HARNESSING PHUSIS: THE IDEOLOGY OF CONTROL
AND EXPLOITATION OF THE NATURAL WORLD AS REFLECTED
IN TERMINOLOGY IN THE LINEAR B TEXTS DERIVED FROM
INDO-EUROPEAN *hheh2u - 'GROW, ARISE, BE' AND *h2eg-ro-
'THE UNCULTIVATED WILD FIELD' AND OTHER ROOTS
RELATED TO THE NATURAL ENVIRONS

"Understanding the past requires pretending that you don’t know the present. It requires
feeling its own pressure on your pulses without any ex post facto illumination. That’s a harder
thing to do than [one might seem] to think."1

"Sunken City turned out to be the perfect place to...look around at a vanished
neighborhood and realize that nothing is forever, and you can’t fuck with Mother Nature, who
is one scary bitch that can sweep you away with the tides."2

The Linear B tablets focus unrelentingly on things, animate and inanimate, both natural
things and things altered by human action, and on where these things are and where they have
been and where they will be, and who did and is doing or will be doing what to them, and how
and why. Nevertheless, after sixty years of studying the Mycenaean economic records, we have
a clearer sense of the social and human values of the Mycenaeans, the ideologies constructed
and projected by their elites, and their religious, political and social practices. The topic of this
Aegaeum conference, φύσις (phusis), gives us the opportunity to look at what the Linear B texts,
datable to the 14th and 13th centuries BCE, reveal about how the Mycenaeans of the palatial
period altered the physical world in order to live within it.

It is right that we look to the words in the Linear B texts for clues to understanding how
the Mycenaeans conceived of what they were doing in organizing themselves within the world
around them. Jacques Derrida identifies naming as an act of ‘originary violence’. “Naming,”
according to James Dawes, “is a strategy that one deploys in power relations”; names “institute
violent binaries”; “[n]aming is authority’s attempt to categorize and control difference.”3

By focusing on what Mycenaean tablet-writers thought was important about activities
involving what we call the physical environment and natural-resource base of the palatial
territories, and by doing so, as much as possible, as an effort to understand the past on its
own terms, we may be better able to assess how the Mycenaeans conceived of and lived in
what we call ‘nature’. Citing Derrida and Dawes, or later in this paper Homer, Hesiod and
Euripides, is not ignoring Fussell’s advice not to transport ex post facto ideas and values into
our interpretation of the, in this case, Mycenaean past. The Greeks themselves grasped the
essential binary violence in naming things ‘this’ and ‘not this’.

The Greeks understood that human existence was based on the principle of eris,
competition of human beings and human groups with one another, in other words, binary
conflict. This principle of eris, as we see clearly in Hesiod’s Theogony, also operated among
divine beings. The Greeks viewed the societies that human beings construct as different forms
of a ceaseless violent reaction, albeit normally necessary and protective, directed against chaos-
producing and often destructive natural forces. Hesiod, again, but this time in the Works and
Days, in his myth of the five ages of human beings, puts forward the historical view that societies
and cultural periods are unstable and susceptible to decline, collapse and replacement.

Especially in the difficult environment of the Balkan peninsula, human societies could
develop and thrive only by asserting directed and controlled human power over the natural
world. Naming things that were ‘wild’ and then differentiating them, by name, from what they

became under human influence set up the binary contrasts between 'the civilized' and 'the uncivilized' that were maintained by exertions of power on both sides—the automatic assertive violence of nature and the subduing violence of human control. We see this clearly at the beginnings and ends of natural and human processes, in this case, during the formation of Mycenaean palatial society and in the period of its dissolution.

In historical times, the Greeks did not use the term phusis to denote what we call 'the state of nature', the wild and difficult forces that human beings have to dominate and tame. The term phusis is derived from the Indo-European root *bhēh₁u-, which in its transitive (factitive) verbal forms means 'make to grow, beget, bring forth' and in intransitive and middle forms 'grow, arise, spring up, become'. In its long history, the term phusis develops in meaning from 'growth, origin, the natural form or character of a thing because of its growth' much later to the 'regular order of nature' or 'nature as an organizing power'.

The word that comes closest to capturing the totality of nature for the Greeks is probably γῆ 'earth' (gē), which in the suffixed form Ἄια (Gaia), is the 'originary' entity that, in Hesiod's account in the Theogony 116-118, comes into being next (ἐπείγετα) after the principle or natural force called Χάος (Khaos or 'separation') has come into being πρῶτα 'first-est'. It should be noted that the word γῆ is absent from the Mycenaean lexicon, undoubtedly because it is too 'cosmological' and 'totalistic' to fit into the particular and locally focused records of activities that were of interest to the palatial centers and the networks of control that operated at all levels of political, social and economic organization within palatial territories. It is well known that even Demeter, the divine manifestation of agricultural nature, is not attested in the Linear B texts.4

As a principle in itself, Khaos contains the implication of the force needed to create separation and division. We see this in terms like ὁρός (horos) 'boundary' or 'border', the line of separation or demarcation that has to be fixed or drawn (or alternatively 'removed, torn out, taken away, eradicated'). ὁρός is attested in an early form in the Mycenaean term ωβώς (= ωρώνος ρόφος) that is connected with Greek ἔρω 'to draw or tear' and Latin urvare 'to mark out a boundary with a furrow'. It is found in the Pylos An, Cn and Na series post-positioned after personal names in the genitive in phrases that are used as toponymic designations.

The related term ωβών-ια, best interpreted as part of the toponymic phrase designation ne ωβών-ια in one of the Pylos o-ka texts (PY An 656.7), is ambiguous as to whether it is a neuter plural τὰ ῥώπια 'the borders'5, perhaps understood in Mycenaean usage in a collective sense as in later Attic τὰ ὁρα 'the frontier', or a feminine singular ρόπια historically attested epigraphically as 'boundary'. (See also ko-ro-jo-ωβών-ια on PY Mn 456.3; ru-ke-ωβών-ια on Na 1053.)

The toponymic phrase on An 656.7 unfortunately has a rather inscrutable first element, too: ne ωβών-ια, ne ωβών-ια appears in only one other text (PY Ag 218.3), where it specifies the location of a priest (hieros) in a list of five single men under the ambiguous, for us, heading ό-δα-ι-ς , a-nav-κ-, o-περο-τε, meaning; 'and thus being obliged to 'bring tribute ' or 'make an offering' or 'lead forth an expedition' or even 'lead forth ships'.

Geographical studies suggest that ne ωβών-ια and ne ωβών-ια ωβών-ια lie in the more northern sector of the Hither Province of Pylos, in the zone defined by the Neda River and the town of Kyparissia. The two most attractive interpretations of the toponym ne ωβών-ια, from my point of view, would make sense of its use with the term ωβών-ια on An 657. These are (1) ne ωβών-ια < *ne ωβών-ια = Νέφοικότας or ύν < Νεφοίκοτας or ύν = the place that is 'newly inhabited or settled'; and (2) ne ωβών-ια = Νέφοφικότας or ύν = the place that is 'newly divided'.

A new settlement or one that newly had its land partitioned for use by the local dámοs (land distribution authority) would be just the kind of community within the natural territory of Pylian Messenia to emphasize its boundary divisions or to be newly situated on the frontier of

5 F. AURAJORRO, Diccionario micénico, volume 2 (1993) 450, s.v., for scholarly opinions and citations.
a province or of one of its internal districts, even on a division between the settled community and the unsettled land.

In a few tablets from Knossos and Pylos (KN C 911 and Uf 856; PY Ae 124), the Mycenaean texts register an official known as a wo-we-u (= ἱφρυξός, ὁφρυνευς) whom Michele Lejeune defines as a person put in charge of inspecting or make improvements upon land plots: "le préposé au ἱφρυξός, chargé de le surveiller ou de le mettre en valeur." Lejeune’s proposed meanings are deduced from practical associations that an individual designated as ‘the person having to do with boundary marking’ (the basic meaning of the root and its -eus suffix) might have. The three Linear B texts in which the term occurs do not offer much in the way of contextual information. On Knossos tablet C 911, we have an entry:

\[\text{po-ri-wo, su-ki-ri-tajo, wo-we-u CAPm 180}\]

*Πόλιφός, ἱφρυξός of (TN) *Συγριτα(i) = Συβρίτα or Σύβριτα

Mr. Gray, boundary inspector vel sim. of Sybrita HE-GOATS 180

The Mycenaean toponym here is associated with a site in the Amari valley. Other entries on C 911 list sheep and goats associated with persons who are identified as do-e-ro (servants or slaves) of other individuals or as po-ku-ta (an official, religious or socioeconomic title of uncertain meaning).

At Pylos (PY An 172.1 and Jn 658.8 and 725.7) individuals who are a ra-pte (leather stitcher) and a ka-ke-u (bronze worker) are named wo-wi-ja-ta (= Worwiatas = Forpíaρας) which is generally interpreted as an ethnic, i.e., a toponymic adjective based on wo-wi-ja as place designation. At Knossos an individual associated with flocks of sheep and wool is recorded at the site of ku-ta-to on two tablets (KN De 5228 and Dk 1071) simply by the name wo-wo = worwos ἱφρυς. To name a child ‘Boundary Marker’ is a forceful indicator of the importance of the concept and device in Mycenaean society.

In Euripides’ Trojan Women, Cassandra notes with irony that the Achaean forces came to Troy and landed on the Scamandrian headlands, bringing to bear all their mighty military violence without any actual ‘violent binaryism’ having been called into being and none calling for so forceful a response. They came (lines 373-375) as follows:

\[\text{καὶ ταῦθ’ ἑκούσης κοῦ βίαι λειπαμένης, ἐπεὶ δ’ ἐπ’ ἀκτάς ἠλυθὸν Σκαμανδρίῳς, ἐθνησκον, οὔ γῆς ὅρι’ ἀποστεροῦμενοι}\]

And [Helen] did these things willingly and not taken as plunder by force. But when [the Greeks] came to the headlands of the Scamander river, they were dying, not being robbed of the boundary markers of the earth.

The focus here is on the human-installed boundary markers (τὰ ὅρια) signifying and defining, in the historical period, the fundamental possession that is the basis for life and for the social life and livelihood of an adult male citizen and his family and extended clan: the κλῆρος, a word not found in the Mycenaean lexicon because the more or less ‘private’ parcel belonging to the family (oikos) or clan (genos) either did not yet exist or lay outside the interests of central palatial records. The basic notion here is hard for us to grasp because it is so primal and foreign to our way of thinking. It requires that we practice Fussell’s approach to history—feeling its own pressure on our pulses without too much ex post facto reasoning. I will try.

Earth (γῆ) is the primal permanent form of nature, the thing that is and was and will be. It is immovable. It cannot become a private possession, in the sense of being a true piece of personal property that can be carried away. It is not a ‘movable’ (see French meuble and

German Möbel from Latin mobilis) in the sense that all the other raw materials, manufactured objects, animals, human beings and plant products that the Linear B texts record are ‘movable’. There is in fact no ideogram or logogram in the Linear B sign repertory for ‘earth’ or ‘plot of land’. Land is not even spatially measured. The extent of landholdings and the obligations and rewards attached to landholdings are calculated in terms of the seed grain required to sow the fields and produce cereal crops (PY E- series generally). Fig trees and grape vines upon a landholding can also be tabulated (PY Er 880). They are, albeit natural, impermanent and detachable appendages to the land.

Gaia (earth or γῆ as a somewhat more abstract entity) in the oral poetic song tradition realized in Hesiod’s Theogony is πάνων ἔδωκ ἀσφάλεις αἰὲί ‘the eternal immovable seat of all things’,7 the material world with the emphasis upon the lasting security and steadiness of its ‘matter’ and described by a privative form of the negative quality that γάια defies. Gaia is ἀ-σφαλῆς (cf. later Greek ἀσφάλω ‘to bring down, ruin’, middle voice ‘go down, be ruined’). Gaia is not ‘unstable, insecure, capable of being overturned or overthrown’. What can come and go and change is what human beings do to the land; and those human beings themselves pass on. Generations of human beings are like trees and their leaves that come and go as part of the natural process that is φύσις:

οἷα περὶ φύλλων γενεὴ τοῖν δὲ καὶ ἀνδρῶν.
φύλλα τὰ μέν τ’ ἀνέμοις χαμάδες χέει, ἄλλα δὲ θ’ ὑλή
tηλεβόσω φύει, ἑαρὸς δ’ ἐπιγίγνεται ὄρη;
ὡς ἀνδρῶν γενεὴ ἥ μὲν φύει ἥ δ’ ἀπολήγει.

Iliad 6.146-149

As is the generation of leaves, so is the generation of men. As for leaves, some the wind pours upon the ground, but others the woodland, when blossoming, brings forth (phuēi), and the season of spring comes into being; so the generation of men, the one puts forth (phuēi) and the other leaves off.8

The Mycenaean Greeks knew all about the difficulties of imposing and maintaining order, the constant social energy that it takes to defy entropy. Even something as simple as keeping clear which parcels of land were designated for use by which parties and under what terms, required placing and maintaining ‘boundary markers’ as indicators of authoritative separation and having an official designated as ‘the person who has to do with worwos’.

This notion survives into the historical period when Solon can solve an economic crisis that was caused by conditions of inalienable land ‘ownership’ by removing the horoi, which, in his propaganda, represented the devices that those with wealth and power used to enslave the land of those who were poor and who had fallen increasingly over time into an agriculturally determined indebtedness. The horoi and the indebtedness they implied were a terrible burden upon the land that had to be shaken off through measures that Solon called the σεισάκθεια (seisakhthēia). The fact that Poseidon is called ἔνοσικθων (enosikhthōn) in Homer and σεισίκθων (seisikhthōn) in Pindar drives home how strong the concepts to ‘fix a boundary marker’ and then to ‘shake a boundary marker’ off were. In his poetic song message, Solon, through the resonance of seisikhthōn and seisakhthēia, was linking the impact of his measure with the terrible power the god Poseidon wielded over the earth.

The Greek terms for ‘earth’, γῆ (γῆ) and γαία (gaia), are missing from the Linear B texts. The term that is used in historical Greek culture (and even in modern Greek) to refer to the natural territory controlled by the communal political entity (ancient Greek πόλις and

7 See M.L. WEST (ed.), Hesiod Theogony: Edited with Prolegomena and Commentary (1966) 193-194. It is to West, and to me, clear that the word πάνων in line 117 can be taken independently in that line as meaning ‘of all things’, as well as then being taken with ἀθάνατον in line 118.
8 Notice here that the verbal form φεύει in lines 148 and 149 seems to be first transitive (148) and then intransitive (149), although one can understand metaphorically the word φύλα (for τέκνα) in line 149 after φεύει and the word φύνωνα after ἀπολήγει and thereby make both occurrences of φεύει transitive. The translation of line 149 would then read: “so the generation of men, the one puts forth (phuēi) its leaves (i.e., children) and the other stops putting them forth"
the modern Greek nation), namely χώρα (Ionic χώρη), is also missing. It might be implied or understood in cases where geographical adjectives refer to a particular locale. Take, for example, the term used to designate the important palace-associated religious district in the Pylos texts. This area of religious shrines is referred to in the texts in one of three ways:

1. **pa-ki-ja-ne** = Sphagiânes, an ethnic plural form, perhaps the primary term in the Mycenaean lexicon;
2. **pa-ki-ja-na** = Sphagiànà, a place name with a pre-Greek -ānà suffix; and
3. **pa-ki-ja-ni-ja** = Sphagiànià, likely first a toponymic adjective derived from (2) with a feminine noun like γη or γαία or χώρα understood.

There is a single reference in the Linear B tablets, in a Pylos land document Eq 146.2, to the masculine term χώρος (khôros = Mycenaean ko-ro) generally considered to be in the genitive plural. Since in historical times the term designates 'space or room in which a thing is' or 'partly occupied space', in the Mycenaean period, it would seem to designate some form of demarcated and man-utilized area of land.

It is beyond the scope of this paper to analyze the full list of landholding terminology used in the Mycenaean lexicon for those parcels, mainly under the control of a local dámòs (deh2-mo-s meaning originally something like 'the thing partitioned or divided' and coming to stand for the collective land of the community as opposed to the settled 'town' area =? wasitu = ἔκτασις). Such terms categorize land that has been taken out of nature, separated off and brought under the control of human society. Among such terms, we find a patent example of the importance of the principle of separation as a civilizing force imposed upon the natural world: the word te-me-no. It is used by the Mycenaeans to designate the special portion of land set aside for the wànaks and the látwàgetàs. te-me-no = temenos, later Greek τεµένος, coming from IE *temh₁, literally 'a portion cut' from the land in general.

What about land that either is still in a 'state of nature' or potentially has even reverted to it, i.e., land that is not subject to systematic agricultural use?

In the Linear B texts *h2eg-ro- 'the uncultivated wild field' (historical Greek ἄγρος) stands in opposition to the plowed and cultivated field ἀροῦμα from IE *h2erh₃- 'plow'. Thus what is wild and uncivilized, untamed and undomesticated is ἄγρος.

There are also traces of two other kinds of land areas that belong to nature. The historical Greek word for 'forest, wood, timber' (and seemingly coming from a root meaning 'firewood') ὕλη (see Ιliad 6.147 cited and discussed above) is found in the man's name ura-jo on Knossos tablets Bk 799 (a long list of single men) and Dv 1190 (a herd-possessor at the site of ra-su-to with a flock of 100 sheep) and also at qa-ra (Db 1265) and gasaro-we (Db 1329). Other men's names from the same root u-ro₂ (Hullos< Hul-yos or -yôn Knossos tablet Db 5367 a shepherd at ra-to) and u-re-u (Pylos tablet Vn 865 in a list of naudomoi 'ship builders') confirm the importance of the concept of the forest as producer of firewood. See also KN As 1516.6 and Da 1315.B ura-mo-no (= ? Hulamnos) and the possible toponym in the Pylos flax texts Na 466 and Na 1086: u-ra-*86 (and ?u-ra-[*86].

In historical times, the term ἄγρος, as is well known, stands for farm land, which, in contrast to the developed areas of Greek poleis and towns, is still, relatively viewed and relatively speaking, 'wild'. Given the rich vocabulary for such cultivated plots and areas, it is, again in my view, more likely that in the Mycenaean period the term a-ko-ro still retained the idea of being wild terrain. Nothing is foolproof or absolutely demonstrative, but in two instances in the Pylos tablets, important districts ro-u-so and pa-ki-ja-na are referred to not in and of themselves—and pa-ki-ja-ne is the district for which we have the fullest recording of landholding plots (ke-ke-me-na, ki-ti-me-na, ka-na, o-na-to, ko-to-na, o-na-to)—but as rousi-so a-ko-ro and pa-ki-ja-ni-jo a-ko-ro.

In the case of rousi-so a-ko-ro on PY Vn 10, it is an area that provides raw timber pieces (in the first section of the tablet provided by du-ru-to-mo, 'woodcutters') to the 'joinery workshop'. That the Δούσιο ἄγρω was forested adds some weight to viewing this area as outside habitation
and cultivation. _rov-usi-jo a-ko-ro_ provides sage-scented oil as religious offerings on PY Fr 1220 and Fr 1226 and figs on PY Un 47. Similarly _pa-ki-ja-ni-jo a-ko-ro_ provides sage-scented oil on PY Fr 1236. We might suggest that olives and figs located on terrain that was outside of community-developed plots produced the oil and figs.

Nothing in the realm of personal names speaks against the term ἄγρος in the Mycenaean period having the meaning, effectively, of land still in a 'natural', state. The overseer or owner of a flock of 200 male sheep (or wethers) on KN Da 1079 is named a-ko-ro-qo-ro (= *Agrogwolos = ἄγρώγλωλος = later Greek ἄγρώτολος). The names means something like 'he who frequents the wild regions'. Likewise in the KN Mc tablets, an individual who is listed with goats, wild-goat horns, hides and other natural products (*142 'sinews from a goat' and *150 'goat hide') from animals that could be out in rural locales, is named a-ko-ro-ta (= *Agrotas = ἄγροτας). It means 'the man of the wild area'.

Consistent with our proposal for the semantics of _a-ko-ro_ in the Linear B texts and late Mycenaean palatial period would be to interpret the man's name a-ko-ro-da-mo (KN B 1025.b) not as ἀγρόδαμος, i.e., as 'he who has a high position in the _damos_9', but as ἄγροδαμος in the sense of 'he who tames or subdues the wild territory' (from *demh₂-). We might compare in structure and meaning the Homeric ἰππό-δαμος 'horse-tamer'.

Let us discuss one more term for areas that, like, in my opinion, _a-ko-ro_, lie outside the control of, or avoid full exploitation by, the regional cultural systems of the Mycenaean palatial period. The term is _e-re-mo._

In historical Greek ἔρημος means 'lonely, uninhabited, deserted'; and a related abstract word ἔρημία means 'loneliness or solitude'. Both come from an IE root *h₁r(e)h₁- 'loose, rare, separate'. The context of the one occurrence of a related word in the Linear B tablets makes its identification and meaning virtually certain. Pylos tablet Er 312 lists sizes of landholdings and associated personages who symbolize the whole community. These are in order in the first section: _wanakteron te menos_ GRA 30; _lawagesion temenos_ GRA 10; and in the second section _three_ _te lestai_ holding together (as representatives of the _damos_) GRA 30; and lastly the _wo-ro-ki-jo-ne-jo eremon_ GRA 6. This land designation corresponds to a _wo-ro-ki-jo-ne-jo kama_ on Pylos tablet Un 718.

Stavroula Nikoloudis has studied most recently these tablets in connection with the activities and status of the _lławágéstas_ and groups of 'incomers' clearly identified in other registers of groups of men. The group that is assigned the _wo-ro-ki-jo-ne-jo e-re-mo_ land is marked out for a kind of marginal 'otherness' and lower socioeconomic status in contrast with privileged 'ruling' authority figures. It would not be surprising if this group had been assigned land that was desolate and not ever used because of its poor natural features or out-of-the-way location, or land that been deserted because of its substandard characteristics.

We might slightly prefer the second explanation, because it would set up a convincing contrast. The _a-ko-ro_ land would be land that was naturally uncultivated and undeveloped, perhaps used for grazing of herd animals like goats, the realm of _a-ko-ro-ta_ in the Knossos tablets. It would have woodlands, stands of trees where raw timbers for chariot manufacture or logs for firewood could be cut. The _e-re-mo_ land, if Nikoloudis is right about its assignment to marginalized, immigrant people, might well be land that others had tried agriculturally to exploit, but had fallen into disuse, become abandoned, and was being 'recycled'.

In a more extreme form, the god Poseidon in the prologue to Euripides' _Trojan Women_, speaks of another way land that had once been used by human society can become ἔρημος:

> μόρος δὲ θητῶν ὅστις ἐκπορρῆει πόλεις
> ναιός το τύμβους θ’, ἱερά τῶν κεκμηκότων
> ἔρημια δοῦς <σφ’> αὐτὸς ὀλεθ’ ὑστερον.


10 S. NIKOLOUDIS, _The ra-wa-kêta, Ministerial Authority and Mycenaean Cultural Identity_ (Ph.D. University of Texas at Austin, 2006) 84-95.
A fool whoever of mortals utterly lays waste to cities
and temples and tombs, holy places of those who have died\textsuperscript{11};
having given them to desolation (ή ἔρημία in dative) he himself later perishes.

Here we see three degrees, as it were, of devastation and making desolation. This passage provides the final pieces of the jigsaw puzzle that is a Mycenaean palatial territory: natural space used to commune with the divine and with the dead. The palatial system harnessed nature for human society. But this system was itself destabilized and destroyed.

Violent force can be used literally to devastate three kinds of land use: the land that human beings occupy and use for their purposes as living beings (πόλεις); the land that human beings set aside for the gods to dwell in (in the Mycenaean period we know there were νάρτες spread throughout palatial regions\textsuperscript{12}); and the sacred places reserved for the use of the dead (τύμβοι).

Thomas G. PALAIMA

\textsuperscript{11} κεκομκότων 'being dead', literally and more than euphemistically, 'being worn out'.
\textsuperscript{12} Such areas set aside for the gods can also each be designated as a τύμβος, like the land allotted to powerful human figures in PY Er 312.