

## 2.–4. The *endelechisterion* of Kronos

Plates VIII–IX

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**Abstract:** *Ostraka from the 2009 season at Berenike on the Red Sea coast record the delivery of fresh water to the port, which did not have a local supply, in camel-loads of wine amphoras. The sources were evidently forts 7.2–8.5 km distant. Three of these ostraka refer to the deliverers (identifiable from other ostraka as camelitai from Coptos) as “those from the endelechisterion of the supreme god Kronos.” The derivation and meaning of this term, the identification of Kronos with Geb, and the organization of the water supply are explored.*

**Keywords:** *Berenice, ostraca, Red Sea, water supply, Kronos, Geb*

The excavations conducted by the University of Delaware and Leiden University under the direction of Steven Sidebotham and Willemina Wendrich at the port site of Berenike on the Red Sea coast in 1996–2001 produced some 260 Greek and Latin texts published so far, as well as a number of papyri and ostraka still unpublished.<sup>1</sup> The great bulk of these finds were ostraka, mostly from the early Roman dump. After 2001, it was not until the winter of 2009 that it was again possible to carry out excavation work in this part of the Eastern Desert, and a team led by Steven Sidebotham and Iwona Zych was able to reopen the dump and also work briefly in other parts of the site. During the 2009 season, more than 200 Greek and Latin<sup>2</sup> ostraka were excavated, mainly from the early Roman dump. These were studied by Roger Bagnall during a day of work at the site and subsequently by both authors of the present article from photographs taken by Professor Sidebotham. A number of these were taken with a Nikon D40 digital camera altered for infrared photography by the method recently described by Adam

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<sup>1</sup> See R.S. Bagnall, C. Helms, and A.M.F.W. Verhoogt, Documents from Berenike I: Greek Ostraka from the 1996–1998 Seasons (Pap. Brux. 31, 2000); iid., Documents from Berenike II: Texts from the 1999–2001 Seasons (Pap. Brux. 33, 2005).

<sup>2</sup> One striking feature of the 2009 finds is the presence both of a larger number of Latin texts than has been usual and of some ostraka in which part of the text is drawn up in Greek, part in Latin. There are also some cases of Greek written in handwriting that is likely to have been that of a native user of Latin. Full study of this material will contribute to the sociolinguistic investigation of the world of the early Roman occupation of the Eastern Desert, on which see J.-L. Fournet, “Langues, écritures et culture dans les praesidia,” in H. Cuvigny (ed.), *La route de Myos Hormos*, vol. II (Cairo 2003) 427–500.

Bülow-Jacobsen;<sup>3</sup> these were strikingly superior in most instances to color digital images and aided in the reading substantially.<sup>4</sup>

The overwhelming majority of the ostraka coming from the dump in 2009 clearly originate in a single deposit, which may be dated to the same period from which came most of those found in earlier seasons in the same dump, that is, roughly the third quarter of the first century AD. The first text edited below, which is dated to year 2 of the emperor Titus (79/80), confirms this dating. Unlike the customs-related documents recovered from the same area in previous seasons, however, most ostraka found in 2009 concern the supply of fresh water to the city. They are receipts for the delivery of “sweet” water (cf. 2.4, below). The water is measured in jars, whether in generic *keramia* or, as in two of the texts edited here, in *ptolemaika*, a measure that is found in other Berenike ostraka as a container for wine (cf. *O. Berenike* I, p. 21, and II, pp. 8f.). Most receipts contain some or all of the following components: the name of the person delivering the water, occasionally identified as a camel-driver; the name of a *dekania* to which the individual deliverer belongs; a military individual receiving the water; the unit to which the soldier belongs; and the number of jars.

The supply of water for the forts and settlements in the Eastern Desert was certainly a major preoccupation. As Sidebotham, Hense, and Nouwens have recently written, “In Ptolemaic and Roman times it seems that mainly the military was responsible for all aspects of water procurement and distribution in the Eastern Desert.”<sup>5</sup> At Abu Sha’ar, a pipeline led from a well about one kilometer away from the fort, while at Berenike there was no water source quite so close. As Sidebotham et al. remark, J.G. Wilkinson indicated a possible aqueduct leading from Wadi Abu Greiya (Vetus Hydreuma) toward Berenike, but this has not been rediscovered.<sup>6</sup> They note, “We know in the case of Berenike that at least three forts ranging from 7.2 to 8.5 kilometers west of the city, two in Wadi Kalalat and one at Siket, supplied drinking water to the port.”<sup>7</sup> The 2009 ostraka provide welcome evidence for how the water was transported, and they confirm fully (as the publication of this dossier will show) the correctness of the statement that the military was responsible for the water supply.

In the present article, we honor Günter Poethke with the preliminary publication of three of the ostraka found in 2009. They have a special interest in mentioning the enigmatic and hitherto unattested term ἐνδελειχιστήριον. Of the three

<sup>3</sup> A. Bülow-Jacobsen, “Infra-red Photography of Ostraca and Papyri,” ZPE 165 (2008) 175–85.

<sup>4</sup> We express here our gratitude to Steven Sidebotham and Iwona Zych for the opportunity to publish these texts. We anticipate publishing at a later date a full account of the 2009 finds, which also include some papyrus fragments. The infrared camera and the expenses of Bagnall’s visit to Berenike were defrayed by funds from the Institute for the Study of the Ancient World, New York University. We thank Bruno Bazzani for assistance with processing of the infrared images.

<sup>5</sup> S. E. Sidebotham, M. Hense, and H.M. Nouwens, *The Red Land: The Illustrated Archaeology of Egypt’s Eastern Desert* (Cairo 2008) 327.

<sup>6</sup> Op. cit., 319.

<sup>7</sup> Op. cit., 314.

ostraka presented here, only the first survives in a nearly complete state. The other two preserve very little text and it is impossible to reconstruct them fully. One of them, however, contains the only instance of the correct spelling of the word.

The term ἐνδελειχιστήριον, spelled ἐντελειχιστήριον in no. 2, is related to ἐνδελειχής, an adjective meaning “perpetual” and deriving from δολιχός, “long.”<sup>8</sup> ἐνδελειχής and similar words, e.g. ἐνδελειχῶς, ἐνδελείχεια, ἐνδελειχίζω, ἐνδελειχισμός, all denote “continuity” and “persistence,” and there are numerous examples, including in manuscripts of classical authors, of words in ἐνδελειχ- (especially the adjective ἐνδελειχής and adverb ἐνδελειχῶς) being erroneously written ἐντελειχ-.<sup>9</sup> There is no clear evidence that ἐντελειχής and ἐντελειχῶς were anything other than variant spellings of their counterparts in ἐνδελειχ-. The only orthographically similar word that did exist in its own right was ἐντελέχεια (defined by LSJ as “full, complete reality”), a *terminus technicus* thought to have been coined by Aristotle and formed from the expression τὸ ἐντελὲς ἔχειν, “to have perfection.”<sup>10</sup> The term is not related to the substantive ἐνδελείχεια, “continuity, persistence,” and while the orthographical similarity of the two words may in some cases have accounted for the confusion, it is more likely that the variation in spelling was often the result of common consonantal interchange.<sup>11</sup> In any event, we are confident that ἐνδελειχιστήριον represents a new substantival form deriving from ἐνδελειχής.

The biggest mystery surrounding the word ἐνδελειχιστήριον is not its etymology and proper orthography but what it describes. The first ostrakon, and the only one that provides any context for the term, identifies those delivering water as οἱ ἀπὸ τοῦ ἐντελειχιστηρίου(ν) Κρόνου θεοῦ μεγίστου, “those from the *endelechisterion* of Kronos the supreme god.” The ἐνδελειχιστήριον was thus an establishment associated with the cult of Kronos. But why the place was called the ἐνδελειχιστήριον is unclear. Various forms of the word ἐνδελειχής are used by authors to describe perpetual sacrifices often performed on a daily basis, for example, in Philo’s *leg. ad Gai.*, 157, where the author reports that Augustus ordered the Jews to offer the most high god (τῷ ὑψίστῳ θεῷ) daily sacrifices on a perpetual basis (ἀνάγεσθαι θυσίας ἐντελειχεῖς --- καθ’ ἐκάστην ἡμέραν).<sup>12</sup> One could perhaps

<sup>8</sup> See P. Chantraine, *Dictionnaire étymologique de la langue grecque: Histoire des mots* (Paris 1968–1980) s.v. δολιχός; E. Schwyzer, *Griechische Grammatik*, vol. I (Munich 1939) 360.

<sup>9</sup> Chantraine, *op. cit.*, s.v. δολιχός and ἐντελέχεια; see also H. Diels, “Etymologica,” *Zeitschrift für vergleichende Sprachforschung* 47 (1916) 200–03; W.D. Ross, *Aristotle’s Metaphysics*, a revised text with introduction and commentary,<sup>2</sup> vol. 2 (Oxford 1953) 245f.; A.J. Festugière, *Révélation d’Hermès Trismégiste*, vol. III (Paris 1953) 188 n. 6 and 257f.; LSJ, s.v. ἐντελειχής, where both the adjective and adverb are identified as false readings for ἐνδελειχής, -ῶς.

<sup>10</sup> See especially Diels, *op. cit.*

<sup>11</sup> It was especially common in Egypt and Asia Minor; Schwyzer, *op. cit.*, 207. In *Jud. Voc.* 10, Lucian highlights in satirical fashion the tendency of the letter tau to displace delta: ἀκούετε --- τοῦ μὲν Δέλτα λέγοντος: Ἀφείλετό μου τὴν ἐνδελείχειαν, ἐντελέχειαν ἀξιοῦν λέγεσθαι παρὰ πάντας τοὺς νόμους, “Listen to the letter delta who says the following: he (sc. the letter tau) deprived me of *endelecheia*, thinking that it was right for *entelecheia* to be said contrary to all the rules.”

<sup>12</sup> Cf. the use of ἐνδελείχεια in *De spec. leg.* 170 and ἐνδελειχισμός in *Exodus* 30.8. See too Festugière, *op. cit.*, 257f.

suppose that the ἐνδελχιστήριον was the site of regular sacrifices, but until more concrete evidence emerges, this can be considered only a conjecture.

The place of cult, if that is what it was, is identified as that of the supreme god Kronos. It has long been recognized that both generally and particularly in the context of Coptos and the Eastern Desert, this phrase refers to the Egyptian earth god Geb (generally rendered Κηβ in Greek).<sup>13</sup> The equation of Geb and Kronos reflects in part Geb's status as the father of key members of the Egyptian pantheon, Osiris, Seth, Isis, and Nephthys, all by the sky-goddess Nut; Kronos' paternity of the major Olympian gods made an obvious parallel. *I.Portes* 58, for example, a stele dedicated to the very great god Kronos on behalf of Tiberius, erected by Parthenios son of Pamini, shows Geb, Nut, and the emperor. Geb had a cult-place in the great sanctuary of Min in Coptos (where the dedication *I.Portes* 69, of the reign of Domitian, was found south of the double pylon) and was worshipped also at Kom Ombo.<sup>14</sup>

It should be noted that Kronos was also assimilated to other gods in Egypt. In a detailed study taking account of many Greek and Latin sources, R. Pettazzoni showed that there was a cult in which the age-old identification of Kronos with Chronos, time, was the central element, as well as a cult assimilating Kronos with Anubis.<sup>15</sup> But in the Eastern Desert there is no reason to imagine that any god but Geb is intended.

Names formed on Kronos and referring to Geb are indeed a common feature of the area of Coptos and the Red Sea zone, side-by-side with names derived from Κηβ.<sup>16</sup> This fact was remarked long ago by C.E. Holm.<sup>17</sup> In Holm's time, however, the available material for Geb/Kronos came much more extensively from the Fayyum, specifically from Tebtunis, than from Upper Egypt;<sup>18</sup> in Tebtunis also the juxtaposition of Geb and Kronos names is striking, often in the same family.<sup>19</sup> Holm is cited by A. Bernand in his commentary on *I.Portes* 58 and by Traunecker, who remarks pertinently, "Κρόνος n'est pas toujours Geb, mais lorsque cette assimilation est sûre, le dieu est associé à une forme crocodile."<sup>20</sup> Geb is associated in Ombite theology with Sobek, the crocodile god,<sup>21</sup> thus acquiring an

<sup>13</sup> We are indebted to Olaf Kaper, David Klotz and Rita Lucarelli for advice on Egyptological matters and for useful bibliography.

<sup>14</sup> See particularly C. Traunecker, *Coptos, hommes et dieux sur le parvis de Geb* (Leuven 1992). Shafia Bedier, *Die Rolle des Gottes Geb in den ägyptischen Tempelinschriften der griechisch-römischen Zeit* (Hildesheim 1995) provides a comprehensive survey of Geb's names and titles in temple reliefs; see p. 159 on the representation of the name in Greek.

<sup>15</sup> "Kronos in Egitto," in *Studi in memoria di Ippolito Rosellini I* (Pisa 1949) 273–99. Cf. also on Kronos/Chronos the article "Kronos" in Pauly-Wissowa-Kroll, *Realencyclopädie* 11.2, at 1986 (M. Pohlenz).

<sup>16</sup> In O. Berenike I and II we find both Κρόνιος and Πακοῖβις with some frequency.

<sup>17</sup> *Griechisch-ägyptische Namenstudien* (Uppsala 1936) 93–98.

<sup>18</sup> He deals with the Tebtunis material on pp. 51–72.

<sup>19</sup> Holm, pp. 71–72, enumerates the cases.

<sup>20</sup> *Op. cit.*, 353 § 317.

<sup>21</sup> Traunecker, *op. cit.*, 352 § 316; Holm, *op. cit.*, 109–10.

aquatic element otherwise foreign to this earth god. As the crocodile has a strongly symbolic character representing resurrection, rejuvenation, and eternity, Geb gains these elements also by this assimilation.<sup>22</sup> At Tebtunis, where Sobek (in the form Soknebtunis) was the principal divinity and assimilated to Geb,<sup>23</sup> Kronios is again a popular name, witnessing to the Sobek-Kronos assimilation. (Pakoibis, by contrast, is not found, although other names derived from Κηβ occur.) It is worth remarking also that Kronos-based names are almost entirely a feature of the Roman period,<sup>24</sup> especially of the first two centuries of our era.

Where was the *endelechisterion* of Kronos? If we are correct in taking the οἱ ἀπό phrase to describe the collective body of those carrying out the water transportation to Berenike, the logical answer would be Coptos, which must on all accounts have been the home base of the camel-drivers who are the water-deliverers in these ostraka. We have considered the possibility that it was instead the spring, perhaps at Vetus Hydreuma, from which the water was drawn. The Egyptians did know of spirits associated with springs.<sup>25</sup> But the formulation here appears to us to exclude such an interpretation.

## 2.

A-011

10.2 x 10.6 cm

AD 79/80

οἱ ἀπὸ τοῦ ἐντελεχιστηρίου(υ)  
 Κρόνου θεοῦ μεγίστου,  
 Ἄρυώθης Ἡρακλήο(υ) (δεκανός). αὐτ(ός)  
 ὑδάτους πτολ(εμαικὰ) ἐνήκωντα,  
 5 (γίν.) πτολ(εμαικὰ) ὑδ(άτους) ρ. (ἔτους) β Ἀυτοκράτορος  
 Τίτου Καίσαρος Οὐεσπασιανοῦ Σεβαστοῦ  
 .[     ].

pl. VIII

1 l. ἐνδελεχιστηρίου(υ)     4 l. ἐνενήκωντα

“Those from the *endelechisterion* of Kronos the supreme god. The *dekanos* Haryothes, son of Herakles; himself, ninety *ptolemaika* of water, totals 90 *ptolemaika* of water. Year 2 of Emperor Titus Caesar Vespasian Augustus. . . .”

3 Haryothes son of Herakles has not occurred before now in the Berenike ostraka, but he appears in three or four other texts from the 2009 season: A-020, A-036, and A-158, in all of which he is designated, as he is here, as *dekanos*. He

<sup>22</sup> See L. Kákosy, “Das Krokodil als Symbol der Ewigkeit und der Zeit,” MDAIK 20 (1965) 116–20.

<sup>23</sup> V. Rondot, Tebtynis 2: Le temple de Soknebtynis et son dromos (Cairo 2004) 120, 174.

<sup>24</sup> Holm, op. cit., 41–48.

<sup>25</sup> See, for example, I.E.S. Edwards, Oracular Amuletic Decrees of the Late New Kingdom (Hieratic Papyri in the British Museum, 4<sup>th</sup> series, London 1980) xxii–xxiii on wr.t spirits, “mischievous demons who lay in wait for the unwary,” associated with water features including, it seems, springs.

delivers 45 keramia of water in A-036, and 10 in A-158. In A-185 the fragmentarily preserved name of a *dekanos* may also be his. We take αὐτ(ός) here to indicate that he is also the member of the *dekania* making the delivery. In A-036 the same situation is found, but his name is written in full twice. It is possible that the Ἡρακ( ) Ἀρω(θου) of *O.Berenike* I 9 is his father or son. On the genitive of Ἡρακλῆς see most recently J. Bingen, *ZPE* 163 (2007) 188–90, and see the Latin form mentioned in the note to no. 4, line 1, below. It is of course possible that the scribe intended Ἡρακλή(ος). The symbol for *dekanos* here projects from line 3 into the blank space at the end of line 2.

**4** F.T. Gignac, *A Grammar of the Greek Papyri of the Roman and Byzantine Periods* II (Milan 1981) lists no example of this form simplified by the omission of a syllable, but parallels exist in *P.Amst.* I 41.52 (= *C.Pap. Gr.* I 7) and *SB* I 3534.4.

**4, 5** ὕδατους for ὕδατος, see Gignac II, 90. In another receipt the water is said to be sweet.

**7** At the start, most likely *tau* or *pi*; at the end, the numeral is probably either *gamma* or *stigma*.

### 3.

A-096

2.5 x 5.7 cm

ca. AD 50–80

The ostrakon is crossed out.

	]ρουσεοσ[	pl. VIII
	ἐνδελεχιστ]ηρίου [	
3	]υ..[	

“. . . of the *endelechisterion* . . . .”

**1** Most likely these remains are the end of the patronymic of the *dekanos*. We have not identified the name among those found in the other ostraka.

### 4.

A-104

4.1 x 2.6 cm

ca. AD 50–80

	Ἀπολλώνιος [	pl. IX
	ἐνδελεχιστη[ρι-	
	πτολ(εμαικὰ) ὀγδοή[κοντα	
4	. [	

“Apollonios . . . *endelechisterion* . . . eighty *ptolemaika*. . . .”

**1** No *dekanos* sign stands before Apollonios’ name, but a *dekanos* named Apollonios son of Herakles appears in A-059 and A-079, both in Latin (with the patronymic written *Heracleu*). The sign could have been written after the name. It is tempting to wonder if he was Haryothes’ brother.