Making Sense of Nonsense Inscriptions
Associated with Amazons and Scythians on Athenian Vases

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Abstract: More than 2,000 "nonsense" inscriptions (meaningless strings of Greek letters) appear on ancient Greek vases. We ask whether some nonsense inscriptions and non-Greek words associated with figures of Scythians and Amazons represent meaningful sounds (phonemes) in foreign languages spoken in "Scythia" (Black Sea-Caucasus region). We analyze the linguistic patterns of nonsense inscriptions and non-Greek words on thirteen vases featuring Scythians and Amazons by otherwise literate vase painters (550-450 BC). Our results reveal that for the first time in more than two millennia, some puzzling inscriptions next to Scythians and Amazons can be deciphered as appropriate names and words in ancient forms of Iranian, Abkhazian, Circassian, Ubykh, and Georgian. These examples appear to be the earliest attestations of Caucasian and other "barbarian" tongues. This new linguistic approach to so-called nonsense inscriptions sheds light on Greco-Scythian relations, literacy, bilingualism, iconography, and ethnicity; it also raises questions for further study.

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Is it possible that some foreign names or words with roots in ancient Iranian, Abkhazian, Circassian, or any other languages of the Black Sea-Transcaucasus region (part of ancient "Scythia") were transliterated into Greek script on Attic vases? This paper focuses on a group of puzzling inscriptions spelling out non-Greek names and strings of Greek letters that do not match known Greek words (commonly known as "nonsense" inscriptions).[1] More than 2,000 nonsense inscriptions (about one-third of all known Attic vase inscriptions) have been catalogued, yet they are little studied.[2] Several categories of nonsense inscriptions can be defined; Immerwahr identifies "mock and near-sense inscriptions, meaningless inscriptions, imitation inscriptions or letters, and blots or dots." But it seems worth asking whether some foreign names and non-Greek words might have been inscribed on Athenian vases. As far as we know, however, no one has yet undertaken a systematic linguistic investigation of so-called "meaningless" vase inscriptions accompanying depictions of foreign figures.[3]

In this preliminary study, we look at a set of vases (ca 550-450 BC) that have cryptic strings of letters or foreign-sounding words associated with depictions of Scythians and Amazons. "Scythian" is a conventional term for the extensive network of loosely connected, culturally similar peoples of the Black Sea-Caucasus-Caspian-Altai region; it

was a fluid term even in antiquity. In relation to the vases, we use "Scythian" to refer to male archers wearing distinctive Eastern attire: quiver; soft, pointed cap with or without lappets; belted, patterned tunic and/or leggings; and/or soft, cuffed boots). "Amazons" are women warriors of Greek myth inspired by the lifestyles of nomadic Scythians, and in Athenian vase painting they are often similarly attired. We ask whether some of the "nonsense" inscriptions associated with these figures might be instances of glottographic writing. Were some vase painters attempting to render phonetically in the Greek alphabet the sounds of words in a language they heard spoken but perhaps did not understand? Are some foreign-sounding names on vases meaningful in non-Greek tongues? Answering these questions should be of interest to classicists, ancient historians, art historians, vase scholars, epigraphers, and linguists. It is also relevant to the question of whether distinctive Scythian-style costumes depicted on vases indicated the ethnicity of the wearers.

Textual and archaeological evidence points to an "extremely close but uneasy" relationship between Greeks and Scythians in the sixth and fifth centuries BC, followed by a period of "intense mutual integration and trade" in the fourth century BC. The various tribes of "Scythia" (the Greeks' catch-all term for the lands stretching from the northern Black Sea and Caucasus to the Caspian Sea and beyond) aroused interest and curiosity among classical Greeks. Literary and artistic evidence demonstrates that a rich imaginary realm was created for legendary Amazons, who were strongly associated with Scythian culture. Male archers in Scythian costume and Amazons began to appear on Athenian vase paintings by about 570 BC. Male archers in Scythian costume faded from favor by the time of the Persian invasions (early fifth century BC), but Amazons in "oriental" (Eastern) costume remained extremely popular in vase paintings well into the fourth century BC.[4]

Greeks and Scythians: Myth, History, Literature, and Art

In the current thinking of Greek historians, Scythian individuals were on occasion present in sixth-century Athens, and Greeks, especially those with ties to Black Sea colonies and trade, were aware of Scythians during the period of the vases under consideration here. Images of male archers in Scythian attire on sixth-century Athenian vases were long taken as evidence for a historical Scythian presence in Athens. Notably, the distinctive hats and zigzag patterns worn by Scythians and Amazons in vase paintings match the tall pointed hats, patterned textiles, and other artifacts that have been discovered in ancient Scythian graves of the sixth to third centuries BC. But the Structuralist school of iconographic interpretation puts strong emphasis on interpreting Scythians and Amazons in terms of symbolic "Otherness," and in recent decades, vase-painting scholars have proposed alternative approaches to comprehending the appearance of these figures. Rather than focusing on the elements of their clothing as possible markers of ethnic identity, the figures in Scythian garb are now studied in the context of the scenes in which they occur as well as the figures that they accompany. There is, therefore, a strong tendency to see these "Scythians" not as representative of Athenian historical reality, but as the "Other" or as markers of myth or epic. François Lissarrague, for example, maintains that Scythians stand for "outsiders" in Greek art and that some nonsense

inscriptions somehow functioned to jog the viewer's memory of a mythic story. Building on Lissarrague's structuralism (and on an idea first advanced by Plassart in 1913), Askold Ivantchik holds that the Scythian attire of male archers on vases, even those with non-Greek facial features and/or labeled with Scythian names, was not a marker of ethnicity, but was rather an artistic convention to indicate low-status Greek archers.[5] However, if some vase inscriptions associated with male and female (Amazon) archers in Scythian costume can be deciphered as genuine "Scythian" words, then it seems plausible that foreign ethnicity was implied at least in some cases.

More than 130 names for Amazons are known from ancient Greek literature and art, and the majority–about 70—are known only from their occurrence as labels on Greek pottery. Ivantchik maintains that "all the known names of Amazons, including those which have survived on vases, are Greek." While names assigned to Amazons in literary sources are etymologically Greek, the "purely Greek character" of Amazon names on vases is questionable. Some, such as Andromache, Hippolyte, and Antiope, are indeed familiar from ancient Greek literature. But other Amazon names on vases are non-Greek, such as Skyleia and Barkida (discussed below). Likewise, some names, such as Skythes and Kimerios, attached to males in Scythian attire allude to non-Greek ethnicity (about 400 such figures survive on pottery, although they can sometimes be difficult to distinguish from Amazons and other foreigners).[6]

Greeks applied the word "barbarian" to non-Greek-speakers. Greeks made contact with Scythians in the eighth and seventh centuries BC and by the sixth century BC, Greeks had established many colonies around the northern Black Sea coast. (MAP 1) Interactions with various tribes of Scythians along the coast and further inland resulted in exchanges of goods, folklore, people, and languages. Many of the household and public slaves in Athens originated in the lands around the Black Sea. Foreign words, names, and oral traditions entered Greek culture through contacts among traders, sailors, travelers, slaves, and colonists. Some non-Greek names from the Black Sea region are preserved in Greek mythology: examples include Circe, "the Circassian"; Medea of Colchis (now Georgia or the Abkhazian coast), whose name is probably Iranian; and Medea's brother Apsyrtos, whose name is Abkhazian. The Greek trading colony Dioscurias (modern Sukhum, Abkhazia) was established in the mid-sixth century BC on the Black Sea between Colchis and the Taman Peninsula; it was just one of many early Greek outposts where various Scythian dialects could be heard.[7]

Literary evidence suggests that Scythians and their neighbors, though exotic, were not unheard-of in Greece. According to Plutarch, Herodotus, and others, Anacharsis, a Scythian-Greek sage from the northern Black Sea region, visited Athens in the early sixth century BC and became friends with the Athenian law-giver Solon. Anacharsis son of Gnurus was the brother of a Scythian chieftain named Caduides ("Offspring of Battle," Middle Iranian). Anacharsis's mother was Greek and he understood both Scythian and Greek. According to one source, he spoke a broken form of Greek among the Athenians, just as the Athenians spoke a broken language among the Scythians. Foreign tongues were heard in Athens when envoys from Persia and other lands visited Athens. Herodotus, for example, describes Miltiades (son of Kypselos) welcoming to Athens a

party of foreign-garbed chiefs of Dolonci (Thracians from the Chersonese, Gallipoli Peninsula) who traveled to Delphi and then marched along the Sacred Way to Athens in the mid-sixth century. We also know that a group of Scythian envoys stayed in Sparta as guests of King Cleomenes (ca 520-489 BC).[8]

In 546-510 BC, the Peisistratid tyrants of Athens are said to have employed about 3,000 non-Greek horsemen, soldiers, and personal retainers from Thrace (parts of which were influenced by Scythians); if so, perhaps some Scythians were among them. These barbarian troops are sometimes identified as archers, but the exact details and numbers are hazy. Beginning in about 530 BC, a number of vase paintings show Scythian-attired archers serving as personal attendants/companions in the immediate entourage of Greek hoplites. Two Athenian orators, Andocides and Aeschines, report that some time after the Battle of Salamis (490 BC), Athens acquired 300 Scythian archers as public slaves who served as soldiers and police in Athens. These specific groups of Thracians and Scythians are not attested in literature until about 476 BC, and their presence, if anything, corresponds to a falling off of male Scythian-dressed figures in vase painting. But it seems safe to assume that some Iranian-influenced dialects and other western Caucasian languages were heard in the Athenian Agora and in ports and emporia by the late sixth/early fifth centuries BC. By the mid-fifth century BC, Scythians began to appear as characters in Greek plays, mocked for their rustic ways and harsh accents.[9]

Again, it is important to remember that the Greeks thought of all of the diverse tribes of the northern Black Sea, Caucasus, and steppes as "Scythians," much as Europeans used the term "Indians" for New World tribes and employed "Africans" as a collective noun. The ethnicity and dialects of foreign archers "from Scythia" seen and heard in Attica would have been mixed. Relationships with Scythians and their neighbors are evident in non-Greek names for Greeks in ancient literary sources. Some of these names reflect mixed ancestry, while others indicate non-kin relationships with foreigners via strong social bonds of friendship, guest-hospitality (*xenia*), foster-parentage, education, trade exchange, alliances, or other mutual ties. In either case, the names were not random but referred to non-Greek ethnicity. Intermarriage, often based on trade alliances, occurred between Greek and Scythian men and women in Athens and in Black Sea colonies. For example, the Scythian king Skyles (b. late sixth century BC, discussed further below) had a Greek-speaking mother and took a Greek wife in the Greek colony of Borysthenes (near Olbia on the Dnieper). The mother of Themistocles (b 524 BC), was said to be a Thracian named Abrotonon (loaned into Abkhaz and Abaza as /abra/ "Sky"). The father of the Athenian historian Thucydides (b. 460 BC), had a Thracian name, Oloros ("Glorious"). The mother of the Athenian orator Demosthenes was reputed to be a Scythian with the Greek name Kleobule (b. ca 405 BC), suggesting an ancestral marriage or trade alliance in the Black Sea area. Foreign slaves' names often indicated their origins, which might have been either their actual or supposed region of birth or else their place of purchase (enslaved people were often kidnapped and transported to different port cities). For example, Thratta or Thrassa ("Thracian female"), Syra ("Syrian female"), and Thrax ("Thracian male") were standard names of slaves in Athenian comedies. Examples of Greeks with foreign names include Lygdamis (after the seventh-century BC Cimmerian leader, "White/Shining Person," as in Celtic *lug*, English *light*, Alanic *ruxš*- "white,

western"), Kroisos (Lydian), Libys and Battos (Libyan), Lyxes (Carian), and Skythes (Scythian). Foreign names among Greeks could indicate kinship or friendship; the point is that they indicate contact and familiarity with Eastern peoples.[10]

The Scythian sage Anacharsis, mentioned above, was credited with introducing the potter's wheel to Greece, and several foreign-sounding names are known from the Athenian Potters' Quarter. Whether we can always discern ethnicity from names alone remains debatable, as for example, the potter named Amasis, a Hellenized form of the Egyptian A-ahmes (Ahmose, "Child of the Moon"), who was active ca 550-510 BC. However, some names clearly suggest some relationship to cultures and peoples beyond Greece, and particularly so when the name is an *ethnikon*. Take, for example, a contemporary of Amasis, another potter named Χολχος (Kholkhos). His name indicates a connection with Colchis (a proto-Circassian word for mountainous region, see below), and he signed an oinochoe attributed to Lydos ("the Lydian"). Although the social class of this Lydos is unknown, another, later vase painter called Lydos signed himself "Lydos the slave." At least one, possibly two, vase painters named Skythes worked in Athens in the Archaic period (520-510 BC), while Brygos, who signs as potter on Attic vases of the early fifth century BC, may be a non-Attic form of Phrygos ("the Phrygian") or it could indicate the Brugi of the ancient Balkans. At around the same date, the Syriskos/Pistoxenos ("Little Syrian"/"Trustworthy Foreigner") signatures (ca 480 BC) offer compelling examples of foreigners in the Potters' Quarters of Athens.[11]

Language Consciousness

"Language consciousness" in classical antiquity is highly relevant to this study of "nonsense" vase inscriptions in foreign contexts. Evidence suggests that many Greek residents and citizens, playwrights and audiences, and artisans and consumers were aware of and participated in a polyglot culture. For example, two of the inscriptions on the famous Arkesilas cup (ca 560 BC, a Laconian black figure vase with an Egyptian scene) are believed to be transliterated from Egyptian to Greek. Other examples of foreign language awareness include archaic Greek faience vessels produced by Greek artisans but displaying Egyptian cartouches, suggesting a kind of multilingualism on the part of the craftsman or the consumer.[12]

Reproducing foreign languages in Greek or non-Greek forms of writing was known in classical Greece. One of the earliest examples is given by Herodotus, who tells the story of a Greek oracle at Thebes that unexpectedly prophesized in a barbarian tongue. The words were recognized as Carian by a man who was present, and he wrote the prophecy down on a tablet. Herodotus also described firsthand three lengthy inscriptions in ancient Kadmeian (Phoenician) letters displayed in Thebes. A body of literary evidence from Greek poetry and theater demonstrates efforts to imitate with fidelity the sounds and even some vocabulary words from foreign languages, including that of Persians and Scythians.[13] In the sixth century BC, Herodotus reported that Darius I of Persia set up two pillars, one in Greek and one in Assyrian, at the Bosporus, naming all the nations serving in his army. Another significant piece of historical evidence shows that Scythians taught other ethnic groups their native tongue at an early date. Herodotus relates that in

the early sixth century BC, a group of Scythian nomads came to live in Ecbatana, Media, during the reign of Cyaxares (625-585 BC), where their duties were to hunt and teach aristocratic youth their language. After 590 BC, the Scythians relocated to Sardis, Lydia, under the auspices of Alyattes, where they presumably continued to teach their language.[14]

It is also significant for this study that names of tribes and places in several languages of ancient Scythia are preserved in classical Greek and Latin texts. In his ethnographic descriptions, Herodotus commented knowledgeably about the multitude of dialects spoken in Scythia and in the Caucasus, regions of incredible linguistic diversity. Relying on native informants and many translators, Herodotus recorded several authentic ancient Iranian and North Caucasian ethnonyms and toponyms. Examples of Scythian terms that entered Greek and Latin languages include *Arimaspi* (Iranian, "owners of wild horses"); *Tabiti* (the hearth goddess, Proto-Indo-European [PIE] for "heat"); *Aspurgiani* (Georgianized Mingrelian name with the Iranian root *asp*, "horse"); *Maeotis* (Circassian, "lake not dammed up," referring to the narrow Kerch Strait linking the Sea of Asov and the Black Sea); *Sarmatae* (Ossetian, "free men"); *Colchis* (proto-Circassian */q˚əλḥe/ Qutlha*, "mountains, montane region"); *Massagetae* (Iranian, "great clan"); *Issedones* (Iranian, "people of the icy river"); and *aschu* (wild cherry juice, *atschi* in modern Kazakhstan). The geographer Strabo, a native of Pontus in the first century BC, also preserved several local names from ancient Caucasian languages. For example, the Abasgoi, Αβαζγοι, was one of the tribes inhabiting the mountainous coastal region of Abkhazia. The name of a tribe in ancient Colchis associated with the Amazons—the Gargareans, Γαργαρείς—comes from the ancient Georgian word *gargar* "apricot" (apricots are believed to have originated in the Caucasus, introduced to Greece by Alexander the Great).[15]

Herodotus (and other writers) associated the Amazons with Scythian tribes. Herodotus reported that one Scythian name for Amazons was *Oiorpata*, which he translated as "Man-killer" but probably meant something along the lines of "Ruler/Preeminent Warrior." The name *Amazon* itself was not originally a Greek word, although a Greek meaning was invented in antiquity based on similarities to sounds in Greek. The most popular folk etymology was *a-mazos,* because *a* means "without" in Greek and *mazos* sounded to Greek ears a bit like *mastos*, the Greek word for "breast." This false etymology demanded a story and so gave rise to the erroneous idea that the women warriors must be one-breasted. Some modern scholars have proposed an ancient Iranian origin of *amazon* from *ha-mazon*, "warriors."[16] The Hellenized term *amazones* may have had multiple sources from related Eurasian languages. One likely source was Circassian /a-mez-a-ne/ the-forest (or moon)-intimate.prefix-mother, "The Forest Mother." Amezan was the name of a heroic horsewoman-warrior-queen of the Nart sagas, oral traditions that combine ancient Indo-European myths and North Caucasus folklore. The Circassian form is pronounced [*amezan*], last (*a*) long. The word probably entered the Greek language, along with stories about fighting women of the East, through the Black Sea trading ports where ancient Caucasian, Iranian, and other languages were spoken.[17] The timing is appropriate: women warriors first appeared in Greek art in the eighth century BC, and the first mention of Amazons in written Greek literature is in Homer's *Iliad*.

The non-Greek origins of the word *amazon* and the foreign words and names preserved by Herodotus and others raise an intriguing possibility. Did some of the names assigned by Greek writers and artists to individual Amazons also originate in the languages spoken by people of the Caucasus, Black Sea region, and Scythia? As noted above, many names assigned to Amazons are etymologically Greek. It is possible, but not provable, that some of these women's names were originally foreign and "loan translated" into Greek as calques. In other cases, non- or pre-Greek names might have been "rationalized," that is, made to look as if they were derived from Greek roots, as with the folk etymologies of "Aphrodite" and "amazon." Many Greek names of Amazons contain *ippe* or *hipp* ("horse"), reflecting the women's love of riding and equestrian skills, such as Xanthippe (Palomino) and Hipponike (Horse Victory). Others describe warlike traits, such as Andromache (Manly Fighter), or suggest character or virtue: Thraso (Confidence), Areto (Excellence). Still others are feminine versions of male names, such as Glauke and Alexandre.

As noted above, the Hellenized word *amazones* appears to have a Caucasian source, and in ancient Greek thought, Amazons were understood as somehow related to Scythians. Therefore, it seems reasonable to ask whether any of the strange-sounding "nonsense" inscriptions associated with Amazons and with Scythians on ancient vases could have been intended to represent genuine non-Greek words from the Caucasus and neighboring regions. This speculation would receive some support if we can find relatively non-problematic examples of names of Scythians or Amazons derived from foreign languages yet written in Greek on ancient artifacts.

Scythian Words and Names on Greek Artifacts

An inscription on a silver bowl excavated from a Sarmatian grave (first century AD) offers a late example: the rim of the bowl is inscribed with Greek letters spelling the names of the Sarmatian owner, Artheouazes (ancient Iranian for "pious") and the silversmith, Ampsalakos. On the base of a fifth-century BC cup from Kerch, the Iranian name of the Scythian owner, Akhaxis, is spelled out in Greek letters. A ring found in a Colchian grave at Vani (Georgia) is inscribed in Greek with "Dedatos." Two names in Greek inscriptions (AD 225 and 244) found in Tanais (on the Sea of Asov at the mouth of the Don), [Ἀ]ρδόναστος and Ἀρδοναγάρου, share the Sarmatian-Ossetian root for "having many arrows."[18]

Much earlier examples of barbarian-associated names on Greek artifacts occur on two vases by the Athenian vase painter Kleitias. Both vases present significant obstacles to Ivantchik's argument that no ethnicity is implied by Scythian attire. The famous black figure François Vase (ca 570 BC), signed by Kleitias, has the earliest images of Scythian archers in Greek vase painting. This large volute krater depicts more than 200 people, many with identifying inscriptions. In the scene of the mythic Calydonian Boar Hunt, three archers wearing pointed, Scythian-style caps attack the beast along with Atalanta and the other Greek heroes. The archers' names are Toxamis, Euthymachos, and Kimerios. Toxamis appears to be a hybrid name with the Greek prefix "arrow" and a

barbarian suffix; Euthymachos means "Good (Fair, or Straight) Fighter" in Greek. Although one must be cautious about assuming ethnic origins from Hellenized foreign names, the name **ΚΙΜΕΡΙΟΣ** would appear to identify the Scythian archer as a Kimmerian (Cimmerians, a Scythian tribe that invaded Asia Minor in the seventh century BC; the PIE root means something like "homesteader").[19]

Fragments of a black figure skyphos (570-560 BC) also by Kleitias depict an Amazonomachy (battle with Amazons). The Amazons are named Iphito, Telepyleia, and **ΣΚΥΛΕΙΕΙ**, Skyleiei (Skyleia?). This third name is of Scythian origin, a feminine form of Skyles, the name of the historical Scythian king mentioned above who learned Greek and took up Greek ways (ca 500 BC). A heavy gold signet ring with the Greek inscription "Skyleo" ("property of Skyles) was found near Istria, on the west coast of the Black Sea, his mother's home. The Greek letter forms date the ring to the end of the sixth or early fifth century. Coins bearing his name have been found at Niconium, Skyles' likely burial site.[20]

A little later than the two vases by Kleitias, a black figure neck-amphora (from Angers, unattributed, ca 550-500 BC) shows a fallen bearded archer in Scythian garb lying at the feet of two dueling Greek warriors. Inscriptions in Greek identify the duelers as Hector and Diomedes and the archer is labeled **ΣΚΥΘΕΣ**, Skythes ("the Scythian"). Whether this label indicates the archer's name or origin, it appears to allude to his ethnicity. These artifacts—a vase showing a fallen Scythian archer labeled "the Scythian," the silver bowl with Scythian ethnic names in Greek, a Scythian-attired archer named Kimerios ("the Cimmerian") on the François Vase, the vase fragment with the feminine form of the Scythian name Skyleia for an Amazon—were all made during the period of lively contact with Scythians and at the beginning of the great popularity of Amazon and Scythian figures in Greek art.[21]

Nonsense Inscriptions

We now turn to two examples of more puzzling "nonsense" inscriptions accompanying representations of Scythians and Amazons on vases. A fragmentary black figure pitcher in the Getty Museum collection (attributed to the Leagros Group, 525-510 BC) shows a pair of Amazons, one turning back to the other, who gestures (FIG 1). Letter strings next to their heads, **ΟΗΕΥΝ ΚΕΥΝ** (pronounced "oheun" and "keun"), appear to be meaningless. The Leagros Group vases are notorious for "nonsense" inscriptions, but a few contain recognizable Greek names and words. Henry Immerwahr, the noted Greek epigrapher, has speculated that the words on this pitcher could "represent" the Amazons' names. Another possibility is that the words represent the women's conversation (This is our Case 7, below).[22]

Next, consider a pair of archers in Scythian attire flanking a young Greek hoplite on a red figure amphora signed by the painter Euthymides (510-500 BC, this is Case 1, below).[23] The Greek putting on his armor is labeled Thorykion, "Breastplate" in Greek. The Scythian archer on the right is named **ΕΥΘΥΒΟΛΟΣ**, Euthybolos, "Straight-Shooter" in Greek. But the other archer's name is unintelligible; the Greek letters **ΧΥΧΟΣΠΙ**

would be pronounced something like "Khu-khos-pi." This is an example of a vase on which a non-Greek word appears along with Greek words on the same vase, indicating that the vase painter was literate (or at least able to copy texts). But why would an artist who knew Greek write a meaningless string of Greek letters?

Nonsense on vases has often been dismissed as the result of illiteracy or boredom, but sense and nonsense on a single vase presents a more complex matter. Henry Immerwahr has written extensively on literacy on Greek vases. His paper of 2006 identifies more than one hundred "nonsense" words. Among the explanations Immerwahr suggests for unintelligible words are jokes, visual or acoustic illusions, meaningless decoration, copyists' misspellings, deliberate or careless imitations of actual writing, pretense of literacy, and outright illiteracy. Immerwahr also points out that literate vase painters sometimes inscribed unknown words; his paper of 2010 lists vases containing a single nonsense word alongside good sense words. As Immerwahr remarks, in antiquity writing could have other purposes besides conveying meaning through words. Vase inscriptions, both sense and nonsense, were addressed to an audience; the words were not only read and sounded out, but they stimulated discussion among the viewers, as well as serving as another element in the decoration of the vessel.[24]

According to art historian Ann Steiner, "nonsense" words with "harsh 'ch' sounds" next to images of Scythians and Amazons on vases were intended as parodies, meant to insult barbarians and mock their foreign accents, evoking the sounds of "throat-clearing or retching." It is true that some of the unknown words attached to foreigners repeat syllables, recalling the notion that the ancient Greek word *barbaros* supposedly referred to the babbling, repetitive sounds of non-Greek languages. Moreover, it is worth noting that repeated *ch* and *kh* sounds are in fact very common in Caucasian dialects. The *kh* sound, represented by Greek chi, occurs in many Scythian proper names recorded by Herodotus and it is a feature in ancient Greek comedies mocking Scythians (discussed further below). Early European travelers in the Caucasus remarked that the local languages sounded very guttural and "contain a great many hissing and harsh lingual-palatic [sic] consonants, which render pronunciation almost impossible for a stranger." Modern linguists describe the diverse dialects as sounding "mellifluous," "percussive," "hissing," "throaty," and "gargled."[25]

As Steiner demonstrates, many inscriptions on Greek vases contained sophisticated auditory effects, rhymes, puns, and word plays, and the inscriptions were intended to be read out loud. The effect of sounding out letters transcribing the sounds of an outlandish language could evoke humor among Greek consumers. Some "nonsense" inscriptions in the context of figures in Scythian attire might (1) simulate the sounds of foreign languages in nonsensical "doubletalk," or (2)—as we propose—they could be attempts to reproduce genuine words or phrases in a foreign language. Either case could have had the same entertaining or exotic effect. In the second case, it is possible that at least one person in the production chain might have contributed the word(s) inscribed on a vase, perhaps a foreign slave or worker in a potter's shop, a passerby, a customer, or the vase painter.[26]

It seems that one way of making sense of some "nonsense" inscriptions and non-Greek names associated with figures of Scythians and Amazons would be to investigate whether any of the phonemes represent, capture, or approximate the sounds of Saka-like Scythian, Indo-Aryan, Sarmatian, Circassian, Abkhazian, Ubykh, and other languages of what was once known as ancient Scythia, where women joined men in hunting and battle. To test this hypothesis, we analyzed a sample of "nonsensical" inscriptions and non-Greek names accompanying Scythians and Amazons on vase paintings, to see whether the sounds might reasonably be interpreted as words or names drawn from dialects spoken by people of the Black Sea and Caucasus regions. Before moving to our cases, the next two sections explain the historical linguistics of these diverse languages and our methodology.

Languages of the Black Sea and Caucasus

Classical scholars tend to assume that "Scythian" was a unitary language and that all the "Scythians" encountered by the Greeks spoke Northeast Iranian-influenced dialects. This is true of some, but not all, peoples of the large territory the Greeks called "Scythia." The region is a cauldron of many different linguistic families, and the examples we present here reflect that diversity. Many of the tribes under the Scythian umbrella in the northwestern Black Sea area probably spoke ancient forms of Caucasian dialects.[27]

Circassian and Georgian are members of non-Indo-European (IE) language families, Northwest Caucasian and South Caucasian, respectively. Circassian is divided into West Circassian or Adyghey and East Circassian or Kabardian. Ubykh and Abkhaz-Abaza are its sisters. Georgian belongs to the South Caucasian family, containing also Svan, Mingrelian, and Laz (spoken around Trabzon, Pontus, where speakers of Romeyka, which preserves elements of ancient Greek, have recently been discovered). The Northeast Caucasian family, whose best known member is Chechen, contains about thirty languages. As noted above, there is enormous linguistic diversity in this region, especially if we include Iranian and other, presumably IE, steppe languages. Apart from Old Georgian the only ancient language we have from the Caucasus are some traces of Alwanian (Caucasian Albanian), which is an early form of Udi, a deviant Northeast Caucasian language.[28]

Some languages change over time much faster than others. English, for example, has changed enormously over the past 1,000 years. Historical linguists believe that, with very few exceptions, Circassian and other West Caucasian languages have changed little over the past 2,000 years. (MAP 2) Without written texts, dating a language is an inexact science. Ancient Greek alphabetic writing appeared by the eighth century BC; in the case of Georgian, texts date back to AD 500. Tracing the movements of ethnic groups in this region over time is another problematic factor. Some, such as Turkic-speakers, are relatively recent arrivals in western Eurasia; others have resided in the region for millennia. It is thought that Circassians, for example, migrated at an early date from the south to the northeastern Black Sea coastal area, and later moved inland. Abkhazians moved north to the eastern Black Sea area after the Hittites displaced the Hatti ca 2000-1700 BC.[29]

In historical linguistics, several factors help to assess change over time. The reconstruction of old stages of languages, in the absence of texts, is necessarily hypothetical, as noted above. In the case of Northwest Caucasian languages, we think it is reasonable to expect that sound patterns in these tongues sounded in antiquity roughly similar to the way they do today. The following five factors explain this reasoning and should be kept in mind in assessing our linguistic efforts. One factor is the amount of cognate vocabulary. Linguists can compare the relative frequency of cognates in a language with its sister languages to determine the degree of divergence and isolation, but even so there is no biological or molecular clock that allows absolute dates. Scholars who study Caucasian languages believe that Circassian, for instance, diverged from Abkhaz at least 3,000 years ago, because only about 15 percent of their vocabularies are cognate.

Besides the low ratio of cognates among these languages, all the branches of Northwest Caucasian show strong grammatical syntactic parallels: polypersonal verb, extensive nominal compounding, and ergativity. Such strong parallels have arisen because these languages, although they have differentiated phonologically, have not dispersed, but rather have remained adjacent throughout their histories. This has led to the formation of an "areal" zone, that is, a linguistic zone where the languages all share common features, regardless of the degree of genetic relatedness. Such zones are thought to be old and to minimize divergence among their languages.

Third, the polypersonal verb found in this family is unique in the Caucasus, and although Georgian shows some object as well as subject inflection its verb pales by comparison. Only the Northwest languages inflect their verbs for every noun in the sentence, plus a host of other information. This chain of personal "indices" is reminiscent of an old feature found in Proto-Indo-European, the so-called "clitic chain," a string of pronoun-like elements, along with some geometric suffixes, which forms a self-standing string in Hittite, Homeric Greek, Vedic, and in modern Serbo-Croatian. The polypersonal verb and the clitic chain may be seen as independent retentions of an old and distinctive grammatical pattern shared by Proto-Indo-European and the Northwest Caucasian languages, whether through an old areal bond or even through a remote genetic link. This odd feature of the Northwest Caucasian verb suggests a strong tendency toward morphological conservatism.[30]

Fourth, the glosses suggested for the "Scythian" inscriptions in the following case studies are in many cases deviant from modern forms, particularly with regard to suffixes and even with the occasional personal index. These old forms do indicate a degree of change commensurate with what one might expect over 2,500 years from a generally conservative language group. So, these languages have by no means been totally static for this period of time. One might note that Kabardian (East Circassian) and Abaza are generally assumed to have emerged as distinct languages within the past 800 years or so if we use political history as a guide. They have innovated phonetically to some extent, but also chiefly in terms of their verbal suffixes, just as these older forms on the Greek vases seem to suggest for the family as a whole.

Finally, the Northwest languages exhibit complexity at every grammatical level, but in their phonetics they are positively exuberant, most of them making use of every theoretical point of articulation with numerous modifications, such as palatalization, rounding, and pharyngealization.[31] The Greek alphabet was simply not adequate to the task of representing a typical Northwest Caucasian phonological inventory. As a result the following analyses often take liberties with the interpretation of specific Greek letters, such as chi. Deviations from present-day phonetics are to some extent obscured by the Greek renderings.

Even literate Greek vase painters, notes Immerwahr, sometimes "had difficulty writing accurately what they heard in spoken language."[32] A non-speaker hearing Caucasian words and trying to replicate the alien sounds with Greek letters would produce some bizarre-looking words, perhaps like those classified as "nonsense" by modern vase experts. Circassian dialects, for example, have only two or three vowels which are colored by the surrounding clusters of consonants. Consonants in this family of languages can number from forty-eight to as many as eighty-one. Circassian phonetics diverge so sharply from Indo-European phonetics that efforts to reproduce the language in written form by Indo-European-speakers—including ancient Greeks—can result in very odd variants. For example, when "nonsense" words contain as many as four *kh(g)* sounds, as in Case 8, below, they seem worth analyzing because consonant strings like this actually do occur in the Northwest Caucasian language family. Circassian has seven phonemic *kh*-like sounds; Ubykh has twelve. Abkhazian is especially complex, with weird clusters and doubled consonants, and a plethora of homonyms.

Such strange "guttural " consonants might well inspire a Greek speaker to write down a string of harsh *kh(g)* sounds and consonants. The words would look and sound like gibberish in Greek—and, as Steiner noted, repeating a string of those particular sounds on a vase could well be a parody. Pronouncing them aloud would give the impression of hearing the peculiar language spoken by Scythians. Notably, the distinctive harsh *kh* sound appears in the linguistic caricature of the Scythian policeman in Aristophanes' comedy *Thesmophoria* (411 BC). This play is the most extensive example of "barbarized Greek speech" to survive in Greek literature. In one scene, the Scythian is unable to pronounce the sibilant in the Greek name Artemesia. Instead, he pronounces it "Artem*oukh*ia." The rendering *Artemoukhia* for *Artemesia* suggests Iranian phonology, where [h], rendered by Greek <chi>, was a variant of /s/ between vowels. An Iranian-speaker could not have said [s] in this position without lapsing out of his or her language phonotactics. Other linguistic elements of the Scythian's imitation "foreign talk" include the lack of aspirates at the beginning of words and confusion of *r* and *l.* It would be an interesting future project to analyze the linguistics of Aristophanes' Scythian-accented Greek in terms of ancient Iranian and Caucasian phonotactics (sound patterns).[33]

The following pages present evidence that some "nonsense" inscriptions on vases appear to represent foreign words with distinct phoneme patterns, with meanings that are relevant to the context of the images they accompany. Our approach analyzes a set of cryptic inscriptions linguistically, seeking plausible candidate-roots from among the languages of the Black Sea and Caucasus. Co-author John Colarusso is a comparative

historical linguist, trained in phonetics and phonology, specializing in Northwest Caucasian (Circassian, Abkhazian, and Ubykh), Ossetic, Old Georgian, ancient Greek, Iranian, and other languages. He has gathered and translated a corpus of Indo-European myths and Caucasian folklore known as the Nart Sagas. As one of the first linguists to reconstruct Proto-Northwest Caucasian, Colarusso also has firsthand experience with the typical spelling variants of illiterate and semi-literate speakers of Caucasian languages.

Methodology

When we began this project, the philologist and vase inscription scholar Rudolf Wachter (personal correspondence) cautioned that so far no one has convincingly interpreted nonsense inscriptions as "texts in a foreign language." But he also acknowledged that in the "rare cases" when meaningful and apparently meaningless labels appear together on the same vase, then it is reasonable to hypothesize that the unfamiliar words had a meaning that we do not yet understand. About 140 Attic vases combine sense and nonsense inscriptions. Following Wachter's advice, we decided to focus on vases depicting Scythians and/or Amazons that contain unfamiliar non-Greek letter strings along with recognizable Greek names or words, thus indicating the vase painter's functional literacy. The exceptions are fragmentary vases, Cases 6, 7, and 10, but the painters of these vases are known to have produced literate inscriptions elsewhere.[34]

Our methodology: Co-authors Adrienne Mayor and David Saunders selected about twenty vases depicting Scythians and Amazons accompanied by "nonsense" inscriptions. We transmitted the inscriptions in Greek letters to Colarusso and asked him whether the sound patterns matched any known language forms. This was essentially a blind experiment. Colarusso knew only that the project involved strange words inscribed on ancient Greek vases that showed people in Scythian costume, but he was not shown photos of the vases until the end of the project.

Interpreting names can be difficult, because names typically lack semantics or, if they are names from an unknown language, then they are semantically opaque. The interpretations of many of the Scythian and Amazon names in the cases below, however, are possible because of a peculiarity of naming practices among peoples who speak the languages of the Northwest Caucasian family. In ancient Greek onomastics (the study of proper names), personal names often reflect ancestry, qualities, or parental aspirations. In contrast, in Caucasian, steppe, and other nomadic warrior cultures around the world, "war-names" or "nicknames" based on appearance, one-time experiences, battle skills, personality, favored weapons, and the like were (and still are) common. Circassians, Ubykhs, and Abkhaz (including the Abazas of late emergence) traditionally have two sets of names, a private one and a public one. The public one is a nickname or descriptive appellation based upon some character trait or an incident in an individual's childhood. So, for example, one family has the public name /tḥa-ɣa-psew/ God-let(you)-live, "Thank You," because a founder was known for his habitual politeness. Examples of Caucasian nicknames for individuals include /ḥede-ɣa-ƛ'e/ corpse-cause-die, meaning something like the English phrase "beating a dead horse," denoting extreme stubbornness as a character trait; or /ḥe-y/ "dog-shit," commemorating a childhood accident in which

one stepped in dog feces; or /ź�°e-pʼə-śʼʰə-ʔ/ cook-place-detrimentive-stick, "Stuck in the Oven," from a childhood incident of crawling into and becoming stuck in an oven when, luckily, the oven was not heated; and so on. It is interesting that many ancient Scythian and Amazon onomastics in literature and in our case studies appear to follow this nicknaming custom, with themes appropriate for nomadic warriors.

Some of the "nonsense" words on the twenty or so vases that we considered remain undeciphered—they may be mere nonsense or may reflect languages unknown or at least unknown to Colarusso. Inscriptions on thirteen vases turned out to be meaningful in Iranian or even Indo-Aryan and in archaic forms of several Caucasian languages. Remarkably, these latter words often show both the staggering clusters of consonants and wealth of "gutturals" found in these languages (voiceless and voiced palatals, velars, uvulars, and pharyngeals, all with plain, and rounded variants, and in Ubykh and Abkhaz also palatalized and pharyngealized uvulars), as well as the aforementioned custom of descriptive naming. Thus the interpretations of the Greek "nonsense" forms as Northwest Caucasian receive support both phonologically and semantically.

The following example, undertaken after the first phase of our research, offers grounds for confidence with our methodology.

The New York Goose Play Vase

One of the most dramatic results of our analysis involved a mysterious word on an important red figure calyx krater that was produced outside of Athens, in South Italy, in about 400 BC. A significant scrap of ancient "foreign talk" in the context of theatrical comedy appears on the so-called New York Goose Play Vase in the Metropolitan Museum. Attributed to the Tarporley Painter, this krater is extraordinary as the only surviving vase painting to transcribe theatrical dialogue on stage. It depicts three masked actors in a kind of "law court" scene. An old man poses on tiptoe with his hands above his head, about to be flogged by an authoritative young man in an "ugly" mask holding a stick, identified by scholars as one of the Scythian policemen of Athens. On the right, an old woman gestures toward them; beside her are a dead goose and two goat kids in a basket. It is generally assumed by scholars that the old man has stolen the objects on the right and that he is about to be punished by the policeman on the left. All three actors speak lines of dialogue, shown issuing from their mouths. The old man says, in Attic Greek, "I am strung up [for a beating]." A typical legalistic phrase, also in Attic Greek, issues from the old woman's mouth: "I hand him over." But the actor brandishing the stick utters a "nonsense" word: **ΝΟΡΑΡΕΤΤΕΒΛΟ**, "Noraretteblo." His utterance has been variously interpreted as "pidgin Greek," a "foreign language," "noises that sound like a foreign language," or even "the words of a magic spell."[35] Remarkably, however, the phonotactics of this word are recognizable as the sound patterns of an ancient form of Circassian. Speaking in his native tongue, the barbarian character is saying something like "This sneak thief steals from them over there."

Linguistic analysis: The sequence of <r>s in **ΝΟΡΑΡΕΤΤΕΒΛΟ** identifies this form as a Circassian verb. In Circassian an /r/ is intercalated between two /y/s, the /y/s then

usually dropping under most conditions (Colarusso 2007, 1992). The Greek transliteration even attempts to render the geminate quality of the Circassian unaspirated voiceless stops (which are contrasted with voiceless aspirated, voiced, and ejective counterparts). The Circassian form is /ø-ne-y-y-he-y-e-t-e-bλe-w/ it/them-thither-flat.place-3-plural-3-present-steal-direction-pass.by-predicative, meaning "He stole it/them from them over there in their yard (or barn)," with a sense of stealth, sneaking past someone. The "thither" preverb, /-ne-/ can still be found, but is marginally productive. It once contrasted with a preverb /-qe-/ for actions within a horizon of interest of the speaker. The suffix /-bλe-/ "pass/by" is now absent from this position (see Smeets 1984, 276), but it can still form "compound" verbs, as in /bλe-pλə-č'ʸə/ pass.by-look-exit, "to see something while peering around an obstacle (such as a tree trunk)." The preverb /-y-/ is multiply homonymous, meaning "flat area," "large enclosure or building." The present verb "to steal," /təɣ°e/ , is built on a back formation for the word for "thief," /təɣ°eź/, itself a clear deverbal noun based on an old root */-t-/ , no longer attested. For Circassian that is 2,500 years old I would expect such variation as this form exhibits. I would also expect unaspirated voiceless sounds to be throughout the group at that stage. This has to be Circassian, since neither Abkhaz nor Ubykh show what we call r-intercalation, noted above. The <O> of the first syllable remains unexplained. It might reflect an "emotomorph," a morpheme expressing the speaker's feelings toward the state of affairs. In this case, it might be a Circassian cognate of an "incredulity" emotomorph, /-awə́-/, still preserved in Bzyb Abkhaz, as in /d-awə́-šʸt-na-x-wa-z/ him-incredulity-upwards-it-lift-aspect-past.participle, "how could that one hold him (up)?!"[36] Taking the Circassian cognate as /-ew-/ meaning "surely, indeed," the "early" Circassian form would then be /ø-ne-ew-y-y-he-y-e-t-e-bλe-w/ it/them-thither-surely-flat.place-3-plural-3-present-steal-direction-pass.by-predicative, "indeed he is the one who stole it/them-from.them-over there in their yard (or barn)," with /-ne-ew-/ > [no:], yielding [no:ra:re:teblo:], as usual in Circassian.

This translation of a "meaningless" inscription on an ancient vase, emerging from obscurity after more than 2,000 years, is an example of how our methodology can yield positive outcomes. The cryptic utterance not only is appropriate to the "trial" scene, but it also confirms that the actor is indeed portraying a Scythian policeman. It suggests that a foreign phrase uttered in a theatrical performance traveled beyond Athens, and further, that an Apulian audience might have recognized it as pertinent to the Scythian policeman's identity.

Below we present the results of our investigation to determine whether a significant number of plausible foreign names or words with appropriate meanings can be recovered from a small database of "nonsense" inscriptions in foreign contexts on thirteen vases of the sixth and fifth centuries BC, when Scythians and Amazons were extremely popular subjects for Greek artists. Many of the letter strings on these and other vases that we considered still defy interpretation: these could be truly nonsensical; or attempts to represent unknown languages; or stereotyped "doubletalk"; or they could be efforts to convey foreign captions, snippets of song, conversation, musical notes, exclamations, or evocative sounds that are irretrievable today. Imagine archaeologists and linguists two millennia hence attempting to decode twentieth-century exclamations and sound effects

such as "Pow" or "Pfft," or the modern convention of substituting random symbols (grawlixes) such as #$%&! to stand for profanity. Because we are working with what might be words from unwritten foreign languages that were transliterated into Greek letters by artists who illustrated vases more than two millennia ago, our conclusions cannot yet be verified scientifically. We can only offer plausible interpretations and impressionistic guesses. Given the multiplicity of languages to be considered and the brevity of single or incomplete "nonsense" words, there is always the risk of false positive results. Yet a majority of the so-called meaningless inscriptions that we selected produced suggestive results. The full linguistic forms and technical commentaries by Colarusso for each inscription are given for each case. The Bibliography lists the linguistic dictionaries and other sources used in this study.

Case Studies

CASE 1. On the red-figure Euthymides vase (510-500 BC, from Vulci), described above, the non-Greek name **ΧΥΧΟΣΠΙ,** pronounced Khukhospi, appears next to the Scythian archer whose companions have the Greek names Euthybolos and Thorykion. (FIG 2) If the second part of the name, *ospi*, had been written "aspa" instead, one might see a link to *asp* (Scythian-Iranian "horse") or Greek *aspis*, "shield." But we suggest the possibility that the phonetics of Khukhospi indicate an ancient form of Abkhazian. If so, then Khukhospi would mean "Enthusiastic Shouter" or "Battle-Cry," an appropriate nickname for a warrior.[37]

ΧΥΧΟΣΠΙ Khukhospi A possible Abkhazian source behind Khu-khos-pi would be /ḥ˚əḥ˚a-c-b(a)-əy/ shout-hot/fervent-name.suffix-emphatic.name.suffix-emphatic. "Hot" actually survives in modern Abkhaz as /á-ca/, (/ca/ = [tsa], Circassian /sa/), so this may well be what the <s> represents. The <p> is a variant, then, of the naming suffix, /-ba/, which devoices after voiceless consonants. Khukhospi means "Enthusiastic Shouter," a plausible nickname for a warrior. The only part not seen in Abkhazian today is the emphatic /-y/, though an emphatic /-gʸəy/ still exists in Abaza and Ubykh. Note that we are working with an ancient stage of all these languages and we should expect to find cognates that have since been lost. A detail: One could come up with a Proto-Abkhaz-Abaza form */x̌˚əx̌˚a-c-b(a)-y/ with uvular fricatives, from whence many of the pharyngeals have arisen, but I take this root as derived from Proto-Northwest Caucasian /(w-)qʼa-/ "to say," whence Abkhazian and Abaza /ḥ˚a-rá/ "to say," /ḥ˚ḥ˚a-rá/ "to hold a conversation," Ubykh /qʼa-n/ "to speak," West Circassian /ʔ˚ə-n/ "to say," Kabardian /-ž-ʔə-n/ "to speak (back) to some one." Hence I stick with the pharyngeal fricatives as lying behind this name. This also helps to date this shift.

CASE 2. A fragmentary red figure cup attributed to Oltos (525-500 BC) shows Heracles and Hermes labeled in Greek on one side, but on the other side several clusters of letters around a group of Amazons running into battle appear to be nonsense. Oltos is a highly unusual name in Athens, suggesting that he may not be native. He often combined sense and "nonsense" and misspellings (such as those of the name of his potter companion, Pamphaios) on his vases, but he was perfectly capable of writing coherent Amazon

names. On this cup, the letters around the Amazons could be intended to give the impression of a rushing onslaught of Amazons. The longest complete string of letters, **ΠΚΠΥΠΗΣ**, *Pkpupes*, looks impossible to pronounce. But this sequence is linguistically promising—it fits the wild consonant clusters of Circassian. If the sequence was a deliberate attempt to reproduce ancient Circassian, then the linguistic elements are in the correct order to mean "Worthy of Armor," an appropriate name for an Amazon.[38]

ΠΚΠΥΠΗΣ Pkpupês Only a few languages have consonant sounds like this. Outside of Circassian, one would have to go to the Kamchadal (Itelmen) natives of the Kamchatka Peninsula of Russia, or to the Salishan languages of British Columbia and the Pacific Northwest to find similar consonant clusters. In Circassian the meaning is something like /pq-p'ʔ°ə-pəs/ or /pq-p'ʔ°ə-pšʸ/ body(body's frame)-covered/sheathed-worthy, "Worthy Armor," or less likely …-noble(prince[ss]), "Noble with Sheathed (armored?) Body." I feel confident that the Greek vase painter was making a valiant effort to render the Circassian form /pq-p'ʔ°ə-…/ body-cover-…, because even the order of these elements is correct Circassian, with the first root lacking any vowel. Nowadays [pshi] "prince(ss)" would be used as a title at the front of a name, but the older order apparently was to place such titles at the end. Evidence points to /pšʸə/ being used of males and /g°ašʸe/ for females, but the latter also seems a late development. Still, there is no grammatical gender in Circassian, and /pšʸə/ might have a history much like that of Germanic *magdaz*, German *Magder*, English *maid*, which was originally used to denote a servant of either gender. Note: If the <H> can represent [h], then the third element of **ΠΚΠΥΠΗΣ** might be /-pḫəś/ "woman," without rounding (cf usual Abkhazian /pḫ°əś/ *id.,* but note Shapsegh Circassian /pX̌ə/ "daughter," also without rounding, as opposed to the more usual Circassian /pX̌°ə/ *id.*

CASE 3. A red figure hydria signed by Hypsis (510-500 BC, from Vulci) shows three Amazons preparing for battle. (FIG 3) The one on the left, holding a spear and helmet, is labeled with the Greek name Andromache. Her comrade on the right is named Hyphopyle, perhaps a misspelling of a Greek name. Between them, the Amazon blowing a trumpet has two inscriptions: her name Antiopea (which might call out the famous Amazon Antiope) and a "meaningless" word **ΧΕΥΧΕ**, pronounced "Kheukhe." This word could represent the sound of the trumpet. On the other hand, the sounds match Circassian forms meaning "One of the Heroes/Heroines." Might this be a foreign term of praise associated with Antiopea, analogous to the common Greek vase inscription "Kalos" ("Good," "Beautiful"), which labels a male charioteer on the shoulder of this vase?[39]

ΧΕΥΧΕ Kheukhe Kheukhe would be Circassian, /x̂e-x̌°-e/ among.group-hero-in, "(One from) among the heroes," assuming no gender distinction, since Circassian has none and shows no traces of having ever had one.

CASE 4. A red figure amphora (that recalls the Euergides Painter, 525-500 BC, from Vulci) shows a Greek-named warrior Hippaichmos, leading a horse toward an Amazon or Scythian (it is often difficult to distinguish gender) whose non-Greek name is **ΣΕΡΑΓΥΕ,** Serague. This same name labels a Scythian-style archer on another vase of

the same period, attributed to the Delos Painter (ca 525-500 BC). "Serague" matches Circassian forms meaning "Wearing (Armed with) Dagger or Sword." Circassian is not a gendered language, so the name could apply to either sex.[40]

ΣΕΡΑΓΥΕ Serague Serague looks like Circassian, /se-ra-ɣ-we/ sword-locative/possession-wear- present.participle/predicative.suffix, "One wearing a sword." Today /-ɣ-/ is used for wearing clothes only, assuming a semantic shift here, which is plausible. The second vowel, the <a> would suggest an effort to capture retraction of the tongue, and this would indicate a voiced uvular fricative (perhaps still a voiced uvular stop in antiquity, */G/) rendered by the Greek gamma. Some dialects or speakers of Circassian place a stress on the present participle ending /-we/, while others would place it in such a construction before the root, that is on the <a>. With all capitals, stress is not marked and in the miniscules stress has followed Greek phonotactics. So, the original might have had the more usual Circassian pre-verbal root stress. It is possible that the Greek inscription was trying to capture a rounded voiced velar stop, /g°/, though I would expect the preceding vowel then to be an <o>. Then the name would be /sə-rə-g°-wə/ sword/dagger-instrumental-stuff/cram (=? "jab into someone"). The semantics are a bit better in the first possibility.

CASE 5. A clearly labeled Heracles and an Amazon named **ΒΑΡΚΙΔΑ,** Barkida, appear on a red figure amphora (in the manner of Euphronios, 510-500 BC,). The name Barkida appears to derive from eastern Iranian, or Indo-Aryan, with a loan into Circassian, meaning "Princess/Noble Kinswoman," a reasonable name for an Amazon.[41]

ΒΑΡΚΙΔΑ Barkida Circassian has the word /warq/ for "noble." If one had a Greek suffix /-ida/, /-ides/ appended to it (also found in Caduides, mentioned above), one could read this Amazon name as /warq-id- a–/. I must emphasize that Circassian has taken /warq/ from an unknown language. It has no cognates in the other members of the family. So, perhaps we might say that this Amazon's name can be interpreted because the same root has been preserved as a loan into Circassian. The original could have been /warq/ or /wark/ (*/k/ → Circ /q/) or even /vark/, /varq/, but not /bark/, because the last would have shown /b/ in Circassian. We need a source language whose form gives Greek /b/, but Circassian /w/. I would guess the best form to be /v/. So, I would see a source form */varkida/. So, speaking roughly, this looks Iranian, especially eastern or even Indo-Aryan, since in these parts Indo-Iranian */w/ → /v/ (*cf.*, *Veda* ← PIE *woid-* "knowledge," Greek *oida* "to know," English *wit*). I would still take the /-ida/ part back to a kinship suffix cognate with that in Greek. So, the stem is thus */vark-/. I would see in this an Indo-Aryan like form, perhaps from the Sindians mentioned by Herodotus (the same name as found in Iranian "Hindu" and Irish "Shannon" <sionainn>, a boundary river, perhaps the Kuban, Indo-Aryan /sindhava/, ← Proto-Indo-European (PIE) *sindh-ewo*). It would be an adjectival form from an earlier *war-ak(a)-*. If the form were Iranian, I would expect *var(a)g-* with voicing of the suffix. Such a form would have yielded Greek **Bargida* and Circassian */warɣ-/. This leaves a root *var-*. This would be from PIE *wel-* as in Tocharian *walo* "king, ruler," and English *weal(th)*. So, Barkida appears to mean "Princess, Noble Kinswoman."

CASE 6. A fragmentary red figure amphora, attributed to the Kleophrades Painter very early in his career (ca 510-500 BC, from Vulci), shows a typical "leave-taking" scene, a Greek warrior preparing for battle, flanked by a Scythian archer, a boy, a dog, and a young woman. (FIG 4) This painter shows as basic degree of literacy on his later vases, but these inscriptions are not Greek: ΤΛΕΤΥ in front of the boy; ΙΤΕΙΣ before the warrior's head; ΕΙΟΣ above the dog; and by the woman ΙΣΛΕΙ; pronounced "tletu," "iteis," "eios," "islei." No inscription appears to directly apply to the Scythian archer, but we analyzed this vase because of his presence in the scene. Because the Kleophrades Painter's later vases have clear Greek words and his writing is regular, vase scholars find it "strange that these inscriptions would be meaningless." Tletu translates as "He who jumps or leaps," in Circassian, apparently a nickname for the boy. Islei appears to be an archaic Circassian verbal form attributing indirect agency, "I am dressing him [in armor/garments]." This phrase would be appropriate to a warrior's leave-taking, arming scene; this extipicy (reading omens in a sacrificial liver) scene takes place after arming, before the warrior's departure. The other words, "iteis" and "eios," have locative significance related to the figures in Circassian. These phrases have an archaic, but natural translation, which appears to reproduce casual speech: The warrior is "standing here" and the dog is "by him."[42]

ΤΛΕΤΥ ΙΤΕΙΣ ΕΙΟΣ ΙΣΛΕΙ **tletu iteis eios islei** Tletu could be a Circassian nickname for an agile youth: /ƛət-w/ jump-predicative, "One who jumps, leaps." The word iteis /yə-tˤ-y-e-s/ [name] flat.surface-on.surface-direction-at-sit/be.located means "[So and so] is standing there." The word over the dog, eios /e-y-e-w-s/ him-direction-present-continuous.aspect-sit/be.situated, means "(dog) is by him." Islei might be an archaic construction in Circassian, /ø-y-s-ƛ-e-yə/ those.things-him.on-I-hang-to-prolonged, "I am (having) armor put (*lit.*, hung) on him." (For /-yə-/ of prolonged action cf Circassian /-de-kˁˠe-yə-/ outside-go/come-prolonged, "to go for a stroll.") This deviates from the modern sense of "to dress" for /-ƛ-/, with a basic sense of "to hang," its modern equivalent being /zə-šˁˠə-ƛ-e/ self-deixis-I-hang-to, "to dress oneself."[43]

CASE 7. The fragmentary black figure olpe (pitcher) was described above (attributed to the Leagros Group, 525-510 BC). It shows two Amazons setting out on foot. (FIG 1) Trotting alongside is a dog with a red collar (Amazons, like Greek warriors and hunters, are often depicted with dogs). The first Amazon turns to her companion, giving the impression of conversation, although dialogue usually issues from mouths as "bubble" inscriptions. The letter strings painted next to the women, ΟΗΕΥΝ ΚΕΥΝ, pronounced "oheun" or "oe:eun" and "keun," can be deciphered as ancient forms of Abkhazian. Depending on the pronunciation of the eta, ohe(u)n signifies either "(They/She/ were/was over there," or in the case of oe:eun, "We are helping each other" perhpaps a face-to-face injunctive with loss of pronomial inflection, "Let us be helping one another." Ke(u)n means "Set the dog loose."[44]

ΟΗΕΥΝ ΚΕΥΝ **ohe(u)n ke(u)n** In the first word, *oheun*, the eta <H> can be taken to represent an intervocalic [h], in <OHEUN> = *oheun*. This matches Abkhazian /waχˠa-w-n(a)/ being.over.there-progressive.aspect-indefinite.past. But another possible

pronunciation in Greek would be <OHEUN> = oe:eun. In this case, the form is still Abkhazian, but appears to be a verbal form meaning "helping each other" /wʕáḥ°-w-n(a)/ mutual.assistance-progressive.aspect-indefinite.past, "helping one another" (Shakryl, Kondzharia, and Chkadua, 1987, 182). Here I am assuming that the voiceless rounded pharyngeal /-ḥ°-/ was more or less lost in the shadow of the preceding voiced (plain) pharyngeal, /-ʕ-/. In the present style of pronouncing Abkhazian (as opposed to Abaza) the /-ʕ-/ is in fact an a-glide so that /wʕáḥ°-w-n(a)/ would be pronounced [wa̰aḥ°(ʊ)wun], something not far from the possible vase reading [oe:eun], assuming, naturally enough, that the <O-> represents a [w-]. A Greek might also have heard /-ʕa-/ as [e:], rather than as [a:] due to the acoustic effect called "emphatic palatalization," (as with Phoenician /baʕ(a)l/ "Lord" as opposed to Hebrew /beʔel/ *id.,* where Proto-Semitic */a/ has gone to Hebrew /e/).

The second word, *keun,* also appears to be Abkhazian /q'ʸa-w-n(a)/ setting.the.dog.loose.with.barking.and.noise -progressive.aspect-indefinite.past (Shakryl, Kondzharia, and Chkadua 1987, 390, second homonym), with the meaning "to set the dog on someone [with a noisy commotion]" (*natravlivanie sobak svistom i krikom*). The vase fragment is broken after this word, so it is possible that final letters/words might have specified more details. The upsilons in the two strings are "uncertain" per Immerwahr, but the lack of an upsilon in either case, that is, of a /-w(a)-/, would merely remove the sense of continuous aspect from the tense and render it a simple indefinite past. So, I read the inscriptions as *ohe(u)n,* "(They)/she/ were/was over there," or *oe - e(u)n,* "We are helping each other," and *ke(u)n,* "Set (past tense) the dog loose."

CASE 8. A red figure amphora attributed to the Dikaios Painter (510-500 BC, from Vulci) has Greek names of gods—Athena, Apollo, and Artemis—on one side. On the other side, five unknown words are associated with a Greek warrior flanked by a Scythian archer, a dog, and an old man. Behind the Scythian's head, **ΚΙΣΙ;** to the right of his head and shoulder, **ΓΕΧΓΟΥΧ(Κ?)**; at his feet above the dog, **ΧΛΕ...ΣΙ?;** along the Greek warrior's back, **ΧΕΧΓΙΟΧΕΧΟΓΕ;** along the old man's back, **ΧΛΕΙΟΠΧΙΟ,** pronounced "kisi," "gekh-goukh," "khle . . . si," "khekh-gee-okh-ehkh-o-ge," "khleiopkhio," respectively. The letter strings with many *kh/g* sounds are suggestive of Caucasian languages. "Kisi" is Circassian, indicating something like "here is his friend" referring to the archer's name, Gekhgoukh, "Brave Adversary" in Abkhazian. The label for the hoplite, Khekhgeeokhehkhoge, translates as "One Chosen from Among the Brave" in Circassian, an appropriate description of a warrior. The old man's name, Kleiopkhio, seems to identify him in Circassian as the descendant of "the daughter of a big man." The incomplete word above the dog is unclear—perhaps it is the dog's name.[45]

ΚΙΣΙ Kisi This word may be read as a Circassian locative form of the verb "to sit" or "to be situated," /ø-q-y-s-y/ 3-horizon-direction-sit/be.situated-and/direction, "(s)he is there/sitting/standing there." Because of the "horizon of interest" prefix and the possibility that the final /-y/ is an old directional suffix (now /-e/) this word would have a more emotional sense of "he (friend) is here." The modern locution would require the

indirect object, "his heart," /ø-y-g°ø-q-ø-y-s-e/ 3-possessive-heart he(other)-horizon-it(heart)-direction-sit-direction. Even without this word for "heart," the form "kisi" suggests an emotional reading, rather than a simple locative one, in that it betokens some degree of friendship or social involvement. To use theoretical linguistic terms, the horizon of interests forces a psychological or emotive dative, suffixed to the root, onto the sense of the verb. "Kisi" therefore signifies something like "Here is his friend."

ΓΕΧΓΟΥΧ Gekh-goukh looks like a reduplicated form, but it matches nothing in Georgian, where reduplication is common. Gekhgoukh appears to be a name from an old form of Abkhazian, /(a)ɣa-ɣʸaʕ°/ enemy/foe-brave, "Brave Adversary" or "Noble Warrior" (with /ʕ°/ a rounded voiced pharyngeal fricative), or perhaps from an earlier form prior to the Abkhazian backing of palatals, velars, and uvulars, namely, */(a)ĝa-ĝ(ə)yaɣ°/ (see remarks in Case 1 above).

ΧΕΧΓΙΟΧΕΧΟΓΕ Khekh-gee-okh-ehkh-o-ge Khekhgeeokhehkhoge sounds West Caucasian, perhaps Circassian, Abkhaz, or Ubykh. In Circassian, it represents something like /qə-x̂-əy-wə+x̂ex̌°e-gʸəy/ change.of.state-among.group-direction.from-valence+be.brave-emphatic.and, "the one (chosen) from among the brave." Note that this form is built upon the same root as in Case 3.

ΧΛΕΙΟΠΧΙΟ Perhaps **Khleiopkhio** might also reflect an archaic Circassian form, /ƛ'ə-ye-px̌°-ye-w/ man-fat-daughter-one.who.is-predicative, the final /-io/ being somewhat enigmatic. It would mean something like "The One Who Is of/Belongs to the Daughter of the Fat or Big Man," perhaps a family or slave name for the old man.

CASE 9. Yet another clearly labeled Heracles battles Amazons on the red figure Morgantina krater painted attributed to Euthymides (515-500 BC, from Morgantina). One of the Amazon archers is labeled Andromache, but one of the fallen Amazon's names is unknown: **ΧΑΣΑ,** Khasa. In Circassian, Khasa means something like "One Who Heads a Council." Another label, **ΣΟΣΙΑ**, Sosia, appears to belong to another Amazon archer. Since Sosias appears as Greek male name elsewhere, some scholars suggest that the name here is missing a final -*s* and so might refer to the male warrior instead. With or without a final -*s,* the name could be Iranian, derived from "breath, life" ("soul"), related to Ossetian, Khotanese, and Saka-like Indo-Iranian. The same word **ΣΟΣΙΑ** (again no final -*s*) is repeated on the other side of the vase, in a symposium scene. Here the name appears near the head of a man playing a lyre. When Amazonomachies and symposia are juxtaposed on vases, as here, scholars suggest that the story shown on one side is being recited or sung at the symposium. Some cryptic vase inscriptions are interpreted as indicating snippets of conversations, toasts, poetry, musical notes, or song. In this case, as art historians Ann Steiner and Jenifer Neils agree, the presence of the name Sosia beside the lyre-player refers to the male singer's song about the Amazonomachy depicted on the other side of the vase.[46]

ΧΑΣΑ Khasa Khasa looks like Circassian for /x̂e-e-s-e-(ɣe)/ among.group-in-sit-in(-past), "council," meaning someone who headed a council(?), where /-e-e-/ yields /-a-/, and with /-e-ɣ(e)/ yielding /-a/ in contemporary eastern dialects, such as Kabardian /e-e-/

→ /a/. The name would be appropriate for an Amazon.

ΣΟΣΙΑ Sosia This name appears to label one of the Amazon archers, although some argue that it labels the Greek warrior beside her, and therefore must be missing a final –*s*, for Sosias (a known name for males in Greece). But the fact that the same word without –*s* appears on the other side of the vase, argues for a deliberate feminine form of Sos/Sosia/Sosias (or vocative of male Sosias?) which are recognizable as Iranian "soul" names derived from "breath, life," */swasyā/ parallel to the first element in Sosruquo, Ossetian "Soslan." The usual Iranian development would be */swa-/ to /spa-/, but Indo-Iranian dialect is */swa-/ to /so-/. The Khotanese language shows this first shift, so this is a Khotanese or Saka name, that is, a more easterly Iranian dialect. The Indo-Aryan form is seen in Sanskrit /švas-/ "breathe, blow, pant." It is from PIE */kʸwes-/, reflected in the English word *wheeze.* The masculine "Sos" is a typical modern Ossetian name.

CASE 10. A fragmentary red figure vase (rhyton) attributed to the Sotades Painter (475-450 BC, found in Susa, ancient Persia) depicts Amazons labeled **ΓΥΓΑΜΙΣ**, Gugamis, and **ΟΙΓΜΕ**, Oigme. Gugamis has a "Persian" ring, as noted by Bothmer. Oigme resembles Ubykh forms, suggesting a nickname, something like "Don't Fail!" The Ubykhs, on the northeast coast of the Black Sea, had a reputation as some of the foremost warriors of the Caucasus. The Sotades Painter's other vases have literate Greek inscriptions. Immerwahr and Bothmer suggest that the painter may have known the destination of the vase and used Persian-sounding names. Other vases produced by the Sotades workshop are decorated with exotic Persian and other barbarian themes, and since examples have been found at Kerch and in Egypt, some may have been made with non-Greek markets in mind.[47]

ΟΙΓΜΕ Oigme This name does not look Circassian. It is more likely archaic Ubykh: /w-a-gʸ(a)-ma/ you-to-fail-not, "Don't You Fail," with subject in indirect inflection and archaic suffixal negative (Vogt 1962, 122 [684]). Again, we note that in attempting to decipher foreign sounds rendered by an artist into Greek letters means that we cannot be certain of the original sounds.

The following cases 11-13 are mainly earlier and more speculative than the preceding cases 1-10.

CASE 11. A Tyrrhenian black-figure amphora (attributed to the O.L.L. Group, 550-530 BC) shows a clearly labeled Heracles fighting Amazons, an extremely popular mythic theme in Greek vase painting. But the words above the women are not Greek: **ΓΟΓΟΙΟΙΓΙ** and **ΓΟΓΙ . . . ΙΚΙ,** "Go-goi-oi-gi" and "Go-gi . . . iki." These *gogo/goi* syllables bring to mind the word for "girl" or "maiden" in Georgian. Tyrrhenian vases often have nonsensical inscriptions, however, and we note that this reading could be a coincidence arising from repetitive sounds distinctive of Georgian patterns.[48]

ΓΟΓΟΙΟΙΓΙ Go-goi-oi-gi ΓΟΓΙ . . . ΙΚΙ Go-gi . . . iki These names are suggestive of Georgian /gogo-i/ girl-nominative.

CASE 12. Another Tyrrhenian black figure vase in the Louvre (Tyrrhenian Group, ca 550 BC) features Heracles, Telamon, and other Greek warriors (all labeled with names) battling Amazons. Some of the inscriptions were restored in modern times. But seven of the names of the Amazons are believed by vase experts Beazley and von Bothmer to be ancient, original, unrestored: [An]dromache "Manly Fighter"), Toxophile ("Loves Arrows"), Pisto ("Trustworthy"); Glauke ("Blue-Gray Eyes"), Hegeso ("Leader, Chief,") Kleptoleme ("Thief"), and Kepes. **ΚΕΠΕΣ**, Kepes, is a non-Greek name. The phonemes sound like an ancient form of Circassian. If the name is Circassian, the meaning would be something like "Hot Flanks/Enthusiastic Sex." Notably, Amazon encounters on vases were often eroticized.[49]

ΚΕΠΕΣ Kepes Kepes appears to mean "Hot Flanks" or some other lower body part in Circassian. (Note that the name for the state of California originated from Latin for an Amazon queen Califa, *cali-forn-* hot-copulation). The form would be (West) Circassian (WC) /kʸəpə-s/ flank-hot, with /-s/ "hot" often the second element of names even today, where it means literally "hot," but metaphorically "intense, enthusiastic." So, "Enthusiastic Sex." The two stops in WC are voiceless unaspirated, just as kappa and pi were in ancient Greek.

CASE 13. A black figure column-krater attributed to the Leagros Group (550-500 BC, from Monte Sannace, Apulia), shows a clearly named Heracles fighting Amazons. One is named Andromache, but **ΟΑΣ ΟΑΣ (**possible lambda after the final sigma?), Oas oas, inscribed beside another Amazon, is unknown. A name beginning with *Oas oas* sounds like an Iranian-derived Ossetian word for "Sacred" or "Spirit." As noted earlier, the Leagros Group vases contain much "nonsense"—so again, this incomplete sequence of sounds could be accidental.[50]

ΟΑΣ ΟΑΣ Oas oas Oas, if it is the first part of a name, looks to be Iranian-influenced, as in Ossetian /was(t)-/, /wac-/ (/c/ is [ts]), "holy, sacred," perhaps in the sense of "mighty." An alternative but not unrelated meaning in Ossetian could be "Spirit."

Conclusions and Questions

These preliminary findings suggest that at least some unfamiliar strings of letters on Attic vases may not be meaningless after all. By seeking interpretations of these "nonsense" inscriptions and foreign-sounding names in terms of Circassian, Abkhazian, or Ubykh, with some Iranian (Ossetian-like) and Georgian forms, we show that what appear to be incomprehensible words in Greek can be deciphered as names or descriptions of figures in scenes with Scythians and Amazons.

Assuming for the sake of argument that our hypothesis is correct, how could vase painters in Greece come to know these and other barbarian words and/or names? One can imagine several possibilities. First, not all vase painters were Greek—some of their names, known from vase inscriptions, suggest foreign origins or ties. Second, the painters only had to know how the names or words sounded to spell them out—they need not

have understood their foreign meanings. Certain foreign words may have been current or had familiar associations for Greeks, without any understanding of their meanings. For modern examples, consider how Americans and Europeans regularly use Japanese words and names such as Mitsubishi, Kamakazi, or Banzai, without knowing the meaning in Japanese. A third possibility is suggested by Cases 6-8, in which one has the impression of Caucasian speakers in the Athenian Potters' Quarter making comments about pictures on vases, either spontaneously or perhaps even as requested by the painters, who added the foreign words and phrases as they heard them in order to give an exotic flair to their scenes. In Case 8, for example, the vase painter might have been trying to write down a Caucasian-speaker's descriptions or comments about the scene, about an archer with an Abkhazian name, a dog, a Greek described as a "brave warrior," and an old man identified by a family name.

Vase painters usually illustrated familiar scenes or stories and some were based on oral narratives or lost traditions that are not preserved in surviving written texts. They had access to a host of alternative oral mythic traditions, outside of Homeric texts, in the period of the eighth century to fifth centuries BC. Accordingly, perhaps the foreign-named Amazons who are known only from their labeled representations on vases once starred in popular oral traditions like those that coalesced around Amazons with the familiar Greek names Antiope and Hippolyte. Under our hypothesis, some mythic traditions would have retained non-Greek names for fighting women of western Asia. Perhaps the foreign names of Scythian-attired men on these vases were real names of Scythian archers in Athens, or maybe their names came from contemporary oral or written tales that no longer survive.[51] Such stories might have had "sticky" nomenclature, as seen in Greek historical accounts of non-Greek kings from Scythia and Persia whose Iranian names were Hellenized, such as Darius the Great (Old Persian, *Dārayavahuš)*.

Herodotus and others describe bilingual Scythians and Greeks. Multilingualism may have been more common than generally recognized. Storytellers with ties to Scythia could have recounted the exploits of Amazons and Scythians with non-Greek names. As noted earlier, Athenian and other Greek aristocrats and colonists intermarried with Scythians in the period of these vases, and many private and public slaves in Athens came from lands around the Black Sea. Perhaps barbarian household slaves regaled Greek children with tales of celebrated men and women warriors from their homelands. Non-Greek names or words may have been embedded in those stories. Vase painters often labeled well-known Greek-named persons on their pottery. They might also have inscribed non-Greek names known to certain customers, drawing on non-literary mytho-legendary traditions now lost to us. Traces of forgotten stories may linger on Attic vases, not just in the illustrations of mythic scenes that match no written sources, but also in foreign inscriptions, previously thought to be "meaningless." Indeed, some inscriptions may be the first and only times certain Amazon and Scythian names were ever written down.

Although literary evidence supports the presence of individual Scythians in Greece in the late sixth and fifth centuries BC, these foreign inscriptions on vases cannot, *prima facie*, be taken to confirm historical reports of a large "official" force of Scythians in Athens. The ethnicity of Scythian-costumed figures on vases remains open. But finding foreign

names and words on vases depicting Scythian-garbed figures in the last half of the sixth and early fifth century is certainly surprising. It suggests that at least some Scythians were in Athens and other Greek cities in that time period and that their language was available to some vase painters and some of their customers. Or it could indicate that certain foreign-sounding words could be meaningfully (and deliberately) associated with figures in foreign attire. One might apply the well-known "Duck Test" of inductive reasoning: "If it looks like a duck, swims, like a duck, and quacks like a duck, then it probably is a duck." If the figure of an archer is dressed like a Scythian, acts like a Scythian, *and* speaks like a Scythian, then the chances are good that it is a Scythian. The recovery of meaningful names in Caucasian and Iranian tongues associated with Amazon figures offers potential evidence that the ancient Greeks identified Amazons as linguistically associated with ethnic Scythians and it is an indication that at least some Scythian-attired figures on vases were intended to represent real Scythians.

This linguistic approach to "nonsense" inscriptions has implications for scholars who study the transition from orality to writing, ancient literacy and bilingualism, and ethnicity in Athens and the Greek colonies. If these are, as they appear to be, the oldest attested examples of Caucasian languages, the overall picture that emerges from these case studies gives linguists an astonishing glimpse into the evolution of those languages. Further linguistic work on "nonsense" inscriptions promises to throw light on both Greek art and Greek links with "Scythians."

Many unanswered questions arise and indicate directions for future study.

The most pressing question is whether foreign words on Athenian vases were used only in "foreign" contexts. Can any potentially meaningful Caucasian or Iranian words be discerned in vase scenes where Amazons, Scythians, or foreigners are *not* depicted? Anticipating this and to address the risk of false positive readings mentioned above, we carried out a methodological exercise following our "blind" procedure. We selected a set of ten vase paintings containing about fifty "nonsense" inscriptions but no Scythian or Amazon figures. Only the inscriptions were given to Colarusso. He was not informed of the iconographic context and assumed the inscriptions were part of the original project. These vases are from the same time period as our case studies and some are attributed to the same vase painters. Colarusso considered nonsense inscriptions unrelated to images of Scythians or Amazons on the following ten vases:

1. Red figure hydria attributed to the Pioneer Group/compare Kleophrades Painter, ca 510-500 BC.[52]
   Ransom of Hector
   6 nonsense words ("junk")

2. Black figure hydria from Vulci, attributed to the Antimenes Painter, ca 520 BC.[53]
   Body: Women at fountain
   8 nonsense words ("xargekexs might have potential but nothing obvious here")

3. Red figure neck-amphora, attributed to Euthymides, ca 520-510.[54]

A: Discus-thrower; B: Athlete with javelin
4 nonsense words ("possibly dialect Greek?")

4. Black figure neck-amphora attributed to the Leagros Group, ca 520-510 BC.[55]
   Neck A: chariot; neck B: warrior departing; body A: Aineas and Anchises with Aphrodite; body B: Dionysos with satyrs
   5 nonsense words ("could be Paleo-Balkan words? Illyrian, Moesian, Macedonian, Thracian?")

5. Black figure band cup from Vulci, unattributed, ca 510 BC.[56]
   A and B: Athletes boxing
   4 nonsense words ("nothing recognizable")

6. Red figure cup from Orvieto, attributed to Oltos, ca 520-510 BC.[57]
   A: Dionysos on mule with satyrs and maenads; B: Dionysos seated with satyrs and maenads
   5 nonsense words ("looks like gibberish")

7. Black figure hydria from Cerveteri, attributed to the Archippe Group, ca 550-530 BC.[58]
   Body: frontal chariot with Diomedes between women; Shoulder: fight
   5 nonsense words ("incomprehensible, nothing familiar, some look vaguely Greek with odd endings").

8. Black figure neck-amphora from Vulci, attributed to the Leagros Group, ca 510-500 BC.[59]
   A: Herakles playing kithara between Hermes and Athena
   5 nonsense words ("cannot make any sense of this")

9. Black figure neck-amphora from Vulci, attributed to the Leagros Group, ca 510-500 BC.[60]
   A: Herakles and Acheloos
   8 nonsense words ("a three-letter sequence might be Abkhazian for 'we, us,' but nothing looks promising")

10. Red figure psykter from Vulci attributed to the Kleophrades Painter, ca 500-475 BC.[61]
    Dionysos with kantharos and vine, Herakles and satyrs
    Long nonsense letter string ("overall, this looks like glossolalia, unintelligible, unless drinking and dancing are depicted"). This last suggestion of possible Circassian forms meaning "he is drinking/dancing" and "it is dangling" is interesting, since this psykter (wine cooler) by the Kleophrades Painter depicts a drinking party with Heracles, Dionysus (drinking cup hanging from his fingers), randy satyrs, and wine kraters.

Colarusso could not identify reasonable meanings in Northwest Caucasian or ancient Iranian dialects in this sample of "nonsense" inscriptions (with the possible exception of number 10). As Colarusso remarked after the conclusion of the experiment, Caucasian languages may be strange but they do display consistent, distinctive sound patterns. The negative results of this exercise suggest, first, that our positive readings of the foreign inscriptions accompanying Scythians and Amazons are plausible, and second, that "Scythian" words were not used randomly by vase painters.

Some vase painters and workshops crop up more than once in our discussion. Perhaps it is not surprising to find foreign names on vases by the early Athenian black figure painter Kleitias, given his enthusiasm for inscriptions. More interesting is the clustering of foreign-sounding words on red figure vases by the so-called Pioneers of the late sixth century, such as Euthymides and Hypsis. They and their contemporaries are distinctive for their references to one another and frequent and diverse use of labels and words on their vases. As such, the incorporation of these non-Greek words is another facet of their "inscription habit."[62] Thereafter, however (with the significant exception of the Sotades Painter), this phenomenon appears to die out. Notably, this is the period when our surviving literary sources offer confirmation for a Scythian presence in Athens (the Scythian archers who served in the police force). Many factors may explain this apparent discrepancy, but perhaps following the experiences of the Persian invasions, foreign languages were no longer felt to be suitable or acceptable to the contexts of Athenian vases—although, as Margaret Miller has demonstrated, other elements of barbarian life were incorporated into Athenian society and Athenian playwrights explored the potential of foreign language on the stage.[63]

Mention of contexts brings to mind further questions regarding the situations in which these nonsense inscriptions intended to be read and spoken. Most of our case studies are vessels suited to the symposium, and these "nonsense" inscriptions work just like Greek names, "kalos" names, and other exclamations, inviting the users to engage with both the vessel and the image. *Pace* Steiner, they may not always have a mocking intent, but they clearly complement the visual representations of Amazons and Scythians insofar as they compel the viewer to juxtapose Greekness and non-Greekness. The Sotades Painter's vase seems to have been produced with an Eastern market in mind, but this is in many ways an exception, and we find no compelling evidence to suppose that in other cases the presence of non-Greek words suggests a special commission.

Since most of the vases were found in Etruria, we may also wonder how these "nonsense" inscriptions might have been read there, and it would certainly be interesting to see how specialists in Etruscan might read them today.[64] Here we might distinguish between "meaning" and "function." Arguably, an Athenian may have had no clearer idea than an Etruscan as to what these foreign words really meant. One also wonders whether Etruscans appreciated that the words did not sound Greek.

This paper considers only a small fraction of potentially interesting "nonsense" inscriptions. One can envision designing statistical studies, perhaps undertaken by a team of archaeologist/vase experts and mathematicians, to determine whether the distribution

of letters in "nonsense" inscriptions are randomly chosen from the Greek alphabet, or whether the selection of letters indicate certain sounds and consonant clusters distinctive of Caucasian or other languages. In our sample, the consonant sounds *kh/g* stand out. Immerwahr has noted that many nonsense words on vases by the Tyrrhenian and Leagros painters have a restricted alphabet and the alpha is rare, among other features; *kh* sounds occur often in Leagros vases, hallmarks of West Caucasian languages.[65] If "meaningless" inscriptions are random gobbledygook, one might expect the painters to use all the letters available in the Greek alphabet. Classic glossolalia (spoken gibberish) displays a limited sound inventory and a high rate of repetition, with sonorants (vowels and liquids) dominating. Another statistical project would be to compare the distribution of phonemes in foreign context "nonsense" inscriptions with those in, say, mythological scenes to see if there is a statistically significant variance.

It might be worthwhile for scholars of ancient vase paintings, philologists, epigraphers, and linguists to compare other "nonsense" words on vases to forms in other ancient non-Greek languages and non-Athenian Greek dialects. A future project might survey other instances of mixed sense and "nonsense" inscriptions on vases collected in the Appendix of Immerwahr's 2006 article and among the numerous "nonsense" inscriptions included in the vast Corpus of Attic Vase Inscriptions (CAVI) and Attic Vase Inscriptions (AVI) project.[66] Moreover, several hundred barbarian names, from Iranian, Caucasian, and other steppe languages, appear in the numerous Greek inscriptions on stone found around the northern Black Sea area. This might be another good place to gather material for a broader project of exhuming fragments and traces of non-Greek languages in Greek epigraphic sources.[67]

Another related project, mentioned above in connection with theatrical portrayals of Scythians speaking Greek with heavy accents in literary texts of ancient comedies, might examine the linguistic features of the examples of Scythian-accented Greek in terms of ancient Iranian and Caucasian phonotactics. The discovery of a meaningful line of dialogue in Circassian uttered by an actor playing the role of a Scythian in a Greek comedy (on the New York Goose Play Vase, above) opens up a number of questions about ancient theater, the origins of dramatic texts, and the expectations of audiences.[68]

To conclude, our study has resulted in what we regard as plausible translations of non-Greek languages on Attic vases that were long thought to be meaningless scribbles. Our linguistic analysis recovers several new names of Scythians and Amazons and descriptive words in ancient Scythian languages, words that have remained undeciphered for 2,500 years. If our linguistic impressions and speculations are on the right track, uncovering ancient traces of spoken "barbarian" languages is an exciting and historic discovery. Not only do these vases speak again, showing ancient Greek relations with cultures to the East, but "nonsense" inscriptions might contain the earliest written examples of ancient forms of Northwest Caucasian and other languages spoken by "barbarians."

MAP 1. In the late seventh century BC, Borysthenes and Olbia were the first Greek outposts on the northern Black Sea coast. This map shows Greek colonies of about 550 BC.

MAP 2. A simplified map of North Caucasian languages spoken today. Key: magenta—
Circassian; salmon—Abkhazian; tan—Ubykh (original site; now extinct). Greens and
blues—Northeast Caucasus language groups.

FIG 1. Malibu 86.AE.130, attributed to the Leagros Group, 525-510 BC.

FIG 2. Drawing by Reichold of Euthymides vase, Munich 2308. "Khukhospi" on left, along the archer's leg.
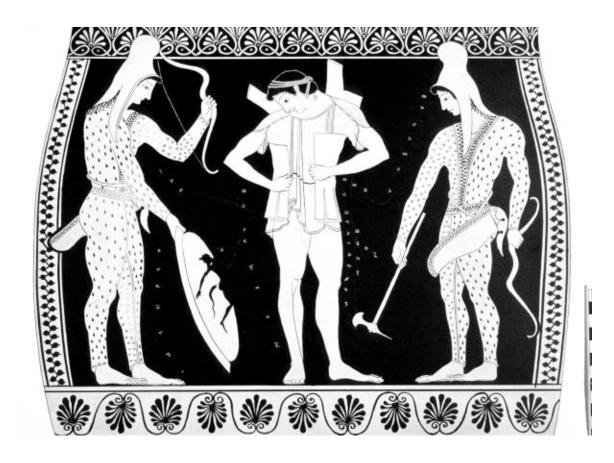
FIG 3. Drawing by Reichold of the Hypsis vase, Munich 2423. "Antiopea" blows the trumpet, center; "Kheuke" is written above her shoulder.

FIG 4. Drawing by Reichold of Wurzburg L 507, Kleophrades Painter.

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NOTES

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[2] Immerwahr 2006 and 2007; Wachter 2002, 153-54; Pappas 2012, 14. Thousands of inscribed vases are catalogued in Immerwahr's Corpus of Attic Vase Inscriptions (CAVI), now integrated, updated, and expanded by Rudolf Wachter, available online at AVI, Attic Vase Inscriptions project: www.avi.unibas.ch. One can retrieve more than 1,500 records of "nonsense" inscriptions, and more than 200 vases depicting Amazons and more than 100 depicting Scythians at Rudolf Wachter's AVI database using the "free search" box for the words "nonsense," "Amazon," or "Scythian."

[3] Types of nonsense: Immerwahr 1990, 44; Pappas 2012. Art historian Karl Lehmann-Hartleben (1894-1960), once expressed the opinion that some nonsense inscriptions were foreign languages, but did not publish on the topic; Immerwahr, per corr March 21, 2012. For non-Attic inscriptions on Athenian vases see, for example, the Sikyonian inscription on the dinos by Exekias (Rome, Villa Giulia 50,599; BAD 310402, AVI 7202). Baurain-Rebillard 1998 suggested that inscriptions on an Attic vase by Sophilos found in Pharsalos, Thessaly, represent Thessalian dialect (Athens, National Museum 15,499; BAD 305075, AVI 0907)). Instances of Egyptian and Etruscan on vases: Bresson 2000; Gill 1987.

[4] Scythian-Greek relations from the sixth to fourth centuries BC: Moreno 2007, 144-208, quotes 146; Braund 2005, 2011, 2013. Greeks associated Amazons with Scythians, according to numerous Greco-Roman writers, from Herodotus to Orosius: Shapiro 1983; Braund 2013; Mayor, in progress.

[5] David Braund per corr Feb 8, 2012; Braund forthcoming 2013. Scythians as "Other," with no relationship to historical presence of Scythians in Athens: Shapiro 2009; Barringer 2004, 13; Lissarrague 1990a; 2001, 84; Lissarague 2002; Osborne 2004. Both Shapiro 2009, 335, and Ivantchik 2006, 218-19, specifically exclude Amazons from their arguments against ethnic meanings of Scythian attire on vases. For a recent critique of Ivantchik's argument, see Cohen 2012, 469-475, on non-Greeks in Greek art. Tsetskhladze 2008 surveys the obstacles surrounding determining ethnicity from proper names.

[6] More than 1,000 images of Amazons on Greek vases are listed in Bothmer 1957, and see 234 for Index of Inscribed Names of Amazons. Comprehensive list of Amazon names: LIMC, "Amazones," 1:653. For Scythians and foreigners in vase paintings, see Vos 1963; Cohen 2000 and 2012; Raeck 1981, 10-66; Lissarrague 1990a; Barringer

2004; and Ivantchik 2006, Amazon names purely Greek, quote 218. Tsetskhladze 2008 and Ivantchik 2006, 222, maintain that names such as Skythes and Kimerios do not indicate Scythian or any foreign ethnicity or ties.

[7] Circe: Arans and Shea 1994. Apsyrtos (Absyrtos): Apollonius of Rhodes, *Jason and the Argonauts*. The Abasgoi (Circassian /aбeʒ-g°ə-y/ Abadz(a)-zone/area-ones.of, the ones from the Abadza area) lived north of people known as Apsilae in the mountainous coastal region north of Colchis. *Apsurtas* means "Abkhazian," derived from the ethnonym /apswa/ meaning "people." Colarusso 2002, 131. Olson 1994, 6-7. Sources of slaves in Athens, Braund 2011; Braund and Tsetskhladze 1989; Tsetskhladze 2008.

[8] Anacharsis and Skyles: Herodotus 4.76-80; Diogenes Laertius 1.101-105; Plutarch *Solon* 5. Lucan *Scythia* says Anacharsis was the son of Daucetas. Willi 2003, 223-24 and nn 82-83, *Anacharsidis Epistula* 1.2 (ca third century BC). Persian speakers in Athens, West 1968. For an interesting theory connecting Scythian-dressed figures in art with Miltiades, Shapiro 2009, 336-40. Miltiades and Cleomenes: Herodotus 6.34 and 6.84, see 4.108-109 for the Geloni, Greek colonists (ca sixth century BC) who settled in nomadic Budini lands spoke a hybrid half-Greek, half-Scythian language.

[9] Scythian-Greek contact, Thracians and Scythians in Athens, see orators Aeschines 2.173 and Andocides 3.5; Hall 2006, 231- 35; Braund 2005, 2011, and 2013; Shapiro 2009. Cf Lavelle 2005, 140-41, and 300 n 89, where he states that there is no evidence for foreign troops. Scythian slaves and archers in Athens, eg Aristophanes *Lysistrata* 184, 451, 455, and other plays; The tenth century AD historical encyclopedia, the *Suda* (tau 772), says that about 1,000 Scythian public slaves served as a police force in Athens, camping out in the Agora, then moving to the Areopagus. Hescythius 1137, Scholia In Aristoph. *Lysistrata* 184. Baughman 2003. Names of "barbarian" archers appear on Athenian Casualty Lists of the fifth century BC, eg, IG I3 1172 35 (barbarian archers); IG I3 1180 26-27 (Thraikes Barbaroi Toxsotai); IG I3 1190 136 -137 (barbarian archers); IG I3 1192 148-149 (barbarian archers--thanks to Ann Patnaude for these examples).

[10] Onomastics: Herman 1990. LGPN, Lexicon of Greek Personal Names. Plutarch *Themistocles* 111-12, says Themistocles' mother Abrotonon was Thracian, but notes that Phanias and Neanthes give her name as Euterpe from Caria. Oloros appears to be Proto-Indo-European *Ol-r, *Oel-r-,* as in Norse *Ull-r* "Glorious." Aeschines 2.22-23, 78, 180.

[11] Anacharsis: Diogenes Laertius 1.105; Pliny 7.197. Amasis: Boardman 1987. Black figure oinochoe, ca 540 BC, signed by Kholkhos, attributed to Lydos ("the Lydian"), Berlin, Antikensammlung F1732 (BAD 310183, AVI 2219). Lydos: Braund and Tsetskhladze 1989, 121, and Braund 2013 suggest that Kholkhos may have been a slave from Colchis, and they point out that slaves' names often indicated their nativity or else the place where they were sold. Lydos the slave: Rome, Villa Giulia 84466 (BAD 6247, AVI 7257); Canciani 1978 (in the appendix to which, Gunter Neumann suggests that the final part of the inscription be translated as "coming from Myrina"). Another Lydos, "Lydos the Scythian," was mentioned as the inventor of smelting by Aristotle: Pliny 7.197. For the vase painter(s) named Skythes, J. D. Beazley *Attic Red-Figure Vase Painters*, 2nd ed (Oxford 1956), 82-83, and Schulz 2001. Braund 2013 argues that the Skythes painter(s) were slaves from Scythia. Saunders 2012, discussing a red figure cup attributed to Skythes (Malibu 83.AE.247, BAD 28761, AVI 4965,) takes Skythes as

Athenian; see his n25 for further references. Brygos: Cambitoglou 1968, 7, 11. Syriskos/Pistoxenos Painter and foreign potters/painters: Pevnick 2010.

[12] "Language consciousness" evidenced in mixed sense and nonsense inscriptions, such as the Greek faience vessels, is the topic of Ann Patnaude's forthcoming dissertation (University of Chicago). Arkesilas cup: Bresson 2000.

[13] Herodotus 8.133-35 (oracle in Carian); 5.58-61 (inscriptions in Kadmeian letters on tripods at the Apollo sanctuary, Thebes). Cf Bacon 1961, 81, for Sophocles' knowledge of the Kadmeian alphabet.

[14] Herodotus 4.87 (Darius's bilingual pillars). For familiarity with Persian customs, names, and sounds in Aristophanes, see West 1968; in Aeschylus, Bacon 1961, 39; see Long 1986 and Hall 2006, 227-230 for more theatrical examples. Herodotus 1.73-74: the Scythian band was welcomed by Cyaxares to Ecbatana, Media, ca 595-91 BC. Greek awareness of barbarian languages in Homer's *Iliad* and Xenophon's *Anabasis* 4.8.4-7: Davies 2002, esp 165-67. Foreign languages in classical antiquity, Werner 1992.

[15] On Herodotus's descriptions of ethnicities and translations of barbarian languages: Munson 2005. Herodotus 1.215; 3.116; 4.5, 13, 22, 57-59, 62, 70; and 5.4; 7.64. Herodotus mistranslated *arimaspi* as "one-eyed." How and Wells 1928, 1:307, 311, 340. Minns 1913, 39. Landmark Herodotus 2007, 291-92, 307. Massagetae, *massag-ket-tai with /-ag/ and adjective suffix and /-ket-/ "clan." Issedones, from /isse-don-/ (people.of.the) icy-river. Maeotis, Circassian: /mə-wə+t'e-/ not-valence+dam.up, "Not Able to be Dammed Up," referring to the width of the Kerch Strait. Colarusso 2010. Gargareans, Strabo 11.5.1. Olson 1994. Talbot 2000, Map 87, text 1226-1227 by David Braund. On the ancient Iranian sources for the names "Scythian," "Sogdian," and" Saka," skud->skut-; skud-skul, see Szemerényi 1980 (thanks to Michael Heaney).

[16] Herodotus 4.110. *Oior-pata* was the Skolotai (Scythian) word for "ruler" (perhaps the preeminent "man-killer"). Although some scholars speculate that *oior* derives from *wiro or *vir, it is more likely that *oior* would be an Armenian-like development of Indo-European (IE) *potis > oyi, with a reassignment to the r-stems, and the *pata* would be a resumptive element designed to explain the first and would reflect an Iranian development of the same root. Amazon etymologies ancient and modern: Blok 1995, 21-37. Ivantchik 2006, 218, states that Amazons "of course have nothing to do with Scythians."

[17] Amezan: phonologized in an older fashion as Circassian /ha-maz-ha-na/ the-forest-intimate.prefix-mother, in Colarusso 2002, Saga 26, 129-31.

[18] Braund 1994. Kerch cup: Oxford 1885.495 (BAD 9009576, AVI 5924). Vani grave 9, Chi 2008, plate 31b. Tanais inscriptions: *Corpus inscriptionum regni Bosporani*, ed. Vasilii Struve (Moscow 1965, in Russian), CIRB 1279, 25-26; 1287, 24, cited by Ivantchik 2006, 217, deriving from Iranian *druna* (bow), surviving in Ossetian as *ærdun*, Saka *durna*, Sogdian *dron*, etc.

[19] Florence 4209 (BAD 300000, AVI 3576). Minns 1913, 53; Blok 1995, 413, 26-30, 217-19; and now Shapiro 2009, 330. Homer Odyssey 11.13-15. Herodotus 4.1-13. The ethnonym Kimmerian (Cimmerian) means something like "homesteader," traced back to Proto-Indo-European: *(t)k(e)ym- "home" (the source of Germanic *heim*, etc): Colarusso 2010. Toxamis is similar to the names Taxakis and Toxaris for Scythians and Amazons in ancient literature and vase paintings: Barringer 2004, 15-17. It has been suggested that an

early, lost version of the myth included Scythians in the Calydonian Boar Hunt, Wachter 1991, 93-95. On caution in interpreting ethnic-sounding Greek names, Braund and Tsetskhladze 1989. Cf Ivantchik 2006, 210-23, who argues that the archers' names simply describe the weapons (bow) and that Kimerios was a common Greek personal name with no ethnic meaning, 222-24.

[20] Athens, National Museum, Acr. i, 597, f-h (BAD 300727, AVI 0969). Bothmer 1957, 23-24, plate 19. Cf Ivantchik 2006, 218-219, who relates the name Skyleia to the Greek *skylas*, "puppy, young animal." Herodotus 4.78-80. Strassler, *Landmark Herodotus* commentary, 313-15, fig 4.78.

[21] Angers, Musée Pince 3/284.10 (BAD1559, AVI 0159). Lissarrague 1990, 110-11, Fig 61. This fallen Scythian-attired archer under the feet of the Greek warriors does not appear to conform to Ivantchik's thesis; cf Ivantchik 2006, 221-224, who concludes that the name does "not indicate in any way the ethnicity" of the archer labeled "Skythes."

[22] Malibu 86.AE.130 (BAD 41928, AVI 4995). See Immerwahr's text at AVI 4995 and 2006, 147. Leagros Group vases with recognizable Greek inscriptions, eg Berlin Antikensammlung F1904 (BAD 302049, AVI 2262) and F1961 (BAD 302354, AVI 2268).

[23] Munich, Antikensammlungen 2308 (BAD 200161, AVI 5259), Munich 2308, from Vulci, commentary by Immerwahr at AVI 5259. Lissarrague 1990a, 49, 110, Fig 18. Pappas 2012 takes an aesthetic approach to mixed sense and nonsense in symposium contexts, eg another vase by Euthymides (Munich 2307; BAD 200160, AVI 5258). Another Scythian archer is labeled "Euthybolos" on a kylix attributed to the Ambrosios Painter, same era, Florence 73127 (BAD 201568, AVI 3588). A Scythian archer labeled "Eubolos" ("Fine-Shooter") appears on a red figure kylix attributed to Oltos (Basel BS 459; BAD 352420, AVI 1991); another Oltos archer is labeled "Eubolos," perhaps Paris with a punning epithet? (Munich 2593; BAD 352421, AVI 5304).

[24] Immerwahr 1990; 2006; 2007; and 2010, 118ff. See Immerwahr 2006, nos. 3816, 5121, 5287, 6269 for nonsense labels related to Amazons. Cf Snodgrass 2000, 29-30. Immerwahr per corr April 4, 2012. On orality and literacy in early Greek art, Hurwit 1990. See Osborne and Pappas 2007, esp 142, 153 for performative functions of "nonsense" inscriptions. Pappas 2012 suggests that combined sense and nonsense inscriptions on sympotic vases were a "rich source of aesthetic communication" intended to present the audience with an intellectual challenge.

[25] Steiner 2007, 75, 205-6, 292 n 69. On the humor of pidgin and non-Athenian Greek in theater: Colvin 2000. Cf Hall 2006, 230. Klaproth 1814, 266, 276. Colarusso 2002, 4. To hear poetry recited in a modern Circassian dialect: www.youtube.com/watch?v=KBEC-9P8-7I.

[26] See Willi 2003, 202-24 for a detailed phonological linguistic analysis of "foreigner talk"—actors imitating Scythian accents and broken Greek—in Aristophanes' comedies. Baurain-Rebillard 1998 suggests that some vases destined for Etruria contained "mock" inscriptions intended to mimic the sounds of Etruscan, but it is not clear that this would this appeal to Etruscans. "Gibberish made from foreign language noises," Hall 2006, 229. The US comedian Sid Caesar is a modern master of impersonating typical foreign pronunciations of English. The "doubletalk" effect is achieved by mixing stereotyped

distinctive sounds of each language, especially word endings, with a few genuine words: www.youtube.com/watch?v=_dlr8fj4Y00.

[27] Typical examples of this scholarly assumption: Willi 2003, 203 n20: "As long as there is no evidence to the contrary, we may safely assume that the Athenian 'Scythians' were really . . . Iranian-speaking Scythians north of the Black Sea." Hall 2006, 229: "Scythian was an Indo-Iranian language akin to Persian."

[28] Colarusso 1997a. For a map of the distribution of these languages today, see http://en.wikipedia.org/wiki/File:Caucasic_languages.svg. The ancient forms were probably more extensive, and the locations of peoples have shifted since antiquity, especially in this region of nomads and clan conflicts. Olson 1994.

[29] Mapping ancient language groups and tribes. Colarusso 2010; Braund 1994; Talbot 2000; Olson 1994.

[30] Polypersonal verb and clitic chain, Colarusso 2003; 1997b; 1994b; 1994c.

[31] Colarusso 1994a.

[32] Immerwahr 2007.

[33] Aristophanes *Thesmophoria* 1002. Willi 2003. Colvin 2000, 295-98; West 1968; Hall 2006, chapter 8, "The Scythian Archer."

[34] Rudolf Wachter, per corr June 17, 2011. Immerwahr 2006, 138; and 2010, 118ff. On "linguistic otherness" cf Hall 2006, esp 228 and n 16, on a modern attempt to decipher "gibberish" in the "Chariton mime" papyrus, a parody of Euripides' play, as a South Indian dialect. Jubier-Galinier 1998 and Oakley 2005 14, 16, suggest that combining meaningful and pseudo-inscriptions was a deliberate strategy of the Sappho Painter; cf Pappas 2012, on the Euthymides Painter.

[35] On "bubble" inscriptions, Snodgrass 2000, 24. Calyx krater, New York Goose Play Vase, attributed to the Tarporley Painter, Metropolitan Museum of Art 24.97.104 (Trendall and Cambitoglou 1978 no. 7; thanks to Mary Louise Hart for suggesting this vase). The museum text (as of July 2012) cites a "recent theory" that the two men are thieves about to steal the old woman's possessions. Hall 2006, 227-28 and n13. Csapo 2010, 45-49 and Fig 2.1. Quotes, Colvin 2000, 295, fig 7, citing Beazley 1952. Most read the inscription as "noraretteblo" but the beta is damaged and could be a rho, "noraretterlo." Taplin 1993, Pl. 10.2, 30-31 and n3, suggests a misspelling of "NEBLARETOI," an obscure Greek word for "to have it away." More plausible, we believe, is Colarusso's analysis of "noraretteblo" as an ancient Circassian expression that completes the dialogue of the three characters in the scene. On Aristophanes' familiarity with "Persian sounds," West 1968.

[36] Colarusso 2002, 536, 541.

[37] Munich, Antikensammlungen 2308 (BAD 200161, AVI 5259). The Greek names of the two other warriors are appropriate: Euthybolos carries a bow and Thorykion puts on his armor. Four unexplained letters, MAE[. .4 . .]G[.] (per AVI) also appear alongside this archer. Immerwahr suggests this could be the beginning of a name or spoken word. Khu-khos-pi, according to Steiner 2007, 205-6 and Immerwahr 1990, 65, no. 29; Immerwahr 2006, 136. Ivantchik 2006, 211, 214, reads the word as "Chalchaspis" (copper-shield), following Kretschmer 1894 and Neumann 1977, but this "fanciful" reading is rejected by Steiner and Immerwahr. Possible link to Scythian-Iranian "asp" root suggested by Immerwahr, per corr April 4, 2012, and Christopher Beckwith, March

28, 2012. Euthymides often combines sense and nonsense inscriptions, Immerwahr 2006, 149-50. See Pappas 2012 for a sympotic Euthymides amphora, Munich 2307, in which one Greek-sounding nonsense word, ἐλεοπι, appears alongside several meaningful Greek inscriptions. In Case 9, Euthymides records a Circassian name of an Amazon; these warrior names may have entered Greek oral traditions without knowledge of their original foreign meanings (we go on to discuss this later in the main text). Comparison with Munich 2307 suggests that Euthymides appears, on the basis of what survives, to have used *kh* consonant clusters in the context of Scythian and Amazon figures—thanks to Alexandra Pappas for this insight.

[38] Malibu, J. Paul Getty Museum 79.AE.16 (BAD 10099, AVI 4923). Immerwahr 2006, 164. The other, incomplete, words exhibit telltale *kh* sounds, perhaps they represent the sounds of the riding Amazons, or exclamations intended to sound like "Amazon" language. Immerwahr notes that the vase painter Oltos "frequently mixes sense and nonsense" but was quite capable of writing coherent Amazon names, see eg Malibu 79.AE.127 (BAD 13715, AVI 4938); Berlin F2263 (BAD 200521, AVI 2312), London, British Museum E18 (BAD 200522, AVI 4433); Immerwahr 2006, 150 n 46. We note that another Oltos cup, Oxford 1927.4065 (BAD 200513, AVI 5960), also has nonsense on a scene with Amazons on horseback, but the inscriptions themselves are not published.

[39] Munich, Antikensammlungen 2423 (BAD 200170, AVI 5287). Immerwahr 2006, 142, 166. Thanks to Alexandra Pappas, per corr March 19, 2012, for the suggestion that the word mimics the sound of the trumpet. Antiope would be an unusual figure to find in Amazon scenes of this time (per Bothmer 1957, she is not named in black figure Amazonomachies). The earliest examples of her name on vases occur in rape of Antiope scenes which appear ca 525 BC.

[40] London, British Museum E253 (BAD 200204, AVI 4537). Cf Lissarrague 1990a, 277, A418. The cup attributed to the Delos Painter (ca 525-500 BC) is Basel BS 488 (BAD 201560, AVI 2003): note that this might have a final -*s*.

[41] Paris, Louvre G107 (BAD 200088, AVI 6451). Barkida, Bothmer 1957, IX.6 (p 131). See Immerwahr's commentary, AVI 6451, noting a theory that Barkida could refer to Barka, a city in what is now Libya colonized by Greeks in the seventh century BC. The Amazon archer figure-type recurs with a different name on a Euphronios volute krater, with the Greek names Heracles, Telamon, and a misspelled "Hyphsepyle," Arezzo 1465, (BAD 200068, AVI 0165).

[42] Wurzburg, Martin von Wagner Museum L507 (BAD 201654, AVI 8122). Mentz 1933 suggested that Eios is the dog's name; see Immerwahr's commentary at AVI 8122, where Immerwahr mistakenly attaches "Tletu" to the Scythian, but the word actually appears next to the diminutive figure, whose small size signifies either a slave or a youth. For similar short, puzzling inscriptions, compare the Euthymides kalpides of the Pezzino Group; see Immerwahr 1990, 82 and 71 n 35. Immerwahr suggested as an example Vatican G71 (BAD 200137, CAVI 7026), which we used as a test case, see text discussion of our methodology, above.

[43] Kuipers 1975, 43.

[44] Malibu, J. Paul Getty Museum 86.AE.130 (BAD 41928, AVI 4995). See Immerwahr commentary at AVI 4995.

[45] London, British Museum E255 (BAD 200175, AVI 4539, Steiner 2007, 205-206, fig 9.8. Another vase also attributed to the Dikaios Painter, London E254 (BAD 200166, AVI 4538), shows a very similar scene, but with different nonsense inscriptions, pronounced "opoisaogi," "top [..] oio," "eois" (around the archer); "tonei," "eopoi," "iopi" (around the warrior); and "tote," "opoenai," "iopo[g]m" (around the old man). Except for "tonei" ("remaining there" Circassian), these sounds strike no chords in any languages known to Colarusso. This is puzzling: what was the Dikaios Painter up to here? Perhaps in this case, the sounds were only intended to give the impression of foreign speech. Possibly, "tonei" = "stay" could apply to the dog, who appears to be interacting with the old man. The other side of this vase also contains nonsense.

[46] Aidone, Museo Archeologico 58.2382 (BAD 200145, AVI 5121). Immerwahr 2006, 144, (song)165. Colarusso 2002, 187. Steiner 2007, 155-56, fig 7.23-24, on repetition of this name and other labels, 89-93, 153, 155. Neils 1995, 433, sees Khara, not Khasa, and argues for Sosias, a known masculine name in Greece, but the final sigma is missing on both sides of the vase; see commentary at AVI 5121. Sosias is the name of a male slave in Aristophanes *Wasps* 78-79; and an Athenian potter named Sosias was active ca 500 BC. Music and song inscriptions: Lissarrague 1990b, 125-35; Pappas 2012.

[47] Paris, Louvre SB 4143(BAD 209476, AVI 6724). "Gygamis reminds me of Lygdamis or Semiramis, and may also be compared with Toxamis on the François vase," Bothmer 1957, 194-95, Plate 82.2. See Immerwahr, AVI 6724 commentary.

[48] Paris, Louvre E 855 (BAD 310052, AVI 6269). Bothmer 1957, 6. Immerwahr 2006, 168.

[49] Paris, Louvre E 875 (BAD 310122, AVI 6275). Bothmer 1957, 8, Plates 14-16. This vase has several inscriptions, some ancient and some restored, Bothmer, Beazley, and Immerwahr only list those they deem original. The Greek warriors are named Telamon, Deiptes, Euphorbos, Korax, Lykos, and Mnesarchos. See Immerwahr commentary at AVI 6275.

[50] Gioia del Colle, Mus. Arch. Nazionale MG.29 (BAD 9009482, AVI 3817, CAVI 3816=3817). Immerwahr 2006, 142, 147, 161. Gershevitch 1955 proposed that the original meaning in Ossetian was "Spirit."

[51] Snodgrass 1998. Greek, Scythian, or other lost traditions about Scythians discussed by Barringer 2004, 16-17, 19, 23-25; Wachter 1991; rejected by Ivantchik 2006, 198 and n3 citing Skrzhinskaya's 1991 theory, and 206, 219-24.

[52] Harvard, Arthur M. Sackler Museum 1972.40 (BAD 352403, AVI 3921).

[53] London, British Museum B336 (BAD 320013, AVI 4290).

[54] Rome, Museo Nazionale Etrusco di Villa Giulia (formerly Malibu, J. Paul Getty Museum 84.AE.63; BAD 16321, AVI 4976).

[55] Malibu, J. Paul Getty Museum 86.AE.82 (BAD 3891, AVI 4986).

[56] Munich Antikensammlungen 2220 (BAD 31912, AVI 5245).

[57] Orvieto, Museo Civico 1049 (BAD 200539, AVI 5808).

[58] Vienna, Kunsthistorisches Museum 3613 (BAD 310145, AVI 7944).

[59] Berlin Antikensammlung F1845 (BAD 302131, AVI 2254).

[60] Berlin Antikensammlung F1851(BAD 302396, AVI 2256).

[61] Compiegne, Musée Vivenel 1068 (BAD 201758, AVI 3217). Previously attributed to Euthymides by Beazley and to Oltos by Hartwig.

[62] See for example, Neer 2002, 87-134.

[63] Miller 1997.

[64] On markets for Athenian vases, see Osborne 2004. Athenian vases in Etruria: Reusser 2002. On social, political, and cultural contexts and vase shapes bearing mixed sense and nonsense inscriptions, see Pappas 2012, esp nn 3, 9, and 71. On a possible Etruscan inscription on an Athenian vase (Florence, Museo Archeologico, PD 66; BAD 213194, CAVI 3702) intended for an Etruscan customer: Gill 1987; cf Pappas 2012; Steiner 2007, 234-36. As mentioned above, Baurain-Rebillard 1998 suggested that Tyrrhenian and Little Masters painters inscribed vases with mock inscriptions mimicking "Etruscan sounds" for an Etruscan market, but it seems dubious that Etruscans would buy vases with fake inscriptions in their own language. Etruscan, like Basque, had fairly simple phonology, and contrasted voiceless tense stops (written phi, theta, chi) to voiceless lax ones (written pi, tau, kappa or "c"). It also had clusters (generally considered of late formation, that is, of the period of historical attestation), but neither had any of the uvular or pharyngeal sounds that are abundant in all Caucasian languages except Georgian which lacks pharyngeal. For Etruscan vocabulary for which meanings are well established: http://etruskisch.de/pgs/vc.htm.

[65] Immerwahr 2006, 146, 147.

[66] AVI Project: www.avi.unibas.ch. Immerwahr 2006.

[67] Minns 1913, 37-40. Gavrilov et al. 2004, *Corpus Inscriptionum Regni Bosporani* (CIRB, in Russian and Latin, but contains photos of the Greek inscriptions) collects the scattered publications of more than 1,300 Greek inscriptions from the Bosporus region, many of which contain barbarian names.

[68] Willi 2003; Colvin 2000; West 1968. The "Goose Play" is illustrated in another vase painting in Boston, Apulian bell krater, ca 370 BC: Taplin 1993, 32.