory representing cca 45 % of the core. The side of the pyramid was 200 cubits long and its height was 125 cubits. The original volume of the monument approximately equalled that of Menkaura's pyramid.

¹³¹ Since there is clear evidence that some dates given for the 4th and 5th Dynasty kings in this document do almost certainly not correspond with the historical reality, see the conclusions of this paper.

¹³² Z. Saad, *Royal Excavations at Saqqara and Helwan (1941-1945)*, *Suppl. ASAE* no. 3, 1947, 106 and pl. 42 a left; as pointed out by Spalinger, *o. c.* 287, the occurrence of Khafra's cartouche in the inscription clinches the date to this king.

- *rnpt sp 5, 3bd 3 prt, šw 22* (ostracon from Helwan tomb 335 H 2)¹³³
- *rnpt sp 7, 3bd 4 prt, šw 10* (G 7530–40, Meresankh III)¹³⁴
- *rnpt sp 7, 3bd 4 prt, šw 20* (G 7530–40, Meresankh III)¹³⁵
- *rnpt sp 10, 3bd 3 šmw, šw 24* (ostracon Leiden J 429)¹³⁶
- *rnpt sp 10 (?)*, *3bd 3 šmw, ...* (G 7350, Hetepheres II (?))¹³⁷
- *rnpt sp 12, 3bd 2 šmw, šw 10* (G 7650, Akhtihotep and his wife Meretites)¹³⁸
- *rnpt sp 12 tñwt ...* (LG 87, Nikaure)¹³⁹
- *rnpt sp 13, 3bd 4 ...* (G 7650, Akhtihotep and his wife Meretites)¹⁴⁰

¹³³ Saad, *o. c.* 107 and pl. 43 at right; probably the time of Khafra, see the text below.

¹³⁴ Attributed to Khafra by D. Dunham, W.K. Simpson, *The Mastaba of Mersyankh III*, 1974, 3 fig. 1; see also Smith, *o. c.* 127 no. 9 and 119 fig. 7.

¹³⁵ Attributed to Khafra by Dunham, Simpson, *o. c.* 3 fig. 1; see also Smith, *o. c.* 127 no. 9 and 119 fig. 7. The anthropological examination of Meresankh III's bones revealed that she died at the age of about fifty years (V. G. Callender, *Egypt in the Old Kingdom*, 1998, 172f.).

¹³⁶ H. Goedicke, in: *JEA* 54, 1968, 28 f. and pl. 5 no. 4. If the ostracon is of the same date as those of Helwan, as concluded on the basis of a palaeographical analysis by Goedicke (*o. c.* 24 and *id. Old Hieratic Palaeography*, 1988, pl. 16), then the above mentioned date *rnpt sp 10* should very probably refer to Khafra.

¹³⁷ According to Reisner (*Giza I*, 73 n. 2; see also Smith, *o. c.* 119 fig. 7 and 127 no. 9), the date was inscribed on the rear side of a block from the tomb G 7350 supposed to have originally been built by Hetepheres II. However, the relief on the front side of the block was identified by Smith (*HESPOK*, 1946, 164 f., 302 and pl. 45 a) as the representation of Hetepheres II (?) and Meresankh III (?) and dated to the time of Shepseskaf. The attribution of the tomb G 7350 to Hetepheres II is based not on a written evidence but on Smith's examination of the relief which is highly suspicious. Smith's conclusions were questioned by Jánosi, in: *ZÄS* 123, 1996, 56f. According to the latter, on the relief might have originally been represented an anonymous prince followed by his mother and his wife. No doubt, the attribution of the above date is fraught with difficulties, regardless of the fact that such a high date and Shepseskaf exclude each other. Then, the option for either Khafra or Menkaura remains. Since Meresankh III was probably buried in (originally) Hetepheres II's tomb G 7530–40 at about the beginning of Menkaura's reign (see the dates *rnpt sp 1* and *rnpt (m-)jt sp 1* sub Menkaura), it would be surprising to see the queen represented with her mother in a tomb built as late as in Menkaura's reign. When considering the data coming from the tombs G 7350 and G 7530–40 – with due circumspection concerning the complex stratigraphy and in many respects unclear chronology of the cemetery G 7000 – one is inclined to attribute the date to Khafra rather than to Menkaura.

¹³⁸ Attributed to Khafra by Smith, *o. c.* 119 fig. 7 and 127f. no. 11 b; see also Reisner, *Giza I*, 73 n. 1. Concerning some doubts about the attribution of this date to Khafra, and a still higher date of *rnpt sp 13* (see below) from the tomb of Akhtihotep, see Jánosi, *Giza*, 64.

¹³⁹ Urk. I, 16.14; see also H. Goedicke, *Die privaten Rechtsinschriften aus dem Alten Reich*, 1970, 21ff. The dating of the will of Khafra's son Nikaure is not unanimous. For instance, Strudwick (*Administration*, 107) concluded that Nikaure should have been born in Khafra's reign, "and thus would be no older than twenty-two at the end of his father's reign". Consequently, *rnpt sp 12* should then apply to Khafra's successor Menkaura. With reference to art historical criteria and the replacement of *tñwt* by *ipt* in the date (the former being supposed by Goedicke, *o. c.* 22, to have disappeared by the beginning of the 5th Dyn.), Spalinger (*o. c.* 294) opted for Menkaura, too. On the contrary, Baud (*Ménes*, 128) argues that Khafra's name occurs in Nikaure's tomb with such an insistence that the date should refer to this king. Jánosi (*Giza*, 530), too, does not exclude the attribution of the date to Khafra, provided that Nikaure was born prior to his father's ascension to the throne. Taking all the arguments in account, including the possibility that Khafra might have ascended to the throne later in his life, one is inclined to attribute this date to this king rather than Menkaura.

¹⁴⁰ Attributed to Khafra by Smith, *o. c.* 119 fig. 7 and 128 no. 11; see also n. 00.

rnpt (m-)ḥt sp

- *rnpt (m-)ḥt sp* 4 *tnwt*, *3bd* 2 *šmw*, *šw* 3 (ostracon from Helwan tomb 305 H 2)¹⁴¹
- *rnpt (m-)ḥt sp* 4 *tnwt*, *3bd* 2 *šmw*, *sw* 4 (ostracon from Helwan tomb 305 H 2)¹⁴²
- *rnpt (m-)ḥt sp* 5, *3bd* 2 *šmw*, *šw* 8 (ostracon from Helwan tomb 322 H 2)¹⁴³
- *rnpt (m-)ḥt sp* 5, *3bd* 3 *prt*, *šw* 22 (ostracon from Helwan tomb 335 H 2)¹⁴⁴

attested *rnpt sp* : 1, 5, 7, 10, 12, 13

attested *rnpt (m-)ḥt sp* : 4, 5

rnpt sp : *rnpt (m-)ḥt sp* – 6 : 2

Among the ostraca found by Saad in Helwan only one (299 H 2) mentions the cartouche of Khafra immediately after the date and in such a context that the ostracon can safely be dated to the king's reign. As shown by Fischer¹⁴⁵, the texts on all these ostraca from Helwan identify women who belonged to the personal of Nekhbet's temple in el-Kab, and who may have taken part in the service for gods as well as for the dead. Unfortunately, Saad offered no precise dating for the ostraca or for the tombs from which they come¹⁴⁶. Nevertheless, the fact that the ostraca refer to the same professional group of women, the palaeography of the texts seems to be very similar and, last but not least, all tombs from which the ostraca come lie close to each other in the NW corner of the cemetery¹⁴⁷, the dating of these ostraca to the time of Khafra is very probable.

The above mentioned estimation of 26 years long reign of Khafra, proposed by v. Beckerath and Barta, is based on the assumption of a biennial rhythm of the cattle counting in the king's reign. Regardless of the uncertainty concerning the attribution of some of the above discussed dates to Khafra, the contemporaneous written evidence seems to indicate that the census was irregular in that time. If *rnpt sp* 13, attested in Akhtihotep's tomb G 7650, was really Khafra's highest date then the estimation of the length of the king's reign should be a little reduced.

BICHERIS

RCT col. III.13 (?):...?... years

Manetho: 22 years (Bicheris, preceded by Ratoises, was inserted by Manetho between Menkaura and Shepseskaf.)

W. Barta (in: ZÄS 108, 1981, 21): 6 or 7 years

J. v. Beckerath (*Chronologie*, 159): 7 years

¹⁴¹ Saad, *o. c.* 106f. and pl. 42 b right. Concerning the translation of the text and the meaning of the ostracon, see H. G. Fischer, in: *Or* 29/1, 1960, 187-90; see also Spalinger, *o. c.* 287.

¹⁴² Saad, *o. c.* 106f. and pl. 42 b left. Concerning the translation of the text and the meaning of the ostracon, see H. G. Fischer, *o. c.* 187-90; see also Spalinger, *o. c.* 287.

¹⁴³ Saad, *o. c.* 107 and pl. 43 a right; see Spalinger, *o. c.* 288.

¹⁴⁴ Saad, *o. c.* 106f. and pl. 43 b right; see Spalinger, *o. c.*

¹⁴⁵ *O. c.* 189f.

¹⁴⁶ On p. 106, he only vaguely speaks about the dating of the excavated tombs to partly the 1st and partly to the 4th Dyn.

¹⁴⁷ see Z. Saad, *Royal Excavations at Helwan* (1945–47), Suppl. ASAE no. 14, 1951, pl. 1.

To the mysterious king named by Manetho Bicheris is usually attributed the monument called the Great Pit in Zawiyet el-Aryan. From the archaeological point of view, the Great Pit remains, almost one century after its excavation by A. Barsanti¹⁴⁸, one of least known royal monuments in the pyramid fields.¹⁴⁹ No doubt, the pit represents an unfinished substructure of a pyramid filled with large limestone blocks originally prepared for the construction of other parts of the tomb.¹⁵⁰ On some of these blocks quarry marks and masons' inscriptions were revealed, including cartouches.

The identification of the owner of this unfinished monument is, however, fraught with difficulties surrounding the reading of the king's name. One of the reasons for that is the fact that Barsanti's copies of the inscriptions are, from the palaeographic point of view, unreliable. The copies are not facsimili but merely free hand sketches.¹⁵¹

Concerning the king's name, the following readings have been suggested to date: Neferka¹⁵², Nebka¹⁵³, Bikka or Horka¹⁵⁴, Wehemka¹⁵⁵, Sethka¹⁵⁶ and Baka¹⁵⁷. If the sign was *b3* "be soul, etc.", it could have been written, according to v. Beckerath¹⁵⁸, both by means of a ram and a jabiru-stork. The name could be then identified with Baka, one of the eldest sons of Djedefra.¹⁵⁹

However, not only the reading of the name of the owner of the Great Pit is unclear. Some authors presume that several architectural features common to both the Great Pit and to Djedefra's pyramid indicate that both monuments should follow each other. Consequently, they reason, the owner of the Great Pit should follow Djedefra.¹⁶⁰ However, the question whether immediately or, as late as after Khafra's reign¹⁶¹ will hardly be answered without an unambiguous reading of the king's name.

¹⁴⁸ ASAE 7, 1906, 260-286.

¹⁴⁹ At present, the monument lies in a closed military zone and is inaccessible.

¹⁵⁰ According to Lauer, the building of the pyramid's superstructure had been barely commenced, see *RdÉ* 14, 1962, 21-36.

¹⁵¹ J.-Ph. Lauer, in: *CRAIBL* avr.-dec. 1962, 309; see also Dobrev, *o. c.* 21.

¹⁵² G. Maspero, in: *ASAE* 7, 1906, 257.

¹⁵³ K. Sethe's reading quoted by J. Černý, in: *MDAIK* 16, 1958, 26. Černý himself inclined to this reading and so did Junker – see Giza I, 54.

¹⁵⁴ J.-Ph. Lauer, in: *RdÉ* 14, 1962, 34f.

¹⁵⁵ K. Baer, according to a remark by N. Swelim, *Some Problems on the History of the Third Dynasty*, 1983, 143 n. 4; Baer's reading was eventually preferred to others by Helck (in: *Fs Goedicke, 112*) though the latter scholar inclined originally (*Manetho*, 52f.) to the identification of Bicheris with Baufre.

¹⁵⁶ A. Dodson, in: *DE* 3, 1985, 21-23 and n. 9.

¹⁵⁷ J. v. Beckerath, *Handbuch der ägyptischen Königsnamen* (hereafter *Handbuch*), Berlin 1984 / *MÄS* 20/, 54 n. 12: "Es scheint sich doch um einen Vogel zu handeln /Falke oder Jabiru/, der jedenfalls später *b3* gelesen wurde.... *B3-k3-Rc* = Bicherés ... mit irrig hinzugefügtem *Rc* ...".

¹⁵⁸ *Chronologie*, 158.

¹⁵⁹ Concerning Baka, see also G. Reisner, *Giza* I, 28.

¹⁶⁰ Edwards, *o. c.* 97-105; Dobrev, *o. c.* 20f.

¹⁶¹ Lauer, in: *RdÉ* 14, 31f.; see also V. Maragioglio and C. Rinaldi, *L'architettura* IV, Rapallo 1967, 16-29.

Nonetheless, even if the attribution of the Zawiyet el-Aryan monument to Baka/Bicheris is correct, up to 7 years assigned to the king¹⁶² is an unacceptably high date. On the basis of our present knowledge of the building of the 4th Dynasty pyramids, the work on this unfinished monument must have been terminated approximately after cca one or two years.¹⁶³

MENKAURA

RCT col. III.14 (?): 18 (28 ?) years

Manetho: Mencherés – 63 years

W. Barta (ZÄS 108, 1981, 23): 18 full and 2 incomplete years

J. v. Beckerath (*Chronologie*, 159): 28 years.

rnpt sp:

– *rnpt sp* 2, *3bd* 2 *prt*, *šw* 22 (G VI S)¹⁶⁴

– *rnpt sp* 2, *3bd* 4 *šmw*, *šw* 22 (G 7530–40, Meresankh III)¹⁶⁵

– *rnpt sp* 11, *3bd* ..., *šw* 10 + x (G VI S)¹⁶⁶

rnpt (m-)ht sp

Though no intervening years can be attributed to Menkaura with certainty, there is some probability that to the reign of this king refer the following data from the Gebelein papyri¹⁶⁷:

– *rnpt (m-)ht sp* 2, *3bd* ... *3ht*, *šw* 20 (Gebelein, frag. A)¹⁶⁸

– *rnpt (m-)ht sp* 3, *3bd* 3 *prt*, *šw* 26 (Gebelein, frag. B)¹⁶⁹

– *rnpt (m-)ht sp* 11, ... (Gebelein, rouleau IV)¹⁷⁰

¹⁶² E. g. v. Beckerath, *Chronologie*, 159.

¹⁶³ Two years long reign was proposed for Bicheris by Helck, *Manetho*, 53; concerning a similar estimation of Bicheris' reign by K. Baer, see R. Krauss, *Or* 66, 5.

¹⁶⁴ Junker, *Giza X*, 75, fig. 35.9 and 78, no. 10. With regard to the occurrence of Menkaura's crew names on some blocks in the site, Junker attributed the date to the king.

¹⁶⁵ Dunham, Simpson, *o. c.* 3, fig. 1 e; see also Smith, *o. c.* 116 fig. 4 and 126 no. 2. The date is inscribed on the northern side of the subsidiary niche, in the eastern façade of the mastaba (from the date of the southern side of the niche only ... *prt*, *šw* 17 survived). Reisner attributed the date to Khafra, (see Smith, *loc. cit.*) and Spalinger (*o. c.* 286) accepted this dating, though with some hesitations. However, Reisner's dating of the graffito can be seriously doubted. If the tomb was originally built around the 7th census of Khafra, as indicated by two masons' inscriptions on the masonry blocks of the mastaba (Simpson, Dunham, *o. c.* 3 and Fig. 1 b, c), the lower date found on the mastaba's façade can hardly be anterior to those on the masonry blocks. But to which event the date referred remains unknown. The attribution of the date on the subsidiary niche of the mastaba to Menkaura seems to be, therefore, more probable. Concerning the complex, and in many respects yet unclear history of the tomb G 7520/7530-40, see János, *Giza*, 500 and *id.* in: ZÄS 123, 1996, 46-62.

¹⁶⁶ Junker, *Giza X*, 75 fig. 35.10 and 77 no. 9; because of the occurrence of Menkaura's crew names on some blocks in the site, Junker attributed the date to this king.

¹⁶⁷ P. Posener-Kriéger, in: *RdÉ* 27, 1975, 216 and *id.* in: *Fs E. Edel*, 1979, 318-331; see also H. Goedicke, *Old Kingdom Palaeography*, XVI and Spalinger, *o. c.* 290f.

¹⁶⁸ P. Posener-Kriéger, in: *Fs Edel*, 318-31.

¹⁶⁹ P. Posener-Kriéger, *ibid.*

¹⁷⁰ P. Posener-Kriéger, in: *RdÉ* 27, 1975, 215f.

attested *rnpt sp*: 1, 2, 11

attested (?) *rnpt (m-)ht sp*: 2, 3, 11

rnpt sp : *rnpt (m-)ht sp* – 3 : 3 (?)

Though smallest of the three royal funerary monuments in Giza, the pyramid complex of Menkaura (the volume of the pyramid represents only about one tenth of that of the Great Pyramid) had been left largely unfinished by the king¹⁷¹ At the time of Menkaura's death, the valley temple had hardly been begun. From the causeway only the foundation was laid. The construction of the mortuary temple, though more advanced than the two previously mentioned structures, was left largely unfinished, too. In the time of the king's death practically only the nucleus of the main walls, partly cased with granite, were built. Even the casing of the pyramid itself was left undressed.¹⁷²

Obviously, the state in which the monument was left at the time of the king's death raises some questions, including those about the length of Menkaura's reign. It seems to be improbable that Menkaura commenced the construction of his pyramid complex after a great delay, later in his reign¹⁷³. Neither are probable some unexpected technical difficulties (changes in the original plan of the pyramid, the large scale use of red granite, etc.) in the realization of the building project, too. The explanation of the unfinished funerary monument of Menkaura should therefore be sought in either the shorter reign of the king or in the unexpected worsening of the economic situation in the country.

Albeit no direct evidence of serious economic difficulties in the reign of Menkaura is available, such troubles would not be surprising. A large scale exhaustion of the workforce and material resources of the country in the technically demanding but economically unproductive grandiose building projects of Menkaura's immediate predecessors must have had serious consequences for Egypt's economy. Profound changes in the concept of the funerary cult at the beginning of the 4th Dyn.¹⁷⁴, connected with increased material demands, could have contributed to the economic problems, too.¹⁷⁵

Regardless of the assumed economic difficulties, the estimations of a very long reign for Menkaura, up to 28 years¹⁷⁶, is justified by neither the contem-

¹⁷¹ As shown by G. A. Reisner, *Mycerinus*, 1931, 29ff.; see also Maragioglio, Rinaldi, *L'architettura IV – Text*, 34ff.

¹⁷² According to the calculations by Krauss (*Or* 66/1, 11), the construction of Menkaura's pyramid lasted 1,1 year. Provided that the beginning of the construction of Menkaure's pyramid began shortly after his accession to the throne, which seems to have been a rule in that time, the king's reign could not have been that short. Such a short reign would contradict the available contemporaneous evidence.

¹⁷³ The foundation of his tomb used to be one of the first decisions made by a king after his ascension to the throne, as shown e. g. by Shepseskaf, Menkaura's immediate successor – see Schäfer, *Annalen*, 32f.

¹⁷⁴ See e. g. A. M. Roth, in: *JARCE* 30, 1993, 45ff.

¹⁷⁵ For indirect evidence of the worsening economic situation at the end of the 4th Dyn. can be considered, for instance, the decision of Menkaura's successor Shepseskaf to build his tomb not as a pyramid but a relatively very small sarcophagus-shaped monument – see the text below sub Shepseskaf.

¹⁷⁶ E. g. J. v. Beckerath, *o. c.* 159; A. H. Gardiner, *Egypt of the Pharaohs*, 434 n. 5.

poraneous written documents nor the king's unfinished pyramid complex. Eighteen years long reign attributed to Menkaure by the RCT (based on the most probable reconstruction of the partly damaged numeral) could comply with the so far highest attested contemporaneous date for the king, *rnpt sp* 11 (or *rnpt m-ht sp* 11), provided that the census was irregular in that time.

SHEPSESKAF

RCT col. III.15 (?): 4 years

Manetho: Sebercherés – 7 years

W. Barta (ZÄS 108, 1981, 23) : 3 full and 2 incomplete years

J. v. Beckerath (*Chronologie*, 159): 5 years

rnpt sm3 t3wy

– *rnpt sm3 t3wy*, 3bd 2 šmw, šw 10 (Palermo Stone)¹⁷⁷

– *rnpt sm3 t3wy*, 3bd 2 šmw, šw 10 (G 5552)¹⁷⁸

– *rnpt sm3 t3wy*, 3bd 3 šmw, šw ... (G 7450)¹⁷⁹

– *rnpt sm3 t3wy*, 3bd 4 šmw, šw 4 (G 7450)¹⁸⁰

rnpt sp

– *rnpt sp* 1, 3bd 1 šmw, šw 21 (G 7530–40, Meresankh III)¹⁸¹

rnpt (m-)ht sp

– *rnpt (m-) ht sp tpy*, 3bd 2 prt, šw 28¹⁸² – *rnpt m-ht sp* 1 (n) ipt (!) ih ʿwt nbt (Shepseskaf's edict for the Pyr. of Menkaura)¹⁸³

attested *rnpt sp*: 1

attested *rnpt (m-)ht sp*: 1

rnpt sp: *rnpt (m-)ht sp* – 1 : 1

The above quoted stela found in fragments in the valley temple of Menkaura in Giza, dating from the year following the first census of Shepseskaf, attests that in the time immediately after his accession to the throne, the latter king completed the unfinished pyramid complex of his predecessor. In the process of this work – lasting about two years – Shepseskaf undoubtedly made full use of technical installations and logistics available at the site. The king's decision to build his

¹⁷⁷ Schäfer, *Annalen*, 32f.

¹⁷⁸ Attributed to Shepseskaf by Helck, in: *Fs Goedicke*, 107.

¹⁷⁹ Attributed probably to Shepseskaf by Helck, *o. c.* 107f.

¹⁸⁰ Attributed probably to Shepseskaf by Helck, *o. c.* 107f.

¹⁸¹ The date, revealed on the right side of the entrance to Meresankh III's chapel and referring to the beginning of the queen's funerals, was attributed by Reisner to Shepseskaf, see Smith, *o. c.* 126 and fig. 4 on p. 118. With this attribution agrees also Jánosi, *Giza*, 501. On the other hand, Dunham, Simpson, *o. c.* 8 and pl. 2 a, fig. 2, and also Spalinger, *o. c.* 288f., attributed the date to Menkaure.

¹⁸² The date, inscribed on the left side of the entrance to Meresankh III's chapel and referring to the termination of the queen's funerals, was attributed by Reisner to Shepseskaf, see Smith, *o. c.* 126 and fig. 4 on p. 118. Jánosi, *Giza*, 501, attributes the date to Shepseskaf, too. On the other hand, Dunham, Simpson, *o. c.* 8 and pl. 2 a, and also Spalinger, *o. c.* 289, attribute the date to Menkaura.

¹⁸³ G. A. Reisner, *Mycerinus*, 278 no. 1; see also Goedicke, *Königliche Dokumente*, 16f., fig. 1 and P. Jánosi, in: *GM* 141, 1994, 49-54.

own funerary monument in south Saqqara and not in Giza was probably motivated by practical (there was no convenient place for another large pyramid complex in the Giza necropolis) rather than religious reasons. On the other hand, the choice of a place in south Saqqara, near the Dahshur pyramids of the founder of the dynasty, Snofru, did not lack some political symbolism.

Although the superstructure of Shepseskaf's tomb had the form of a giant sarcophagus, its substructure fully respected the standard plan for a royal pyramid of that time. Therefore, it is possible that the king, cautioned by his predecessor's failure to finish his pyramid complex in time (and also by continuing economic difficulties?), took possibly the unusual shape of the superstructure of his tomb for a temporary solution and intended to convert it later, under convenient circumstances, into a "standard" pyramid.¹⁸⁴ Interestingly, even the modest (as far as the volume of the masonry, representing only about one tenth of that of Menkaura's pyramid, is concerned) variant of his tomb did not enable the king to finish his funerary monument: Parts of the mortuary temple and the whole causeway (the valley temple has not yet been found) have been hastily built in mudbrick, possibly after the king's death.¹⁸⁵

Both the available written evidence and the state in which the construction of the king's funerary monument was left, seem to indicate that the reign of Shepseskaf did not exceed the period attributed to him by the RCT.

THAMPHTHIS

RCT col. III, 16 (?): 2 years

Manetho: Thamphthis – 9 years

W. Barta (*ZÄS* 108, 1981, 23): 2 incomplete years

J. v. Beckerath (*Chronologie*, 159): 2 years

As pointed out by Helck some time ago¹⁸⁶, the list of 4th Dynasty kings in the RCT included eight names (the same number is given by Manetho, too) of which the reading of only two, Snofru and Khafra, is unquestionable. The identification of four other names – Khufu, Djedefra, Menkaura and Shepseskaf – is based on the evidence of contemporaneous written documents. The evidence for the remaining two kings – identified according to Manetho as Bicheris and Thamphthis – is either nil (Thamphthis) or very vague (Bicheris). Therefore, Helck once again returned to the 12th Dynasty rock inscription from Wadi Hammamat¹⁸⁷ mentioning the cartouches of five 4th Dynasty kings – Khufu, Djedefra, Khafra, Hardjedef and Baufre – and expressed some doubts about the prevailing explanation according to which the graffito is considered as a piece of popular tradition based on Khufu and his sons¹⁸⁸ rather than historical

¹⁸⁴ M. Verner, *Die Pyramiden*, 1998, 290f.; see also Dobrev, *o. c.* 27.

¹⁸⁵ Maragioglio, Rinaldi, *o. c.* VI – Text, 144f.

¹⁸⁶ *Fs Goedicke*, 111f.

¹⁸⁷ É. Drioton, in: *BSFÉ* 15, 1954, 41.

¹⁸⁸ From the same legend grown up about Khufu's family drew e. g. Papyrus Westcar, too.

evidence.¹⁸⁹ In spite of this comment, Helck did not exclude the idea that the two last named kings from this list, Hardjedef and Baufre, could have briefly reigned. However, there is no contemporaneous evidence that any of the afore-said king's sons – Djedefptah, Baufra or Hardjedef – was a pharaoh. Therefore, cautious though Helck's theory may be, it seems just to reflect some discrepancies in the available historical sources as well as some persisting difficulties concerning our attempts to reconstruct the history of the final stage of 4th Dynasty.

According to some scholars¹⁹⁰, Thamphthis is to be identified with Djedefptah, while Bicheris is paired with Baka, the owner (?) of the Great Pit (see above the text sub Bicheris), or Baufre¹⁹¹. Concerning Hardjedef, there is the evidence for his cult dating as early as from the late Old Kingdom.¹⁹²

On the other hand, if Thamphthis really ruled at least 2 years, as attributed to him on the basis of the RCT, he would have very probably founded his funerary monument. No matter how largely unfinished his monument was at the time of his death, not a single trace of it has been found to date. The existence of this monument, however, should not be *a priori* doubted since large parts of the Memphite necropolis yet remain archaeologically unexplored and surprising discoveries are never excluded. Nevertheless, if the construction of Thamphthis's funerary monument was really begun, it should almost certainly not be searched for in Giza (for the reasons, see above sub Shepseskaf.)

Eventually, still open remains the question of the role of Khentkaus I at the end of the 4th Dynasty. It cannot be excluded that the queen, who held a unique title of *mwt nswt bity nswt bity* (or *nswt bity mwt nswt bity* ?)¹⁹³ and is supposed to have been the link between the 4th and 5th Dynasties, might have assumed the status of some sort of ruler.¹⁹⁴

5th Dynasty

USERKAF

RCT col. III.17: 7 years

Manetho: Usercherés – 7 years

W. Barta (ZÄS 108, 1981, 23): 7 full and 2 incomplete years

J. v. Beckerath (*Chronologie*, 159): 8 years

¹⁸⁹ D. Wildung, *Die Rolle der ägyptischen Könige im Bewusstsein ihrer Nachwelt*, 1969 (MÄS 17), 164f.; see also A. Roccati, *La littérature historique sous l'Ancien Empire égyptien*, 1982, 55f. and D. B. Redford, *Pharaonic King-lists, Annals and Day-books* (hereafter *King-lists*), 1986, 25.

¹⁹⁰ For instance, W. C. Hayes, *The Scepter of Egypt*. I, 1990 (3rd ed.), 66 or J. v. Beckerath, *Handbuch der ägyptischen Königsnamen* (hereafter *Handbuch*), 1984 (MÄS 20), 54n. 15.

¹⁹¹ See e. g. A. Roccati, *loc. cit.*

¹⁹² V. Ritter, in: *Égypte Afrique et Orient* no. 15, nov.–dec. 1999, 41ff.

¹⁹³ M. Verner, in: *GM* 173, 1999, 215-224.

¹⁹⁴ Concerning the arguments for and against Khentkaus I's status of a monarch, see Verner, *The Pyramid Complex of Khentkaus*, 1995, 175ff. (hereafter *Khentkaus*).

rnpt sp:– *rnpt sp* 3 (Palermo Stone, verso 2)¹⁹⁵– *rnpt sp* 3, *3bd* 3 *prt*, *šw* ... (Sun temple of Userkaf)¹⁹⁶**rnpt (m-)ht sp:**– *rnpt m-ht sp* 1 (*n*) *tnwt* (Cairo frag. no. 1 recto 2)¹⁹⁷attested *rnpt sp*: 3attested *rnpt (m-)ht sp*: 1*rnpt sp* : *rnpt (m-)ht sp* – 1 : 1

Concerning Userkaf, the first king of the 5th Dynasty, both the RCT¹⁹⁸ and Manetho are in accord in attributing to him a reign of 7 years. The highest date for the king's reign, the year following the 3rd census attested on the Palermo stone is corroborated by the above-mentioned mason's inscription, recording the 3rd count, found in Userkaf's sun temple.

However, from the sun temple of Userkaf come four other documents mentioning still higher dates which, according to the prevailing opinion, do not refer to Userkaf. These documents are on four limestone tablets (A, B, C, D) found during the Swiss-German excavation in the king's monument in Abusir.¹⁹⁹ These tablets, fully published by E. Edel²⁰⁰ are considered to be a sort of "building diary" ("Bautagebuch auf Kalkstein") for the sun temple. Besides the name of Userkaf's sun temple *Nhn-r^c*, and information about the work objectives and the workmen, the tablets contain following data:

A – *rnpt sp* 5, *3bd* 1 *3ht*B – *rnpt sp* 5, *3bd* 3 *prt*C – *rnpt sp* 5, *3bd* 3 *šmw*D – *rnpt m-ht sp* 5, *3bd* 2 *prt*

Immediately after their discovery, the tablets raised a controversy which, in fact, has not yet been resolved and which mostly focuses on the king to whom the data should refer.²⁰¹ A special role in this debate was played by the writing

¹⁹⁵ H. Schäffer, *Annalen*, 34.¹⁹⁶ Haeny, in: *BÄBA* 8, 1969, 41f. no. 6.¹⁹⁷ Gauthier, *Quatre fragments*, 45f. and pl. 26.¹⁹⁸ In the position attributed to Userkaf in RCT just a fragment of the name ending with *k3* survived. As already rightly pointed out by J. v. Beckerath, *Chronologie*, 209, the name was obviously written without *f* at the end as should be the case with Userkaf, but probably with *r^c* honorifically transposed at the beginning. Consequently, it should be reconstructed as (User)ka(re). This writing of the king's name, however, may indicate orthographic problems of the scribe concerning the writing of the names of some early kings rather than his confusion of Userkaf with Userkare, a king who briefly reigned after the Teti's death at the beginning of the 6th Dynasty.¹⁹⁹ Concerning the archaeological context in which the tablets were found, see H. Stock, in: *ZÄS* 80, 1955, 143 and pl. 14, fig. 4; *id.* in: *Or* 25, 1956, 79 and pl. 10, fig. 12; H. Ricke, in: *ASAE* 54, 1957, 77 and pl. 1b; *id. ibid.* 311 and pl. 4a, b.²⁰⁰ In: *BÄBA* 8, 1969, 1-22.²⁰¹ See e. g. H. Ricke, in: *BÄBA* 9, 1969, 4ff.; W. Kaiser, in: *MDAIK* 14, 1956, 108ff.; E. Edel, *o. c.* 5; A. Spalinger, in: *SAK* 21, 1994, 295ff.

of the determinative of the name of Userkaf's sun temple on tablet A namely, what was the original shape of the temple's obelisk and who eventually completed the temple obviously left unfinished by Userkaf?

Ricke²⁰² believed that the sign depicted on tablet A, represented the original obelisk which was formed by a mastaba-like base of mudbrick upon which stood a wooden pole topped with a short cross beam. He attributed the construction of this early obelisk to the 1st building stage of the temple, dated to the time of Userkaf (in total, four major building stages have been identified by the excavators, the remaining three of them belonging to the reigns of Userkaf's successors). According to Ricke, in the 2nd building stage the early obelisk was replaced by another one built of red granite blocks erected on a large limestone base.

Edel²⁰³, however, expressed doubts about Ricke's explanation of the original shape of the obelisk. In his opinion, there was no hieroglyphic equivalent to Ricke's reconstruction of the early obelisk: he saw the sign on tablet A as a cursive writing of the hieroglyph for a standard type of an obelisk. Edel's argument is corroborated by the writing of the sign in contemporaneous hieratic texts, e. g. the papyri from the funerary temple of Neferirkara.²⁰⁴ Regarding the dating of these tablets, Edel²⁰⁵ proposed the reign of one of the immediate successors of Userkaf, i. e. Sahura or Neferirkara.

Kaiser²⁰⁶ was more explicit regarding both the obelisk and the dating of the tablets. He compared the shape of the obelisk on the tablet A with all available evidence on the writing of the names of all 5th Dynasty sun temples in the contemporaneous inscriptions. For Userkaf's sun temple two variants of the determinative are attested: either a raised base without any obelisk²⁰⁷ or a standard tall obelisk on a low base. According to Kaiser, the first variant reflected the early, yet unfinished state of the temple, the second one a later, already completed monument provided with a stone obelisk. He concluded that Userkaf left the temple unfinished and that it must have remained in this state in the time of Sahura, since the own sun temple of the latter king had presumably never been finished (concerning this monument, see the text below). Consequently, Kaiser came to the conclusion that Userkaf's sun temple was completed, and provided with a stone obelisk, not by Sahura but by his successor Neferirkara to whose reign the tablets should also date. The contemporaneous inscriptions on whose statistical analysis Kaiser based his conclusion come, unfortunately, mostly from private tombs of officials who served in Userkaf's sun temple. These inscriptions, however, cannot be dated with the needed accuracy of 3 up to 5 years. Therefore, no matter how inspiring and in principle

²⁰² BÄBA 9, 1969, 5.

²⁰³ O. c. 8.

²⁰⁴ P. Posener-Kriéger, J. L. de Cenival, *The Abusir Papyri*, London 1968, Pal. pl. VIII.

²⁰⁵ O. c. 5.

²⁰⁶ O. c. 108.

²⁰⁷ I. e. a stylized primeval hill, see K. Martin, *Ein Garantsymbol des Lebens*, 1977 (HÄB 3), 204.

correct was Kaiser's approach to the problem, the dating of the tablets remained elusive.

In more recent times, the tablets from Userkaf's sun temple have been discussed by A. M. Roth²⁰⁸ and by Spalinger²⁰⁹. When commenting the inscriptions on the tablets, Roth paid her attention mostly to the phyles and the organization of the workforce, rather than the chronological aspects of the tablets. On the other hand, Spalinger discussed the dates in more detail. He emphasized that the entire discussion about the tablets was "hazardous and circular". However, eventually he only joined himself to the above quoted conclusion by Edel saying that if the census was biennial in the time from which the tablets date, "Userkaf is easily eliminated and Sahura or Neferirkara remain".

One of the obstacles in dating, and possibly also interpreting the precise meaning of the tablets, is the absence of any information about the stratigraphic context in which they were found, perhaps due to the large-scale destruction of the temple in later times. According to the only available information, tablet A was found "in the rubble at the edge of a ramp built by stone robbers"²¹⁰, the tablets B, C and D were just "revealed in the rubble"²¹¹. Therefore, just the writing of the determinative seems to represent an important support for the dating – more precisely, *post quem* dating – of the tablets: since the sign consists of a base and an obelisk, the tablets must date from the time after the construction of the obelisk, i. e. from the 2nd building stage or later. As already mentioned above, Kaiser nailed the date down to the time of Neferirkara.

Taking into consideration the available archaeological evidence from Userkaf's sun temple, it is rather difficult to believe that between the 1st building stage of the monument, dated to the time of Userkaf, and the 2nd one (involving the erection of the stone obelisk), dated by Kaiser to the 5th census of Neferirkara, such a long period of time elapsed (would the biennial system prevail at that time, this period could reach almost up to a quarter of a century). Indeed, at the end of Neferirkara's reign, his own pyramid complex had been left largely unfinished. In all probability, so was his sun temple (though possibly not as much as the king's pyramid complex), judging by the annals of the Palermo Stone²¹² mentioning the construction of a barque at the southern corner of the temple and the provision of two copper barques, 8 cubits long, for the same monument²¹³. As has already been rightly noticed by Posener-Kriéger²¹⁴, it is difficult to understand Neferirkara's decision to convert Userkaf's unfinished building into a large monument with an obelisk of lime-

²⁰⁸ *Egyptian Phyles in the Old Kingdom*, (SAOC 48) Chicago 1991, passim.

²⁰⁹ *O. c.* 295f.

²¹⁰ Ricke, in: ZÄS 80, 1955, 143.

²¹¹ *Id.* in: ASAE 54, 1957, 311.

²¹² Schäfer, *o. c.* 41.

²¹³ P. Posener-Kriéger, *Les archives du temple funéraire de Néferirkare-Kakai* (hereafter *Archives de Néferirkare*). II, Le Caire 1976, 521f.

²¹⁴ *O. c.* 519.

stone and red granite and, at the same time, to be content with what must have been the unfinished state of his own sun temple.²¹⁵

Of course, one could argue that it was just the extraordinarily great attention paid by Neferirkara to the building of two sun temples, his own and that of his predecessor, that could have delayed the construction of his pyramid complex. This assumption does not seem to be plausible either. Regardless of the culmination of the sun cult in the 5th Dynasty, Neferirkara did certainly not delay work on his funerary monument. As indicated by the Palermo Stone²¹⁶, there is a mention in the year of the king's ascension to the throne of *hwt Nfr-ir-k3-r^c*, the king's pyramid temple²¹⁷.

Concerning Userkaf's sun temple there are still other problems to be considered. Userkaf's decision to build his sun temple in Abusir very probably stimulated Sahura to build, in the vicinity, his own pyramid complex. Thus, he founded a new necropolis – a step considered as indirect evidence that Sahura was a son of Userkaf.²¹⁸ On the other hand, there is no direct evidence to date concerning any relationship between Userkaf and Neferirkara, though the latter king built his tomb in Abusir, too (concerning a more detailed discussion on the problem, see the text below sub Shepsekara).

²¹⁵ Concerning Neferirkara's sun temple, one has the impression that this monument, though provided with an obelisk (as attested by all contemporaneous written evidence), should have been a more modest building than that of Niuserra in Abu Ghurab and, possibly, even that of Userkaf in north Abusir. It cannot be excluded that this temple was mostly built in mudbrick and could have later been largely destroyed by *sabbakhin* which might be another reason why the search for this lost monument has been futile to date. Quite recently, Stadelmann (*Userkaf in Saqqara und Abusir*, in: *Abusir and Saqqara in the Year 2000*, 2000, *Suppl. ArOr* no. 9, 529-542) proposed to identify the as yet undiscovered sun temples of Sahura and Neferirkara with Userkaf's sun temple. This theory, according to which Userkaf's sun temple was successively completed and, at the same time, appropriated for their personal use by Sahura and Neferirkara, is not very convincing. Among masons' inscriptions found in the ruined temple, not a single fragment of the name of either Sahura's sun temple *Šht-r^c* or Neferirkara's sun temple *Št-ib-r^c* was found. (On the other hand, masonry blocks bearing the name of Sahura's sun temple were re-used in Niuserra's pyramid complex.) Moreover, the aforesaid theory does not seem to comply with the evidence of the papyri from Neferirkara's mortuary temple. As a matter of fact, some offerings (e. g. pieces of meat) were transported to the latter temple by means of a *bit*-boat in the time of Djedkara. (P. Posener-Kriéger, *Archives de Néferirkare*, II, 519ff.) The use of a boat to traverse a short distance of about 500 metres across the desert between Userkaf's sun temple and Neferirkara's mortuary temple does not seem to be very likely: about 500 metres separates, within Neferirkara's complex, only the mortuary temple from the valley temple where the boat would have to land.)

²¹⁶ Schäfer, *o. c.* 39.

²¹⁷ In this case, *hwt Nfr-ir-k3-r^c* meant Neferirkara's pyramid temple (see P. Spencer, *The Egyptian Temple*, 1984, 24) and not the king's funerary estate as translated e. g. by Wilkinson, *Annals*, 172.

²¹⁸ Another piece of an indirect evidence for this hypothesis is the inscription of Persen (Berlin 15004) and some epigraphic and architectural finds from the small pyramid complex of Userkaf's wife in Saqqara, see A. Labrousse, *Études sur l'Ancien Empire et la nécropole de Saqqara dédiées à Jean-Philippe Lauer*, (OM 9) 1997, 266; *id.* *Le Complexe funéraire d'Ouserkaf et de Néferhétépes*, I, (BdÉ 130/1) 2000, 154.

When discussing Userkaf's and Sahura's building activities, yet another of Kaiser's²¹⁹ theories should not be omitted namely, that the latter king also commenced in Abusir – but most probably never finished – his sun temple *Šḥt-rꜥ*. This monument is only very rarely attested in contemporaneous written documents and when it is, then its name is accompanied by a determinative of a base without an obelisk. In the papyri from the pyramid temples of Neferirkara, Neferefra and Khentkaus II, for instance, where we should expect to find it mentioned, it does not occur at all. This seems to indicate that it probably never even started to function. Moreover, the finds of several blocks inscribed with the name *Šḥt-rꜥ* that were reused by Niuserra in his own pyramid complex led Kaiser²²⁰ to the conclusion that this unfinished temple might have been dismantled by Niuserra. Kaiser's theory seems to be corroborated by a fragment of a pyramidion from a large red granite obelisk surprisingly found between the SW corner of Ptahshepses' mastaba and the NW corner of the pyramid temple of Niuserra.²²¹ The archaeological context of the find indicates that the obelisk might have been built at a later stage on a base at the NE corner of Niuserra's pyramid temple. With regard to Kaiser's theory, and to the fact that the use of such a large obelisk in a royal mortuary temple of that time is absolutely unique, it is possible that this obelisk was originally prepared for Sahura's sun temple. However, due to the largely unfinished state of Sahura's temple at the moment of the king's death, it could have later been reused by Niuserra and included in his own pyramid complex. Regardless of the original destination of the obelisk, there are, as indicated by the discussion above, some reasons to assume that Sahura might have delayed the construction of his own sun temple because he gave priority attention to the completion of the sun temple of his father and predecessor.

Taking into account all the above mentioned aspects of the historical situation in the early 5th Dynasty, it could have been Sahura rather than Neferirkara who was responsible for rebuilding and enlarging the sun temple of Userkaf. After all, Sahura had a better personal motivation (filial piety, practical and religious significance of Userkaf's sun temple for the new necropolis founded just by Sahura, etc.) and also better preconditions (he obviously reigned for a longer time than Neferirkara) for doing so. Sahura reigned long enough to finish not only his own pyramid complex but, very probably to complete the building of the pyramid complexes of Userkaf and Neferhetepes in Saqqara, and to him should also be attributed the dates of *rnpt sp 5* and *rnpt m-ḥt sp 5* from the tablets discovered in Userkaf's sun temple.

²¹⁹ O. c. 107.

²²⁰ O. c. 112f.

²²¹ M. Verner, in: *RdÉ* 28, 1976, 111-118.

SAHURA

RCT col. III 18 (?): 12 years

Manetho: Sefhrés – 13 years

W. Barta (ZÄS 108, 1981, 23): 12 full and 2 incomplete years

J. v. Beckerath (*Chronologie*, 155): 13 years

rnpt sp

– *rnpt sp* 1 (Cairo Frg. no. 1 verso 2)²²²

– *rnpt sp* 2, *3bd* 1 *šmw*, *šw* 20 (mason's inscription from Sahura's mortuary temple)²²³

– *rnpt sp* 4, *3bd* 4 *3ht*, *šw* 12 (masons' inscription from Sahura's mortuary temple)²²⁴

– *rnpt sp* 5, *3bd* 1 *3ht* (Userkaf's sun temple, tablet A)²²⁵

– *rnpt sp* 5, *3bd* 3 *prt* (Userkaf's sun temple, tablet B)²²⁶

– *rnpt sp* 5, *3bd* 3 *šmw* (Userkaf's sun temple, tablet C)²²⁷

rnpt (m-)ht sp

– *rnpt (m-)ht sp* 2 (Palermo Stone, verso 3)²²⁸

– *rnpt (m-)ht sp* 5, *3bd* 2 *prt* (Userkaf's sun temple, tablet D)²²⁹

– *rnpt (m-)ht sp* 6 (or 7?) (Palermo Stone, verso 4)²³⁰

attested **rnpt sp**: 1, 2, 4, 5

attested **rnpt (m-)ht sp**: 2, 5, 6 (or 7?)⁷

rnpt sp : rnpt(m-)ht sp – 4 : 3

Two of the above-mentioned dates referring to Sahura were revealed in the king's mortuary temple, on the pavement blocks. The date *rnpt sp* 2, *3bd* 1 *šmw*, *šw* 20, was found in front of the offering hall in the rear part of Sahura's mortuary temple²³¹, the other date, *rnpt sp* 4, *3bd* 4 *3ht*, *šw* 12, comes from a block to the west of the preceding one²³². No doubt, the dates were written on the blocks earlier, very probably in the quarry since the building of the western part of the temple's pavement certainly did not last as long as indicated by the difference between the two dates.²³³

²²² Gauthier, *Quatre nouveaux fragments*, 47.

²²³ Borchartd, *Das Grabdenkmal des Königs Ša3hu-re^c* (hereafter *Sahure*). I, 88, M 26.

²²⁴ Borchartd, *Sahure*, 89, M 29.

²²⁵ To be attributed probably to Sahura, see above sub Userkaf.

²²⁶ To be attributed probably to Sahura, see above sub Userkaf.

²²⁷ To be attributed probably to Sahura, see above sub Userkaf.

²²⁸ Schäfer, *Annalen*, 36f.

²²⁹ To be attributed probably to Sahura, see above sub Userkaf.

²³⁰ Schäfer, *Annalen*, 38f. This so far highest attested contemporaneous date for the length of Sahura's reign is somewhat obscured by the fact that the respective signs are worn. Roccati, *La littérature historique sous l'Ancien Empire*, 1982, 48, for instance, read the numeral as 7 and, provided that the census was biennial in that time, considered the date for the 15th year of Sahura's reign. However, as pointed out by Wilkinson (*Royal Annals*, 168), the most likely reading would indicate that the numeral in question was 6 and not 7 which in case of a biennial census would mean the king's thirteens year of reign.

²³¹ Borchartd, *Sahure* I, 88, M 26.

²³² Borchartd, *o. c.* 89, M 29.

²³³ These dates are of great historical importance, since the higher one very probably represents a *post quem* date for the commencement of the construction of Sahura's mortuary temple and, at

However, Borchardt²³⁴ has recorded in Sahura's pyramid complex still another, much higher date namely, "year 12". The inscription with the date was found on a side face of a basalt block in the pavement (damaged by stone robbers) of the valley temple. Borchardt read the inscription as *rnpt 12 ... [di ṛnh, dd] w3š dt nhh... mi pt ...* and, at the same time, proposed its tentative reconstruction as "Jahr 12 des Königs Sahura, dem Leben, Beständigkeit und Glück immer und ewig gegeben sein möge. Seine Majestät befahl, sein Grabdenkmal zu vollenden, das dauern möge wie der Himmel usw.". Moreover, Borchardt attributed a special historical importance to this date. He believed that it marked the conclusion of all building works in Sahura's pyramid complex. In order to explain the obvious difference between this date and the so far highest attested record for Sahura, *rnpt (m-)ht sp 6* on the Palermo Stone, Borchardt suggested that in Sahura's time the dating by regnal years could have already been introduced to run in parallel with that of the biennial census. If so, there would be a clear disharmony among the dating systems applied during the construction of Sahura's pyramid complex: The dates from the upper temple would refer to the cattle counts whereas the date from the lower temple to the regnal years of the king.

Surprisingly, the date does not seem to have attracted much attention so far – the reason for this being probably the fact that it so basically differs from the chronological scheme established for Sahura to date: if the date would really refer to Sahura, and if biennial census would have prevailed at that time, the length of the king's reign should have to be almost doubled. Another reason for the lack of interest in this date could have been the fact that large parts of the inscription are lost. The absence of any adequate documentation, a copy or a photograph, might be one of the reasons, too.

Formally, the inscription with the discussed date is not of that kind which was commonly used in the quarries and in the building sites. The records ranking among the so-called masons' inscriptions used to be very brief and contain, besides the date, only the crew name, the name of a gang of workmen, etc. Borchardt was probably aware of these circumstances and therefore he linked the inscription – with all its exclamations and wishes for the king's enduring life, prosperity, etc. – with the official conclusion of the building of the monument. The document could, therefore, rank among the so-called reconstruction rather than masons' inscriptions. It could, for instance, refer to a later repair of the damaged pavement in the valley temple. There are written documents attesting that some Abusir monuments were reconstructed in the time of Djedkara or Pepi II²³⁵. Both kings

the same time, the termination of the major work on the pyramid. As a matter of fact, the archaeological evidence from all the Abusir pyramid complexes examined recently by the Czech team – those of Neferirkara, Neferefra, Khentkaus II, and Lepsius no. 24 – indicates that the mortuary temples were always built posterior to the pyramids, which is, from the technical point of view, quite a logical building process. If really so, the construction of Sahura's pyramid would have lasted about 8 years provided that the census was biennial in that time.

²³⁴ *Sahure I*, 96f.

²³⁵ Borchardt, *Das Grabdenkmal des Königs Ne-user-re*^c (hereafter *Neuserre*), 1907, 157f.

reigned long enough to comply with the date under discussion. Djedkara especially paid great attention to Abusir pyramid complexes as e. g. the papyri found in the mortuary temples of Neferirkara and Neferefra inform us. Some doubts about this hypothesis, however, are raised by the fact that the so-called reconstruction inscriptions used to be carved, in a prominent and highly visible place, and not painted in such a spot as the side face of a pavement block.

Therefore, it seems to be more probable that the inscription with the date “year 12” was written in Sahura’s valley temple (in that time already partly damaged) by a later visitor. The so-called visitors’ inscriptions often occur – painted or carved – on many Egyptian monuments. In Abusir, visitors’ inscriptions dating from New Kingdom were found for example in the sun temple of Userkaf²³⁶, the pyramid complex of Sahura²³⁷ or in the mastaba of Ptahshepses²³⁸

Visitors’ inscriptions found in the pyramid complex of Sahura mostly date from the New Kingdom, the period when the cult of Sakhmet flourished within the mortuary temple. And to this period could also date the above inscription mentioning “the year 12”. Therefore, this date (referring probably to one of New Kingdom kings who ruled at least as long as the aforesaid period of time) can hardly change the prevailing opinion of scholars, based on the Palermo stone and the RCT, according to which Sahura could have reigned at maximum about thirteen years.

NEFERIRKARA

RCT III.19 (?): ... (length of reign lost)

Manetho: Nefercherés – 20 years

W. Barta (ZÄS 108, 1981, 23): 20 full and 2 incomplete years

J. v. Beckerath (*Chronologie*, 155): 20 years

rnpt sm3 t3wy (Palermo Stone verso 4)²³⁹

rnpt sp

– *rnpt sp* 5 (Palermo Stone verso 5)²⁴⁰

– *rnpt sp* 5, *3bd* 4 *3ht*, *šw* 4 (mason’s inscription, pyramid of Khentkaus II)²⁴¹

– *rnpt sp* 5, *3bd* 4 (mason’s inscription, pyramid of Neferirkara)²⁴²

attested *rnpt sp*: 5

rnpt m-ht sp: not attested

rnpt sp : *rbpt m-ht sp* – 1 : 0

The hitherto highest contemporaneous evidence of the length of Neferirkara’s reign refers to the 5th census or, as the case may be, to the year following this

²³⁶ W. Helck, in: *BÄBA* 8, 1969, 115-121.

²³⁷ Borchardt, *Sahure* I, 101ff.

²³⁸ W. Spiegelberg, in: *RecTrav* 26, 1904, 152f.

²³⁹ Schäfer, *Annalen*, 39.

²⁴⁰ Schäfer, *o. c.* 40.

²⁴¹ To be attributed probably to Neferirkara, see Verner, in: *ZÄS* 107, 1980, 159 & fig. 3; *id.*, 1995, 43ff.

²⁴² Borchardt, *Neferirkare*, 1909, 46 and n. 6.

census²⁴³. In Neferirkara's pyramid, however, yet another date had been revealed by Perring and later confirmed by Borchardt.²⁴⁴ It makes part of a mason's inscription on a yellowish block found *in situ* in the pyramid's core, to the west of the burial apartment. The inscription with the date is damaged and its reading is uncertain. Borchardt attempted to make a more precise copy of the inscription than Perring. Nevertheless, he also had difficulties with its translation and the solution he proposed was very confused and, in fact, contradictory to his copy of the date. Spalinger²⁴⁵ expressed some hesitation concerning the reading of this date, nevertheless, he attributed it to Neferirkara and proposed its reading as "Year of the x + 10th (= 16th ?) occurrence, 4th month ... (?)"²⁴⁶

There is certainly something confusing concerning this date. Such a long reign for Neferirkara does not seem to be in accordance with either the written or the archaeological evidence relating to this king. The position of the date on a masonry block *in situ* to the west of the burial chamber excludes its attribution to a later king, for instance to Niuserra who completed the building of Neferirkara's pyramid complex.

What on Borchardt's²⁴⁷ copy seems to be clear is the first sign *rnpt* and the numeral 5. Between them there are two signs written above each other. The upper sign looks like *sp*, the lower, partly damaged, resembles a horizontally written numeral 10. Obviously, as such a numeral it was also read by Spalinger. The horizontal writing of the numeral 10 following the year, however, is not attested from that time. As emphasized by Edel²⁴⁸, in the dates of the year, the numerals are always written in a vertical position. Therefore, it seems to be more plausible to consider the signs preceding the numeral 5 for a partly damaged variant of the writing of *rnpt sp*. The whole inscription would then read *rnpt sp 5, 3bd 4. ḥḥ...* and refer to Neferirkara.

What certainly raises questions concerning the length of Neferirkara's reign is the largely unfinished state in which both his and his wife's funerary monuments in Abusir were left. It seems that before his death the king managed to build just the original six stepped pyramid whose additional expansion and unfinished conversion to a true pyramid can be ascribed to his successors²⁴⁹, first of all to Niuserra as indicated by a mason's inscription on a stone in the already expanded eastern face of pyramid.²⁵⁰

²⁴³ See Schäfer, *o. c.* 40f.

²⁴⁴ Borchardt, *loc. cit.*; see also J. S. Perring, *The Pyramids of Gizeh*. II, pl. 6 inscr. I.

²⁴⁵ SAK 21, 1994, 297f.

²⁴⁶ Spalinger did not exclude the reading *rnpt sp 15*, either, see *o. c.* 298, n. 59).

²⁴⁷ *O. c.* 46, n. 6.

²⁴⁸ *Grammatik*. I, 1955, 180, § 414.

²⁴⁹ M. Verner, in: *MDAIK 47 (Fs Kaiser)* 1991, 61-63.

²⁵⁰ The inscription, reading *ḥ3ty-ḥ Špšš*, was attributed by Borchardt (*Neferirkara*, 47) to "Schepses(-ptah), Schwiegersohn Niuserras". Borchardt's suggestion is very plausible since Ptahshepses, who was later to become both the vizier and the king's son in law, held that title and was in Niuserra's time a director of all the works of the king. Ptahshepses was, for instance, involved in the building of the pyramid Lepsius no. 24 in which a queen of Niuserra was probably buried

The initial unfinished six stepped core of Neferirkara's pyramid (the casing had barely commenced) and the unfinished 1st step of the core of the pyramid of his wife Khentkaus II²⁵¹ are a rather modest result, compared with what the king's immediate predecessors, Userkaf and Sahura, succeeded in just a slightly longer time span²⁵². Consequently, are we justified in assuming that the census was not biennial during Neferirkara's reign and that the so far highest attested date for the king, *rnpt sp 5*, involved about six or seven years?

When discussing the length of Neferirkara's reign, there is a possibility which seems to have been unnoticed so far. As a matter of fact, a general consensus has it that the position III. 19 in the RCT should be attributed to Neferirkara, though the king's name is missing in this line.²⁵³ Obviously, the date with the length of the king's reign is supposed to have originally followed the text in the same line. However, the relevant part of the RCT could be explained in a different way. The next line, III. 20, containing just the date *rnpt sp 7* is usually attributed to Shepseskara²⁵⁴ and the next but one, III. 21, with the date *rnpt sp 1 (+ x ?)*, to Neferefra. The latter date seems to be in accord with the contemporaneous evidence for Neferefra (see below sub Neferefra). On the other hand, it seems to be almost certain that Shepseskara ruled a very short time (see below sub Shepseskara). Can we, therefore, assume that the reign of Shepseskara was omitted in the RCT, (as it was in the Abydos list, too and that the date *rnpt sp 7* refers in fact to Neferirkara? Such a date would better match the king's achievements, as e. g. attested archaeologically in the Abusir necropolis. Estimations of his alleged 20 years long reign, based on the Manethonian tradition, should certainly be refuted because it is not in accordance with contemporaneous evidence.

SHEPSESKARA

RCT col. III.20 (?): 7 years

Manetho: Sisirés – 7 years

W. Barta (ZÄS 108, 1981, 23): 7 full and 2 incomplete years

J. v. Beckerath (*Chronologie*, 155): 7 years

(see M. Verner, in: ZÄS 124, 1997, 71); the abbreviated writing of his name as *Špsš* is also attested from other contemporaneous monuments, see *id. Baugraffiti*, 155 no. 397.

²⁵¹ Verner, *Khentkaus*, 18f.

²⁵² One of the reasons why both pyramids were largely unfinished at the time of the king's death could have been the priority attention he paid to the building of his sun temple *Št-ib-r^c*. However, also this temple seems to have been left unfinished, too, see the discussion above sub Userkaf.

²⁵³ The remains of the text include just the edge of a cartouche and the phrase *ir.n.fm nšyt* (concerning the meaning of the phrase, see e.g. A. H. Gardiner, in: *JEA* 31, 1945, 21 and D. B. Redford, *Pharaonic King-lists, Annals and Day-Books*, 1986, 8.

²⁵⁴ Probably, this attribution is considered as justified because it is in accordance with Manetho who ascribed to Sisires, identified by scholars with Shepseskara, seven years, too.

Shepseskara is undoubtedly the least known king of the 5th Dynasty. In the ancient Egyptian king lists, his name is explicitly mentioned in the Saqqara list²⁵⁵ only, after Neferirkara and before Neferkhare²⁵⁶. In the Abydos list, Shepseskara is not mentioned at all. In the RCT, the position III.20 and a relevant figure of a 7 years long reign are usually attributed to him, although no name is preserved in this place.²⁵⁷ As already mentioned above, most Egyptologists identify Shepseskara with Manetho's Sisires and accept 7 years attributed to the king.

From contemporaneous written sources directly relating to Shepseskara, only a few have ever been cited, including a scarab²⁵⁸ and two cylinder seals²⁵⁹. In addition to this, there are still four or five fragments of clay sealings bearing the king's name.²⁶⁰

In recent years, several new clay sealings, found in the mortuary temple of Neferefra in Abusir, have been added to this brief list.²⁶¹ The archaeological context in which the sealings were found, and some other observations concerning the relative chronology of the Abusir pyramids seem to indicate that Shepseskara might have followed, rather than preceded, Neferefra.

For instance, the pyramids of the 5th Dynasty kings who followed each other and who built their pyramids in Abusir – Sahura, Neferirkara, Neferefra and Niuserra – are arranged in line from the NE to the SW; only the pyramid of Niuserra is the exception to this scheme²⁶². Remarkably, the tangential line common to the NW corners of the three Abusir pyramids²⁶³ is directed at Heliopolis;

²⁵⁵ See e. g. J. Málek, in: *JSSEA* 12, 1982, 21-8.

²⁵⁶ The name is considered as a variant of the writing of Neferefra's throne name – see v. Beckerath, *Handbuch*, 55.

²⁵⁷ Concerning the assumption that the 7 years in this line refer to Neferirkara rather than Shepseskara, see above sub Neferirkara.

²⁵⁸ The scarab, published by W. M. F. Petrie (*Historical Scarabs*, London 1889, pl. 1) is very probably just an archaizing object dating from the Saite Period.

²⁵⁹ G. Daressy, in: *ASAE* 15, 1915, 94f.

²⁶⁰ P. Kaplony, *Die Rollsiegel des Alten Reiches. Katalog der Rollsiegel* (hereafter *Rollsiegel*). II, Bruxelles 1981, A. Text, 289-294 and B. Tafeln, 81f.

²⁶¹ M. Verner, *Who was Shepseskara, and when did he reign?*, in: *Abusir and Saqqara in the Year 2000* (*ArOr Suppl.* 9, 2000), 581-602.

²⁶² Niuserra had several very practical reasons for his decision to build his pyramid close to that of his father Neferirkara. A suitable place for the construction of a pyramid was available to the SW of Neferefra's pyramid, but its causeway would have been overlong, almost one kilometer. It was, therefore, more advantageous, for economic reasons, to use the unfinished causeway of Neferirkara. Moreover, Niuserra obviously wished to have his pyramid close to the funerary monuments of his direct relatives: Neferirkara (father), Khentkaus II (mother) and Neferefra (brother). Besides the filial and brotherly piety, some technical and economic reasons might have played a role in his decision making. As a matter of fact, none of the pyramid complexes of the aforesaid Niuserra's forbearers was finished prior to the time of his ascension to the throne. Therefore, the completion of these monuments simultaneously with the construction of his own pyramid complex must have been very demanding. By choosing this place for his pyramid, he was able to compress all building works into an area of cca 300 × 300 m and to economize at the most the labour and the material resources.

²⁶³ See the photogrammetric map 1 : 5000, sector Le Caire H 21, issued by the Egyptian Ministry of Housing and Reconstruction.

similar arrangement of the pyramids can be observed also in Giza as already pointed out by H. Goedicke²⁶⁴. It seems that the lines under discussion, both in Giza and Abusir, form a kind of axis for these cemeteries and culminate in Heliopolis. The point in which they intersect was probably visible from both cemeteries.²⁶⁵ However, the striking alignment of the three Abusir pyramids has not only topographic-religious, but also chronological implications. Judging by its position on the line, the pyramid of Neferefra was built immediately after that of Neferirkara. This observation is in accordance with contemporaneous written evidence.²⁶⁶ This statement, however, differs from the so far prevailing reconstruction of the sequence Shepseskara – Neferefra based on the Saqqara list and Manetho (the evidence of the RCT is not quite clear in this respect).

Another new information concerning indirectly both kings has recently emerged from the archaeological examination of Neferefra's unfinished pyramid.²⁶⁷ As testified by one of masons' inscriptions discovered in the monument and dating from *rnpt sp tpy* of the king, the construction of Neferefra's pyramid must have been interrupted about the second regnal year of the king and this was undoubtedly at the time of Neferefra's death. The anthropological analysis of Neferefra's mummy showed that the king died at the age of 20 to 23 years.²⁶⁸ Not only due to his origin, but also with regard to his age, Neferefra had optimum prospects of succeeding his father. Why, therefore, after the reign of Neferirkara would Shepseskara ascend the throne? What justification could he have had to consider himself a more legitimate successor than Neferefra? One reason could have been the fact that Neferefra was almost certainly born prior to the time that his father was king – as we can estimate from Neferirkara's reign. Shepseskara, on the other hand, might have been born "to the purple", as the son of a ruling king. Since it is rather improbable that under the name Shepseskara is hidden someone coming from beyond the circle of the royal family, and it is equally dubious that he originated from Neferirkara's nuclear family (with Neferefra reigning only about two years, if Shepseskara were Neferirkara's son and "born to the purple", he would be at maximum in the region of twelve years of age), it seems to be logical to see in him somebody coming from the family of Neferirkara's predecessor, Sahura.

²⁶⁴ BACE 6, 1995, fig. 1 on p. 33 and fig. on p. 43.

²⁶⁵ It seems needless to emphasize that the close links between the pyramids of Giza and Abusir with the centre of the sun cult, Heliopolis, imply serious religious connotations.

²⁶⁶ See the inscription on a block coming probably from Neferirkara's mortuary temple and published by P. Posener-Kriéger, *Archives de Néferirkare*. II, 531.

²⁶⁷ Even before the new archaeological evidence from Neferefra's complex was discovered, the considerable difference between the amount of direct evidence coming from both Shepseskara and Neferefra indicated that the former king should have reigned more briefly than the latter. Archaeologically, no monuments from Shepseskara's reign can be attested. The reconstruction of the name of Shepseskara's alleged pyramid *Ršj-Špšš-kš-rʿ* and his alleged sun temple *Htp-ib-rʿ* is a sheer speculation (Kaplony, *o. c.* II. A, 242, 293 and II. B, pls. 72, 8 and 82,5).

²⁶⁸ E. Strouhal, L. Vyhnaněk, *The identification of the remains of king Neferefra found in his pyramid at Abusir*, in: *ArOr Suppl.* 9 (2000), 551-560.

When excavating the pyramid complex of Sahura, Borchardt²⁶⁹ found evidence of the additional changes in the relief decoration of the mortuary temple. The figure of one of the courtiers immediately following Sahura had been altered; not only had the symbols of royal regalia been added to his forehead, but an inscription identified the figure as that of King Neferirkara. We do not know whom the reworked figure originally belonged. The theory that Neferirkara was Sahura's brother is based on the assumption that the figure originally belonged to Neferirkara and the above mentioned change concerned only the upgrading of his status.²⁷⁰ Such an interpretation of the additionally changed reliefs cannot be excluded, but the actual circumstances could have been different.

It seems that Neferirkara had originally been represented in Sahura's suite. If not, it would be difficult to understand why would he consider it necessary to change additionally the reliefs and to identify himself just with the figure in question.²⁷¹ The additional changes therefore provide the evidence that after his accession to the throne, Neferirkara wished not only to remain represented as a member of Sahura's court but, at the same time, to be shown as a king. In all altered reliefs, the figure additionally marked as King Neferirkara is at the head of a group of courtiers, this register being directly below the register of Sahura's sons namely, Netjerirenra, Khakara and Nebankhra (the fourth son, Haremsaf, is known from another place). Consequently, it cannot be excluded that rather than a physical relationship to Sahura's family, Neferirkara wanted to demonstrate that he had a greater entitlement to the throne than the sons of Sahura – especially the eldest one of them, Netjerirenra. Obviously, the fact that Sahura was not succeeded on the throne by his son must have represented a problem concerning the mythical background of the ancient Egyptian kingship in accordance with which Horus (the new king) was the only legitimate heir of his father Osiris' (the dead king's) throne. Did Neferirkara, therefore, only want to legitimate additionally his ascension to the throne and question the right of Sahura's son to succeed his father or, did he rather wish to demonstrate his more legitimate right to the throne than anybody from Sahura's family? If so, should not Neferirkara's origin be sought in the royal family of the terminating 4th Dynasty rather than in the family of Sahura and Userkaf?

Although the above mentioned evidence is indirect and its interpretation ambivalent, it does seem likely that between the families of Sahura and Neferirkara tense relations might have existed. These tensions might have affected the relationships of two kings who reigned shortly after each other, Shepseskara and Neferefra. The identity of Shepseskara should therefore be examined in the context of historical events connected with the 5th Dynasty

²⁶⁹ *Sahure*, pp. 32, 47 and 57 and pls. 32-34 and 48.

²⁷⁰ See e. g. T. Schneider, *Lexikon der Pharaonen*, 1996, 266.

²⁷¹ Indeed, a closer view of one of the additionally changed reliefs which has recently been exhibited (*L'art égyptien au temps des pyramides*, Paris 1999, 273 fig. bottom left) showed that before the carving of Neferirkara's cartouche and title an earlier inscription had been erased.

kings buried at Abusir and here it could also be profitable to start searching for the place where Shepseskara should be buried.

It was suggested some time ago that Shepseskara may have initiated the unfinished platform for a pyramid discovered in Abusir, half-way between Sahura's pyramid and the sun temple of Userkaf.²⁷² The state in which the building was interrupted corresponds to the work of several weeks, perhaps no more than one or two months. In fact, the place was merely levelled and the excavation of the pit for the construction of the underground funerary apartment had only commenced. Moreover, the owner of the building obviously wanted to demonstrate by his choice of place his relationship to either Sahura or Userkaf – or to both kings. Theoretically, only two kings of the 5th Dynasty whose pyramids had not yet been identified can be taken into consideration – Shepseskara or Menkauhor. However, according to a number of contemporaneous documents, Menkauhor appears destined to have his probably completed pyramid elsewhere, in North Saqqara²⁷³ or Dahshur²⁷⁴. Shepseskara, therefore, seems to be the likelier owner of the unfinished platform for a pyramid in North Abusir.²⁷⁵ Anyway, the builder of the platform must have reigned for a very short time.²⁷⁶

Hypothetically, there is another scenario for the events which followed the end of Sahura's reign. One of Sahura's sons, the surmised Shepseskara who had not yet been adult in the moment of his father's death, could have attempted to ascend the throne following Neferirkara's death or, more plausibly, after Neferefra's premature death. He used the hypothetical weakening of the position of Neferirkara's family to launch his claim to the throne at the cost of the claim of Niuserra, the younger son of Neferirkara and Khentkaus II. In the event, Shepseskara's attempt failed and Niuserra, though younger than Shepseskara, emerged the eventual victor. The important role Khentkaus II could have played in Niuserra's ascension to the throne would explain her unusual title of *mwt nswt bity nswt bity* (or *nswt bity, mwt nswt bity*), her high

²⁷² M. Verner, in: *ZÄS* 109, 75-78.

²⁷³ J. Berlandini, in: *BSFÉ* 83, oct. 1978, 24-34.

²⁷⁴ R. Stadelmann, *Die ägyptischen Pyramiden*, 1985, 179.

²⁷⁵ However, if this unfinished structure was really his work, we have to ask ourselves where, then, was this king eventually buried and in which form did his funerary cult exist? The platform in question certainly could not be his final resting place. If Shepseskara was one of Sahura's sons, it would be logical to seek his tomb near his father's pyramid, in a large and hitherto yet unexplored area in which the tombs of the members of Sahura's family are supposed to have been built.

²⁷⁶ For instance, according to some scholars the text on the Palermo Stone indicates that there was an interregnum following Sahura's death, see e.g. T. Wilkinson, *Royal Annals*, 173. Depending on how one reconstructs the damaged last column of the text referring to Sahura's reign, the interregnum was estimated by Jéquier (*BFAO* 5, 1906, 60f.) to have lasted 22 or 52 days. If so, this interregnum could have reflected difficulties preceding Neferirkara's ascension to the throne and, possibly, the period of time in which one of Sahura's sons (Shepseskara ?) failed to succeed his father. Nevertheless, A. H. Gardiner (*JEA* 31, 1945, 12) has convincingly reconstructed the damaged text and shown that the transition of power between Sahura and Neferirkara passed off immediately, without any delay.

esteem and the additional enlargement and upgrading of her mortuary cult by this king.²⁷⁷

Be any of the above suggested variants true, it seems that Shepseskara – to whom or to his time no monuments can be attributed, and whose name also does not occur in any contemporaneous monument or even in basiloform personal names – was an ephemeral king whose reign was only short-lived.

NEFEREFRA

RCT col. III.21 (?): 1 year

Manetho: Cherés – 20 years

W. Barta (ZÄS 108, 1981, 23): possibly 10 years

J. v. Beckerath (*Chronologie*, 155): 11 years

rnpt sp

– *rnpt sp tpy*, *3bd 4 3ht* (Neferefra's pyramid)²⁷⁸

attested *rnpt sp*: 1

rnpt (m-)ht sp: not attested

rnpt sp : *rnpt (m-)ht sp* – 1 : 0

The shape of the tomb of Neferefra, the eldest son²⁷⁹ and successor of Neferirkara, as well as a number of other archaeological finds clearly indicate that the construction of the king's funerary monument was interrupted, owing to the unexpectedly early death of the king. The plan of the unfinished building had to be basically changed and a decision was taken to hastily convert the unfinished pyramid (of which only the incomplete lowest step of the core was built) into a "square-shaped mastaba" or, more precisely, a stylized primeval hill. At the moment of the king's death neither the burial apartment was built nor was the foundation of the mortuary temple laid.

The above quoted date *rnpt sp tpy*, *3bd 4 3ht* was found in Neferefra's unfinished pyramid, on a large corner block situated at the end of the tunnel for the descending corridor; the inscription was found at about two thirds of the height of the extant core of the monument. The date, written on the block *in situ* and undoubtedly referring to Neferefra's reign, must have shortly preceded the interruption of the pyramid's construction. The date would refer to the 1st or the 2nd or, if the census was biennial at that time, at maximum to the 3rd regnal year of Neferefra. Including the period of time which elapsed from his ascension to the throne, the king could have reigned one or, probably no more than two years at the outside. This conclusion based on the contemporaneous evidence seems to be in accord with the RCT.

²⁷⁷ Concerning further details, see M. Verner, *Khentkaus*, 168ff.; *id.in: GM* 171, 1999, 219-224.

²⁷⁸ Corrected copy of the date published by Verner, in: ZÄS 126, 1999, 76 and fig. 6.

²⁷⁹ See the inscription on the block published by Posener-Kriéger, *Archives de Néferirkare*. II, 531 and fig. 34.

The chronological evidence from the king's tomb can be complemented by some data acquired by the examination of the remnants of Neferefra's mummy discovered in the ruins of the burial chamber of the king.²⁸⁰ The anthropological analysis of the mummy showed that Neferefra died at the age of between 20 to 23 years. Consequently, the king could have been about 20 years old when he ascended to the throne.

Interestingly, there is still another kind of chronological evidence discovered in Neferefra's funerary monument and relating to the 5th Dynasty namely, two pieces of evidence of the *w3g*-feast – *3bd 1 3ht, šw 23* (or 25, 26, 29) (doc. III) and *3bd 3 (3ht ?), šw 28* (doc. IV) – published by Posener-Kriéger²⁸¹ from the as yet unedited papyrus archive of Neferefra's mortuary temple²⁸² This publication has prompted U. Luft²⁸³ to an attempt to fix the dates in terms of absolute chronology to cca 2430 BC. However, Luft's conclusions were refuted by R. Krauss²⁸⁴ whose own calculations resulted in the date ranging between 2450 and 2335 BC. Be the problems connected with the absolute dating of Neferefra's papyri referring to the *w3g*-feast as they may, these fragmentary documents can hardly help us to control at least approximately the Old Kingdom chronology.²⁸⁵ Their evidence is very vague to enable us any precise dating – even if we disregard the materials concerned with the length of Neferefra's reign. Moreover, the documents are certainly posterior to Neferefra and very probably date from the reign of Djedkara.

Regardless of the difficulties with the precise dating of some papyri from Neferefra's mortuary temple archive, the length of the king's reign can be relatively safely established on the basis of new archaeological finds from Abusir: Very probably, Neferefra succeeded Neferirkara and reigned not longer than about two years.

NIUSERRA

RCT col. III.22 (?): 11 (+ x years ?)

Manetho: Rathurés – 44 years

W. Barta (ZÄS 108, 1981, 23): probably 33 years

J. v. Beckerath (*Chronologie*, 155): 31 years (on p. 208, however, the figure 30 – or 20 ? + 1 or 5 ? – is given)

²⁸⁰ The authenticity of the remnants was validated by a chronometric dating to 2393-2628 BC, see E. Strouhal, in: *Fs Vyhnanek*, 2000, in press.

²⁸¹ In: *Ägypten. Dauer und Wandel*, 1985 (SDAIK 18), 40-43.

²⁸² In principle, this archive does not differ from the above repeatedly cited archive found in the neighbouring mortuary temple of Neferirkara, and published later by Posener-Kriéger; concerning more details on Neferefra's archive, see e. g. the preliminary reports by P. Posener-Kriéger, in: *Mélanges Gamal Eddin Mokhtar* (hereafter *Mélanges Mokhtar*), 1985, 195-210, and in: *MDAIK 47 (Fs W. Kaiser)*, 1991, 293-304.

²⁸³ In: *Revolutions in Time: Studies in Ancient Egyptian Calendrics. VA Suppl.* 6, 1994, 39-44.

²⁸⁴ *GM* 162, 1998, 53-57.

²⁸⁵ Concerning some other comments on the above-mentioned dates from Neferefra's archive, see also Baud, *Ménes*, 140f.

rnpt sm3 (t3wy)

– *rnpt sm3 (t3wy)* (unpublished potsherd no. 763/I/84-x, Neferefra's mortuary temple)

rnpt sp

– *rnpt sp* 1, *3bd* 1 *3ht*, *šw* 10 + x (unpublished potsherd no. 531/I/82, Neferefra's mortuary temple)

– *rnpt sp* 1, *3bd tpy 3ht*, ... (unpublished potsherd no. 763/I/84-e, Neferefra's mortuary temple)

– *rnpt sp* 2, *3bd* 3 *šmw*, *šw* 10 (a potsherd found by Borchardt²⁸⁶ in (or to the west of ?) the mastaba of Djadjamankh in Abusir)

– *rnpt sp* 5 (?), *3bd* 3 *pri*, (*šw*) *wpw* (masons' inscription, Ptahshepses' mastaba)²⁸⁷

– *rnpt sp* 7, *3bd* 3 *3ht*, *šw* 1 (or 7 ?) (a broken jar for beef fat no. 531/I/82, Neferefra's mortuary temple)

rnpt (m-)ht sp

– *rnpt (m-)ht sp* 2, *3bd* 3 *3ht*, *šw* 24 (the masonry block with the date was found in the southern "Eckbau" of Niuserra's mortuary temple)²⁸⁸

attested *rnpt sp*: 1, 2, 5, 7

attested *rnpt (m-)ht sp*: 2

rnpt sp : *rnpt (m-)ht sp* – 4 : 1

With regard to the archaeological context in which the potsherds were found in Neferefra's mortuary temple, the above quoted dates could, theoretically, be ascribed to four kings: Niuserra, Menkauhor, Djedkara or Unas. Eventually, the dates have been tentatively attributed to Niuserra because of following reasons:

- a. In two cases (nos. 531/I/82 and 763/I/84), the potsherds were found in the lowest layer resting directly on the floor of two rooms belonging to the earliest building stage of the temple dating from the time of Niuserra. In the same layer as the potsherds, in both rooms, fragments of clay sealings bearing the Horus name of a majority of 5th Dyn. kings were revealed. Niuserra's name is the only one occurring on sealings in both rooms.
- b. Niuserra established Neferefra's mortuary cult and provided the temple with the basic furnishings to which the vessels bearing the dates may have belonged.
- c. The potsherds with the dates originally made up part of large storage vessels for beef fat which had been delivered to Neferefra's temple from the slaughterhouse of a yet undiscovered palace of Sahura named *Wt-s-nfrw-š3hw-r^c*.²⁸⁹ Because of the absence of the name of this palace in all papyrus archives found so far in the Abusir mortuary temples (of Neferirkara, Khenkaus II and Neferefra), P. Posener-Kriéger²⁹⁰ concluded that the vessels should be prior, rather than posterior to these papyri, the absolute majority of which date from Djedkara's reign.

The hitherto estimations of the length of Niuserra's reign, ranging (owing to the damaged text in the RCT) from 11²⁹¹ to 35 years²⁹² have been based on

²⁸⁶ Neuserre, 139.

²⁸⁷ To be attributed to Niuserra, see Verner, *Baugraffiti*, 110 graffito no.194.

²⁸⁸ Borchardt, *Neuserre*, 145.

²⁸⁹ The palace lies possibly near the valley temple of Sahura.

²⁹⁰ *SEAP* 12, 1993, 7-16.

²⁹¹ Gardiner, *Egypt of the Pharaohs*, 435.

²⁹² Beckerath, *Chronologie*, 155.

theoretical calculations. Do the contemporaneous historical sources really comply with such a great difference between the archaeological dates and the available literature?

Niuserra ascended to the throne after a short, probably not more than two years long reign of his elder brother Neferefra.²⁹³ If Neferefra died at the age between 20 and 23 years, as evidenced by the anthropological analysis of his mummy's remnants, his younger brother Niuserra succeeded him probably in his early twenties. At the time of Niuserra's ascension to the throne, the first born of his children could have been at maximum about 5 years old. As attested by the contemporaneous written evidence, Khamernernebti, a daughter of the king, married Ptahshepses, an influential vizier and director of the king's building projects in Abusir. Masons' inscriptions with Khamernernebti's name were found in the earliest building stage of Ptahshepses mastaba which may indicate that there was a close link between the princess and the vizier as early as from the beginning of the construction of the vizier's tomb.²⁹⁴

However, in the earliest building stage of Ptahshepses' mastaba another masons' inscription, with the date *rnpt sp 5 (?)*, *3bd 3 prt*, (*šw*) *wpw* was revealed. The date, referring undoubtedly to Niuserra's reign, may thus represent a relative dating for the earliest building stage of the mastaba. At the same time, the date may not have been far from Ptahshepses' marriage with Khamernernebti. Unfortunately, from the earliest stage of Ptahshepses' mastaba no reliefs survived *in situ* in order to inform us who was Ptahshepses' wife at that time.²⁹⁵ The representation and name of the princess occur for the first time in the rooms dating from the 2nd building stage of the mastaba when Ptahshepses had not yet held the title of "the king's son"; this ranking title is attested as late as from the 3rd (last) building stage of the tomb. From the same terminal building stage of the tomb are also attested three masons' inscriptions with the basiloform personal name Neferefreankh.²⁹⁶ The dates are very important for the reconstruction of the relative chronology of the monument since Neferefreankh, a *šhd pr-šw*, was at that time undoubtedly an adult man which means,

²⁹³ Concerning a very short reign of ephemeral Shepseskara following Neferefra, see the text above.

²⁹⁴ On the other hand, Ptahshepses' name, preceded by the title *h3ty-š*, occurs on the blocks in the princess' original tomb. (Borchardt, *Neuserre*, 144 fig. 125) In his function of an *imy-r3 k3t nbt nt nšwt*, Ptahshepses might have directed the building of Khamernernebti's original tomb. We cannot also exclude the possibility that the masonry blocks with Khamernernebti's / Ptahshepses' name found by mere chance their way to the vizier's / princesse's tomb because both monuments lay in close neighbourhood and could have been in approximately the same time under construction.

²⁹⁵ Some additional changes of reliefs in the tomb concerning the first-born son (the originally first born son Khafini was erased and replaced by another one named Ptahshepses) may indicate that Khamernernebti was not the first wife of Ptahshepses and that the marriage might have caused some problems (did the first-born son with an earlier, non-royal wife have to cede his position to to first-born son with the princess?), see Verner, *Ptahshepses I*, 102f.

²⁹⁶ Verner, *Baugraffiti*, 79f. (nos. 55 and 64) and 154 (no. 392).

that from Neferefre's time (when he was probably born or, more precisely, when he at earliest could get this name) must have elapsed at least 20 years. The construction of Ptahshepses' mastaba was therefore very probably commenced during the first decade (in this respect, it matters little whether the aforementioned *rnpt sp* 5 included mostly annual or biennial cattle counts) and terminated at the end of the second or, more probably, at the beginning of the third decade of Niuserra's reign.

The above discussed dates also indicate that Niuserra could have been at the age of at least 30 years when his daughter Khamerernebti married the vizier Ptahshepses (provided that she married Ptahshepses as soon as it was biologically possible, i. e. at the age of 12 up to 15 years).²⁹⁷

To the stately record of Niuserra's activities in Abusir (the construction of his own pyramid complex and two small complexes Lepsius no. XXIV and no. XXV for his wives, and the completion of the unfinished funerary monuments of his direct relatives Neferirkara, Khentkaus II and Neferefra) a large building complex of the king's sun temple in the northern outskirts of the necropolis, in Abu Ghurab, should be added. Beautiful reliefs with the scenes of the *sed*-festival from this sun temple²⁹⁸ are occasionally considered as indirect evidence of a long reign of this king.²⁹⁹ Generally, the historical authenticity (the evidence of the 30th jubilee of a king's ascension to the throne) of such reliefs is doubted since the *sed*-festival scenes very probably belonged in the Old Kingdom to the standard "Bildprogram" of the royal funerary monuments.³⁰⁰ However, in Niuserra's case, the *sed*-festival scenes from Abu Ghurab—the 30th jubilee of the king's ascension to the throne very probably reflect.

Though not directly linked with the length of Niuserra's reign, a piece of absolute chronology referring to king's time should not be omitted in this discussion. A sample of wood from a pin fixing the shaft of an eight stemmed lotus column of limestone with the base, discovered in the main entrance to the above mentioned mastaba of the vizier Ptahshepses, was dated by means of C¹⁴ to 2465–2333 BC.³⁰¹

²⁹⁷ Regardless of the problem of the biological readiness of Khamerernebti for a marriage (unfortunately, we have no knowledge at all when and under which circumstances girls married in the Old Kingdom), some other reasons must have been considered by Niuserra before taking the decision to draw Ptahshepses into alliance. We can only speculate that one of these reasons might have been the role Ptahshepses played in favour of Niuserra before the king's ascension to the throne (see the text above sub Shepseskara).

²⁹⁸ F. W. v. Bissing, H. Kees, *Das Re-Heiligtum des Königs Ne-user-re (Rathures)*. II, 1923 and F. W. v. Bissing, *Das Re-Heiligtum*. III – plates.

²⁹⁹ See e. g. W. S. Smith, in: *CAH* I, Pt. 2, 3rd ed. 1971, 185.

³⁰⁰ E. Hornung, E. Staehelin, *Studien zum Sedfest*, 1974 (*AH* I/1), 66f.; see also E. Hornung, in: *MDAIK* 47, 1991, 169–171.

³⁰¹ Beckerath, *Chronologie*, 56.

MENKAUHOR

RCT col. III.23: 8 years

Manetho: Mencherés – 9 years

W. Barta (ZÄS 108, 1981, 23): possibly 9 years

J. v. Beckerath (*Chronologie*, 155): 9 years

There is no contemporaneous date that can be safely attributed to Menkauhor. However, contrary to e. g. Shepseskara, there is a number of written evidence and archaeological objects dating from the time of Menkauhor. There is, for instance, evidence enough that the king finished his pyramid complex *Ntry-ỉšwt-Mn-k3w-hr* and that his funerary cult was kept for a relatively long period of time. If Menkauhor's pyramid complex is to be identified with the so-called Headless Pyramid in North Saqqara – and this theory³⁰² seems to be plausible – then the period of eight or nine years attributed to the king's reign on the basis of the RCT appears to be a realistic estimation. A number of sealings bearing the king's name, found in Neferefra's mortuary temple (yet unpublished) and elsewhere³⁰³ support this estimation, too.

DJEDKARA

RCT col. III.24: 28 years

Manetho: Tancherés – 44 years

W. Barta (ZÄS 108, 1981, 23): possibly 29 years

J. v. Beckerath (*Chronologie*, 155): 38 years

rnpt sm3 t3wy

– *rnpt sm3 t3wy, 3bd 3 prt, šw 29* (the tomb of Wepemneferet)³⁰⁴

rnpt sp

– *rnpt sp 1, 3bd 2 3ht*, ... (unpublished papyrus from Neferefra's mortuary temple archive, pl. 51A)

– *rnpt tpy*, ... (unpublished papyrus from Neferefra's mortuary temple archive, pl. 76A)

– *rnpt sp 3, 3bd 4 3ht, šw 25* (papyrus archive of Neferirkara's mortuary temple)³⁰⁵

³⁰² Besides the previously sub Shepseskara cited work by Berlandini, see also Maragioglio, Rinaldi, *L'Architettura* VIII, 1975, 60-62; concerning another theory attributing the monument to Merykare, see J. Málek, in: *Hommages à J. Leclant*, IV, 1994, 203-214.

³⁰³ P. Kaplony, *Rollsiegel* II. A, 295-307.

³⁰⁴ The date, mentioned in Wepemneferet's will inscribed on the wall of his tomb (S. Hassan, *Giza* II, 1936, fig. 219 opposite p. 190), was attributed by Spalinger (*o. c.* 21, 1994, 302, with a reference to K. Baer, *Rank and Title in the Old Kingdom* (hereafter *Rank and Title*), 1960, 66, both men dating the tomb to mid – late 5th Dynasty) to Unas. However, among persons represented in the tomb there is a craftsman named Neferefreankh. If born in the reign of Neferefra, which seems to be probable, Neferefreankh could have been about 30 up to 40 years old at the beginning of Djedkara's reign. Would this date be ascribed to Unas, Neferefreankh would have been too old in the time of the king's ascension to the throne. The date should, therefore, relate to Djedkara rather than Unas.

³⁰⁵ P. Posener-Kriéger, J. L. de Cenival, *The Abusir Papyri*, 1968, pls. 13, 13 A; Posener-Kriéger, *Archives de Néferirkare*, II, 480.

- *rnpt sp* 5, *3bd* 4 *3ht*, ... (unpublished papyrus from Neferefra's mortuary temple archive, pl. 76C)
- *rnpt sp* 6, *3bd* 4 *prt*, *šw* 22 (wooden box for linen found in the tomb of Nefer and Kahay)³⁰⁶
- *rnpt sp* 8, *3bd* 4 *šmw* (papyrus archive of Neferirkara's mortuary temple)³⁰⁷
- *rnpt sp* 9 (rock stela, Sinai)³⁰⁸
- *rnpt sp* 10, *3bd* 4 ..., *šw* 24 (papyrus archive of Neferirkara's mortuary temple)³⁰⁹
- *rnpt sp* 11, *3bd* 2 *3ht*, *šw* 11 (papyrus archive of Neferirkara's mortuary temple)³¹⁰
- *rnpt sp* 14, *3bd tpy šmw* (*3bd* 2 *šmw*) (papyrus archive of Neferirkara's mortuary temple)³¹¹
- *rnpt sp* 15, *3bd* 4 *prt*, (*šw*) *wpw* (papyrus archive of Neferirkara's mortuary temple)³¹²
- *rnpt sp* 15, *3bd* 4 *3ht*, *šw* 27 (unpublished papyrus from Neferefra's mortuary temple archive, pl. 20B)
- *rnpt sp* 15, *3bd* 4 *3ht*, *šw* 28 (papyrus from Neferefra's mortuary temple archive)³¹³
- *rnpt sp* 15, *3bd* 1, ... (unpublished papyrus from Neferefra's mortuary temple archive, pl. 21L)
- (*rnpt sp*) 15 (*n*) *t(nwt)* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 3A)
- *rnpt sp* 16 (papyrus archive of Neferirkara's mortuary temple)³¹⁴
- *rnpt sp* [1]6, *3bd* 4 *šmw*, *šw* 28³¹⁵
- [*rnpt*] *sp* 17, *3bd* 3 (unpublished papyrus from Neferefra's mortuary temple archive, pl. 8D)
- *rnpt sp* 18, *3bd* 3 *šmw*, *šw* *rk* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 45)
- *rnpt sp* 18, *3bd* 4 *šmw*, *šw* *rk* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 63A)
- *rnpt sp* 21 (22 ?), *3bd* 4 *3ht*, *šw* 12 (papyrus archive of Neferirkara's mortuary temple)³¹⁶

³⁰⁶ H. Altenmüller, A. Moussa, *The Tomb of Nefer and Kahay*, 1971 (AV 5), 18, 43f. and fig. 11. The excavators attributed the date to Djedkara. However, Spalinger (*o. c.* 302) suggested dating the inscription to either Neferefra or Niuserra. Certainly, Neferefra can be excluded (see above sub Neferefra). Obviously, the tomb seems to have been built in the time of Niuserra, as concluded by the excavators and, for instance, by N. Cherpion (*Mastabas et Hypogées de l'ancien Égypte*, Bruxelles 1989, 135), too. However, as pointed out by Altenmüller and Moussa, the burial in shaft no. 8, with which the box bearing the date was found, was the last one in the tomb and should be contemporary with the generation of Nefer's children. The dating of the inscription to the time of Djedkara is, therefore, very plausible.

³⁰⁷ Posener-Kriéger, de Cenival, *o. c.* pls 69, 69 A; Posener-Kriéger, *o. c.* 490.

³⁰⁸ A. H. Gardiner, T. E. Peet, J. Černý, *The Inscriptions of Sinai*, London 1952, pt. I, pl. VIII, no. 14 and pt. II, 61.

³⁰⁹ Posener-Kriéger, de Cenival, *o. c.* pls. 72, 72 A; Posener-Kriéger, *o. c.* 490.

³¹⁰ Posener-Kriéger, de Cenival, *o. c.* pls. 53, 53 A; Posener-Kriéger, *o. c.* 490.

³¹¹ Posener-Kriéger, de Cenival, *o. c.* pls. 2, 2 A; Posener-Kriéger, *o. c.* 490.

³¹² Posener-Kriéger, de Cenival, *o. c.* pls. 47, 47 A; Posener-Kriéger, *o. c.* 490.

³¹³ Posener-Kriéger, in: *Mélanges Mokhtar* II, Le Caire 1985, 195-210.

³¹⁴ Posener-Kriéger, de Cenival, *o. c.* pls. 1, 1 A; Posener-Kriéger, *o. c.* 490.

³¹⁵ *Urk* I, 63.11; W. S. Smith, in: *JNES* 11, 1952, 113 and n. 2; see also E. Eichler, in: *SAK* 18, 1991, 146f. – letter of Isesi to Senedjemib.

³¹⁶ Posener-Kriéger, de Cenival, *o. c.* pls. 41, 41 A; Posener-Kriéger, *o. c.* 490. P. Posener-Kriéger transcribed the numeral following *rnpt sp* as 21. However, in the damaged place where the numeral still is, one can see a tiny black trace of another vertical stroke just visible. Therefore, the numeral can probably be reconstructed as 22.

damaged inscription:

- *rnpt sp 2 + x, 3bd 1 ... , šw ...* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 76B)
- *rnpt sp 10 + x* (unpublished from Neferefra's mortuary temple archive, pl. 85C)
- *rnpt sp 11 + x inw(t) ih (ʿwt nb)* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 1A)

rnpt (m-)ht sp

- *(rnpt) (m-)ht sp 1, 3bd 4 3ht, šw ʿrk* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 77A)
- *rnpt (m-)ht sp 1, 3bd 4 šmw, šw 1* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 77B)
- *rnpt (m-)ht sp tpy* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 82 o)
- *rnpt m-ht sp 3* (rock stela, Sinai)³¹⁷
- *rnpt (m-)ht sp 4, 3bd 3 šmw, šw 15* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 76C)
- *rnpt (m-)ht sp 4, 3bd 3 šmw* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 69A)
- *rnpt (m-)ht sp 7 (?), 3bd 1 3ht* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 76D)
- *rnpt (m-)ht sp 10, 3bd 4 šmw, šw 21* (papyrus archive of Neferirkara's mortuary temple)³¹⁸
- *rnpt sp (m-)ht sp (sic!) 14, 3bd 1 3ht, šw 18* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 66B)
- *rnpt (m-)ht sp 14, 3bd ... 3ht* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 76J)
- *rnpt (m-)ht sp 17, 3bd 1 šmw (?), šw 23* (sarcophagus of Idu, Abusir)³¹⁹

damaged inscription:

- *[rnpt (m-)ht (?) sp] 4 + x, 3bd 1 3ht* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 77i)
- *rnpt (m-)ht sp 10 + x, ...* (unpublished papyrus from Neferefra's mortuary temple archive, pl. 76E)

documents dating from the time of either Djedkara or Unas:

- *rnpt sp 4, 3bd 4 prt, šw 2* (papyrus archive of Neferirkara's mortuary temple)³²⁰
- *rnpt sp 4, 3bd 1 šmw, šw ʿrk* (papyrus archive of Neferirkara's mortuary temple)³²¹
- *rnpt sp 11, 3bd 3 prt, šw 3 (?)* (mason's inscription from the tomb of Rawer II)³²²

³¹⁷ Gardiner, Peet, Černý, *o. c.* I, pl. VII, no. 13 and pt. II, 60.

³¹⁸ Posener-Kriéger, de Cenival, *o. c.* pls. 14, 14 A; Posener-Kriéger, *o. c.* 490.

³¹⁹ M. Verner, in: SAK 8, 1980, 258-60 and pl. 16. A new examination of the badly damaged inscription showed that the date should be read *rnpt (m-)ht sp 17* rather than *rnpt sp 14* as suggested in the quoted paper written shortly after the discovery of the tomb.

³²⁰ Posener-Kriéger, de Cenival, *o. c.* pls. 11, 11 A; Posener-Kriéger, *o. c.* 491, was hesitant about the attribution of this date to either Djedkara or Unas.

³²¹ Posener-Kriéger, de Cenival, *o. c.* pls. 11, 11 A; Posener-Kriéger, *o. c.* 491 was hesitant about the attribution of this date to either Djedkara or Unas.

³²² Junker, *Giza III*, 223-235; *id.* *Giza*, VIII, 39f. Though a sealing bearing the name of Djedkara was found in the tomb, the attribution of the date to this king is not certain. Baer (*Rank and Title*, 98) dates the tomb to the end of the 5th Dynasty, Y. Harpur (*Decoration*, 1987, 213) to the time from mid Djedkara to Unas.

attested *rnpt sp*: 1, 3, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17, 18, 21 (22?)

attested *rnpt (m-)ht sp*: 1, 3, 4, 7 (?), 10, 14, 17

rnpt sp : *rnpt (m-)ht sp* – 14 : 7

Owing to the fragmentary state in which all hitherto discovered papyri in Abusir survived, their precise dating is fraught with difficulties. After a thorough examination of the papyri from Neferirkara's mortuary temple archive, Posener-Kriéger³²³ came to the conclusion that the large majority of the papyri dated from the time of Djedkara. Only few of them could have been safely attributed to Unas, Teti and Pepi II respectively.

Concerning the dating of the yet unpublished papyri from Neferefra's mortuary temple archive, the situation is in many respects similar. In several articles dealing preliminarily with some of these papyri, Posener Kriéger³²⁴ has repeatedly expressed her opinion that most of Neferefra's papyri dated from the time of Djedkara, too.³²⁵

Though more fragmentary than Neferirkara's archive, that of Neferefra contains more pieces of chronological evidence. The only Horus name attested in Neferefra's archive belongs to Djedkara. Personal names or toponyms occurring in this archive do not contain any evidence posterior to Djedkara's reign, either.

However, it can't be excluded that a future thorough examination of the onomastika, the palaeography, etc., will shed more light on the precise dating of some of these papyri.

The papyri, albeit very important, are just one of many written documents and archaeological objects revealed in Neferefra's mortuary temple. The reconstruction of the temple's chronology is firmly based on the stratified finds, many of which can therefore contribute to our better understanding of the papyri, too. For instance, a mere statistical examination of hundreds of clay sealings found in the temple indirectly indicates that the cult of the king reached its peak in the time of Niuserra and Djedkara (Menkauhor's sealings amount to cca one third of those of Niuserra or Djedkara which can be explained by a relatively shorter reign of the former king). The number of sealings bearing

³²³ *O. c.* 483-491.

³²⁴ Before her demise, Madame Posener-Kriéger still managed to prepare the hieroglyphic transcriptions of these papyri and arrange the plates in which she either reconstructed parts of the papyri or collected the fragments coming from the same type of a document. It is still going to take some time before the papyri from Neferefra's temple archive, including the translation, palaeographical plates, etc., would be published. Another reason for some delay of the edition of the papyri is the excavator's intention, shared and firmly supported by the late Madame Posener-Kriéger, to make full use of the carefully documented archaeological context in which the papyri, as well as all other objects, were found in the temple. The more so that the papyri inform us not only about the accounts or the daily schedule of priests on the duty but, for instance, also on the repairs of damaged parts of the temple's architecture, the controls of the temple inventory and some other facts which could have recently been revealed during the excavation of Neferefra's pyramid complex. Such a unique opportunity to confront the evidence of the papyri with the archaeological finds and observations should not be missed.

³²⁵ *E. g. Mélanges Mokhtar II*, 195; *Ägypten. Dauer und Wandel*, 35.

the Horus name of Unas sharply declined and only two sealings were found with Horus name of Teti.

The high number of Niuserra's sealings does not come as a surprise. This king completed the temple and established Neferefra's mortuary cult, and so he did in the case of the unfinished mortuary temples of his parents, Neferirkara and Khentkaus II. However, the monuments of Neferirkara and Neferefra lacked their own causeway and the valley temple. The only access to them from the Nile valley was through the valley temple of Niuserra. Though independent as far as the cult and the administration are concerned, the pyramid complexes of Neferirkara, Khentkaus II, Neferefra and Niuserra thus formed in many respects an operation unit in the Abusir necropolis. During Niuserra's reign, many affairs could have been efficaciously directed from one administrative centre linked, very probably, just with this king's valley temple. After Niuserra's death, the situation has probably changed. Menkauhor's decision to abandon the necropolis in Abusir and build his pyramid complex elsewhere might have had some negative consequences for the economy and operation of the funerary monuments of his predecessors. This could have been one of principal reasons for Djedkara, from the very beginning of his rule, to pay an increased attention to the reorganization of the cults of his ancestors buried in Abusir, the more so because the king himself decided not to build his pyramid in Abusir, too. If actually so, the high number of Djedkara's decrees and sealings dating from his reign found at Abusir should be no surprise.

Yet, there is another piece of evidence for Djedkara's close link to the Abusir necropolis. In the late 1970s, a group of tombs belonging to some, perhaps less important, members of Djedkara's family were discovered and unearthed by the Czech expedition in Abusir, in the plain south-east of the mortuary temple of Niuserra.³²⁶ Importantly, in two of these tombs, belonging to Djedkara's daughters Khekeretnebti (and her daughter Tisethor) and Hedjetnub, skeletal remains of the princesses were found. A thorough anthropological examination of these remains³²⁷ revealed that Khekeretnebti and Hedjetnub were full sisters. Khekeretnebti died at the age of 30–35 years, Hedjetnub at the age of 18–19 years. The examination also indicated some striking similarities (the same blood group, gracility, etc.) between the two princesses and the king (concerning the examination of Djedkara's skeletal remains, see the text below) and proved the biological relationship among them. The contemporaneity of Djedkara and the two princesses was also confirmed by the radiocarbon dating regardless of the fact that the obtained data (see the Conclusions) are much higher than the accepted historical chronology for the 5th Dynasty.³²⁸

³²⁶ M. Verner, in: ZÄS 105, 1978, 155-159; 115, 163-171.

³²⁷ E. Strouhal et al., in: *Biological Anthropology and the Study of Ancient Egypt*, 1993, 104-118; *id.* In: *Fs L. Vyhnanek*, in press.

³²⁸ E. Strouhal et al, *loc. cit.*; see also E. Strouhal, in: *International Journal of Anthropology*, vol. 7, no. 3, 1992, 43-63.

The discovery of the dates in the tombs adjacent from the south (Idu) and the north (unknown lady "L") to the mastabas of the princesses enabled us to establish the chronology of this small cemetery founded by Djedkara. In the tomb of Idu, a scribe of the royal children, an inscription with the date *rnpt (m)-ht sp 17, 3bd 3 3ht, šw 5* was found on the sarcophagus whereas in the mastaba "L", on a masonry block, the date *rnpt sp 3, 3bd 4 3ht, šw 11*. The stratigraphy of the site, the typology of the tombs, etc., indicate that the tomb of Khekeretnebti was built first and that of Hedjetneb shortly afterwards. After a period of not more than few years the tomb of Idu was built. The tomb "L" was, stratigraphically, the latest in the whole group. The date from Idu's tomb should, therefore, refer to Djedkara, that from the tomb "L" to Unas. Obviously, the cemetery for Djedkara's children in Abusir must have been founded about the middle of the relatively long reign of the king.

The available written evidence seems to indicate a long reign of Djedkara. If the so far seven attested intervening years are added to the hitherto highest attested 21st (or 22nd ?) occasion of the cattle count, the king must have reigned at least 28 (or 29 ?) years (which is the total of the so far attested *rnpt sp* and *rnpt m-ht sp* years). In case of more (yet unattested) biennial counts, his reign could have been still longer. These conclusions are also corroborated by the results of the anthropological examination of Djedkara's skeletal remains, discovered in the king's pyramid in the mid 1940s by Abdel Salam Hussein and A. Varille.³²⁹ These remains have recently been examined by E. Strouhal et al.³³⁰ The new anthropological analysis confirmed the results of an earlier study by A. Batrawi³³¹ concerning the determination of king's age: Djedkara died at the age of 50–60 years.

UNAS

RCT col. III.25: 30 years

Manetho: Onnos – 33 years

W. Barta (ZÄS 108, 1981, 23): possibly 31 years

J. v. Beckerath (*Chronologie*, 155): 20 years

rnpt sp

– *rnpt sp 3, 3bd 4 3ht, šw 11* (unpublished mason's inscription from the anonymous mastaba "L", Abusir)

– *rnpt sp 6, 3bd 2 šmw, šw 28* (papyrus archive of Neferirkara's mortuary temple)³³²

– *rnpt sp 8, 3bd 4 šmw* (papyrus archive of Neferirkara's mortuary temple)³³³

³²⁹ At present, Djedkara's remains are kept in A. Batrawi's collection in the Department of Anatomy at Cairo University.

³³⁰ See *Fs L. Vyhnanek*, in press.

³³¹ *ASAE* 47, 1947, 98.

³³² Posener-Kriéger, de Cenival, *o. c.* pls. 54, 54 A; Posener-Kriéger, *o. c.* 491.

³³³ Posener-Kriéger, de Cenival, *o. c.* pls. 54 c, 54 A c; Posener-Kriéger, *o. c.* 491.

rnpt (m-)ht sp– *rnpt(m-)ht sp* 4, 3bd 1 *prt*³³⁴

Concerning several dates whose attribution is uncertain (Djedkara or Unas), see above sub Djedkara.

attested *rnpt sp*: 3, 6, 8attested *rnpt (m-)ht sp*: 4*rnpt sp* : *rnpt (m-)ht sp*: 4 : 1

It is surprising that for Unas, a king to whom the RCT attributes a 30 and Manetho even a 33 years reign, only several dates can be ascribed, including two of them which can be attributed to either Unas or Djedkara. Moreover, what surprises is not only the shortage of the contemporaneous dated documents but the absence of any higher dates, too. Among few masons' marks found in the pyramid complex of Unas and recorded by Petrie in Sayce MSS, there are no dates.³³⁵ Obviously, such inscriptions were not searched for or, left unrecorded by previous excavators of the monument. However, large mounds of debris surrounding the pyramid still provide a chance that some dates will be revealed in the future.

On the basis of the examination of both the available written evidence and the stratigraphy in the NW cemetery at the pyramid of Unas, P. Munro³³⁶ eventually accepted the length of the reign attributed to the king by the later tradition: 30 (RCT) up to 33 (Manetho) years. Referring to D. Franke's work on the Middle Kingdom chronology³³⁷, Munro³³⁸ proposed for Unas the absolute dating to 2348/78 – 2318/48 (±1–3 years) BC.

Unfortunately, there are so far no contemporaneous dated documents attesting the reign of Unas (which does not exclude that the king really ruled about thirty years as given by the RCT and Manetho).³³⁹ The above mentioned dates from the papyrus archive of Neferirkara's mortuary temple, attributed by Posener-Kriéger to Unas, would seem to attest that the king reigned at least about ten years. Moreover, they also indicate that the census was irregular during the king's reign. Though less frequent than the documents dating from the time of Djedkara, the documents among Abusir papyri dated to Unas's reign can be considered, as far as the royal mortuary cults at Abusir are concerned, for another piece of indirect evidence that Unas's succession to the throne after Djedkara's reign passed off without major difficulties and the continuity of the state was not disturbed.³⁴⁰

³³⁴ Posener-Kriéger, de Cenival, *o. c.* pls. 50, 50 A; P. Posener-Kriéger, *o. c.* 491.

³³⁵ Personal communication by J. Málek; see also *PM* III, Pt. 2/1, 1977, 421.

³³⁶ *Der Unas-Friedhof Nord-West*, 1993, 8ff.

³³⁷ *Orientalia* 57, 1988, 129ff.

³³⁸ *O. c.* 11.

³³⁹ Can a later divinization of Unas (see H. Altenmüller, in: *SAK* 1, 1974, 1-18) be taken for another indirect evidence of the king's long reign ?

³⁴⁰ Blocks bearing the name of Djedkara, revealed by J.-Ph. Lauer (in: *ASAE* 39, 1939, 454) in the pyramid complex of Unas, led the excavator to the assumption that Unas's accession to the

Quite recently, there appeared another doubt about the long reign of Unas. N. Kanawati published a brief consideration concerning the length of the reign of Unas based on some written and anthropological evidence found in the Saqqara tomb of Nikauisesi.³⁴¹ According to Kanawati, Nikauisesi started his career under Isesi and died at the age of 40 up to 45 years as indicated by the anthropological examination of his skeletal remains by Dr. M. Spiegelman and Prof. E. Strouhal in the “11th count, 1st month of inundation, day 20” of Teti. This date has been recorded in Nikauisesi’s tomb. Kanawati therefore concluded that 30 years with which Unas is credited on the basis of the RCT would contradict the results of the anthropological examination of Nikauisesi’s skeletal remains. Consequently Unas should not be credited, according to Kanawati, with more than 15 years.³⁴²

Conclusions

One of crucial obstacles for the reconstruction of the 4th and 5th Dynasty chronology is the problem posed by the very system of dating of that time based on the census of the country’s wealth, “the occasions of the cattle counts”. The opinion that the census formed in the Old Kingdom the basis for counting the regnal years of Egyptian kings has been familiar to scholars for a considerable time. This opinion became wide-spread especially after the publication of the already in the introduction to this paper cited article by Gardiner³⁴³ about regnal years and civil calendars. Among other things, Gardiner concluded that the basis of the dating system in the Old Kingdom was formed by the biennially held census and that the term *rnpt sp* denominated any even whereas *rnpt m-ht sp* any odd regnal year. (There is no doubt that the very existence of the notion of the intervening year, *rnpt m-ht sp*, represents a clear-cut evidence that in such case the count was not held annually but biennially.) However, the increasing number of dated written documents from the Old Kingdom provided by archaeologists over the years, including the evidence of the Palermo Stone attesting during Snofru’s reign the counting of the cattle in two successive years, indicated that the situation was much more complex than has been previously thought.

Currently, the opinion on the problem is far from being unanimous. For instance, for the reign of Snofru some authors³⁴⁴ consider the cattle count to have

throne was preceded by a conflict with his predecessor. moreover, Lauer’s assumption led eventually to the theory that Unas was the founder of the 6th Dynasty, see Baer, *Rank and Title*, 1960, 297ff. These assumptions were examined and doubted by P. Munro, *o. c.* 9f. and 17ff. and M. Baud, V. Dobrev, in: *BIFAO* 95, 1995, 57f.

³⁴¹ N. Kanawati, in: *The Rundle Foundation for Egyptian Archaeology Newsletter* no. 75, January 2001, 1f.

³⁴² Accordingly Kanawati has issued an appeal for scholars to give further consideration to the Old Kingdom dating system.

³⁴³ *JEA* 31, 1945, 11-28.

³⁴⁴ E. g. R. Stadelmann, *MDAIK* 43, 1986, 229-239 or M. Baud, *Ménes*, 121.

been regularly biennial (with the aforementioned exception of the 7th and 8th count held in two successive years), whereas some others either believe that no regular biennial system was employed³⁴⁵ or hold an elusive standpoint³⁴⁶. Concerning the period following the reign of Snofru, opinions continue to fluctuate from the presumption of the biennial system³⁴⁷ to the assumption that on certain occasions an “odd” count could have been ignored³⁴⁸. Finally, there is also a theory that during the course of the Old Kingdom, the annual counts became more and more regular until they definitely prevailed by the end of the 6th Dynasty³⁴⁹.

Obviously, the question is not about the very existence of the biennial or annual system but about the regularity of the cattle counts in the Old Kingdom. However, a mere statistical overview of the previously mentioned written chronological evidence – despite the fact that its list is incomplete and the precise dating of some documents arguable – seems to indicate some conclusions. It shows, for instance, that from the beginning of the 4th to the end of the 5th Dynasty the years of the count and those following the count not only occurred next to each other and the *rnpt sp* years always occurred more frequently than *rnpt m-ht sp* years. Moreover, there is no clear-cut tendency to a marked decrease in the number of the years following the count, implying a biennial system, throughout the period of these two dynasties as postulated by v. Beckerath³⁵⁰. On the contrary, the comparison of the ratio of the evidence for *rnpt sp* and *rnpt m-ht sp* of Snofru at the beginning of the 4th Dynasty and Djedkara at the end of the 5th Dynasty could lead to the opposite conclusion.

A special aspect of the dating system represents the question whether a cattle count could have taken place in *sm3 t3wy*, “the year of the Unification of Egypt”, i. e. the year of a king’s ascension to the throne. So far, a general opinion prevails that the first cattle count during a king’s reign took place in the first full year after his succession to the throne. This opinion, however, seems to be questioned by an inscription from the recently discovered annals on the South Saqqara Stone. The inscription³⁵¹ explicitly mentions *rnpt sm3 t3wy tnwt (nt) ih* “the cattle count of the year of the Unification of the Two Lands” at the beginning of Merenre’s reign.

Admittedly, the series of the available evidence of *rnpt sp* / *rnpt m-ht sp* in the written documents of the 4th and 5th Dynasty are largely incomplete. On the other hand, the evidence involves some potential still to be considered. The so

³⁴⁵ E. g. R. Krauss, in: *JEA* 82, 1996, 47ff.

³⁴⁶ For instance, Spalinger, *o. c.* 281, states that “the counts could have resumed their normal biennial regularity with the 8th (census of Snofru)” whereas in another place (*o. c.* 283) he says “I feel it best to assume that no biennial census system was employed in a regular fashion at this (i. e. Snofru’s) time.”

³⁴⁷ E. g. M. Baud, *o. c.* 122f. and 128f.

³⁴⁸ Spalinger, *o. c.* 318.

³⁴⁹ J. v. Beckerath, *Chronologie*, 147.

³⁵⁰ *Loc. cit.*

³⁵¹ Baud, Dobrev, *BIFAO* 95, 1995, 47 and Fig. 14, Zone F 1, 15.

far most complete series of dates pertaining to the reign of Snofru and Djedkara can serve as an example.

We have so far the ultimate number of 24 attested years for Snofru. Of those 24 years, only one half – years 2, 7, 8, 12, 13, 14, 15, 16, 18, 18, 23 and 24 – are recorded in one way or another. Are we justified to assume that approximately the same portion, i. e. about one half of the evidence of the intervening years would remain unattested in the so far available written documents, too? If so, the number of the so far available three dates for intervening years – years 10, 13 and 18 – should be doubled. The estimation of the length of Snofru's reign, based on the sum total of the number of the so far attested census years (24) and the number of both the attested (3) and presupposed (3) intervening years would be 30. According to this estimation, Snofru would have reigned about 30 years. To a similar estimation came, though on the basis of different calculations and considerations, also Krauss³⁵² and Barta³⁵³.

In the case of Djedkara, besides the so far highest known 21st (22nd ?) census there is the evidence of other thirteen attested census years: 1, 3, 5, 6, 8, 9, 10, 11, 14, 15, 16, 17 and 18. In the series of these dates, provided that the 21st (22nd ?) census was the last one held under Djedkara, seven or eight extra years (i. e. about one third of the total) remain yet unattested. If, analogically, about one third of the dates would be missing in the so far attested series of seven intervening years (1, 3, 4, 7, 10, 14 and 17) then about two more years should be added to the length of Djedkara's reign could be estimated to cca 21 (22 ?) + 7 + 2, i. e. to about 30 or 31 years. However, let us emphasize once again that the above calculations are of a somewhat speculative character and their results must be taken with a due reservation.

No matter how cautiously may the conclusions be drawn, the dated written documents seem to indicate that in the 4th and 5th Dynasty the dating system was irregular. The available written evidence does not seem to reflect any "principally biennial system with just few exceptions". Moreover, it appears that in practice the annual cattle counts prevailed in frequency over the biennial ones. In this context, it would also be difficult to accept the previously mentioned theory³⁵⁴ that under certain circumstances the intervening years were omitted in the records. Such an assumption seems to contradict, for instance, the very sense of the most frequent dated documents of the 4th and 5th Dynasty, the so-called masons' inscriptions pertaining to the control of the building works by the state administration. Why should we assume that in these inscriptions the "even" years were always recorded whereas the "odd" years on some occasions ignored? If so, the administration would loose the control over the individual stages of the building project and the coordination of different types of works needed for its realisation.

³⁵² *JEA* 82, 1996, 48.

³⁵³ *ZÄS* 108, 1981, 21.

³⁵⁴ See e. g. Posener-Kriéger, in: A. el-Kholi, *Meidum*, 19, and Spalinger, *o. c.* 318.

The postulate of an irregular dating system in the 4th and 5th Dynasties, however, opens up a number of questions concerning the mechanism which determined the irregularity in that time. Theoretically, the reasons should have been of economic and administrative character. Is it possible, for instance, that during the formative years of the ancient Egyptian state bureaucracy the frequency of the census was linked to the financial needs of large projects – buildings, reclamation of the marshes, etc. – currently under realisation? If not, what were the reasons influencing the decision to organize the count not in the next but in the next but one year? Did an additional census depend on the lack of abundant reserve of funds collected from the previous census? Were the factors influencing the decision to organize the census annually or biennially always the same or did they differ in individual cases? Unfortunately, too many questions to be answered on the basis of the largely incomplete historical sources.

One special problem is the confrontation of the available contemporaneous written evidence about the length of the reign of the 4th and 5th Dynasty kings with the data of the RCT. Contrary to the Manethonian tradition, the RCT has long been considered as a sort of a standard against which the contemporaneous evidence should be measured no matter how often the scholars were ambivalent in their approach to these dates. For instance, the dates referring to the length of a king's reign used to be taken one time as evidence of annual cattle counts whereas, on another occasion, as an evidence of a biennial count. The compiler of the Canon is sometimes supposed to have omitted a part of the numeral (and written e. g. 24 instead of 34), repeated by mistake the numeral referring to the preceding king, etc.

Obviously, the examination of the data from the largely damaged RCT and the largely incomplete contemporaneous evidence found during archaeological excavations can hardly provide a definitive view of Old Kingdom history: From the names of presupposed seventeen kings of the 4th and 5th Dynasty only three survived in the RCT completely, three others partly preserved identifiable elements to their names whilst other eleven names are missing. Moreover, the sequence of some of the missing names – at the end of the 4th and in about the middle of the 5th Dynasty – is by no means free of doubt. The evidence of the contemporaneous dated documents raises scepticism rather than optimism, too. For instance, in only one case there is available the precise date of a king's (Sahura's) demise and the precise date, including the month and day of the ascension to the throne of his successor (Neferirkara). Regardless of this unique evidence, the exact length of Sahura's reign cannot be established because we do not know how many counts took place in the king's time annually and how many biennially.

Disappointing as this might be, however, an examination of the contemporaneous year dates, both *rnpt sp* and *rnpt m-ḥt sp*, offers some stimulating results, even though the series of these dates are incomplete. Provided that the

counts were irregular throughout the 4th and 5th Dynasty, a reconstruction of the length of a king's reign should consist of the total of *the number of the highest attested census year* with the sum of *the attested intervening years*. To the numeral thus obtained, one would still need to add an *x* expressing the unknown number of the so far unattested cattle counts, either annual or biennial. The results of such calculations unravel as follows:

| | Contemporaneous written evidence | RCT |
|-------------------------------|----------------------------------|--------|
| 4th Dynasty | | |
| Snofru | 27 + x | 24 |
| Khufu | 12 + x | 23 |
| Djedefra | 11 (10?) (?) + x | 8 |
| Khafra | 15 + x | ? |
| Bicheris | not attested | ? |
| Menkaura | 14 (?) + x | 18 |
| Shepseskaf | 2 + x | 4 |
| Thamphthis | not attested | 2 |
| 5th Dynasty | | |
| Userkaf | 4 + x | 7 |
| Sahura | 8 (?) + x | 12 |
| Neferirkara | 5 + x | ? |
| Shepseskara | not attested | 7 |
| Neferefra | 1 + x | 1 |
| Niuserra | 8 + x | 11 + x |
| Menkauhor | not attested | 8 |
| Djedkara | 28 (29 ?) + x | 28 |
| Unas | 9 + x | 30 |

As seen from the table, the so far available contemporaneous evidence for two or three kings – Snofru and probably also Djedefra and Djedkara – exceeds the dates in the RCT. On the other hand, the RCT dates (if their attribution to Shepseskara is correct) do almost certainly not reflect the contemporaneous evidence concerning Shepseskara – a mysterious king of whom practically no evidence survived or, at least, has been revealed to date. These discrepancies therefore raise the question as to just how far the RCT dates concerning the 4th and 5th Dynasty can be considered credible.³⁵⁵

³⁵⁵ The credibility of some of the RCT dates for the 4th and 5th has already been questioned before, see e. g. R. Krauss, in: *Or* 66, 2.

In conclusion of the above historical approach to the chronology of the 4th and 5th Dynasty, at least one other remark on absolute dates should be added. The few earlier known dates (acquired by means of C¹⁴ method) referring to the reign of Snofru, Khufu, Neferirkara and Niuserra respectively³⁵⁶ have recently been increased by several new pieces of evidence.

The first group provides C¹⁴ dates for samples of organic materials coming from the tombs dating to the reign of Djedkara³⁵⁷:

| Name | Sample | C ¹⁴ -dating |
|---------------|------------------|-------------------------|
| Neferefra | fragment of bone | 2628–2393 BC |
| Djedkara | body soft tissue | 3340–2787 BC |
| Djedkara | linen wrapping | 2864–2460 BC |
| Djedkara | linen wrapping | 3031–2612 BC |
| Djedkara | charcoal | 3014–2580 BC |
| Hedjetnebu | linen wrapping | 2920–2600 BC |
| Khekeretnebtu | linen wrapping | 2869–2403 BC |

As wide as the range may be, six of the C¹⁴ dates referring to the time of Djedkara are mutually overlapping, yielding a common range of 2886–2507 BC. In the case of Djedkara, this range seems to be closer to the “higher” variant of the historical chronology (2405–2367 BC).³⁵⁸ The C¹⁴ dates for the king, however, do not overlap (although Khekeretnebti’s linen wrapping does) with the calculated astronomical date which seems to be closer to the “lower” variant of the historical chronology (2355–2317 BC).³⁵⁹

Unfortunately, all these C¹⁴ absolute dates are rather fluid and their meaning for the historical chronology, regardless of high precision calibration of regular C¹⁴ dates, is still very limited.³⁶⁰ In principle, they broadly support the historical chronology. However, for the time being, they do not yet enable us to fix even approximately the position of the two dynasties into an absolute chronology, notwithstanding the fine-tuning that has been done on individual reigns within these dynasties.³⁶¹

³⁵⁶ See e. g. v. Beckerath, *Chronologie*, 56, and H. L. Thomas, *Historical Chronologies and Radiocarbon Dating*, in: M. Bietak (ed.), *Ägypten und Levante* 3, 1992, 147.

³⁵⁷ E. Strouhal et al., *Fs L. Vyhnanek*, in press.

³⁵⁸ Beckerath, *o. c.* 155.

³⁵⁹ Beckerath, *loc. cit.*

³⁶⁰ Concerning the methodological problems and the current state of the discussion on the absolute chronology, see e. g. S. W. Manning, *The Absolute Chronology of the Aegean Early Bronze Age*, 1995.

³⁶¹ As far as the problems between the historical chronology of the Old Kingdom and C¹⁴ dating are concerned, see e. g. H. L. Thomas, *o. c.* 146f. and K. A. Kitchen, *The Historical Chronology of Ancient Egypt, a Current Assessment*, in: K. Randsborg (ed.), *Absolute Chronology. Archaeological Europe 2500–500 BC*, 1996, 11f.

In this brief overview of some newly suggested absolute dates for the 4th and 5th Dynasty shouldn't be omitted the previously (sub Neferefre) discussed data pertaining to the *w3g*-feast and recorded on the documents dating most probably from the reign of Djedkara. These dates were fixed by means of astronomical calculations into an absolute chronology to 2450–2335 BC³⁶² (for a more detailed information, see the text above sub Neferefra).

The second group of absolute dates to be mentioned here is formed by several astrochronological dates calculated recently by K. Spence³⁶³ on the basis of a hypothesis that the ancient Egyptians aligned the pyramids by using the simultaneous transit of two circumpolar stars in order to establish true north. For the accession of some 4th and 5th Dynasty kings following dates were suggested:

| | Recalibrated accession date |
|-------------|-----------------------------|
| Snofru | 2526 BC ± 7 |
| Khufu | 2480 BC ± 5 |
| Khafre | 2448 BC ± 5 |
| Menkaura | 2415 BC ± 10 |
| Sahura | 2372 BC ± 25 |
| Neferirkara | 2359 BC ± 25 |

Spence's attempt to establish a reliable absolute chronology by means of the simultaneous transit method is very interesting and the so far results are very stimulating. Undoubtedly, both the method and the suggested dates will certainly incite a debate.³⁶⁴ If principally accepted by the scholarly public, the more accurate dates for the builders of Egyptian pyramids could largely contribute to the stabilization and refining of the ancient Egyptian chronology of the third millennium BC.³⁶⁵

³⁶² Krauss, in: *GM* 162, 1998, 56.

³⁶³ *Nature*, 408, 2000, 320-324.

³⁶⁴ Certainly discussed will be the premises of the theory, first of all the exactness of the ancient Egyptian measuring means and the accuracy with which can the original alignment of the pyramids be established in the presently badly damaged remnants of these monuments in comparison with the magnitude of the deviation of the chord of β -UMi and ζ -UMa from the true north in consequence of the precession of the Earth axis, etc. (see e. g. R. Bauval, in: *DE* 48, 2000, 115-126). It is amazing to see, for instance in the case of Sahura's pyramid, that the Egyptians would have been able to locate with a great accuracy an invisible chord by linking to circumpolar stars (ϵ -UMa and γ -UMi) in order to align the western side of the king's pyramid to the true north and, at the same time, they would not have been able to establish precisely a parallel line of the eastern side of the same pyramid (SE corner lies cca 1,58 m farther to the east and the pyramid's base is therefore not square-shaped).

³⁶⁵ The author would like to thank for the kind supervision of the English text of this paper to Dr. Vivienne G. Callender.

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