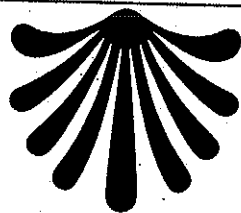




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WORD GAMES THE LINGUISTIC EVIDENCE IN BLACK ATHENA

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The first volume of *Black Athena*, whatever one thinks of it in other respects, was a considerable success from a public relations point of view. In it Martin Bernal argued, deftly enough to impress many reviewers who should have known better, that the overthrow of the "Ancient Model" in the nineteenth century owed more to Northern European racism and anti-Semitism than to any actual improvement in our knowledge of Greece, the Levant, and Egypt since classical antiquity. In Bernal's telling, the decipherment of Egyptian hieroglyphic writing, Babylonian cuneiform, and other early scripts were only minor incidents in the racially motivated "fall of Egypt" and "final solution of the Phoenician problem." The fact that neither Herodotus nor Plutarch could read a word of Egyptian, Phoenician, Akkadian, or Mycenaean Greek was no reason, in Bernal's eyes, not to trust them as authorities on the Eastern Mediterranean Bronze Age. Above all, these and other ancient writers passed the *Black Athena* age test: none had the misfortune to be born after 1750 of the present era.

It is not our purpose here to review Bernal's version of Western intellectual history. It is undeniably true that many nineteenth- and early twentieth-century scholars held views on race and ethnicity that are now generally and quite properly condemned. It is also true that the Greeks, as the supposed "founders" of Western civilization, have repeatedly been idealized, not to say caricatured, by modern scholars with cultural axes of their own to grind. To the extent that Bernal's work has fostered a greater public awareness of these familiar facts, it can be said to have played a useful role. But social enlight-

enment is not the main purpose of *Black Athena*. Bernal's object in attacking what he terms, with characteristic innuendo, the "Aryan Model" is to argue for a revisionist version of Greek prehistory that better conforms to his own preferences. His "Revised Ancient Model" is an exercise in politically up-to-the-minute wishful thinking—a farrago of hypotheses, ancient and modern, all tending to support his vision of Hellas as a second Gift of the Nile.

The evidence on which Bernal bases his case is of three kinds—archaeological, documentary, and linguistic. The purported archaeological and documentary evidence, which includes both historical records proper and literary sources such as Homer, Hesiod, and Aeschylus, is presented in the second volume of *Black Athena*. This material is discussed by specialists elsewhere in this volume; here we simply note that archaeologists and historians have not rushed to embrace the Revised Ancient Model, despite Bernal's apparent confidence that a Kuhnian "paradigm shift" is in full swing. Our focus in the following pages will be entirely on the words, place names, and personal names that make up Bernal's linguistic evidence. The philology in *Black Athena* has never, to the best of our knowledge, been reviewed by a competent historian of the Greek language.¹ It is easy to see why. The material is nowhere systematically presented; although over a hundred etymological proposals are scattered through the pages of the two volumes of *Black Athena* published so far, they are neither discussed coherently as a group nor supported with detailed linguistic arguments. A more orderly examination of the facts will presumably be supplied in the long-promised linguistics (third) volume, which we will be interested to see when it appears. But Bernal has already revealed enough of his claims and methods for it to be clear to any trained historical linguist that his evidence for "massive" Egyptian and Semitic-borrowing in Greek is a mirage.

Before we proceed further, a few disclaimers are in order. As linguists, we have no professional interest in the politically charged issues that most exercise Bernal. It is immaterial to us, for example, whether the Egyptians—or the Greeks, for that matter—were black, white, or brown. We have no deeply held convictions on the extent of Sesostri's conquests, the ethnic composition of the Hyksos, or the accomplishments of the historical Kadmos. If we are thoroughly skeptical of what Bernal has to say on these matters, it is because his misuse of linguistic data leads us to question his ability to deal fairly with evidence from other sources. We emphasize, however, that we have nothing *in principle* against the Revised Ancient Model. We reject it not because it challenges our cultural convictions but because it seems, on the basis of the facts that we control, to be wrong.

Greek, as Bernal admits, is an Indo-European language. The implications of this statement are worth spelling out in detail. Languages are said to belong to a family, or to be *genetically related*, if they are descended from a common parent. The modern Romance languages—French, Spanish, Italian, etc.—are a case in point. If we could examine the forms of the Romance languages spoken a century ago, two centuries ago, three centuries ago, and so on backward in time, we would find them gradually approximating each other until they merged as a single form of speech around the beginning of the Christian Era. By a fortunate chance, this language happens to be preserved in documents that have come down to us; we call it Latin. But it is more typical for the parent language of a family not to be directly attested. Thus the Germanic languages (e.g., English, German, Dutch, Swedish), the Semitic languages (Hebrew, Arabic, Akkadian, etc.) and the ancient Greek dialects (Attic, Ionic, Doric, etc., which may be thought of as nascent languages) are just as clearly related to one another as the Romance languages, but their respective parent languages—we speak of "Proto-Germanic," "Proto-Semitic," and "Proto-Greek"—were never written down. The characteristics of these unattested "protolanguages" must be inferred from the characteristics of their descendants, a process about which we will have more to say presently.

Families such as these may themselves be related in higher-order groupings. Thus Latin is closely related to the long-extinct Italian languages Oscan, Umbrian, and Venetic, with which it constitutes the so-called Italic family; Romance, properly speaking, is thus a subfamily of Italic. Less obvious to the untutored eye, but firmly established since the end of the eighteenth century, is the fact that Italic, Germanic, and Greek belong to a larger family, the protolanguage of which was probably spoken around six millennia ago. This superfamily, generally called Indo-European (IE), also includes, *inter alia*, the Celtic languages (Gaulish, Old and Modern Irish, etc.), the Slavic languages (Old Church Slavonic, Russian, Polish, etc.), and the groups known as Anatolian (Hittite, Luvian, Lydian, etc.; all extinct) and Indo-Iranian (Sanskrit, Hindi, Old and Modern Persian, etc.). The structure of the IE family as a whole can be represented in a branching diagram, or *Stammbaum*, of the type shown in the second volume of *Black Athena* (2:532).² The IE languages are in no way unique. The Semitic languages, for example, are clearly not IE but can be shown to be related to Egyptian, the Berber languages, and a number of other African families. Taken together, Semitic and its relatives make up the vast Afro-Asiatic superfamily, with a time depth even greater than is usually assumed for IE. The possibility of a distant genetic link between IE and Afro-Asiatic—that is, of a single "Indo-Afro-Asiatic" protolanguage going

back ten or more millennia—has been discussed for more than a century but remains, despite Bernal's confident pronouncement on the subject (BA 1:11), a largely unsubstantiated conjecture.

The existence of a protolanguage, of course, implies a population speaking it. In the case of Proto-Indo-European (PIE), this population is thought by many archaeologists to have inhabited the steppes of southeastern Russia in the early fourth millennium B.C.E.; a dispassionate account of the evidence is given by Mallory (1989). But it does not follow, as some nineteenth-century scholars wished to believe, that the earliest documented *linguistic* descendants of the Proto-Indo-Europeans—the Greeks, the Romans, the Teutons, the Vedic Aryans, etc.—were also their racially identifiable *genetic* descendants. Languages are cultural artifacts, transmissible in the same way as religions, social conventions, or political institutions. English is a Germanic language, the earliest speakers of which, the Angles and the Saxons, were northern Europeans of “Nordic” physical type. Anglo-Saxon genes, however, are no prerequisite for membership in the present-day community of English speakers, which includes representatives of virtually every non-European ethnic heritage in the world. In general, linguistic and racial boundaries rarely coincide, and it is a mischievous fantasy to suppose that the situation was essentially different in the third, second, or first millennium B.C.E. The Greeks were not “Indo-Europeans” but simply speakers of an IE language.

Related languages show resemblances in vocabulary and grammar that reflect their common ancestry. Greek, Latin, and Sanskrit, for example, have similar words for the numerals from one to ten, for kinship terms like “mother” and “father,” and for a host of other common lexical items. They also show similar endings in the inflection of nouns and verbs. One of the major achievements of nineteenth-century linguistic scholarship was the development of the *comparative method*, a set of techniques for using such resemblances to reconstruct actual words and forms in long-extinct protolanguages.

Let us consider an example. The masculine nominative form of the word for “three” in Greek is *trēs* (phonetically [trēs]), contracted from an earlier two-syllable *trées*, a variant still found in the conservative Cretan dialect. The corresponding words in Latin and Sanskrit are *trēs* and *tráyas*, respectively; taken together, the evidence of these three forms clearly points to a common origin in the parent language. Let us try to determine what the PIE word for “three” actually was. To begin with the obvious, the initial *tr-* and final *-s* found in Greek, Latin, and Sanskrit must already have been present in the protolanguage; to deny this would be to claim, in effect, that *tr-* and *-s* evolved in each daughter language independently. We can likewise assume that Gk. disyllabic *trées* and Skt. *tráyas*, with two short vowels, represent a more origi-

nal state of affairs than Lat. *trēs*. This conclusion is motivated by typological considerations: it is known from a vast body of accumulated evidence that contractions of two short vowels into a single long vowel are a very common kind of linguistic change, whereas “distractions” of a long vowel into sequences of two shorts are extremely rare. By the same reasoning, it can be inferred that Gk. *trées*, with its two vowels in hiatus, is less archaic than Skt. *tráyas*, with its two vowels separated by the consonant *-y-*. The masculine nominative of the word for “three” in PIE must therefore have been a form of the type **tr₁y₂s*, where the identity of the vowels **x₁* and **x₂* remains to be determined.

How to advance beyond this point is not at first glance obvious. The vowels **x₁* and **x₂* are represented by *a* in Sanskrit but by *e* in Greek. Lat. *trēs*, with *ē* contracted from **x₁* and **x₂*, tends to argue for the priority of the Greek treatment; it cannot, however, settle the question of the PIE vocalism definitively. The natural candidates for the common preform are **tráyas*, the form suggested by Sanskrit; **tréyes*, the form suggested by Greek; and the hybrids **tréyas* and **tráyes*. The problem is to find a principled way of making the correct choice.

The required principle has in fact been available for more than a century. In the 1870s a number of Indo-Europeanists made the surprising and important empirical discovery that the process of sound change is phonetically conditioned and “regular.” What this means, in everyday parlance, is that if over a given period in the history of a language a sound *A* develops into a sound *A'* in a particular phonetic environment, then *A* always develops into *A'* in this environment. Examples of language-specific “sound laws” of this kind are innumerable. Thus, for example, PIE **s* always gives Gk. *h* at the beginning of a word (cf. Gk. *heptá* “seven,” *béx* “six,” *hérpō* “I creep” beside Lat. *septem*, *sex*, *serpō*); Latin *ē* always gives French *oi* ([wa]) in accented open syllables (cf. Lat. *rēgem* “king,” *lēgem* “law,” *mē* “me” > Fr. *roi*, *loi*, *moi*); Middle English accented *e* always gives Modern English *a* when followed by *r* in the same syllable (cf. ME *derk*, *lerk*, *person* > Eng. *dark*, *lark*, *parson*). In the case of the PIE word for “three” the crucial fact is that Skt. *a* routinely corresponds to three different vowels in Greek, namely, (1) *e*, as in *tráyas*: *trées* or 3 sg. Skt. *ásti*: Gk. *estí* “is”; (2) *a*, as in Skt. *ájra*: Gk. *agrós* “field” or *ápa*: Gk. *apó* “away (from)”; and (3) *o*, as in Skt. *ávi*: Gk. *oís* “sheep” or Skt. *páti*: Gk. *pósis* “lord, husband.” If we took the position that the PIE vowel in all these forms was **a*, there would be no discoverable phonetic condition for the change of **a* to *e* or *o* in Greek: we would simply have to state that PIE **a* yielded Gk. *e* in some cases, *o* in others and *a* in yet others. “Sporadic” changes of this kind are precisely what the regularity principle disallows. We thus have no choice but to assume that the three-way distinction of *a*, *e*, and *o* in Greek goes back

to the parent language, and that the change of PIE **a*, **e* and **o* to *a* was a regular sound law of Sanskrit. The common prototype of Gk. *trées*, Lat. *trēs*, and Skt. *tráyas* is uniquely reconstructible as **tréyes*.

It will be seen from this example that comparative reconstruction in PIE—or, *mutatis mutandis*, in Proto-Germanic or Proto-Semitic—is anything but a guessing game. Every decision to set up a particular sound in a reconstructed word entails a set of hypotheses which can be tested against the evidence of other forms. Thus, for example, our decision to reconstruct a medial **y* in “three” is equivalent to the assertion that **y* was regularly lost between vowels in Greek and Latin; we can support this claim by finding additional instances of the -*aya* : -*ee* : -*ē*- correspondence pattern (there are many), and refute it by finding counterexamples (there are none). The cumulative effect of such hypothesizing and cross-checking, applied to a large number of individual examples, is an internally consistent and remarkably detailed phonetic history of the languages under comparison. Time and again the results of the comparative method have been independently confirmed by fresh discoveries. The decipherment of Mycenaean in 1952, for example, revealed an archaic and conservative Greek dialect which retained intervocalic *y* in precisely the forms where its existence had been predicted on linguistic grounds. The Mycenaean dialect was also found to preserve the “labiovelar” consonants *kʷ*, *gʷ* and *kʷb*—sounds which had been posited for Proto-Greek in the nineteenth century, but which were no longer distinguished from the labials (*p*, *b*, *pb*) and dentals (*t*, *d*, *tb*) in the dialects of the classical period. We shall see more of these phonemes below.

The viability of a proposed etymology within a family of related languages, then, depends not on whether the forms being compared “look alike” in an impressionistic sense, but whether they can be referred back to a common prototype via independently motivated sound laws. No one casting a casual eye on Gk. *duó* “two” or its cognates Skt. *dvá(u)* and Lat. *duo* would suppose that these forms had anything to do with *erku*, the corresponding word in Classical Armenian. Yet *duó*, *dvá(u)* and *duo* go back to a preform of the type **dwō*, with a PIE *dw*- cluster which is *always* represented by *erk*- in Armenian (compare Arm. *erkear* “long,” cognate with Gk. *dērós* < **dwārós*; also Arm. *erki* “fear,” cognate with Gk. 1 pl. perf. *deídimen* “we fear” < **de-dwi*). Noteworthy too is the Armenian word for “three,” *ereké*, which despite its superficial strangeness can be traced via well-established sound changes to PIE **tréyes*. Examples like these illustrate the elementary principle that a good etymology depends not on phonetic similarity, but on phonetically regular patterns of correspondence.

We cannot tell whether Bernal is unaware of these facts or whether—to adopt one of his favorite locutions—he simply finds it “useful” to ignore them. What is certain is that he repeatedly advances etymologies that rely on

superficially suggestive but demonstrably secondary phonetic resemblances between Greek and Egyptian or Semitic words. Thus he casually remarks that Gk. *érebos* “darkness” “almost certainly comes from the Akkadian *erebu* (sunset)” (BA 2:93). The intent of this formulation is to impress the reader with the external similarity of the two forms; no mention is made of the difficulties. He does not explain, for example, why the Greeks should have borrowed *érebos* from Akkadian, a language of distant Mesopotamia, rather than from the source of Semitic loan words that he usually prefers—the Canaanite of the Levant proper. In fact, the reason for the choice of Akkadian will be obvious to any Semitic philologist: the Canaanite counterpart of *erebu* in the second millennium B.C.E. would have been **aribu*, with a preserved initial consonant (“ayin”) and an archaic vowel pattern distinctly unhelpful to the comparison with *érebos*. Nor is that all. Only the reader who sifts through Bernal’s footnotes will discover that “the Indo-Europeanists prefer to derive *erebos* from a root **reg*“*os* (dark) found in Sanskrit and Armenian” (2:557 n. 87). This bland concession to scholarly honesty utterly fails to convey the real import of the comparative evidence. Skt. *ríjas* “dark region of the sky,” Arm. *ereké* “evening,” and Gothic *riqis* “darkness” (a form apparently unknown to Bernal) point not to a root meaning “dark,” but to a neuter abstract noun **b₁rég*“*os* (genitive **b₁rég*“*-es-os*) meaning “darkness.”³ Such a noun, had it come down into Greek, would have been treated according to the regular sound laws: initial **b₁r-* would have yielded *er-*, **g*“ would have given *-b-* before *a* or *o*, and intervocalic **-s-*, after developing to **-h-*, would have disappeared entirely. In effect, the Sanskrit, Armenian and Gothic forms make a prediction: they tell us that a search of the Greek lexicon might be expected to reveal an “*s*-stem” neuter *érebos* “darkness,” with genitive *erébeos* < **ebos* < **esos*. And that is exactly what we find. Significantly, *érebos* is *not* a masculine *o*-stem with genitive in *-ou*—the class to which the vast majority of Greek nouns in *-os*, including almost all loan words, belong. The gender and inflection of this word are unexplained under Bernal’s borrowing theory; the standard theory not only explains but predicts them. To say that linguists “prefer” to compare *érebos* with its IE cognates is, in its way, a bit like saying that geographers prefer to believe that the earth is round.

This example brings us to the subject of loan words in general. There is no human language which has not occasionally borrowed words, names, or other meaningful elements from its neighbors. In the most typical instances, new words are introduced into a language along with new articles of material culture, as, for example, in the case of Eng. *coffee* (from Arabic via Turkish), *chocolate* (from Nahuatl via Spanish), and *vodka* (from Russian). But sometimes, particularly when one speech community has been subject to the political or cultural domination of another, the effects of linguistic contact are more far-reaching. Medieval England, in the centuries following

the Norman Conquest, was ruled and administered by a French-speaking aristocracy. Although French virtually disappeared as a spoken language in England in the course of the fourteenth century, English emerged from the Middle Ages with literally thousands of French borrowings, the majority of them relating to upper-class interests, tastes, and pursuits (e.g., *art, beauty, beef, chamber, curious, defy, envy, feast, fool, forest, jelly, judge, loyal, marry, noble, ointment, paint, peace, prison, royal*; the list could be extended for pages). Many comparable instances of large-scale borrowing are known. The vocabulary of Armenian is so rich in Middle Iranian loan words—a legacy of the period when Armenia was ruled by a dynasty of Parthian origin—that Armenian was for many years mistakenly believed to be an Iranian language. Similarly, the lexicon of Modern Persian has been heavily Arabized since the Muslim conquest of Iran in the seventh century C.E. In East Asia, Japanese, Korean, and Vietnamese have acquired thousands of words from Chinese, the dominant language of the region. Cases like these are important because they furnish an independent standard for assessing Bernal's claims about the Egyptian and Semitic elements in Greek.

Names—of people, gods, and places—can be borrowed as well. The pan-European distribution of originally Semitic personal names like *John, Joseph, and Mary* (Fr. *Jean, Joseph, Marie*; Ital. *Giovanni, Giuseppe, Maria*; Ger. *Johann(es), Joseph, Maria*; Russ. *Ivan, Osip, Marya*) is due, of course, to the influence of the Bible; Muslim names like *Mohammed, Omar, and Fatima* are comparably widespread in the Islamic world, even among non-Arabic-speaking peoples. In societies with polytheistic religions, the names and cults of the gods themselves may be of foreign origin. Thus, for example, the Roman legionaries who popularized the worship of Cybele, originally an Anatolian fertility goddess, and Mithras, originally an Indo-Iranian god of contracts, never thought it necessary to provide these divinities with native Latin names. Toponyms (place names) exhibit a great deal of variety. A map of the eastern United States gives a good overview of the possibilities: here we find, inter alia, recent English coinages, such as *New Haven* and *Fairlawn*; older names of English origin, such as *Hartford* and *Cambridge*; names introduced by immigrants from other European countries, such as *Brooklyn* (< Holland) and *Bala Cynwyd* (< Wales); and Native American names retained by the early settlers, such as *Passaic* (< Algonquian) and *Oswego* (< Iroquoian). Such indigenous toponyms are also surprisingly well attested in Western Europe, where many towns in England (e.g., London) and France (e.g., Nîmes, Arles) still bear names of Celtic origin.

Because two languages rarely share the same sound system, words commonly undergo a certain amount of phonetic “naturalization” in the course of the borrowing process. The sounds of the source language are replaced by their closest equivalents in the target language; thus we find, e.g., that

the Arabic distinction between plain and “emphatic” (velarized) consonants is ignored in Persian, and that the nasalized vowels of Old French are represented by sequences of vowel plus nasal consonant in Middle and Modern English (cf. Eng. *chant, chamber* < OF *chant* [čăt], *chambre* [čäbrə]). In situations where borrowing is heavy and bilingualism can be assumed to have been widespread, sound substitutions of this kind are carried out with a high degree of consistency. Our knowledge of the pronunciation of Ancient Chinese depends in large part on the systematic way in which Chinese words were rendered into Japanese and Korean in the third century C.E. Closer to home, the vowel sounds of Old French were reproduced in Middle English with such accuracy that word pairs which rhymed in Old French were preserved as rhymes in Middle English; a few such pairs, modified by later English sound changes, remain in the modern language (cf. OF *loyal, royal; beste, feste* > ME *loyal, royal; beste, feste* > Eng. *loyal, royal; beast, feast*).

Let us now turn to the facts of Greek. It is perfectly true, as Bernal says, that a large number of Greek words, such as *thrix* “hair,” *thalassa* “sea,” *ampelos* “vine,” *glaukós* “gray,” and *árkhō* “I rule,” lack good IE etymologies. What is *not* true is that this situation is unusual for an IE language, or that the existence of such words in Greek constitutes a mystery which threatens to turn our picture of the ancient world on its head. In fact, every branch of the IE family, and every individual IE language, has lexical items of unknown—or at least undetermined—origin. To take a prosaic example, the Proto-Germanic words corresponding to Eng. *hand* (= German *Hand*), *finger* (= Ger. *Finger*), *wife* (= Ger. *Weib*), *sheep* (= Ger. *Schaf*), and *good* (= Ger. *gut*) have no etymological connections outside Germanic. Words like Eng. *boy, girl, dog, bad, and kidney* are even more isolated, with no known cognates at all, Germanic or otherwise. The “problem” of the Greek vocabulary must be seen in perspective: while the percentage of demonstrably inherited IE words in Greek is lower than in the highly conservative Sanskrit of the Rig-Veda, it is probably about the same as in Latin, and vastly higher than in the earliest attested IE language, Hittite.⁴

In principle, there are two possible reasons why a given Greek word or name may appear to lack a IE etymology. On the one hand, the form may be a genuine inheritance whose cognates have been lost or obscured. This possibility is actually a probability in the case of morphologically archaic words like *athér* “ear (of grain),” *pélōr* “monster,” or *dipsáō* “I am thirsty,” which are too isolated (“irregular”) from a synchronic point of view to be explicable as recent additions to the language.⁵ Alternatively, the form in question may be a loan word. No competent scholar has ever denied that the Greek lexicon, like that of most other IE and non-IE languages, is full of borrowings. The question on which competent scholars and Bernal part company is the one that inevitably arises next: borrowings from where?

The people who introduced the Greek language into its historical home were not the first to live there. The linguistic ancestors of the Greeks, as even Bernal admits, were immigrants from the north; most reputable archaeologists place the date of their arrival toward the end of the third millennium B.C.E. We are very poorly informed about the ethnic affiliations of the pre-Hellenic population that lived in Greece at that time. Nevertheless a few basic facts are clear from the archaeological record and from general considerations. We can be sure, for example, that the pre-Hellenic inhabitants were acquainted with local plant and animal species unfamiliar to the newcomers; we can likewise be sure that they possessed a relatively sophisticated material culture and that, like other members of the human race, they spoke a fully developed language. The actual character of the pre-Hellenic language (or languages) can only be gathered from indirect evidence. It has often been noted that the map of Greece abounds in foreign-looking place names in *-nthos* (e.g., *Amárunthos*, *Eriúmanthos*, *Zákunthos*, *Kórinthos*, *Périnthos*, *Ólunthos*) and *-(s)sos* (e.g., *Dírfhōssos*, *Ilisós*, *Kēphis(s)ós*, *Kerēssós*, *Parnassós*, *Pēdasos*). Significantly, the same two suffix-like elements also appear in ordinary Greek vocabulary items—mainly non-IE words denoting Mediterranean plants and plant products (cf. *erēbinthos* “chickpea,” *ólunthos* “wild fig,” *terminthos* (*terēbinthos*) “terebinth,” *huákintbos* “bluebell”; *kepárisos* “cypress,” *kérasos* “cornel cherry,” *pisos* “pea,” etc.) but also sometimes animals and articles of material culture (cf. *bólinthos* “European bison,” *asáminthos* “bathtub”; *pétasos* “broad-brimmed hat,” *támisos* “rennet,” etc.). The natural inference is that *Amárunthos*, etc., are place names of the *Passaic/Oswego* type that have been retained from a vanished aboriginal language and that words like *erēbinthos* and *ólunthos* (note the agreement in form with the city name *Ólunthos*) are borrowings from the same unknown source.

The elements *-(s)sos* and *-nthos* are also associated with the island of Crete—the former through place names (e.g., *Ammis(s)ós*, *Knōs(s)ós*, *Tulis(s)ós*), the latter through personal names and the apparently Cretan word *labúrinthos* “labyrinth.” Many scholars have accordingly sought to identify the pre-Hellenic language of the Greek mainland with the language of the Cretan Linear A tablets, which cannot be read, and/or with the fragmentarily attested “Eteocretan” language, which can be read but not understood. Whether or not this is correct, there can be no doubt that Crete, like mainland Greece, was once the home of a language that was not IE or Semitic or Egyptian.⁶ The almost universally held view that Greek borrowed heavily from one or more such languages is not a racist fantasy concocted to suppress the European debt to the Near East and Egypt. It is the commonsense position, the null hypothesis.

This line of argument, of course, is highly uncongenial to Bernal, who uses every rhetorical device at his disposal to suggest that any Greek word

or name which lacks an IE etymology is a priori likely to be a borrowing from Semitic or Egyptian. His own discussion of the place names in *-nthos* and *-(s)sos* (BA 1:48–49, 392) is a model of tendentious confusion. The only reason these forms are considered important, he hints, is that they were used by the “Aryanist” scholars Haley and Blegen to bolster their 1927 theory of Bronze Age settlement patterns. This is nonsense: the evidence for a pre-Hellenic language or languages is utterly independent of the Haley-Blegen theory or any other particular reconstruction of Aegean prehistory. Bernal disparages the testimony of *-nthos* and *-(s)sos* on the grounds that these elements “have never been given any meaning” by their traditional defenders. In fact, however, his practice belies his principles, for he freely admits that, meaning notwithstanding, “*-(i)ssos* would seem to be a characteristic Aegean ending.” His objection to conceding the same point for *-nthos* is motivated not by semantic scruples but by an etymology of his own: he wishes to derive *labúrinthos* from the Egyptian phrase *Ny-m3' t-R' ntr*, apparently meaning “holy *Ny-m3' t-R'* [= Amenemhe III]” (BA 2:175). We confess to finding this derivation wildly far-fetched even by Bernal’s standards. But Eg. *ntr*, variously glossed as “pure,” “holy,” and “divine [in a pantheistic sense] growth,” enjoys a specially favored position in the Revised Ancient Model, being used to supply etymologies for *ántbos* “flower,” *kántharos* “kind of beetle,” *nítron* “nitre” (see below), *sáturos* “satyr,” and *Satrai* (a Thracian tribe), as well as “some cases” of the suffix *-nthos*. The single word *ntr* thus had, according to Bernal, five distinct phonetic treatments in Greek! As for the remaining cases of *-nthos*—those which do *not* contain *ntr*—Bernal attributes the bulk to “simple nasalization before a dental,” as if this were the name of a linguistic development well enough known to be invoked without further explanation. There is a fine Greek word for all this: chaos.

Contrary to what Bernal implies, it is universally recognized that there are both Semitic and Egyptian loan words in Greek. Readers of *Black Athena* may be surprised to learn that the most recent “Aryanist” survey of the Semitic material (Masson 1967) lists no fewer than twenty-seven secure, fully naturalized Greek words of Semitic origin or transmission and cites many others as probable or possible. These are not, however, randomly distributed through the lexicon. The great majority fall into a small number of semantic groups, namely, (1) fabrics and items of clothing, e.g., *bússos* “fine linen; silk, cotton” (cf. Hebr. *bās*, Phoen. *bs*), *khitōn* “(man’s) tunic” (cf. Hebr. *katonet*, Phoen. *ktn*), *sák(k)os* “coarse hair cloth, bag of coarse hair cloth” (cf. Hebr. *śaq* “shaggy fabric,” Akk. *šaqqu*); (2) commercial terms, e.g., *arrabōn* “(nonrefundable) deposit” (cf. Hebr. *ērābōn*, Ugar. *ʾrbn*), *khrāsós* “gold” (cf. Hebr. *hāruš*, Ugar. *brj*); (3) vessels, e.g., *kádos* “(wine) jar” (cf. Hebr. *kad* “jar,” Ugar. *kd*); and (4) plants and plant products, e.g., *kúminon* “cumin” (cf. Hebr. *kammon*, Phoen. *kmn*), *kúpros* “henna” (cf. Hebr. *koper*), *múrra* “myrrh” (cf. Hebr. *mor*,

Ugar. *mr*). Such words, several of which are already found in Mycenaean, suggest lively Greek-Phoenician commercial relations going back to the second millennium B.C.E. But unlike the Norman French loan words in English or the Chinese loan words in Japanese, these do not suggest the kind of prolonged, transformative cultural contact that the Revised Ancient Model presupposes.

The Egyptian words in Greek are on the whole fewer and later than the Semitic words.⁸ A high percentage are confined to the Greek spoken in Egypt in Hellenistic and Roman times; others are merely quoted as foreign words by late Greek authors. Of those that remain, the overwhelming majority refer specifically to objects of Egyptian origin. Representative examples are *pápu-ros* "papyrus" < Eg. *p3-pr* (with the definite article *p3-*); *íbis* "ibis" < Eg. *bby*; *érpis* "type of wine" < Eg. *irp* (Coptic *irp*); *báris* "boat" < Eg. *br* (Coptic *bari*); *ébenos*, *ebéné* "ebony" < Eg. *bbn(y)*; *pságdan*, *pságdas*, *ságdas* "unguent" < Eg. *p(3)-sgnn*, *sgnn* (with and without the definite article); *kulléstitis* "kind of Egyptian bread" < Eg. *krst*; *kíki* "castor oil" < Eg. *kyky* (also *kak3*); *kómmi* "gum" < Eg. *kmy(.t)* (Coptic *komi*). Note too the long-standard derivation, which Bernal repeats, of Gk. *nítron* "nitre" (used as a mummy preservative) from Eg. *ntr* in the sense "pure." None of these words is found as early as Homer, and most are Hellenistic or later. Under any reasonable standard of philological rigor, the only genuinely old Egyptian borrowing in Greek is the name of Egypt itself, which appears in Mycenaean in the adjectival form *ai-ku-pi-ti-jo* (= *Aigýptios*) "Egyptian."

It may be useful to reflect for a moment on why the above examples are as convincing as they are. First of all, the semantic match between the Greek words and their Semitic and Egyptian counterparts is exact: Hebr. *hárus*, and Ugar. *hr*, e.g., mean precisely "gold" (Gk. *khrúsós*), and not merely "bright" or "yellow"; Eg. *bby* means "ibis" (Gk. *íbis*), and not simply "bird" or "long legs." Critically, the identity of meaning is correlated with a striking similarity of form. The phonetic agreement is not, of course, perfect; as we have already seen, some loss of phonetic detail is an inevitable consequence of linguistic borrowing, even in cases of prolonged and intimate contact. But within fairly narrow limits, the resemblances between the Greek words cited above and their Semitic and Egyptian prototypes are obvious and persistent. The voiced stops of Semitic and Egyptian (*b*, *d*, *g*), for example, are quite systematically represented by voiced stops in Greek; the same holds true, *mutatis mutandis*, for the voiceless stops (*p*, *t*, *k*, etc.),⁹ liquids (*r*, *l*), and nasals (*m*, *n*). It is also significant—and deserving of emphasis—that the hypothesis of borrowing is fully compatible with the morphological and derivational evidence at our disposal. All the above examples belong to one or another of the common Greek declensional types: most are *o*-stems and *i*-stems, and the rest are *ā*-stems and *n*-stems. By contrast, rare and/or archaic stem types,

such as the "*r/n*-stems" (e.g., *húdōr*, gen. *húdatos* "water") and *s*-stems (e.g., *génos*, gen. *géneos* "race"), are entirely absent from the list of assured Semitic and Egyptian borrowings in Greek—a fact already noted in connection with Bernal's misguided discussion of the *s*-stem *érebos*. Genuine loan words in Greek are for the most part completely isolated, not only in the sense that they lack convincing IE etymologies but also in the sense that they are not visibly derived from other, simpler Greek words or roots. It is characteristic that there is no verb **khrúsō* "I shine" beside the borrowed word for "gold," or a verb **íbmai* "I catch fish" or "I stride" beside the borrowed word for "ibis."

BERNAL'S ETYMOLOGIES

The new etymologies in *BA* are intended to bolster Bernal's claim that the number of Semitic and Egyptian borrowings in Greek is vastly greater than traditionally assumed. The claim is a crucial one, given Bernal's agenda, for it is utterly inconceivable that the Egyptians or their variable-race surrogates, the Hyksos, could have had the cultural effects attributed to them without having an impact on the Greek language similar to that of, say, the Normans on English. The linguistic evidence, in short, is no mere accessory to the archaeological and historical evidence but an integral and indispensable part of Bernal's case. If the attempt to establish a "massive" presence of Semitic and Egyptian elements in early Greek is successful, then the Revised Ancient Model will have received external support of the most powerful kind. By the same token, if the effort fails, the Revised Ancient Model will itself have failed—regardless of the date of the Thera eruption, the chronology of the Eighteenth Dynasty, or any other nonlinguistic issues. With this in mind, let us take a closer look at what Bernal has to offer.

Names

Not even the most inattentive reader of the Egyptian and Semitic etymologies in *Black Athena* can fail to notice how high a percentage of them are of names—names of places, names of people, and names of mythological figures. This is no accident, for a name, functionally speaking, is merely a label; its etymological meaning, if discoverable at all, need not stand in any detectable relation to the person or thing named. A man may be called "God is Gracious" (John) or "Elf Counsel" (Alfred) or "Horse Lover" (Philip); a city name may be derived from a topographical feature, a characteristic form of local vegetation, or the self-designation of a tribe that once lived there. Because names normally furnish so few clues to their original meaning, methodologically sophisticated etymologists usually treat them with special caution. Bernal does the opposite: the semantic opacity of names becomes, in his hands, a license for etymological speculations of the most extravagant

kind. Any geographical feature can be used to support the derivation of a Greek place name from an Egyptian or Semitic original—either another place name or a generic word for “river,” “mountain,” or the like. Any fragment of legend connected with a Greek personal or divine name can be taken out of context and used to establish a “link” between the Greek form and a similarly disembodied word or phrase in Egyptian or Semitic. The undisciplined character of Bernal’s method can be seen from some typical examples:¹⁰

Telphousa, the name of a Boeotian spring, and *Thelphousa*, the name of an Arcadian town, are said by Bernal to represent Eg. *tblw*, a “rarely attested variant of Rb or Libu Libyans” (BA 2:92–93, 98). His bases for the connection are that “most of this area [i.e., Libya] was made up of desert and oases” and that “the Boeotian Telphousa included the steep cliff and the ‘oasis’-like spring below,” from which “—as in Libya—flowed a river Tritōn, connected to a marshy lake.”

Methōnē, a city name in Macedonia and Thessaly with variants *Mothōnē* (Messenia) and *Méthana* (Argolid), is said to go back to Eg. *mtwn* “bull fight, bull arena” (BA 1:50). Cited in support is the fact that the four Greek towns “are all set on bays that could well be described as theatrical.”

Láris(s)a, a city name with variants found in many parts of Greece, is taken to be from the Egyptian toponym *R-3ht*, “Entry into the Fertile Lands,” which “was probably used for the Hyksos capital Avaris, in the rich soils of the Eastern Nile Delta” (BA 1:76). From the fact that the town of Larisa in Thessaly is located in the middle of a fertile plain, Bernal concludes that “the semantic fit between Laris(s)a and R-3ht is excellent.”

Rhadámanthus, the name of a legendary king of Crete, can be “fruitfully” derived, according to Bernal, from Eg. **Rdī Mntw* (“Mntw or Mont gives” or “whom Mntw or Mont has given”) (BA 2:180ff.). Both Rhadamanthys and Mntw “were warlike and in some way father to a wandering hero/pharaoh.” Both, in addition, “were closely connected to Amon/Zeus and were more or less connected to bulls.”

Thēbai “Thebes” is said to come from Canaanite *tēbāh* “ark, chest,” itself allegedly a borrowing from Eg. *tbl* or *dbt* “box” and connected to Eg. *db3* “wicker float, ark of bulrushes” and *db3t* “coffin, shrine,” whence “palace” (BA 1:51). According to Bernal, this etymology, which tacitly assumes the identity of the name “Thebes” with the barely attested Greek noun *thibis* “basket,” was “generally accepted” before the advent of the Aryan Model.

Kōpāis, a term applied to a lake in Boeotia, is traced by Bernal to Eg. *kbh* “purify,” which is said to have had the subsidiary meaning “lake with wild fowl” (BA 1:49). The lake had “many Egyptian connections in Greek tradition” and was fed by a river *Kēphisós*, for which a related etymology is proposed.

Because names, in principle, can mean almost anything, it would be in-

accurate to say that any of these suggestions is *impossible* on semantic grounds alone. None of them, however, is in any way compelling, and most are wholly arbitrary. Even granting Bernal’s hypothesis of an early Egyptian or Hyksos presence in Greece, it is hard to believe that a visitor from the Nile Delta, beholding the spring of Telphousa for the first time, would have been moved to name it “Libya” or “Libyans,” rather than “Cataract,” “Traveler’s Rest,” or any of a thousand other possibilities. The same applies to *Methōnē*: when all is said and done, a “theatrical”-looking harbor is very different from a bull arena, and it is simply not credible that four Greek towns should have taken their name from this not-too-compelling metaphor. With the name “Laris(s)a” there is a further problem. The “fertile” Larisa mentioned by Bernal was not the only town to bear this name in antiquity. Another Larisa, likewise in Thessaly, was located high on a mountainside—a fact which accords with the explicit statement of a Byzantine scholiast that *Láris(s)a* originally meant “citadel.” As for Rhadamanthys, the parallels between the figure of the Cretan king, best known as a judge and lawgiver, and the Egyptian solar god Mntw are far too nebulous to support any connection between the two at all—much less Bernal’s specific derivation of the name “Rhadamanthys” from an Egyptian phrase of his own invention. The city of Thebes has no discoverable link in Greek tradition to baskets or chests, which figure in Bernal’s etymology only because a late compiler, writing at a time when the sound *ē* had become *ī* by regular sound change, mistakenly substituted the letter eta for iota in the unfamiliar word *thibis*.¹¹ This leaves only the equation of *Kōpāis* with an Egyptian word said to mean “lake with wild fowl.” Here Bernal has simply misread the facts: *Kōpāis* in Greek is not, properly speaking, the name of a body of water at all, but an adjective derived from the name of a city on its shores (see below).

Hand in hand with Bernal’s lack of semantic rigor goes an almost complete disregard for phonetic consistency. Even in the short list above, Egyptian *b* is supposed to have yielded Greek *b* in *Thēbai*, *p* in *Kōpāis*, and *ph* in *Telphousa* and *Kēphisós*. Egyptian *r* gives both Greek *r(b)* in *Rhadámanthus* and *l* in *Láris(s)a*; the latter name shows that Greek *r* can also, in Bernal’s scheme of things, go back to Egyptian *3*, which elsewhere is said to give *l* (cf., e.g., *Kólkehis* “Colchis” < *K33* “Upper Nubia” [!], BA 2:253) or to disappear, usually leaving a vowel in its place (cf. the “common river or lake name Pheneos or Pēneios” < *p3 nu(y)* “the flood,” 2:19; *Aigúptos* “Egypt” < *ht k3 Pth* “temple of the spirit of Ptah,” 2:443; etc.). Another protean Egyptian sound is *h*, which is alleged to give a vowel (cf. *Kōpāis*, *Aigúptos*), to become *s* (cf. *Láris(s)a*), or to become *h* (cf. below). Multiple reflexes are claimed for the non-Greek sounds transcribed *l*, *h*, *3*, *3*, and *3*; as well as for virtually every other consonant in the Egyptian and Semitic alphabets.¹² With such an abundance of potential “Afroasiatic” sources available for every sound in Greek, and with the vow-

els of Semitic and Egyptian effectively ignored, the task of etymologizing a Greek name reduces to a parlor game that anyone can play with the help of a few good dictionaries. Bernal, as an advanced student of the game, naturally plays it with facility, sometimes finding two or more mutually incompatible etymologies for the same item. Thus, the name *Iō* is said to be “firstly from the Egyptian *īʿ* ‘moon,’” but at the same time “basic[ally]” from two different Egyptian words for “cow,” *ihī* and *ihw* (BA 1:95). Competing explanations are likewise offered for *Pán* (2:171) and *Mínōs* (2:172). In the same vein, the first part of the transparent compound *Hēraklēs* (“whose fame is of/from/for Hera”) is said to rest on “a sacred paranomasia [*sic passim*] or combination of three West Semitic roots all based on the consonants *hrr*” (2:108). Nowhere does the essentially frivolous character of Bernal’s linguistic argumentation emerge more clearly than in examples like these.¹³

Etymologies of this kind are too capricious and unsystematic to be of any value. Most of them, as we have said, are not individually refutable; they are unacceptable because they rest on impressionistic resemblances which, in the absence of semantic and phonological constraints, can be found between lists of names and words in any two languages. In a certain number of cases, however, Bernal’s derivations run directly contrary to established Greek sound laws. Thus, for instance, the supposed connection of “Thebes” with Canaanite *tēbāb* and Eg. *tbi/dbt* is not only semantically arbitrary; it is also inconsistent with the Mycenaean forms *te-qa-de* “to Thebes, *Thēbasde*” and *te-qa-ja* “Theban, *Thēbaia*,” which show that the *-b-* of *Thēbai* goes back not to an original **b*, but to a Proto-Greek “labiovelar” **g*” (cf. further below, s.v. *basileús*). Even the superficially attractive—and inherently far more plausible—comparison of the Cretan and Elean river name *Iárdanos* with Canaanite *Yardēn* “Jordan” (BA 1:49) is of doubtful value as evidence for Greek-Semitic linguistic contact in the Bronze Age. Since **y* was still a distinct phoneme in Mycenaean Greek, the name *Yardēn*, if borrowed from Semitic before ca. 1300 B.C.E., would almost certainly have been rendered in early Greek as **Yárdēnos* or **Yárdanos*, with initial **y*. With the late Mycenaean change of **y-* to *-b-* (cf. *bós* “who, which” < **yós*), **Yárdanos* would in turn have given **Hárdanos* in the dialects of the classical period. That we find the form *Iárdanos*, with four syllables, shows either that the similarity of *Iárdanos* and *Yardēn* is illusory or that the name was borrowed after ca. 1300 B.C.E., when the vowel *i* was the closest Greek equivalent to the Semitic consonant *y*.¹⁴

In other cases Bernal’s etymologies fly in the face of obvious morphological facts. *Kōpāis* (gen. *Kōpāidos*), as remarked above, is basically an adjective: its proper meaning is “Copaeian,” that is, “of or belonging to the town of Copae (*Kōpai*).” The phrase *Kōpāis limnē*, conventionally glossed “Lake Copais,” is literally the “Copaeian lake, lake near Copae,” completely parallel to the attested phrase *Kōpāides enkehelets* “Copaeian eels, eels from the waters off Copae.”

Bernal’s effort to trace the name of the lake to an Egyptian word for “lake” is thus misconceived: the real problem, thus far unsolved, would be to find the origin of the city name *Kōpai*, in form the plural of an unknown *ā*-stem noun. Other unexplained names for which structure-defying etymologies are offered in the pages of *Black Athena* include *Lakedaimōn* “Lacedaemon, Sparta” and *Mukēnai* (also *-ēnē*) “Mycenae.” *Lakedaimōn*, according to Bernal, “can be plausibly explained as the ‘Howling/Gnawing Spirit’” and is “an exact calque for Kanōbos/Kanōpos < k3 inpw ‘spirit of Anubis’” (BA 1:53). This pronouncement shows that he imagines a segmentation *Lake-daimōn*, with *Lake-* understood to be either a form of the verb *lélaka* “I cry out” or of the completely different verb *lakitō* “I rend.” Neither interpretation is possible. The first reading is simply out of the question: *verb* + *noun* compounds of this type are adjectives with a transitive first member (cf., e.g., *phéré-oikos* “bearing a house,” whence “snail”). The second reading, if it were formally in order, would have to mean “rending a (minor) divine power,” with *daimōn* as the understood object of *Lake-* “rending.” This too, however, is extremely unlikely. The Mycenaean personal name *ra-ke-da-no* (dat. *ra-ke-da-no-re*) is almost surely to be read as *Laked-ānōr* (cf. Myc. *Ant-ānōr*, *Ekh-ānōr*, etc.), showing that the correct segmentation of *Lakedaimōn* is not *Lake-daimōn* but *Laked-aimōn*—however we choose to interpret that sequence.¹⁵

In the case of “Mycenae,” Bernal favors Levin’s derivation from Semitic **mahaneh* “camp” (cf. Hebr. *mahāneh*), or, more particularly, from the corresponding dual form **mahanayim* “two camps” (BA 1:51). There is, of course, no independent reason to believe that the name of Agamemnon’s capital originally meant anything of the kind. But more to the point is Bernal’s failure—or refusal—to notice that the ending *-ēnai/-ēnē* (< older *-ānai/-ānā*) is a recurring element in Greek place names. No credence can be attached to an analysis of “Mycenae” which separates the termination *-ēnai/-ēnē* from the corresponding *-ānai/-ānā* of names like *Messānā* “Messene” and *Kurānā* “Cyrene”—to say nothing of *Athēnai* “Athens,” which in view of its symbolic status in Bernal’s narrative requires a discussion of its own.

Bernal’s derivation of “Athens” and “Athena” (*Athēnē* < *Athānā*; Myc. *a-ta-na*) from Eg. *Ht Nt* “Temple of (the goddess) Nēit” (BA 1:51ff.) is the showcase exhibit of the Revised Ancient Model, the etymology that gives meaning to the title *Black Athena*. It is also an excellent example with which to end our survey of Bernal’s “name” etymologies, as it perfectly illustrates the deficiencies of his method. Morphologically, the derivation of “Athens” from *Ht Nt* is suspect for the same reason that the above explanation of “Mycenae” is suspect: it forces us to find separate ad hoc explanations for a recurring sequence (*-ānai/-ānā*) that is better explained as a unitary suffix. Phonetically, the only feature that the names *Athānā* and *Ht Nt* have in common is an *n* preceded by a *t(b)*. Even this agreement is deceptive, for while in Egyptian

the *t* and the *n* are (Bernal's claims notwithstanding) in direct contact, in Greek the corresponding consonants are separated by an accented long vowel which is neither predicted nor explained.¹⁶ On the semantic side, the *Athānā* : *Ht Nt* equation shows the customary lack of rigor. The simple fact is that the original meaning of "Athens" and "Athena" is unknown; "temple of Nēit" is no more likely, a priori, than "olive grove," "rocky crag," or countless other possible glosses. The most that Bernal can say in favor of comparing the two goddesses is that "in Antiquity, Athena was consistently identified with . . . Nēit" and that "both were virgin divinities of warfare, weaving and wisdom." The latter description is a highly misleading characterization of Nēit, whose association with weaving and wisdom was less conspicuous, as far as we can judge, than her role as patroness of the hunt and mother of the crocodile god Sobek (cf. Schott 1982, Bonnet 1952, 512ff).

This is not the place for a lengthy rebuttal of Bernal's case. The all-important fact is that under the rules of the game as laid down in *Black Athena*, any eye-catching or merely convenient etymological proposal is as good as any other. No principle is given for why we should take *Athānā* from *Ht Nt* rather than, say, from the Anatolian city name *Adana*, which is attested in exactly this form from the middle of the second millennium B.C.E. Nor—if goddesses are at a premium—is it obvious why we should not prefer to compare Athena with the Carthaginian (i.e., "Canaanite") deity Tanit, whose name, preceded by the Greek feminine article *hā* (< **sā*; later Attic *hē*), could easily (by Bernal's standards, at least) have given first Gk. **Hāthānā* and then, with the regular loss of *b*- before an aspirate, *Athānā*. The phonetic development **sā Thānā* > **Hāthānā* > *Athānā* suggests a still more lurid possibility. Augustine, as good a representative of "the Ancients" as Jerome (cf. *BA* 2:253), tells us that the pagan gods and goddesses of the Greeks and Romans were demons whose worship was dispelled with the adoption of Christianity. Under Bernal's logic, it would seem perfectly legitimate to contemplate a direct borrowing of "Athena" from a feminized variant of Hebr. *sātān* "Satan" (older spelling *Sathan*), via the phonetic stages **Sāt(h)ānā* > **Hāthānā* > *Athānā*. Responsible scholars will not be convinced by such linguistic sleight of hand, but the Great Deceiver would surely be amused.

Ordinary Words

The Egyptian and Semitic etymologies that Bernal proposes for ordinary Greek words are no more convincing than his etymologies of names. The fact that words, unlike names, have known meanings clearly cramps Bernal's style; it is harder for him—as it would be for anyone—to argue that a word which palpably means "sword" or "team of horses" originally meant "Mntw gives" or "moon" or "cottage cheese" than to make such arguments for names like *Rhadámanthus* or *Ió*. Nevertheless his quest for regular vocabulary items

with "Afroasiatic" etymologies is pressed forward with unflagging energy. What his suggestions lack in semantic inventiveness they make up for in their complete disregard for established sound laws and patterns of word formation.

Some representative examples:

hárma "chariot," to which Bernal adds the inexplicable gloss "tackle," is stated to come from "the Semitic root \sqrt{hrm} (net)" (*BA* 1:60). There is nothing to be said for this proposal. Phonetically, it is falsified by the fact that the corresponding form, in the meaning "chariot wheel," is spelled *a-mo* in Mycenaean, pointing to a synchronic reading *árhmo*. The *b*- of Attic *hárma* is thus not original, as Bernal implicitly claims, but the result of a secondary "anticipation" of the *-b*- in a preform reconstructible as **árhma*. Mycenaean *árhmo* and pre-Attic **árhma* in turn go back to pre-Greek **ár-smn*, a well-formed action noun consisting of the root *ar*- "fit, join (together)" (cf. *ararískō* "I fit") and the common nominal suffix *-(s)m(e)n-. Semantically, there is every reason to prefer this analysis to Bernal's: a Greek word meaning "chariot" or "chariot wheel" is far more easily referred a PIE form meaning "thing fitted together" than to a Semitic root meaning "net." Here as elsewhere, Bernal has attempted to impose a Semitic or Egyptian etymology on a Greek word whose form, inflection, and meaning are utterly unproblematic in IE terms.

deílōs "pitiable, vile, cowardly" and *doúlos* "(born) slave"—Bernal's gloss "client" is simply wrong—are traced to a Canaanite *dāl* or *dal*, said to mean "dependent, reduced" or "poor" (*BA* 1:60). The internal Greek evidence, however, shows *deílōs* and *doúlos* to be unrelated. *doúlos* appears in Mycenaean as *do-e-ro*, representing trisyllabic **do(h)elos* (< **doselos*?)—a reading hard to reconcile with Bernal's alleged Semitic source, which presupposes a biliteral root *dl*. As for *deílōs*, Bernal omits to mention the critical fact that the *d*- of this word "makes position" in Homer—that is, it behaves metrically not as a single consonant, but as a cluster **dv*-. The underlying stem was thus probably **dvey-lo*- or **dvey-elo*-, an adjectival derivative of the well-known PIE root **dvey*- "fear" (cf. Gk. *deós* "fright, dread" < **dvey-os*). The original meaning of *deílōs* must have been "fearful, cowering," from which the attested sense evolved.

kḗr (also *kár*), said to mean "soul," is compared with Eg. *k3* "spirit, soul" (*BA* 2:262ff.). Despite Bernal's special pleading, however, the meaning of *kḗr* is not "soul" but "fate, doom, (violent) death, ruin," sometimes divinized as Doom in the singular and (the) Fates in the plural.¹⁷ From a phonetic point of view the equation is hopeless: neither here nor elsewhere is there a shred of evidence to support Bernal's oft repeated claim that Eg. *3* was sometimes borrowed as *r* in Greek. He is likewise unable to explain, and does not discuss, the relationship of the variants *kḗr* and *kár*, the dialectal distribution of which demonstrates that *kḗr* is not simply a phonetic variant of *kár* showing the nor-

mal Attic-Ionic change of *-ā-* to *-ē-*. Both vocalisms are easily accounted for under the standard assumption of a PIE “root noun” **kér* (nom. sg.), **kerr-és* (gen. sg.), literally “a cutting (off), a termination” (cf. *keirō* < **ker-yō* “I cut”). Such a verbal noun—perfectly regular in PIE terms—would have yielded an early Greek paradigm **kér*, **kar-ós*, the “weak” stem of which (**kar-*) was taken as the point of departure for the creation of a new nom. sg. *kár* in some dialects.

basileús “king,” a word with no good IE etymology, is derived by Bernal from an Egyptian phrase *p3 sr*, meaning “the official” (BA 1:62, 2:504ff.). This is a priori unlikely, as Eg. *p* is never represented by Gk. *b* in uncontroversial loan words, and the Egyptian article *p3* combines with a following *s-* to give Gk. *ps-* in authentic Egyptian borrowings like *pságdān* “unguent” (< Eg. *p3 sgnm*; cf. above) and *pskbént* “royal headdress” (< Eg. *p3 sbmtj*). But the decisive objection to Bernal’s etymology comes from the Mycenaean spelling *qa-si-re-u* (i.e., [g^wasiléus]), which shows that the *b-* of this word, like the *-b-* of *érebos* “darkness” and *Thēbai* “Thebes,” goes back to a second-millennium labiovelar *g^w*. In the first volume of *Black Athena* Bernal seems unaware of the existence of labiovelars; he finds “no phonetic difficulty” with the derivation of *basileús* from *p3 sr*. In the second volume, however, he takes up the case again, this time adding a lengthy excursus on the use of the signs *qa* and *qo* in Mycenaean (2:504ff.). There is no empirical support for his assertion that the PIE labiovelars had already “broken down” in Linear B, leaving *qa* and *qo* free to serve as specialized writings for the sounds *p*, *b*, and *pb* in foreign words. On the contrary, not a single instance is known in which the labiovelar signs are used to write a demonstrably old labial, or in which the labial signs are used to write a demonstrably old labiovelar.¹⁸

kúdos, which Bernal glosses as “divine glory,” is said to come from the Semitic root *qdš* “sacred” (BA 1:60). But here again the deck has been stacked: there is nothing essentially “sacred” or “holy” about the Greek word, which simply means “renown.” Morphological considerations make *kúdos* a very poor candidate for a loan word. In the first place, it is a neuter *s*-stem, and hence representative of a formal type to which very few borrowings belong. The final *-os*, moreover, is merely a formative suffix; the root proper is *kúd-*, which also appears, with no change of meaning, in the adjective *kúdrós* “glorious” and the compositional combining form *kúdi-* (cf. *kúdi-áneira* “in which men have glory”). Comparison with Sanskrit and other languages shows that the synchronically irregular alternation pattern *kúd-os* : *kúd-ró-* : *kúd-i-* results from the archaic set of PIE derivational rules known collectively as Caland’s Law. Alternations of this type became obsolete so early in the history of Greek that word families which exhibit Caland behavior are virtually always direct inheritances from the parent language. Not surprisingly, *kúdos* has a

perfectly good IE etymology: it is cognate with Old Church Slavonic *čudo* (gen. *čudese*) “wonder, marvel,” also a neuter *s*-stem.

bómós “altar” is referred by Bernal (BA 1:59), modifying Cuny (1910:161), to a Semitic form akin to Hebr. *bāmāb* “high place, (raised) altar.” The semantic agreement between the Greek and Semitic forms, however, is misleading, for *bómós* may also denote a base or platform, even a low one—anything, in fact, upon which something else stands. As such, it comes very close in meaning to *básis* “base” and *bēma* “platform,” both of which are regularly formed action nouns (“a step”) built to the verb (*é*)*bē* “went, walked, stepped.” A parallel explanation is clearly indicated for *bómós*, which transparently consists of the regular “*o*-grade” form of the root *bā-* (< *bā-*) followed by the well-established PIE nominalizing suffix **-mo-*. A comparable formation is seen in the noun *thómós* “pile,” a derivative of *thē-* “put, deposit.” The Proto-Greek root was **g^wā-*, corresponding to Sanskrit *gā-* “go.”

eteós “true, genuine,” according to Bernal, comes from “*it m it* in Middle and Late Egyptian, literally ‘barley in barley’ . . . [or] ‘really barley’” (BA 1:453 n. 16). It is not clear to us how he thinks the meaning “true” could conceivably have developed from “true barley,” or why he believes that Greek *eteó-krithos* “genuine, good barley” sheds any light on the question. What is clear is that *eteós* was originally **etewós* (cf. Mycenaean *e-te-wo-ke-re-we-i-jo* = later Gk. *Eteokleíōs*), an adjective in *-o-* which presupposes an underlying “*u*-stem” **etu-*/**etew-*. Related to *ete(w)ós* is the nearly synonymous *étumos* (i.e., **étu-mo-*) “genuine.” The connection between the two words is significant because it shows that the stem **etu-*/**etew-* must have existed in Greek at a time when the suffixes **-mo-* and **-o-* were still living and productive morphemes—that is, very early indeed, perhaps as early as late PIE itself. Bernal’s statement that *eteós* “has no etymology” is thus extremely misleading; the morphological structure of the word virtually excludes the possibility of borrowing.¹⁹

Karuátides, properly a name secondarily used to refer to standing female statuary figures (“caryatids”), is said to mean “daughters of the city” and to go back to a “stem Kary(at),” which according to Bernal can be “plausibly explained in terms of the standard West Semitic word for town—*qrt* . . .” (BA 1:50). But this arbitrary assertion ignores the other Greek items with which *Karuátides* makes up a morphological class; cf., e.g., *Pulátides* “women of *Púlai*,” *Spartátides* “women of *Spártā*,” and more generally *aguiátides* “women of the neighborhood” (cf. *água* “street”). In this light *Karuátides* can only mean “women of *Káruai*.” A town by this name (“Caryae”) is known to have existed in Laconia; it was a center of the worship of Artemis, whose priestesses were called *Karuátides*. Note that the name *Káruai* itself has nothing to do with Bernal’s “stem Kary(at);” it means “nut trees,” standing in the same relationship to *kárnon* “nut” as, e.g., *elata* “olive (tree)” to *élaion* “olive oil.”

óphis “snake,” for which Bernal favors the old pre-scientific derivation from Demotic Egyptian *hf*, has been known for more than a century to be an IE word with unimpeachable cognates in Indo-Iranian (Skt. *áhi*- “snake,” Avestan *ašī-*) and Armenian (*iž*). Morphological considerations—in this case the existence of the closely related word *ékbis* “viper”—again rule out the possibility of a loan word. The relationship between *óphis* and *ékbis* can only be explained on the assumption of a PIE “acrostatic” declensional pattern, in which a “strong” stem with *o*-grade of the root (**h₁óg^hb-i-*) was proper to some case forms (e.g., the nominative singular), whereas a “weak” stem with *e*-grade of the root (**h₁ég^hb-i-*) was proper to others (e.g., the genitive singular). Typical pre-Greek forms would thus have included the nom. sg. **ók^hb-i-s* and the gen. sg. **ék^hb-y-os*, in the latter of which the labiovelar **k^hb-* would regularly have become delabialized to **kb-* before **y-*. The result was a paradigm with both **ók^hb-* (> later *oph-*) and *ekb-*; the inconvenient synchronic alternation was eliminated by the well-known process of “paradigm split,” in which each variant was provided with a complete set of case forms and reconstituted as an independent word (cf. Eng. *shade* and *shadow*, both from Old English *scæadu*, gen. *scæadwes*). Bernal’s crude “juxtaposition” of *óphis* and *hf* leaves *ékbis* entirely unaccounted for.

xénos/xéinos “foreign(er)” is said to derive from West Semitic *šn* “hate, enemy” (BA 1:60, 2:369). This is semantically unsatisfactory, because a *xénos*, far from being an object of hatred, is fundamentally a “guest-friend”—a person from another city or country with whom one enjoys a warm and often generations-long family relationship in which the roles of guest and host are regularly exchanged. The later and more general uses of the word are likewise free of hostile connotations. On the phonological side, Bernal’s etymology is inconsistent with the fact that the Proto-Greek form of *xénos* was **xénwos*, which is implicit in Ionic *xéinos* and directly attested in Mycenaean (e.g., *ke-se-nu-wo* = *Xénwōn* [personal name]) and in inscriptions from Corinth and Corcyra. The Mycenaean “*ke-se-ne*” quoted by Bernal in the meaning “stranger” does not exist. Nor is there any reason to believe that a Semitic *š* would have been rendered into Greek as the cluster spelled by the letter *x* ([ks]); Bernal’s talk of a “velarized sibilant” in this connection is unintelligible as it stands and seems to rest on a misunderstanding of what the phonetic term “velarization” really means.²⁰

tímá, timé “honor,” according to Bernal, “probably comes from an Egyptian **dī m3*’ attested in Demotic as *tym3*’, meaning (render true, justify)” (BA 1:61). As usual, there are both semantic and formal difficulties with the proposed equation. *tímé* has no essential or demonstrable connection with either “truth” or “justification” anywhere in its range of values—especially not in Homer, where its meanings are “honor(s) accorded to gods and kings, perquisite held by virtue of royal status; reward, compensation.” From a

morphological point of view, Bernal’s derivation ignores the fact that *tímé* “honor” is patently connected with the verb *tō* “I honor.” To a disinterested observer this would seem merely to confirm the standard interpretation of **tímá* as an action noun built to the root **t-*, parallel, e.g., to *kōlúmē* “prevention” beside *kōlūō* “I prevent” (cf. Chantraine 1961, 148). Bernal implicitly rejects this analysis; we are not sure whether he would follow the logic of his own position and derive *tō* directly from the Egyptian verb *dī* (older *rdī*), which outside the (purely hypothetical) phrase **dī m3*’ means simply “give.” In any case, it should be noted that Gk. *t-* can plausibly be compared, via the preform **k^ht-*, with the Sanskrit root *ci-/cāy-* “note, observe, respect.”

xíphos “sword” is thought by Bernal to be a borrowing from Eg. *sft* (> Coptic *sēfē*) “sword” (BA 2:369ff.; cf. 1:61). The idea is an old one, and it is not impossible that *xíphos* has indeed been borrowed into Greek from some other language. But the phonetic fit between the Greek and the Egyptian forms is very poor. On the Egyptian side, as pointed out by R. H. Pierce (1971:96 ff.), the *-ē* of Coptic *sēfē* points to a Middle Egyptian stressed long vowel, whereas the *-i* of *xíphos* is short. Bernal, who seems to have no use for such niceties when they fail to serve his purposes, decries Pierce’s “extraordinary faith in the reconstruction of Ancient Egyptian vowels from Coptic” and tendentiously quotes an irrelevant passage from Gardiner (1957) as “the more usual view.” He fails, however, to report Gardiner’s true position on the reconstruction of Egyptian vocalism, namely, that “scholars have succeeded in determining from the Coptic the position and the quantity [italics ours] of the original vowels in a large number of words; but the quality is far less easily ascertainable” (1957, 28). On the Greek side, it is clear from the Mycenaean spelling *qi-si-pe-e* “two swords” that the Proto-Greek form of *xíphos* began with the cluster **k^hʃ-*, which is utterly incomprehensible as a reflex of Eg. *ʃ-*. Bernal’s solution is to sweep the Mycenaean form under the rug; to infer anything from the labiovelar, he says, is “a case of misplaced precision.”

khílioi (dialectal *kehilíoi, kbellíoi*) “thousand” is said to be a borrowing from Eg. *h3* (BA 2:484). The semantics, for once, are unexceptionable. The Greek dialect forms, however, point unequivocally to Proto-Greek **kébēliyo-* < **kēhésliyo-*, with nothing but an initial consonant in common—and that only after a fashion—with Bernal’s Egyptian comparandum.²¹ On the other hand, the correspondence is exact with Skt. *sa-hasriya-* “thousandfold” (*sa-* means “one”), which taken together with the prototype of the Greek forms establishes a PIE adjective **ghésliyo-*, itself a derivative of the noun **ghéslo-* “thousand” (cf. Skt. *sa-básram*, Avestan *ha-razram*). The derivation of *khílioi*, etc., from PIE is absolutely straightforward—a point that requires emphasis in light of Bernal’s report that P. Chantraine, the principal author of one of the standard Greek etymological dictionaries (see note 4), finds “many formal difficulties with this derivation.” This is a misrepresentation. The discussion

to which Bernal alludes (Chantraine, p. 1260), which was actually authored by J.-L. Perpillou, merely suggests—wrongly, in our opinion—that more than one analysis is available for this word in *IE* terms.

neós (dialectal *nēós*, *nāós*, *nāwós*, *naños*) “temple” is connected by Bernal—correctly, as it happens—with the verb *naío* “I dwell” (*BA* 1:60). He takes both from the Semitic root *nwh*, for which he provides no gloss; we presume he has in mind Hebr. *nāwāh* “dwell.” This is phonologically impossible. The aorist of *naío* is built on the stem *nas-sa-*, which shows that the present *naío* itself must go back to pre-Gk. **nās-yō*, with a root **nas-* followed by the common present-forming suffix **-yo-*. *neós* is based on the same root **nas-*; here, however, the preform is reconstructible as a suffixed stem **nas-wó-* “habitation,” which became the source, via independently motivated sound changes proper to the individual Greek dialects, of *nēós*, *nāwós* and the other attested forms. All that the Greek and Semitic words have in common is an initial **n-*; once again, an impressionistic resemblance vanishes when all the relevant facts and forms are taken into consideration. It should be emphasized that the objections to Bernal’s etymology are in no way vitiated by the fact that *neós* and *naío* happen to lack problem-free cognates in the other IE languages.

We end our list here. The examples just cited, for which dozens of others could easily be substituted, are in no way exceptional or atypical. There is a certain sameness to all of Bernal’s etymologies. In each case, a Greek word is said to “come from” an Egyptian or Semitic expression to which it bears some real or fancied similarity of meaning and a vague, often extremely tenuous, phonetic resemblance. No effort is made to go beyond the realm of appearances; known and inferable facts about the history of individual forms are systematically ignored, misrepresented, or suppressed. Above all, there is a thoroughgoing contempt for phonetic consistency: vowels materialize and disappear on command, consonants mutate beyond recognition, and “exotic” phonemes like Eg. *ʕ* become almost anything that Bernal finds “useful” (contrast the fortunes of Eg. *kʕ* and *hʕ*, said to give Gk. *kér* and *khílioi*, respectively). To be sure, an excuse is offered for the confusion; the inconsistencies that we observe in the treatment of foreign sounds, Bernal tells us, are due to differences in the date at which individual words were borrowed. But he makes no effort to substantiate this claim by arguing, for example, that Greek words which exhibit the “early” treatment of Eg. *ʕ* also consistently show the “early,” and never the “late” or “middle” treatment of the similarly variable sounds *h*, *ʔ* and *t*. In fact, it is quite clear that no such regularities exist; the hypothesis of relatively early versus relatively late borrowing is simply another wild card, an untestable assumption whose only function is to generate a limitless supply of unsystematic and unverifiable etymologies.

We are reminded in this connection of a passage near the beginning of the

first volume of *Black Athena*, where Bernal discusses the differences between a “constructive outside radical innovator,” such as Michael Ventris, the decipherer of Linear B, and a “crank,” such as Immanuel Velikovsky, the author of an earlier and very different “Revised Ancient Model” of Eastern Mediterranean history. Cranks, unlike constructive innovators, Bernal says, tend to “add new unknown and unknowable factors into their theories: lost continents, men from outer space, planetary collisions, etc.” (*BA* 1:6). We agree, noting merely that what others do with lost continents Bernal accomplishes just as successfully—or unsuccessfully—with lost consonants.

CONCLUSION

Our judgment, then, is that Bernal’s claim to have uncovered “hundreds” of viable Greek-Egyptian and Greek-Semitic etymologies is simply false. We doubt that he has discovered even one such etymology that is wholly new. Certainly there are Semitic and Egyptian borrowings in Greek, but they are, as standardly believed, relatively few in number and—with some conspicuous exceptions on the Semitic side—late in date. Indeed, if there is any positive linguistic result that can be said to follow from *Black Athena*, it is that most of the identifiable Semitic and Egyptian loan words in Greek have already been found, as Bernal’s unremitting search for further examples has been so notably unproductive. All this amounts to a very strong argument against the Revised Ancient Model, which posits intimate and prolonged contacts of precisely the kind that ought to have been reflected in a large and transparent body of second-millennium loan words. In relation to Bernal’s overall project, the linguistic evidence is worse than unhelpful.

Some readers will find this evaluation surprising. Is it really possible that a writer so obviously well-read as Bernal, so apparently proficient in a variety of difficult languages, and so clearly “on the right side” of a gamut of cultural issues can be as wrong as we say he is? The answer, unfortunately, is that where linguistic evidence is concerned it is possible to be very wrong indeed. Most educated nonspecialists—including classicists, archaeologists, and historians—are at best only dimly aware of how language can be used as a tool for investigating the past. For the general reader of a work like *Black Athena*, it is all too easy to fall into the trap of confusing the study of particular languages with the study of linguistics—of supposing that knowledge of an arcane language is the only prerequisite to speaking with authority on its history, or to making meaningful discoveries about its prehistoric contacts with other languages. This was the general view in the sixteenth, seventeenth, and eighteenth centuries—the Golden Age of the Ancient Model, in Bernal’s telling—when scholars of leisure, well-versed in a variety of Western and Oriental languages, filled learned tomes with erudite nonsense deriving Chi-

nese from Hebrew and Huron from Latin. It was the age, too, when Voltaire could with justice deliver his famous quip labeling etymology as a science in which the consonants counted for little and the vowels for nothing at all.

The reality is, however, that the development of comparative philology in the nineteenth century marked a genuine step forward in the fitful progress of human knowledge. The early Indo-Europeanists may have shared some of the prejudices of their time—so does Bernal, and so do we—but they were also great scholars, who with immense learning and prodigious energy created the discipline of historical linguistics. Thanks to their work and the work of their successors, we are now in possession of a vast store of information about the history of particular languages and about the principles governing language change in general. Much of this information is technical in character and of little interest to the general reader. But the methods of historical linguistics are easily accessible to any college student,²² and specialized etymological dictionaries and historical grammars are available for most of the world's major language families. The days of word-association games are happily past.

It is only fitting, given Bernal's passion for "contextualizing" the scholarship of others, that we close with a few remarks in the same spirit. Etymologists à la Voltaire did not disappear with the advent of the comparative method, any more than would-be circle-squarers and angle-trisectors disappeared with the development of higher mathematics. Obscure volumes deriving (for example) Hungarian from Sumerian, or Classical Mayan from Greek, can be found in the bowels of any well-stocked university library. Often such works simply reflect the casual linguistic experiences of their authors, as in the case of a book entitled (in French) *Annamite* [= Vietnamese], *the Mother Tongue: the Common Origin of the Celtic, Semitic, Sudanese and Indochinese Races* (1892), by the French army general Henri Nicolas Frey. Frey went further; by 1905 his researches had progressed to the point where he was able to bring out a sequel: *The Prehistoric Egyptians Identified with the Annamites on the Evidence of the Hieroglyphic Inscriptions*. There is no methodological difference between works like these, written a century ago, and contemporary efforts like *America—Land of the Rising Sun* (D. R. Smithana 1990), which claims a Japanese origin for such indigenous American names as *Ontario*, *Alaska*, and *Eskimo* (the last said to be from Jap. *ashi kimo* "sea lion livers," i.e., eaters of fresh livers of seals). An especially conspicuous role in the crank linguistic literature is played by the Celts, whose popular reputation for "mystery" accounts for their pivotal position in the fantastic speculations of Barry Fell in *America, B.C.* (1976). The author, a former professor of marine biology at Harvard, finds pre-Christian "Celtic" texts from a variety of New World locations, the language of which combines an anachronistic mixture of Irish,

Scots Gaelic, and Welsh with a confused potpourri of Semitic and Egyptian.²³ Another work pervaded by an ill-informed Celtomania is *The White Goddess* (1948), subtitled "a historical grammar of poetic myth," by the well-known English poet Robert Graves. Unlike Bernal, Graves is only marginally interested in attacking the received view of the Greeks, but in his talent for generating unsound etymologies in support of bizarre hypotheses he is nearly Bernal's equal. It is among authors like these that we believe Bernal has earned his place in the history of scholarship. As far as "the linguistic evidence" goes, Black Athena is nothing more than a White Goddess with a different axe to grind.

NOTES

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We follow the standard practice of using square brackets to represent phonetic transcriptions. The asterisk denotes a reconstructed form.

1. Rendsburg 1989, by a Semitist and avowed "dear friend" of Bernal, is at best a very partial exception to this statement.

2. Scholars who believe that the Anatolian languages split off from the rest of the family before Italic, Germanic, Greek, etc., began to diverge from each other often prefer the term "Indo-Hittite" to "Indo-European." Bernal follows this usage; we will retain the traditional "Indo-European" here.

3. The symbol **h*₁ represents a PIE consonant—one of the so-called "laryngeals"—whose phonetic value is uncertain. There is reason to believe that it may have been [h].

4. Readers interested in verifying this for themselves may wish to compare Ernout-Meillet 1985 for Latin and Puhvel 1984 for Hittite. The standard Greek etymological dictionaries are Chantraine 1968–75 and Frisk 1955–72. Bernal seems not to know the latter work.

5. *athér*, like *patér* "father," but unlike most other nouns in *-ér*, shows inner-paradigmatic stem variation ("ablaut"), with short *-è* in case forms like the acc. sg. (*athèra*). *pélōr*, like *húdōr* "water," belongs to the restricted class of nouns in *-ōr* that are neuter rather than masculine. *dipsáō* is one of the very few contract verbs in which the 3 sg. ends in *-ēi* rather than *-ái*, *-ei*, or *-oi*—showing that the *-a-* of the precontracted forms was originally long.

6. C. H. Gordon's decipherments of Eteocretan and Linear A as Semitic (1962b, 1966) have found almost no acceptance outside his immediate circle; the same applies to his efforts to find Semitic inscriptions at various locations in the New World (see, e.g., C. H. Gordon 1982). Note that place names in *-(s)os* (e.g., *Halikarnássos*, *Telmässós*) are also found in Anatolia.

7. Where possible, Semitic forms are cited from the closely related Northwest

Semitic languages Hebrew, Phoenician, and Ugaritic. The vowels of Phoenician and Ugaritic are not normally expressed but can often be surmised from comparative and other evidence.

8. See Fournet 1989, on which the following discussion is based. Egyptian writing, like Phoenician and Ugaritic writing, is purely consonantal. Some information about the vowels of Middle and Late Egyptian can be inferred from the vowels of Coptic and from foreign transcriptions of Egyptian names; cf., e.g., Osing 1976.

9. The frequent use of the Greek voiceless aspirates (*ph, th, kh*) to represent the Semitic and Egyptian voiceless stops (*p, t, k*) suggests that the Semitic and Egyptian sounds may have had a slightly aspirated pronunciation.

10. Readers should be warned that in the discussion that follows we have not, in general, been able to check the accuracy of Bernal's glosses and transcriptions of Egyptian and Semitic forms. If the reliability of his Greek glosses is any guide (cf. especially note 15 below), such checking is badly needed.

11. It is thus the connection of *Thēbai* and *thēbis* that has no adequate basis in fact; *thēbis* itself could well be an Egyptian or Semitic word.

12. Useful light on the phonetics of Semitic and Egyptian is shed by the treatment of the numerous Semitic words and names that appear in Egyptian texts; cf. Hoch 1994.

13. Despite Bernal's handwaving, the lack of consistency in his Egyptian-Greek and Semitic-Greek phonetic correspondences cannot be explained away by invoking different dates of borrowing; cf. below.

14. The "late" treatment of Semitic *y- is illustrated by the word *īaspis* "jasper," from an immediate source akin to Hebr. *yāšpēh*.

15. The second term is perhaps more likely to be connected with *haimós* "hedge" and/or *haimasiá* "wall" than with anything else, but the origin of this name is essentially unknown. If *Lakedaimōn* furnishes a good example of Bernal's opportunistic glossing practices, a still more egregious case can be seen in his discussion of the city name *Argos*. "Strabo maintained," Bernal says, ". . . that *argos* in Greek meant 'flat land' . . . However, *argos* also signified 'speed' and 'dog' or 'wolf' . . . The core meaning of the word was 'brilliant' or 'silver'" (BA 1:76). Most of this is quite fanciful. The passage in Strabo to which Bernal refers (8.6.9) is ambiguous and uninformative. The underlying sense of the adjective *argós* was indeed "bright, flashing" (cf. *arguros* "silver")—a meaning which evolved into "swift" (not "speed") via the same figure of speech as in English *quick as a flash* and *Twinkletoes*. Bernal's gloss "dog" is presumably based on the fact that Odysseus had a hound Argos, whose name must originally have meant "Swiftie" or the like. The basis for the gloss "wolf" escapes us completely.

16. Bernal's arguments for reading the Egyptian name as **Anait*, with an initial vowel, are completely ad hoc. It is curious too that the final -t of the goddess's name, which was evidently perfectly audible in classical times, has left no trace in *Athānā/Athēnē*.

17. Cf. Lee 1960, 191 ff. It should be noted that the term *kērostasiá*, which plays an important part in Bernal's elaborate attempt to justify the gloss "soul," is a word of his own invention.

18. The (non-)exception that proves this rule is that when—and only when—an

early Greek word contained *two* labiovelars, one of them could be dissimilated to a labial which was then spelled with a labial-initial sign in Mycenaean. This has no bearing on the words treated by Bernal, which all had only one labiovelar. In any case, he seems not to take his own statement about the use of *qa* and *qo* in foreign words very seriously, for he disregards it in examples like *phásaganon* "sword," allegedly from Semitic **pšg* (BA 2:372) but spelled with *pa-* in Mycenaean, and *Poseidōn* "Poseidon," allegedly from mixed Egyptian/Semitic *pš(w) Sidōn* "he of Sidon" (BA 1:67) but spelled with *po-* in Mycenaean.

19. A possible IE etymology is given in Peters 1980, 185 n. 140.

20. "Velarization" refers to a retraction and raising of the back of the tongue, such as that which accompanies the "emphatic" consonants of Arabic (*ṣ, ṭ, etc.*).

21. The representation of Eg. *ḥ* by Gk. *kh* is independently documented in *pskebēt* < *pš šbnty* (cf. above). Note, however, that Bernal's derivation of Gk. *l* from Eg. *š*—like his parallel claim for Gk. *r*—is unsupported by any reliable examples.

22. Probably the most widely used textbook of historical linguistics in the United States at the present time is Hock 1991. More elementary, but still serviceable as an introduction to the comparative method, is Arlotto 1971. Pedersen 1931 gives a dated but valuable and informative history of Indo-European studies in the nineteenth century; his account of the period is a useful corrective to Bernal's.

23. Purported ancient inscriptions in unknown or hard-to-read scripts—sometimes genuine, sometimes not—have long served as a lightning rod for fringe scholarship. For every good decipherment there are innumerable bad ones, many of which can be dismissed on linguistic grounds alone.