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## The Role of the Papyri in Etymological Reconstruction

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### I. INTRODUCTION

The papyri can contribute in many and varied ways to etymological reconstruction. The total cultural background behind the papyri is, after all, far broader than the framework in which papyrological investigation usually operates. The following word histories illustrate the multiple benefits that can be derived from diachronic papyrological lexicology. The derivational hypotheses to be presented are assumed to be correct—certainly a risky assumption as anyone knows who is familiar with the slippery field of etymology. No one is more aware of this than the authors themselves of the propositions. But the chance of error seems to us less grave than the demonstration of the methodological impact of the papyri on etymological research.

### II. WORD HISTORIES

#### 1. *Torta* “Egyptian bread” (*Revue de Linguistique Romane* 31 [1967] 127–129)

The origin of *torte*, that widespread name of a cake or pastry, has been an etymological puzzle. The word occurs in the Vulgate as *torta* (Exod. 29:23) and *tortula* (Num. 11:8); its modern congeners, Ital. *torta* and Rum. *turtă* require a Latin base with close *ρ*. Two principal solutions have been proposed: *\*iōrta* “the twisted one” and *\*iōrta* “the toasted one” but neither is a viable reconstruction. Some help comes from a first-century Hellenistic grammarian, Erotianus; he comments on the Hippocratean term ἄρτος ἐγκρυφίας: it is a bread used by the Attics, consisting of oily dates, flour, and water, is baked covered in hot ashes, and is usually called *τούρτα*. Now, fourth-century papyri, contemporary with the word’s first

appearance in Latin, contain, within various lists of victuals, nine occurrences of the suffixed variant *τουρτίον* (*P.Ryl.* IV, p. 202, s.v.; with penultimate stress as in I. Kalleris, *Ἑπετηρίς Ἐταιρείας Βυζαντινῶν Σπουδῶν* 23 [1953] 694). The provenience of these papyri and the additional testimony of the grammarian's remark that the *τούρτα* is prepared with dates, indicate the area of the term's origin: Egypt. The Egyptian designation of the bread must have been borrowed by the Romans in Egypt, not later than the fourth century. The Egyptian bimorphemic base, we suggest, was *t-rth* "baked bread," consisting of the constituents *t* "bread" and *rth*, a participle, "baked" (the vocalization is unknown). The Egypt. bread *t-rth* had been, for a long time, part of ritual offerings, and was recorded as such up to Roman times. In various rustic areas of Italy, above all Umbria and the Trentino, *torta* is still, as in its distant origins, a cake baked under hot ashes.

2. *Bernicarium* "nitrum, glass, vessel" (*Romance Philology* 14 [1960-1961] 289-294)

*Νιτρία*, famed center of Egyptian nitrum production, was located near Naucratis. It was also known as *Βερενίκη* in Greek and as *Pernoudj* in Coptic. The product was called *βερενίκιον/βερε(ε)νικάριον*. The latter derivative is used for Egyptian nitrum in Galen, and it recurs in an alchemistic third-century papyrus as *νίτρον βερνικάριον* (*P.Leid.* II, pap. 10, pag. 13.16-17 [= p. 239]). The derivative survives but changes its referent: from the chemical it shifts to glass, from glass to a medieval receptacle, widely used in the Catalan-Provençal-North Italian area; it appears at times with the inherited suffix *-ariu* (Catal. *bernigüier*), at times with the secondary suffixes *-ale* (Fr. *vernigal*) or *-atu* (Ital. *vernicato*).

3. *Gulf* (*Romance Philology* 27 [1973-1974] 46-49)

*Gulf*, the geographical term, is clearly related to synonymous Gr. *κόλπος*, yet the phonological bridge, *p* → *f*, i.e., stop → spirant, long remained a puzzle. The papyri shed light on the problem: *κόλφος* is the Egyptian form of the lexeme. Thus, the papyri document *κόλφος* "bay" in the third century, in Alexandria (*P.Mich.* VIII 514.30) and its semantic variant *κόλφος* "bosom" since the third century (Pap. from Karanis 2.20, ap. A. E. R. Boak and H. C. Youtie, *Aegyptus* 31 [1951] 324), most strikingly in the characteristically Egyptian sepulchral formula *εἰς κόρπον τοῦ Ἀβραάμ* "in Abraham's bosom," found in Upper Egypt in the sixth century (*P.Oxy.* XVI 1874.16). The change reflects a vagueness of boundaries between stops and aspirates, which is a typical feature of the Egyptian dialect within the Greek koine: either *π* or *φ* may appear,

e.g., where the opposite member is historically justified. The neutralization of the contrast was probably caused by the Coptic substratum. The Egyptian variant spread through the Hellenic world and beyond. The geographical term *κόλφος* is still the demotic form in Modern Greek and survives in Old Venetian and Dalmatian; \**golfus*, the international pattern, spreading in early Byzantine times, shows sonorization of the initial. The sepulchral formula *εἰς κόλφον τοῦ Ἀβραάμ* was also exported from Egypt: it reached Sicily in pre-Muslim times, between the fourth and the middle of the seventh century, as indicated by a Christian inscription, containing the Egyptian variant *κόλφος*, in the Catacombs of San Giovanni in Syracuse. In this Graeco-Egyptian expression, Judeo-Christian sepulchral traditions had blended with the indigenous Egyptian funerary cult.

#### 4. *Dardanus' Sword* (*Romance Philology* 12 [1958–1959] 216–218)

In Western medieval civilization Roland's *Durendart* is the earliest occurrence of a sword's name. Many derivations have been attempted, none of which relates it to any tradition. Yet, its magic power directs attention to the old magic practice of naming swords, and this practice comes impressively to life in the *Grosse Pariser Zauberpapyrus*, of the fourth century. It contains a section entitled *Εἶπος Δαρδάνου*, the Sword of Dardanus (*P.Graec. Mag.* IV.1716 [= Preisendanz I 126]), a set of bizarre magic prescriptions, and precisely this name *Dardanus* may represent the base of *Durendart*. *Dardanus*, as a magician's name, is the focus of a long tradition: the diffusion of the mysteries was attributed to Dardanus, the mythical ancestor of the Trojans, and Columella described magic as *Dardaniae artes*. Dardanus was incorporated into both Jewish magic legend and Arabic alchemy. The association of his name with a sword is based on his eminence as a magician and on the significance of the sword in magic tradition. The sword symbolizes the magician's wand, a metaphor best-known through Moses' wand, which turns into Moses' sword, *Harba-de-Mosheh* in medieval Jewish lore. A Coptic papyrus, from Edfu and probably of the tenth century (E. Drioton, *Muséon* 59 [1946] 479–489), cut in the form of a sword and decorated with letters and magic designs, testifies to the perpetuation of the pagan magic symbol into the Christian era. Syntactically, *Dardanus' Sword* has simply become *Dardanus* or, possibly, an adjectival \**spatha dardana*. As to the form of the word (whether referred to magician or to sword), such medieval variants as Grk.-Lat. *Durdanus*, Ital.-Span. *Dur(l)indana*, and above all Arab. *Dardaris* indicate the pattern underlying OFr. *Durendart*: it must have been somewhat like \**Durdaris* or \**Durindaris*. The explanation fits the tradition: Roland's Sword is just another of the sundry Gnostic and magic elements in the *Song of Roland*.

5. *Calamita*, the Lodestone (*Romance Philology* 13 [1959-1960] 269-278, and 26 [1972-1973] 435-437)

In the Middle Ages, both the mineral magnetite and the technical device in which it played its dominant role, the compass, were called *calamita*. The origin of the term, debated for a long time, is cleared up by records in the Hellenistic magic literature of Egypt: a Hermetic treatise (third century?) mentions a λίθος κεραμίτης "lodestone" and so does the magic *Papyrus Mimaut* (written after 300). This papyrus lists for each two-hour period of the day one animal in the sky, one animal on earth, one bird, one plant, and one stone, and the sun-god Helios takes on or begets their shapes and through them the magician can exert influence on the god. The stone of the second hour is the κεραμίτης (*P.Graec.Mag.* III 505-506 [= Preisendanz I 54]). The name was taken over, not later than the ninth century, by Arabic, as *qaramiṭ*. It spread from Arabic to the West, first still with the original *r* in the Catalan-Provençal-Genoese area, then, with hypercorrect *l* for Genoese *r*, as *calamita*, in wide distribution. The magic meaning of the papyri was retained with the term in Catalan; but in medieval nautical parlance, its referent shifted from the lodestone to the needle it magnetized and from the needle to the compass.

6. The Stone *peridot* (*Romance Philology* 14 [1960-1961] 287-289)

A semiprecious stone called *peridot* turns up frequently in the medieval lapidaries of the West. The origin of the term, illuminated through the papyri, reflects its Hellenistic-Egyptian magic heritage. For the fourth two-hour period the magic *Papyrus Mimaut* includes a tree and stone both known as boylove, παιδέρωσ (*P.Graec.Mag.* III 510 [= Preisendanz I 54 f.]); and the *Grosse Pariser Zauberpapyrus*, of the fourth century, lists among weird objects, of often sexual connotation, symbolizing Hecate's magic power, the same stone παιδέρωσ, helpful in dealing with those in authority, in averting evil, in alleviating fear of Hecate, and, of course, in meeting pederastic adventures (*P.Graec.Mag.* IV 2309 [= Preisendanz I 144]). The stone recurs in various medieval Latin lapidaries as *pederotes*, preserving the original form; then, from the eleventh century on, in the metathetic variant *peredot*-. While the stone retained its magic powers, all feeling for the original constituents of the word, *paid*- "boy" and *erot*- "love," had disappeared.

7. *Cotrophium*, from "cranium" to "receptacle" (*Studia Hispanica in honorem R. Lapesa* I [Madrid, 1972] 331-333)

The widespread medieval name of a receptacle, Byz. κουτρούβι with Mod.Gr.k. κουτρούφι, South Ital. *cutrufo* with MHG *kuterolf*, OProv. *cotofle*

with Span. *cotofre*, has given rise to various explanations. The most convincing, by Ph. Koukoules, relates the Byz. term to Anc.Gr. κρόταφος "temple," via an intermediate stage "nape, cranium," preserved in Mod.Gr. κούτροφας/κουτρούφι. The papyri fill the two gaps of intervening changes, metathesis and assimilation. The metathesis, κότραφος (instead of κρόταφος), is first recorded in a fourth-century papyrus (*P.Osl. I Magical Papyri* 1.152); the assimilation, κότροφος (instead of κότραφος), in a Coptic papyrus of the sixth century (H. I. Bell and W. F. Crum, *Aegyptus* 6 [1925], Index, p. 221, s.v. κρόταφος). This latter form in its diminutive variant, \*κοτρόφιον, applied to a receptacle and Latinized as \**cotrophium*, spread in the West, as the distribution shows, from probably both Southern-Italian and Massaliotic Greek.

8. Grk.-Egypt. λάνκος "pit" (*Italia linguistica nuova ed antica: Studi linguistici in memoria di Oronzo Parlangèli* [Galatina, 1976] 327-329)

A medieval and modern Greek morpheme *lank-* "valley" is realized as λάγκος in Graecanic (the Greek dialects of Southern Italy). Essentially, two explanations have been suggested: either it is related to a pre-Romance (Gallic or Illyrian) relic, \**lanka* "river, bed," widely spread in Northern Italy, or it is considered a nasalized variant of Grk. λάγκος "pit," of IE stock. The papyri favor a separation of *lank-* from the Western relic word and an acceptance of a Hellenistic-Egyptian origin of the nasalized form, i.e., a polygenetic over a monogenetic explanation. An unorganic nasal is typical, after all, of the Greek of Hellenistic Egypt. The first record of *lank-* appears, indeed, in an Egyptian papyrus of the second century (*P.Lond. II* 335.22 [= p. 192]): it contains the compound κοπτόρανκος, emendated as κοπρόρανκος and identified as \*κοπρόλανκος "cesspit," consisting of κόπρο- "ordure" and λάνκος "pit." Medieval and Modern Greek dialects preserve both the non-nasalized and the nasalized doublets.

9. Graecanic τρακλός "bent" (*Studi . . . Parlangèli* 333-335)

Graecanic τρακλή "bend in a road," a member of a large Greek word family, has been associated with the Anc.Gr. verb κατακλώω "to bend down." Phonologically, this derivation implies a succession of two stages: first, *katakl-* → *takl-*, confirmed by the marginal dialect of Pontus, and second, *takl-* → *trakl-*, confirmed by the marginal dialect of Laconia. The Pontic variant, however, means "somersault," the Laconian "to stagger, to trip." (The feature underlying these semantic shades must have been the bent posture of the body.) Corroboration of this derivational hypothesis comes from still another marginal dialect area, Egypt: A second-century papyrus, from Tebtuni in Upper Egypt, contains the noun κατακλή "bend

made by a swampy ground" (*P.Mil.Vogl.* II 105.20), combining the base form *katakl-* with the same topographical application as in Southern-Italian Greek.

10. *Algalia* "catheter" (*Romance Philology* 20 [1966-1967] 427; *Homenaje a Antonio Tovar* [Madrid, 1972] 213)

The general Greek name for a tool, ἔργαλειον, plur. ἐργαλεία, survives in Romance as a technical medical term "tool for rinsing; catheter," thus Ital. *algalia*, Fr. *algalie*, Span. *algalia*. Three changes are involved, semantic, morphologic, and phonologic. The term, as *argalia*, spread probably in the eleventh century from Southern Italy, with the medical specialization inherited from Byzantine Greek and transmitted through the School of Salerno, the famous polyethnic center of medical studies. Morphologically, the Western feminine continues a Greek neuter plural. Phonologically, a change of initial *e-* to *a-* is presupposed by the Western form; and indeed, the new form ἀργαλειον due to assimilatory sandhi (τὰ ἐργαλεία → τὰ ἀργαλεία) is recorded several times in the papyri, possibly as early as the third century B.C. (*P.Enteux.* 78.3), then since the first century (*P.Lond.* II 280.10), thus confirming the colloquial use of this variant in the koine.

11. *Sambata/sambatium* (*Romance Philology* 20 [1966-1967] 433; *Reallexikon der Byzantinistik* I [Amsterdam, 1970] 366)

*Sabbath*, a Graeco-Hebrew borrowing, appears widely with an epenthetic nasal, so Rum. *sâmbâta*, Ladin *samda*, SGerm. *Samstag*, Fr. *samedi*. The spread of the nasal has been puzzling; but the papyri provide a missing link. Whether of Syriac or of Greek origin, the vulgar nasalized variant, σάμβαθον, appears in a fourth-century papyrus (*P.Oxy.* VI, 903.19): ἐν σαμβάθῳ "on the Sabbath." In terms of linguistic geography, this Hellenistic-Byzantine *m*-form occurred in the marginal areas of Egyptian Greek and Palestinian Greek (sixth century) just as it survives in the marginal areas of Greek, Cappadocian, the Tsakonian dialect, and South Ital. Graecanic: an indication of its age and popularity in Vulgar Greek. The early presence of the nasal in Judeo-Latin is again revealed by a papyrological record: a letter, written by a Jew, in a second-century papyrus from Egypt mentions *sambatha* (*P.Ryl.* IV 613.4). The geographical distribution of the *m*-form in the Western languages, with either final *-a* or final *-um*, supports a spread, in part through Gothic channels, from the Balkanic area to the Danube and the Rhine.

12. Mozarab. *feriuel* "cloak" (*Romance Philology* 21 [1967-1968] 509-510)

A kind of cloak going back to the sixteenth century is called *ferruuelo* in Spanish, *ferragoulo* in Portuguese, and *ferraiolo* in Italian. It reached the

Western world via Mozarabic, the Arabized Romance dialect of the Christians living under Islam. A document of 1161, from Toledo, records *f-r-w-y-l*, which could be transcribed alternatively *fir(i)wil* [fir-/fer- (i)wél]. The vocalization points to Grk. περιβόλαιον "wrapper" occurring in the Septuagint (e.g., De. 22:12) and in the papyri, first until the third century (*P.Stras.* II 91.9; the dim. in -άδιον, *BGU VIII* 1848.13 and *P.Oxy.* VI 921.2), then in the Byzantine period (*P.Bon.* 46.10). The documentation identifies Egypt as the area in which Arabic borrowed the Greek term. In Byzantine times, περιβόλαιον designated preeminently a cloak worn by Syrian monks, later, the town dweller's typical garment.

13. Mozarab. *corachón*, a medical plant (*Polychronion: Festschrift F. Dölger* [Heidelberg, 1966] 308-309)

In Mozarabic, between the tenth and the twelfth century, Saint-John's-wort, a medical plant, was called (*yerba*) *corichnera/corochón/corachón*. The origin of the term has been obscure. A hint to its provenience is hidden behind the fact that in Provençal-Catalan the element *-iç* renders Grk. -ίδιον; and indeed, two seventh-century papyri list a plant called κορίδιον (*SB* 4483.12 and 4485.3). The latter is clearly a derivative of ancient κόρις (gen. κόριδος) "Saint-John's-wort," the base form of the scattered word family. Two branches seem to evolve: *koris-*, probably reflected in Pliny's Grecism *corisson/corissum*, and *korid-*, surviving in Mod.Gr. σκορδίτσα and in the Mozarabic forms. The borrowing took place within the pharmacological terminology. The isolated morpheme, as shown by Mozarab. *corachón*/Catal. *corassonillo*, was secondarily drawn into the orbit of Span. *corazón* "heart."

14. *trulla*, from "ladle" to "cupola" (*Homenaje Tovar* 222-223)

The complex history of *trulla* is twice illuminated by records in the papyri. Lat. *trulla* "ladle" was borrowed by Hellenistic Greek, as shown by two papyri, which, within their vocabulary of everyday life, record as "receptacle, measure" the two diminutive variants τρύλλιον (*Stud.Pal.* XX 67.10 [second to third century]) and τρούλι(ο)ν (thus corrected by the scribe *BGU* 814.10 [third century]). The metaphorical use of vessels is common, and τρούλλα "receptacle" turned into "cupola." The semantic change is dated by the masculine offshoot τρούλλος, found in a sixth-century description of Saint Sophia in Constantinople. Τρούλλα, the Hellenism of Latin provenience, was then reborrowed by two Italian dialects rich in Byzantinisms, Venetian and Apulian. The masculine form was also reborrowed and became the name of the Apulian farmhouse, the *trullo*, with its characteristic conic roof. There is a third, metathetic form of

the morpheme, *τουρλ-*, recorded, as his colloquial variant, by the scribe of the third-century papyrus (*BGU* 814.10), and this variant spread through the Balkanic area into Northern Italy: Alb. *turlε* "tower," Serbo-Croatian *turla*, Rum. *turlă* "cupola," North Ital. *turlo* "spire of a church" and in Old Venetian specifically the "cupola of the Campanile."

15. *Baneum* for *balneum* (*Romance Philology* 17 [1963-1964] 313-314)

The Romance congeners of Lat. *balneum* "bath," such as Ital. *bagno*/Fr. *bain*/Span. *baño*, presuppose a VL base *baneum*. The phonological hypothesis is confirmed by a Pompeian inscription (*CIL*, IV 3878; M. Niedermann, *Archivum Romanicum* 5 [1921] 441). The extent of its use is indicated by records in Greek papyri: *βανιάτωρ* "bath attendant," i.e., the morpheme [ban-j] plus agent suffix, appears in papyri of the sixth (*P.Kl.Form.* II 980.2) and the early eighth century (*P.Apoll.* 97A.12). The secondary stem [ban-j] survived also in Byz. *βανιάριον* "bath," which in conjunction with Slav. *banja* corroborates the variant's wide popularity as indicated by the papyri: The Latin colloquialism had taken root even in the margins of the Empire, in Egyptian Latinity as well as in the Graeco-Latin *Mischkultur* of the Balkanic area.

16. \**Calefactor* "one who heats (pitch)" (*Lingua Franca in the Levant: Turkish Nautical Terms of Italian and Greek Origin* [Urbana, 1958] ##775 and 776; *Reallexikon der Byzantinistik* I 410 f.)

The Mediterranean name of the caulker, Ital. *calafato*/Fr. *calfat*/Span. *calafate* has been derived either from Arabic or from Latin. The term's early appearance in the papyri weakens any Arabic hypothesis. The noun *καλαφάτης* is found in two sixth-century papyri: the one, a papyrus of 565-566, from Oxyrhynchus (*P.Oxy.* XXVII, 2480.33), the other from Syene, of the second half of the sixth century (*P.Lond.* V 1852). The Greek term is based on Lat. \**calefactor* "the one who heats"; the verb *calefactare* was used in reference to pitch in the fourth century (Pertinax 8.5, in D. Magie, ed., *Scriptores Historiae Augustae* I). Morphologically, Lat. *-tor* was replaced by the equivalent Grk. *-της*; specialization to the nautical occupation may have taken place in Greece. By the tenth century, *καλαφάτης* is to Liutprand of Cremona, the shrewd observer of the Byzantine scene, a typically Byzantine expression. From Greek it spread to Arabic and the West.

17. *Calamarium*, from "pen case" to "inkwell" (*Homenaje Tovar* 223)

The adjectival element in the Lat. expression *calamaria theca* "pen case" was borrowed by Greek, as an elliptical neuter, with the meaning of the



entire phrase: *καλαμάριον* appears in this use in a sixth-century papyrus (*P.Lond.* III 1007.5 and 27 [pp. 262 f.]). Then, in Greek, the term broadens to include not only the receptacle where the pen was kept but also the one into which it was dipped, the "inkwell"; as such, it is mentioned, explicitly as a Greek word, by St. Jerome as well as in bilingual glosses. It is reborrowed by the West, not later than the eighth century, when it appears in the *Ordines Romani*; it survives in Ital. *calamaio*/OProv. OCatal. Span. *calamar*.

18. *Codicus* for *codex* (*Studia Lapesa* I 323-324)

Lat. *cōdex*, a third-declension noun, survives not only in the regular pattern, say Ital. *codice*, but also in a variant representing the *-us* declension, i.e., \**codicus*, as in OItal. *cōdico*, Catal. *còdic*, Span.Portug. *código*. The impact of the *Codex Iustinianus*, with its Graeco-Latin blending, suggests a Byzantine role in the history of the word, and, indeed, Lat. *cōdex* was borrowed by Greek, at times with secondary adaptation to the morphological system: The neuter *κώδικον* "register of taxes" is found, as a variant of synonymous *κῶδιξ*, in Egyptian papyri of the seventh to the eighth century (*Stud.Pal.* X 63.9 [with erroneous emendation] and *SB* 4790.1); a masculine subvariant, *Κώδικος*, with reference to the *Codex Iustinianus*, occurs much later, in the eleventh century, in Michael Psellus. The Byzantine Latinism was reborrowed by the Romance languages.

19. The *Magarites* (*Zeitschrift für romanische Philologie* 76 [1960] 185-204)

In medieval French epics the morpheme *Margariz* is used various times to characterize noble Saracens. The word has traditionally been identified as Grk. *μαγαρίτης* "renegade," an explanation which fits morphologically, but requires a more convincing semantic base. In the early period after the Islamic conquest, when papyri were still written in Greek, the language of the conquered, the Aphrodito Papyri, of the beginning of the eighth century, contain over fifty records of a term *μωαγαρίται* rendering Arab. *Muhādžirūn* (*P.Lond.* IV, p. 630, Index s.v. *Μωαγαρίτης*; furthermore, *P.Apoll.* 2.3 and 3.1). The *Muhādžirūn* "emigrants," were the first adherents of the new faith who followed the Prophet into exile in Medina. *Muhādžir* became a title of honor, applied, by the middle of the seventh century, to the true Arabic settlers in Egypt. They and their offspring represented the aristocracy in the conquered areas.

Grk. *μωαγαρίτης*, then, spread in its Byzantine short form, *μαγαρίτης*. This appears in the earliest Islamic documentation, two papyri of 642 and 643 (*P.Erzherzog Rainer* 558 vo. ap. A. Grohmann, *Et. de Papyrologie* 1 [1932] 41 f., and *P.Erz. Rainer* 564.10 ap. Grohmann, *ibid.* 8 [1957] 28 f.).

The lexeme, a reflection of the Arabo-Byzantine cultural fusion, radiated far, probably from Southern Italy, the common habitat of both civilizations. In its uses it reflects three main aspects of Islam in Christian eyes: (a) The first aspect is the political. *Margariz de Sibilie*, in the *Song of Roland*, continues the tradition of the *Muhādžirūn*; in his beauty and his chivalric virtues he typifies the Noble Heathen. Later, in various twelfth-century epics, the term is extended to the Saracen in general. (b) The second aspect is the military. The Aphrodito Papyri, within descriptions of the Egyptian fleet of the Arabs, mention marines recruited from among the early settlers: the *μωαγαπίται* of the dromonds, of the raiding fleet of the Orient, of the castellated ships (*P.Lond.* IV 1449.42, 49, 63) and of the city of Fustat preparing for their expeditions (*P.Lond.* IV 1394.8). *Margariz* "pirate" in a thirteenth-century French chronicle shows the survival of this semantic shade. (c) The third aspect is the religious, where the non-Arabic convert to Islam is seen by Christians as the renegade. One of numerous records: in 876, Pope John VIII feared for the fate of Rome, where the fifth column of the *Margaritae* would support the Saracens attacking from the outside. The religious view is the only one which survives into the present, in the much discussed Byz. and Mod.Gr. verb *μωγαπίζω* with its three semantic phases: from "convert to Mohammedanism" → "break the rules of fasting" → "soil."

20. *Risk* (*Verba et Vocabula: Ernst Gamillscheg Festschrift*, ed. H. Stimm and J. Wilhelm [München, 1968] 275-283)

The history of *risk*, the Western expression, is closely tied to the papyrological documentation. Pers. *roğik* "daily ration, maintenance" is borrowed by Arabic as a technical term of Islam's military government in Egypt, referring to the maintenance of the Arabic overlords and their requisition of provision. Muslim government officials in the conquered areas depended on what they could get from the country itself. The Arabo-Persian term recurs in Greek papyri since the late seventh century, i.e., since early Islam, in the Hellenized form *ρουζικόν*, thus, in the Nessana Papyri (*P.Ness.* III 69.1 and 92 passim), the Aphrodito Papyri (*P.Lond.* IV 1335.5, 1404.7, 1407.2, 1434.165, 1435.122), and the papyri of Apollonopolis (*P.Apoll.* 94.6, 95B.2, 49.5). In Arabic, *roğik* developed to *rizq*; thus *rizq* "maintenance of a farmer of taxes" occurs in an Arabic papyrus of 917 from Upper Egypt (*P.Hamb.* III 11.5). This second variant, *rizq*, was also borrowed by Greek, as *ριζικόν*. It was still a military term, but shifted meaning from the soldier's right to requisition to his luck, good or bad, in finding maintenance. The background of the record in question is the siege of Salonica by the Normans, in 1185: The *ἄνδρες τοῦ ριζικου* "men of

risk" (as they are called in Eustathius of Salonica's report) made their fortune "by chance," ἐκ τῆς τύχης. Here we are dealing with the beginnings of the Western mercenary soldatesca. A second use of the Byzantine Arabism evolved in sea law, *risicum maris et gentium*, an insurance term first recorded in 1158, in a Venetian document from Constantinople, and followed in the thirteenth century by the short form *riscum*. In a diachronic view, then, our modern *risk* has two semantic roots, "danger met with in an enterprise," spreading to the West with the terminology of the Mediterranean sea law; and "good or bad luck," perpetuating the military tradition of Islamic Egypt.

21. *Admiral* (*Romance Philology* 17 [1963-1964] 311-313; *Reallexikon der Byzantinistik* I 405)

The derivation of Western *admiral* from Arab. 'amīr "commander, governor" is generally accepted; yet, the details of the development, in particular the suffix patterning, shades of meaning, and stages of borrowing, can hardly be cleared up without the papyrological data. The root morpheme appears, still as a crude and unsuffixed Arabism, ἀμῖρ, first probably by the late seventh century (*P.Ness.* 92.18 and passim, 93.34), most assuredly by the eighth (*PSI* XII 1266.4; *P.Apoll.* 1.1). The dominant variant of the papyri, however, is the Byzantinized form ἀμῖρᾶς (*R. Rémondon, P.Apoll.*, p. 8). This *amiras* form abounds also in the Western documentation, from the ninth to the eleventh century, and marks the Western term as a Byzantinism. The suffixal variant ἀμῖρᾶτος, occurring in two papyri of the Arabic period, of the seventh or eighth century, from Hermoupolis (*P.Lips.* 103.12; *P.Wurz.* 20.9), moved likewise via Greek to the West, with a first appearance as *amiratus* in 801 in Eginhard. The primary suffix string of *-as* and *-atus* produced, through suffix change or hypercorrection, a secondary string including *-alis*, i.e., *admiral*. Some of the Western semantic shades of the lexeme were prefigured in the papyri. The Arabic papyri written in Greek used the term as "dux or governor" (*P.Ness.* 92.18; *P.Apoll.* 9.5 and 14), reflected in OSpan. *almirante* and OFr. *amiral* "commander"; they also used it as "subaltern official" (e.g., *P.Kl.Form.* 447.3; *Stud.Pal.* X 118, 120, 204), recurring in tenth-century Span. *amirate*. The final semantic phase, "nautical commander," developed in the eleventh century, in the Arabic-Byzantine-Norman *Mischkultur* of Sicily.

### III. CONTRIBUTION OF THE POPYRI TO ETYMOLOGY

The foregoing twenty-one word histories centering around papyrological documentation should suffice to reveal the contours of a particular subfield

of etymological reconstruction. The Greek papyri of Egypt, one should not forget, are both Greek and Egyptian, and this fact determines their contribution: on the one hand, they share much with contemporary Greek materials unrelated to Egypt; on the other hand, they represent a specific subculture, Egyptian Grecism in Hellenistic and Byzantine times. The dichotomy is not always clear-cut, but it must be kept in mind.

1. *Methodology.* The papyri fulfil, first of all, a methodological function in linguistic reconstruction since they reveal either the missing link in a grammatical chain or the underlying concept in a semantic string.

(a) *Missing Links.* The papyri frequently fill in a phonologic or morphologic gap in an etymological hypothesis. Thus, *κότραφος* and *κότροφος* bridge the gaps of metathesis and assimilation between *κρόταφος*, the base form, and \**κοτρόφιον*, required by the Western offshoot (7); the variant *κόλφος* leads from standard *κόλπος* to Western *gulf* (3); *ρουζικόν* preserves the backvowel of Pers. *roǰik*, precursor of Arab. *rizq*, the base of Grk. *ριζικόν* (20). Morphologically, *κορίδιον* establishes the bridge from *corachón* to *κόρις* (13); *κατακλή* ties together the various congeners of Graecanic *τρακλή* (9); suffixed patterns such as *ἀμυράς/ἀμυράτος* unite 'amīr with *admiral* (21); *καλαμάριον* evidences the transition from a noun modifier, *theca calamaria*, to an autonomous noun (17).

(b) *Underlying Concepts.* Morpheme identifications based on papyrological materials may reveal hidden semantic bases from which there evolve later uses of a lexeme. In this way they illustrate the process of semantic change.

The change may result from metaphorical vision: the temple or cranium is viewed as a receptacle (7 *cotrophium*), the receptacle as a cupola (14 *trulla*). The change may be based on the isolation of a single characteristic aspect of the concept: for the physician the general designation of tool becomes the specialized name of the catheter (10 *algalia*); for the seaman lodestone turns into the designation of its primary application, the needle it magnetizes, and via the needle, of the compass (5 *calamita*); for the glassmaker the name of the chemical which he uses in the manufacture of glass develops into the name of yellow glass, and the name of glass into that of the finished receptacle (2 *bernicarium*); for the soldier the search for maintenance becomes an undertaking involving chance (20 *risk*). The change may reflect bias: the convert from one's own faith to an alien one is viewed as a renegade (19 *Magarites*). The change may be due to a mystic perception of objects: a stone used in the Middle Ages to ward off nervous sufferings derives its name, *boylove*, from its original force: to be helpful in pederastic persuasions (6 *peridot*); a sword believed to have magic power is named for the sword or wand of a famed magician (4 *Dardanus*).

2. *Koine Features.* The papyri represent essentially the level of Vulgar Greek, the koine; and the word histories under discussion corroborate the fact. In this respect three features are characteristic: phonologic and morphologic informality, adaptation, and borrowing.

(a) *Non-standard forms.* The nasalized variant *λάνκος*, as distinct from standard *λάκκος* (8), occurs in a papyrus explicitly described (*P.Lond. II*, p. 191) as "extraordinarily illiterate." The epenthetic nasal in Judeo-Greek *σάμβαθον* may likewise render a colloquialism (11). Similar phonological exceptions are the metathetic variant *τουρλ-* for *τρουλλ-* (14) and change of the initial through sandhi in *ἀργαλείον* for *ἐργαλείον* (10). The Greek variant *βανιάτωρ* of Lat. *balneator*, with simplification of the cluster *ln* (15), indicates borrowing of a substandard form. Morphologically *κώδικον* for *κῶδιξ* (18) shows the effect of regularization.

(b) *Hybridization.* The adaptation of a borrowed lexeme to the target language is sometimes fostered by the technique of suffixal hybridization: an indigenous derivational suffix attached to a foreign root morpheme functions as a bridge to its naturalization. Examples: *καλαφάτης*, with *-της* for Lat. *-tor* (16); *ἀμιρᾶς/ἀμιράτος*, adaptations of the crude Arabism *ἀμίρ* (21); *μαγαρίτης*, the Hellenizing of Arab. *Muhādżir* through the agent suffix *-ίτης* (19); *ρουζικόν*, the transformation of the ending of Arabo-Pers. *roǰík* by the Greek suffix *-ικόν* (20).

(c) *Contacts.* Greek, the dominant language of the Eastern Mediterranean, is in a continuous exchange, both giving and absorbing, with the languages and dialects with which it is in contact. From Latin we have *τρουλλ-* (14), *βανιάτωρ* (15), *καλαφάτης* (16), *καλαμάριον* (17), and *κώδικον* (18). Most of these go back, earlier or later, to the Latin West. Greek lexemes expanding to the West are *ἀργαλείον* (10), *\*κοτρόφιον* (7), *τουρτ-* (1), *παιδέρωσ* (6), and *βερνικάριον* (2). Byzantine Greek transmits much to Arabic, e.g., *Δάρδανος* (4), *κεραμίτης* (5), *περιβόλαιον* (12), *κορίδιον* (13), and *καλαφάτης* (16). The Balkanic borderland between the Greek and the Latin spheres of influence shares [banj-] (15) and [sambat-] (11) with Egyptian Greek; and the marginal area of Egyptian Greek shares lexemes or phonological features with that other marginal area, the Greek of Southern Italy: *κατακλή* (9), *λάνκος* (8), and, in Sicily, *κόλφος* (3).

3. *Egyptian Hellenism.* Several of the word histories based on the papyri are specifically Egyptian stories. They evidence the survival of relics from the indigenous Egyptian substratum or the impact of the Islamic superstratum, heralding the end of Egyptian Hellenism.

(a) *The Egyptian substratum.* Old Egyptian customs of baking, with ritual

undertones, survive in *τούρτ-* (1). Indigenous funerary traditions blended with Judeo-Christian ones underlie the expression *κόλφος τοῦ Ἀβραάμ*, Abraham's bosom (3); the phonological shape *f* for standard *ḥ* in *κόλφος* may reflect Coptic speech habits (3). The typically Egyptian nitrum production is echoed in the name of several medieval vessels, such as Catal. *berniguiet*; the term goes back to a toponym marking one of the Egyptian nitrum centers: *Βερενίκη* in Greek, with the Coptic equivalent *Pernoudj* (2).

(b) *The Arabic superstratum.* Just as Latin survived in the West during the Middle Ages as the standard form of bureaucratic communication, so did Greek in the East. In the early stages of the Arabic administration in Egypt, Greek was the vehicle of officialdom. In other words, the Greek papyri of the Arabic period often express Arabic reality in Greek guise. Three Arabic keywords testify to this situation: *Μαγαρίται*, the honorary name of the early settlers (19); *ρουζικόν*, the technical term for the soldier's search for maintenance (20); and *ἀμυρᾶς*, the title of officials (21). All three reached the West through Byzantine channels and in Byzantine reinterpretation.

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