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Hieroglyphs Out of Place[1]

Stephen HOUSTON

Brown University

Abstract. Maya glyphic writing, a lush and storied hieroglyphic system of Mexico and northern Central America, offers much evidence of tensions and play between text and image. An anomaly worth exploring is when a glyph appears to intrude into the domain of pictures. Closer study reveals that such signs are usually of a limited sort, being concerned with time and seasons, or with ways of naming the complex, expansive surfaces of geographical locales. They respond to gravity and rest on depicted surfaces. Yet many, perhaps most, are signs that exist in mythic settings, where humans of rare aptitudes fused with gods.

Keywords. Hieroglyphs, Maya, picture and text relations, cognitive domains.

The essence of a hieroglyph is its unsettled relation to pictures. A hieroglyphic sign that records a word, sound or thought tends to be figural and materially grounded. It corresponds to things in the world and continues to do so over the course of writing systems in active use. It also forms part of a graphic "ecosystem" extending to other forms of representation. This means that, for those looking at them, hieroglyphs foster the potential for a "category mistake," a blurring of classes often kept distinct.[2] The issue arises when viewers and readers interact with hieroglyphs. A viewer sees less a sequence of meaningful sound than an arrangement of objects in space. A reader attends to phonic signs and their "vectoriality" or linear order, parsing them according to the morphology and syntax of language.[3] Outside of braille, all readers are viewers, but not all viewers are readers. Yet this

1 This essay has benefitted from discussions with David Stuart, along with perceptive leads and comments from John Baines, Claudia Brittenham, James Doyle, and two anonymous reviewers. John was especially helpful with a close edit of the manuscript. My thanks go also to Eric Poeschla, Alexandre Tokovinine, and Marc Zender for use of their drawings and photographs, and to Andréas Stauder for his editorial help.

2 On category mistakes, see Ryle 2002: 16–18. For recent review, see Magidor 2024.

3 Winand 2023: 79, 81, fig. 3; see also, Angenot 1996, a citation provided by John Baines. "Vector" implies, in English usage, both direction and magnitude. If taken to heart, it stresses both the linear nature and overall length of texts. For the Maya texts under review here, that length is likely to correlate with the social importance of figures

distinction was not fully understood in the Italian Quattrocento and Early Modern periods. Falling into a category mistake, savants of the time understood Egyptian hieroglyphs as graphic symbols yielding parables or esoteric wisdom. A script details particles of language. Hieroglyphs were, seemingly, about something else, a portal to a monistic consciousness floating beyond, above, and outside the perceptible world, serving as a vehicle for universal communication. Several Humanists even experimented with a "new mode of writing," an ad hoc system, never widely used, that both resembled Egyptian script and departed radically from its linguistic kernel.[4]

In theory, not all of this was wrong. The retention of pictoriality in hieroglyphs—several such systems are known, not just in Egypt—encourages a certain tension or friction in their use and makeup. Correctly understood as records of sound, they nonetheless record much else, as inferred from variances of color, form, paleography, graphic customs, textural clues, physical placement, interplay with light, and orientation: they tend to semiotic, pictorial saturation, or can do so as part of the graphic resources of makers. Hieroglyphs are also a kind of picture, a set of objects in representational space: they communicate a feeling of mass, have shape, interiors, exteriors, an edge in between. In this, they contrast profoundly with stroke-based systems that constitute most non-printed scripts in the world.[5] Perhaps, too, the Humanists who toyed with hieroglyphs were partly correct in another way. The separation of picture from text—to those who believe a category error has occurred—denies the possibility that they might also share a measure of vitality in which a depiction absorbs a portion of the original's identity, being, and behavior or be capable of speaking and emoting. Such vitalities, or a claim to them, can certainly be detected in Maya glyphs, a hieroglyphic system used for about 2000 years in the Yucatan peninsula and environs.[6] At times, its signs erupt into fully figured forms, grasping other glyphs nearby or relating to them as though

captioned by glyphs. Shorter texts tag those of lower (but still elite) status, longer ones the images of kings, queens, and princes. In the longest texts, depictions of people disappear or reduce to figures at the top margins or sides and front of a stela (Helmke et al. 2018: table 1, for comparative length of texts by number of glyph blocks, the main unit of glyphic display). They emphasize lengthy chronicles of key import to the local dynasty. Their volubility is better suited to all-textual presentations, as part of an effort to craft an authoritative account in words. In other cases, particularly at Yaxchilan, Mexico, self-referential texts, such as a lintel alluding to its dedication, typically avoid the use of imagery; see Houston 2023. Lintels with imagery are about events outside the text, away from the building that houses such carvings. A subtle decorum of use is apt to be at play here.

4 Winand 2023: 52, 58, *in quibus interpretandis dimitte voces accipe sensus*, "in which to interpret, let go of the words, receive their meanings." See also Hamann 2008, for wider Humanist discussions about non-Western writing, and, for musing about hieroglyphs as a facilitator of universal language, Howard 2024; there is broader contextualization in Curran 2007 and Giehlow 2015, and, for specific studies of images or carvings, Galis 1980; Winand 2022. To consider a Mayanist analogy, see Coe 2012: 141, citing J. Eric Thompson, for whom, in his "Herculean" quest for "mythological allusions," decoding "leads us, key in hand, to the threshold of the inner keep of the Maya soul, and bids us enter" (Thompson 1950: 295).

5 Houston & Stauder 2020: 21.

6 Houston et al. 2004: 73–81.

in conversation or respectful attendance (fig. 1).[7] Indeed, fuller shapes are implicit or latent in the more common reduced or abbreviated versions. They lurk "off-screen," bursting into view, embodied, as a special and rare kind of emphasis. In a few cases, they reflect a particular class of creature. Animals and birds were more likely to appear in this manner, wild, tussling or vocalizing through mouths open wide. Glyphs without clear pictorial referents appear to have skirted such exuberant variants and were accorded latent animacy. This suggests that some Maya glyphs had such potentials, others did not. There is also some evidence that these animacies were less generic than rooted in specific mythic prototypes: in glyphs, not just any snake, but *this* one, rooted in a distant tale; not just any god, but *that* one, a participant in a sacred story.[8]

Fig. 1. Full-figure glyphs, **ma-k'a-na CHAN-la**, Mak'an Chanal, a noble owner of the "dwelling" (*otoot*), Structure 9N–82 Hieroglyphic Bench, block 4, July 7th, 781 CE, with alternation between conventional glyphs and two fully figured ones, **na** and **CHAN** (Zender 2019: 30, fig. 1, photograph by Marc Zender)

7 Houston 2022a: 79.

8 Houston & Martin 2012.

Yet, with Maya writing, the promised union of picture and text never comes to pass, despite the complementation between them.[9] There is less a category mistake than an abiding ambiguity, a coding that makes quiet distinctions. Glyphs and images employ the same canon of graphic conventions, draw on similar clues to material, surface quality, gender, details of body parts, and gestures.[10] They were probably crafted by the same people, schooled in a similar repertoire of graphic forms. A particular object might have led a viewer or reader to think of the word for it and its associated meanings: to see, say, a statue of Abraham Lincoln, recognizable by his gangly frame and chinstrap beard, tended to elicit his name in the mind. But glyphs as writing are always recognizable as such, either because of their vectoriality and strong phonic content, almost always of word signs, or by their patent identities with isolable signs in texts. According to cognitive psychologists, they are, with images, constituents of different, if parallel, modes of graphic display.[11] Some displays are mostly picture, with a bit of text; others allot more room to textual graphs. Intersections of the modes may have intensified human encounters with them, and their juxtapositions—as in, from another context, rebus spellings interspersed with Latin script—appear at once ludic and droll, engrossing and serious.[12] On a deeper level, each collaborates with the other in an immersive visual argument, rich with sound and pictorial ingenuity. The aim is to enhance an overall notion of authoritative display, an "unerring accuracy" in the words of some specialists: if not literal, they at least offer up a narrative truth, a coherent story.[13] Yet the modes are most jarring, at their most mutually contrastive, when graphs from the textual, language-based domain infiltrate the pictorial field as objects. The signs appear solid and graspable, as though held in human hands, but the very point is their anomaly. They are, as in Egyptian cases, an uncommon insertion that seems, in a semiotic sense, "marked" by their departure from the norm. As hieroglyphs out of place, they underscore what is in fact a carefully observed distinction between categories, word signs of a particular sort that find their way into pictorial space. There was no logical error or spurious fusion of different categories, no blending of modes or secure "assimilation" of picture and text.[14] The aim was to enact a purposeful, supernatural friction at the boundaries between them.

9 Houston 2022: 79. For complementarity of text and image, see Nöth 2000.

10 Precisely the same point about a collective inventory of visual conventions, held at a particular time and place, is made for Egyptian hieroglyphs by Vernus 2016: 2–3, who also identifies how such graphs can be configured for pictorial or textual use. An especially apt term is "calibration," by which graphs are adjusted in size depending on whether they are mobilized for texts (where size becomes uniform) or images (where size adjusts to a pictorial field).

11 Cohn 2016: 310–318; see also Cohn & Schilperoord 2022. For a sophisticated view of relations between images and words in domains of picture, signs of meaning ("semasiographs") and language ("glottographs"), see Martin 2006: 63–64, who reflects on an influential treatment by Elkins 1999: 85–86. A suggestion of more overlap between these domains appears in Stuart 2021: 27–28, commenting on the celebrated Aztec Calendar Stone.

12 Brisset et al. (ed.) 2016.

13 Stone & Zender 2011: 24, for "unerring accuracy."

14 Stone & Zender 2011: 26, on "assimilation."

1. The emblematic mode

Egyptologists have defined an "emblematic mode of representation" in which "a deity or a king" is shown as "an inanimate symbol with limbs attached," often to perform an action; this allows "entities to be depicted in otherwise inappropriate contexts."[15] Scribes and carvers "exploit[ed] the distinction between representation and writing to create something that is located between the two," yet were "less common than is sometimes implied… and no one confuses picture with script (as is true also of Mesoamerica)."[16] Familiar Egyptian examples include name glyphs held in the hands of their referent, as in a cedar panel from Hesy-re, a Third Dynasty official, or, earlier still, from Naqada III, standards sprouting arms to constrain captives, prefiguring in turn the use of Narmer's name hieroglyphs to smite Libyan enemies (fig. 2).[17] It is surely notable that the bodies may be human, hinting at sentient agency, but almost always lack human heads. That slot is instead filled by an animated sign, the evident initiator of action. The human limbs are a kind of prosthetic for graphs not ordinarily understood to walk, grasp, bludgeon or affect the physical world around them.

Fig. 2. Battlefield Palette, Naqada III, ca. 3100 BCE, British Museum (EA20791), with cast of upper left fragment, taken from original in the Ashmolean Museum, Oxford University; a third fragment is not reproduced here (© The Trustees of the British Museum. Shared under CC BY-NC-SA 4.0 license)

15 Baines 2007: 16. See also Baines 1985: 41–63, noting the use of human hands to assign agency to an attached symbol, and, for earlier exposition, Fischer 1972: 9, 17–19, figs. 9–11, 25, and, in more detail, Fischer 1986: 40–41, figs. 10–13.

16 Baines 2007: 285.

17 Baines 2007: fig. 8; Fischer 1972: 17–19.

As a term, "emblematic" has a different usage in Mesoamerican writing. The script of Teotihuacan, Mexico, sometimes carries this descriptive, above all to emphasize its compaction, allergy to vectorial sequences, stress on symmetry, distribution in areas of its near-imperial reach, abbreviations of larger, more elaborate signs, and frontality of signs, "perhaps as a statement of aggression and domination."[18] They usually sit alone, in murals or next to strikingly similar figures they help to distinguish: their function is to name persons or buildings and place names, or to supply titles (fig. 3).[19] There is no special emphasis, as for Egyptian hieroglyphs, on their appearance with arms or legs. Any disposition into syntax, as sequent signs, is infrequent and not always clear in their order and still less so in their meaning. Their role is to complement imagery, to supply it with clarifying labels. They also represent a collective decision at Teotihuacan and among other peoples in ancient Mexico to move away from the vectorial, highly linear texts that find their fullest expression among the Maya and related groups in the Isthmus of Tehuantepec region. One hypothesis is that this strategy allowed greater transmissibility and broader use in areas of varying language, as part of polyglot societies, although the signs unquestionably carried words and perhaps homophones from local speech.[20] Writing may not be reducible to language, but, by definition, it bears a necessary connection to meaningful, structured sounds.

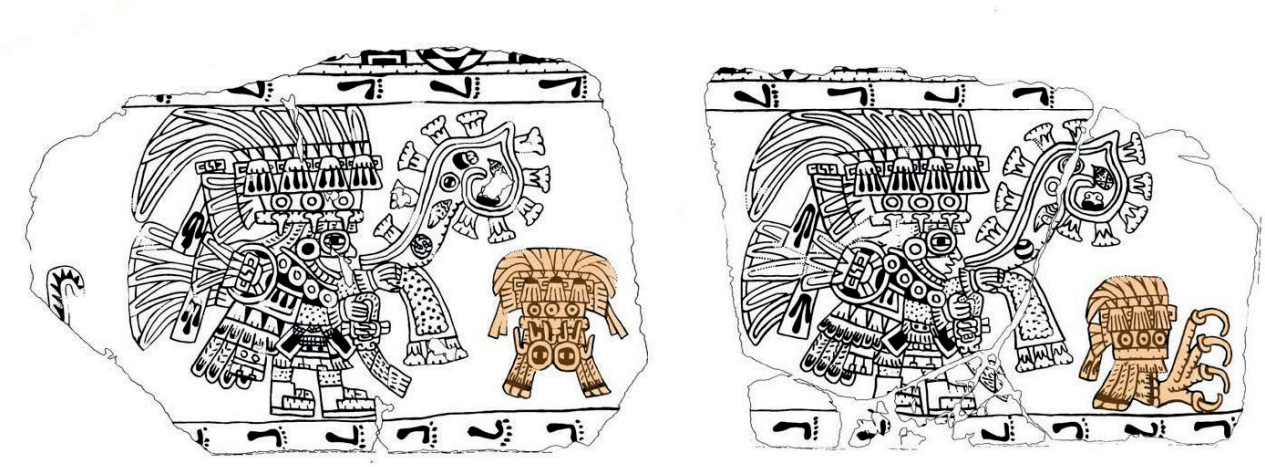

Fig. 3. Persons in procession with tasseled headgear and garments; highlighted in color are their name glyphs (frontal Storm God eyes with flames and a raptor's talon respectively) and, above, smaller versions of their dress, probably titles or insignia of rank, wall paintings, Techinantitla compound, Teotihuacan, ca. 500–550 CE (Millon 1988: figures v.1, 4, Fine Arts Museum of San Francisco, 1985.104.5, 1985.104.11)

18 Taube 2000: 47, figs. 7, 10, 21; also Taube 2011: 87, 104, fig. 5.7. For such glyphs away from imagery, see Cabrera Castro 2017: 112–116, fig. 14.6, or as possible place names, Helmke & Nielsen 2014. For analogues from the late first millennium CE city of Cacaxtla, Mexico, see Helmke & Nielsen 2011, who make a case for language-specific syntax.

19 Houston 2004: 277. For Teotihuacan titles, Millon 1988: 123–125.

20 Houston 2004: 275–280.

2. Names out of place

For the Maya, glyphs that appear by themselves, without syntactic ordering beyond a single word and its adjectives or numerical notations, are a special kind of out-of-place hieroglyph. They clearly operate as logographs, needing first to pass through a process by which sounds were attached to them, after which the sign might be inserted into an image.[21] The most common are name glyphs occurring in headdresses.[22] This pattern goes back to the origins of Mesoamerican writing as identifying, almost diacritical signs affixing themselves to human heads.[23] In earlier images, idiosyncrasy did not come from some trait of a particular body, but from an identifying glyph. Word signs, now in the existential space of the figure, rest on the head, thus naming the figure (fig. 4). Roles are designated by elements of costume or seating on a throne: examples among the Maya, as on Copan Altars L, Q, I, and T, include rulers seated on their names, as though such signs existed to ground and solidify their presence (fig. 5).[24] Glyphs, obedient to gravity, placed squarely on the head, provide a more individual label. In other respects, aside from minor elements of clothing, the figures are nearly identical.

Fig. 4. Name glyphs on the head of enthroned rulers, Kaminaljuyu Monument 65, Late Preclassic period, ca. 1 CE, Museo Nacional de Arqueología y Etnología, Guatemala City (photographs by Stephen Houston)

21 Stone & Zender 2011: 18. Their emphasis on logography, the attachment of sound, is crucial.

22 Claudia Brittenham points out that the stucco glyphs on palace and temple walls at Palenque, Mexico, were probably finished prior to their placement. Intended to form parts of larger texts, they began, in a sense, as isolable glyphs, and could also dislodge if their bindings to the surface failed; see Schele & Mathews 1979 for the largest samples of such stuccoes. For a study of their state once dislodged by later visitors to Palenque, see Houston & Stuart 2013.

23 Houston et al. 2006: 68–72.

24 Copan evidence: Fash 1991: figs. 11–14, 109. Altar T, consultable in the *Corpus of Maya Hieroglyphic Inscriptions archive* at the Peabody Museum, Harvard University, contains personified day signs, holding up month glyphs that mesh with them calendrically—for the Maya, days and months together constitute an important count of 52 years. The day signs sit on individual glyphs that spell out an anniversary text referring to the "seating" in office of the 16th ruler of Copan. The trope of sitting, by figure and verbal glyph alike, is undoubtedly intentional. An intriguing twist is the imputed agency of the day signs—they are equipped with bodies—and what seems to be a more inert, passive role for the month signs. This may be some scribal whim or a reflection of subtle differences between the nature of days and months. The top of the altar shows figures, each seated on the splayed body of a mythic crocodile, holding largely eroded glyphs; http://ancientamericas.org/collection/aa010021; for discussion of these day names, see Stuart 2024a.

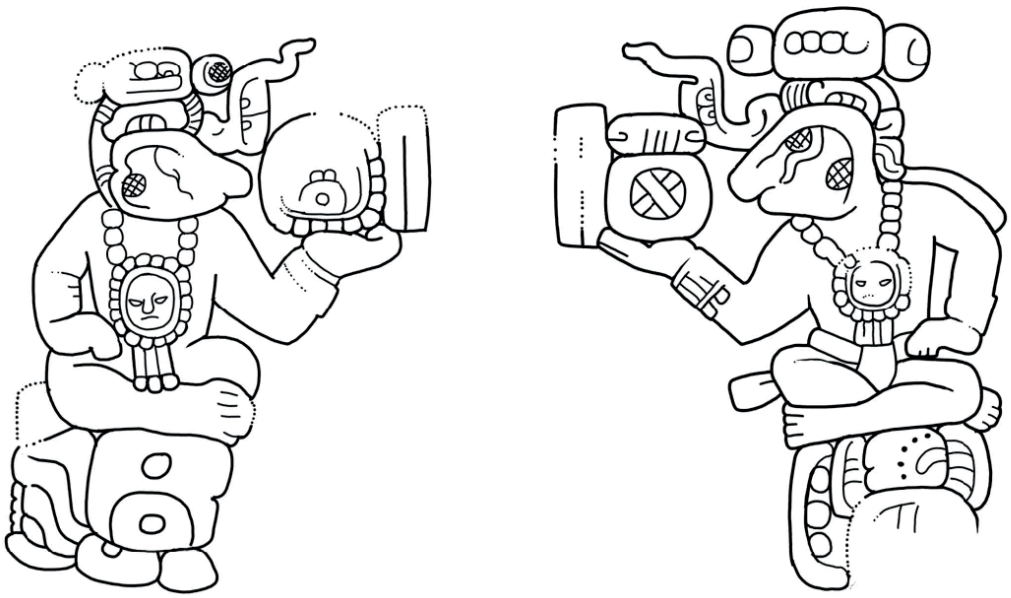

Fig. 5. Seated Kaban day names, with numbers 6 and 4 respectively, holding their corresponding month glyphs, 10 Mol and 10 Zip, equating to June 29, 763 CE, and March 16, 783 CE; these refer to a royal enthronement and its 20-year anniversary (drawing by David Stuart)

Later examples demonstrate the semantic complexities of such name glyphs and the graphic fictions of weight and gravity, at least in the pictorial field. Naranjo Stela 43, thought to date to about 573 CE, records different slices of time, both in its texts and in images on the back and front of the carving. One side highlights the reigning lord, the other his father; they are respectively in the guise of a deity linked to the sun in its nocturnal phase (the current ruler) and its full appearance at day (the father, fig. 6).[25] The son's side abounds with various name glyphs, perched atop the ruler's own. His outsized name glyphs sit in a horizontal sequence above a conventionalized rectilinear emblem for the sky. Three bugs, perhaps fireflies, illuminate the scene while buzzing about to upper left. They exude a fiery smoke in an amusing conceit of the time: the glow of such creatures was construed to come from torches or fire rather than bioluminescence. In its packed layout, an interpretive riddle even to an au fait viewer, the stela exhibits other historical figures in miniature. These small beings may embody the effigies kept in Maya temples.[26] All are labeled by glyphs on their heads, and, in their grasping and gesturing bodies, they meld with nocturnal aspects of the Sun God.

25 For analysis and drawings, Stuart et al. 2023.

26 Small effigies of the Rain Deity, Chahk, are attested in various collections, if without provenience. These may well have been the focus on rituals and storage in certain temples, *wayib*, locations where gods resided, e.g., Peabody Museum, Yale University, YPM ANT 236866; Houston & Taube 2010: 240–241; on *wayib* in general, see Stuart 1998: 399–400; Baron 2016: 65–70.

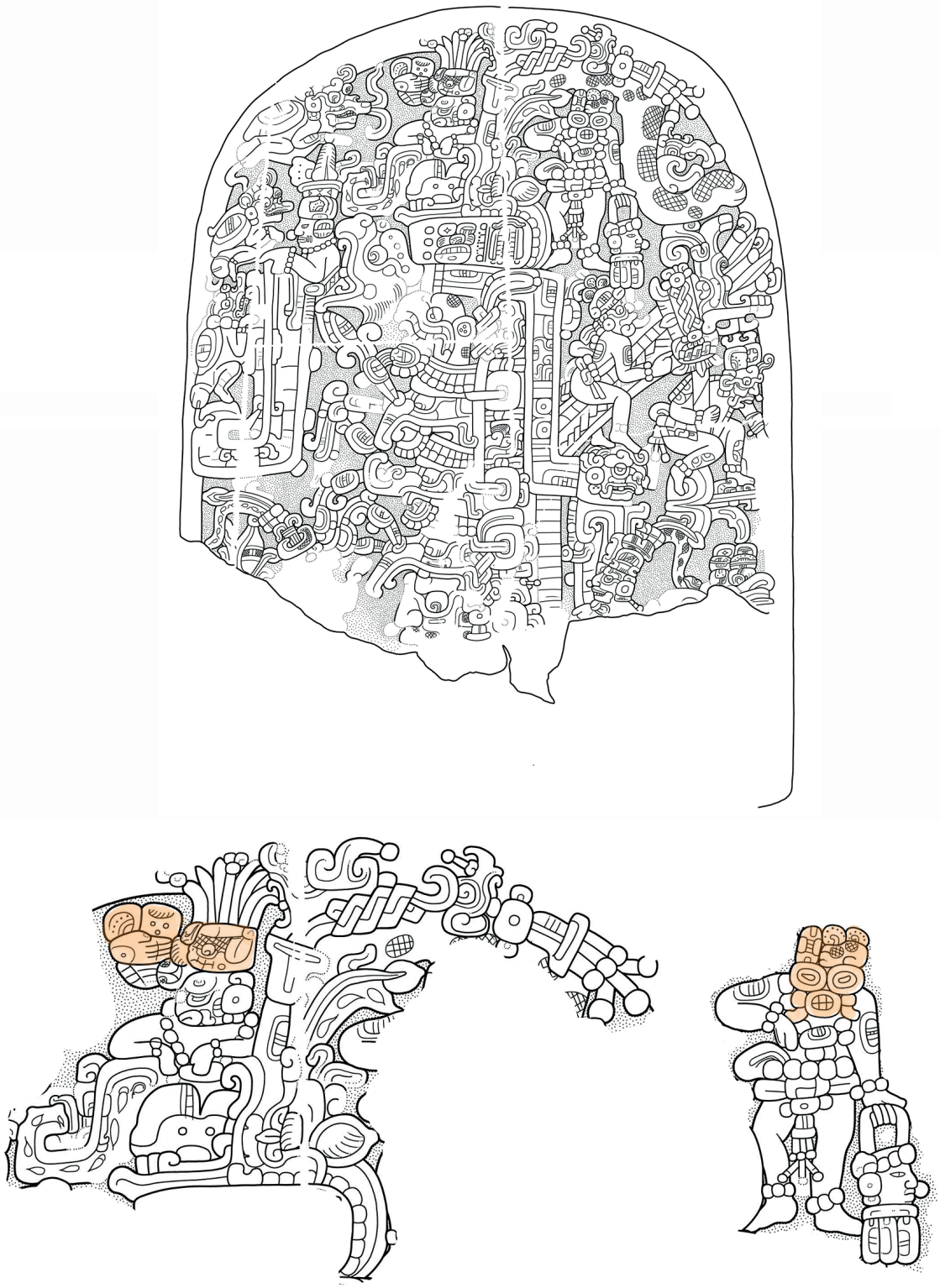

Fig. 6. Name glyphs, highlighted with color, in complex arrangements but susceptible to gravity, Naranjo Stela 43, possibly ca. 573 CE; original stored in the Museo Nacional de Arqueología y Etnología, Guatemala City (drawing by Alexandre Tokovinine)

Two are of special note. To lower left in Figure 6 is the name, sprouting from primordial growth, of a ruler of Calakmul, Mexico. Known to have been an overlord of the current king of Naranjo, he also bears an exalted dynastic title, "King of the Snake [kingdom]," and, below, the head of a deity emerging, hands drawn together, from a split seed. Exuberant foliage issues forth to both sides. That foliage may be seasonal, a logical concomitant, as germinated seed, of solar beings tied to intense sunlight or its absence, or the growth may refer earlier still to the first mythic verdure, a harbinger of the first fruits of harvest.[27] Appearing to disgorge these complex symbols and glyphs is an open-mouthed reptile merged with a mammal, possibly a feline. To lower right in Figure 5 is the name of a ruler of Tikal, Guatemala. His name glyphs displace his head and are tagged with a sign for "youth" in a spelling tied to the distant city of Teotihuacan, Mexico; he carries a belt assemblage often linked in Maya imagery to ancestors.[28] Such rulers were likely deceased at this time. As a cosmic declaration, enlaced with many of the dynastic politics of the time (Calakmul and Tikal were notoriously antagonistic and devoted to political maneuvering), the stela is drenched with assertions about the relation of rulers to gods, and royal mergers with day and night. The sides of the carving, in fact, explain glyphically how each ruler of Naranjo impersonates a deity, the father the Sun God, K'inich, perhaps "reborn" (*sihyaj*) as such a few years after his death, and his son its nocturnal aspect, perhaps read Ik' Chuwaaj, an enigmatic god tied later to trade. Do the figures from Calakmul and Tikal offer vegetative productivity and ancestral insignia to the king of Naranjo? Beyond that speculation, the glyphs do not float or disengage as most texts do in the Maya corpus. They exist in a pictorial domain where gravity operates, where they will fall off if not positioned on someone's head, or if they lose their grip or slip off a perch. The "calibration" or sizing of these glyphs is consistent across the image, approximately the size of the heads of the figures they name. Clearly, they are also word signs and follow the lexical syntax of certain multi-element royal names: the rulers of Calakmul and Tikal have three particles in their names, all present here. What began as the perusal of an image requires a separate cognitive procedure, a glyph-by-glyph reading and an explicit activation of sound. Yet it never extends beyond a name label or two. In the Early Classic period, in the middle years of the first millennium CE, not a few such names are enveloped by maize foliage. Whether this was read as *nal*, "foliage [of corn]," as suggested by other spellings, raises the chance that they refer to a particular class of name or to some association between rulers and Maize Gods.[29]

27 Houston et al. 2021: 132–134.

28 Martin 2008: 72, 104. On this sign for "youth," see Houston 2018: 47–48, figs. 23–25.

29 Stuart 2024b: 53, fig. 41; compare with *nar* [*nal*], "ear of corn that is ripe and dry," Hull 2016: 298. As a term, *nal* referred to both matronymics and patronymics in Yukateko Maya of the early Colonial period, lending possible weight to a phonic rather than a semantic reading (Barrera Vásquez et al. 1980: 557). On Maize Gods, locations, and kings, see Tokovinine 2013: 115–123.

3. Hand-held glyphs

Another subset of out-of-place glyphs are those held in hands. These seem largely to relate to seasonal or calendrical rituals, including signs for agricultural bounty. On a panel from Pomona, Mexico, are a series of four nobleman. They are described as historical figures, discharging a particular duty as "mouths of the white/pure book or paper," *Ti' Sak Hu'n*, probably a nod to their ritual roles and the oral recitations involved in Classic Maya literacy. But their identities also conflate with mythic personages, in this carving the *4 Itzam Tuun*, four-part embodiments of inspirited stone.[30] Two figures are largely gone, but those that remain hold up day signs in their hands (fig. 7). The version that survives hides the final dot for "4" behind his pinky, although the glyph manages to peek out to the side. These are sure to be literal counterparts to Maya "year bearers," in that they hold signs correlating with the first month of the year, an important waystation in Maya calendars from all regions. The day signs cycle through sets of 4—all would have been on display by the god impersonators at Pomona—and, in this case, may have been stressed or seen as otherwise remarkable because of the unusual dedication date of the monument. It fell, as very few inscribed dates do, on one of the "holes of the year." This was a fraught, anxiety-inducing span of five days at the end of the year, known in the Classic period as the *u way ha'b*, the "hole" (or "slumbering room"?) of the year.[31] The number "4" with the year-bearers at Pomona was likely more numerological than strictly calendrical, for the number would fit neatly with the figures on view in the carving. Again, gravity and perceived weight are in force, and the day sign is only as large as the open hand can hold.[32] Here, too, is a sense of offering or raising, for the hand is close to the shape of a verb, *k'al*, signifying "raising up, elevation." Not just the glyph but the hand appears to intersect with logography.

30 Stuart 2004: 4, fig. 4. For such beings, consult Martin 2015, drawing in part on a decipherment proposed by David Stuart.

31 For inked rendering and initial discussion, see Schele & Miller 1986: 142, fig. III.12. The grim nature of the *way*, often depicted as centipede jaws—a ravenous stand-in for an earth that eats—is affirmed by a plate in the Royal Museums of Art and History, Brussels, AAM 02012.2.102 (Matteo 2023: fig. 3). A death god sits within such a hole, his food before him in a wooden bowl that must be a clever reference to the actual plate. The meal: the long bones and soul (*sak saak ik'*, the "pure seed-wind') of the deceased, hard and ethereal parts all at once, the material vestiges and spirit of the human body being tidily contrasted. That Death Gods are documented as malignant spirits known as *wahy* may be a further bit of sly wit, for, as a homophone, that is also the name of the chambered space where he sits. The *saak* reading for "seed" was first proposed to me by David Stuart, personal communication, 2005; note that the glyph for "seed" (*saak*) is not the same as that for "white" or "pure" (*sak*).

32 Nonetheless, the glyphic spelling of "bear, carry," *kuch*—which might be expected for a "year-bearer"—is probably not intended here. When shown, that action involves an object strapped to the back (see deities in the Dresden Codex, p. 16a, b, 17a, b, 18, c, 20c, 27a). No hands are used in the Dresden.

Fig. 7. Nobleman impersonating deity, holding up the day sign 4 Kaban, a "year-bearer" in the calendar of the Classic period, Museo de Sitio Pomona, 771 CE, Tabasco, Mexico (photograph by Stephen Houston)

Two other seasonal or calendrical uses occur with glyphs out of place. The first comes early in the Classic period, on El Zapote Stela 5, a site 22 km from Tikal, Guatemala (fig. 8).[33] The stela records a period of active intervention in Maya affairs by warriors from Teotihuacan, Mexico. This is expressed in glyphic passages that refer to people involved in that interaction but also in the form of *Mexican* year-bearer sign, with its distinctive triangle and inverted, "u"-shaped bar, equipped here with the number 12. The bearer is a woman, perhaps the spouse or mother of the male figure depicted on the other side of the stela. The sign within the square and strongly un-Maya cartouche is probably the same as an ancestral figure, perhaps from the early 300s CE, mentioned on Stela

33 Stuart 2024b: 25; see also Proskouriakoff 1993: 14.

31 at Tikal, also depicted as part of an ancestral belt on that monument. This does not seem to be a day sign, yet it may allude to some familial relationship or mix of associations: her hand, its thumb more-or-less vertical, resembles the Maya sign for "receive," *ch'am*, as well as that for "child of woman," *'al*.

Fig. 8. El Zapote Stela 5, 435 CE, Museo Nacional de Arqueología y Etnología, Guatemala City, with detail to show the square cartouche of a Mexican-style year bearer (photographs by Eric Poeschla)

A similar year sign occupies the left side of a Late Classic panel at Coba, Quintana Roo, Mexico (fig. 9).[34] A captive kneels to face it, bound hands in the air, his body on what is likely a placename. A small glyph above may label the captive, who addresses the year sign as though it were a physical object. Here are two glyphs out of place, a toponym grounding the captive and a non-Maya sign that becomes a focus of entreaty or the temporal frame for his capture and humiliation. This, as at El Zapote, presents an example of what might be called a "xenosign" in Maya writing, ostentatious in its foreign attributes, kept graphically distinct from local script. Its presence at Coba suggests a comparable time of engagement with distant areas of Mexico or with groups representing them. Whether the event takes place close to the time of carving is impossible to say—it has no overt date and may report on some far earlier event.

Fig. 9. Coba Panel 19, Late Classic period, with captive and possible name glyph by his face (photograph by Maria José Con)

34 Esparza Olguín 2020: 110–111, fig. 16; Grube & Esparza Olguín 2017, who suggest a tie to Uxul, far to the south, near the border with Guatemala. Whether that is the placename remains unclear. Its suffix at Coba is a sign for "water," *'a*, common in place names but otherwise unattested for Uxul's Emblem glyph title. In rare instances, other placenames may vary their spellings by appending *'a*, as at El Peru, Guatemala (**wa-ka** > **wa-ka-'a**), although that particle may simply be a syllabic reinforcement, not an added particle (see a spelling on a stela looted from El Peru, now at the Kimbell Art Museum, # AP 1970.02, block pA9). A possible reading for the Uxul Emblem is **NAAH-ku-ma**, *naahkum*, without the final *'a* (Martin et al. 2015).

The second set of signs is still opaque but appears to communicate some awareness of seasons. Found, among other places, on Laxtunich Lintel 1, from 773 CE, it involves a local overlord, the king of Yaxchilan, Chelew K'inich, in the act of impersonating the Sun God (fig. 10).[35] Across from him sits the magnate who commissioned the lintel; he impersonates a variant of the Maize God. The dates on the panel, which relate to the spring equinox and intense seasonal shifts in the Maya agricultural calendar, are reinforced by two signs held by the king and the magnate: one shows the head of the wind god, tied to robust winds and storms, the other to a time of hunting. Much is murky, but these may represent notional divides in times in which the sun dominated, another time in which rains did: the circumstances of growing, the time for preparing fields, leading to hoped-for harvests.[36] They too "raise up" the signs, and the date above overtly records this act as "raising up the Sun Lord in the sky" (**K'AL-ja ti-CHAN-K'IN-AJAW-wa**) on March 18, 773 CE, the full intensity of the dry season now upon them. These glyphs angle on the outstretched hands, causing them to dip slightly from their heft.

Fig. 10. Laxtunich Lintel 1, 773 CE, showing probable signs referring to seasonality (photograph by Stephen Houston)

A final inventory of signs employs the adjectival signs for "blue/green" and "yellow," preceded by glyphs for "1" (fig. 11). Their contexts mostly concern agriculture and bounty.[37] A relevant capstone,

35 For discussion of impersonations on the lintel, Houston et al. 2021: 119–131.

36 On such signs and seasonality, see Houston et al. 2021: 127–131.

37 On the *wi'* reading for "abundance," see Lacadena 2002; also, for later review, Esparza Olguín & Benavides 2020: 4, figs. 2, 3–4. For related capstones, see Staines Cicero 2008. Showing an apparent image of instruction, a unique vessel inserts 1 *k'an*, "1 yellow," 1 *yax*, "1 green/blue, into an utterance from Itzam, an elderly god, while speaking

a central slab in the uppermost part of a corbelled vault, comes from ca. 750 CE, at Dzibilnocac, Campeche, Mexico. Brimming with such references, it faced down into the vault, visible to those looking up if made difficult to see by murk and distance from the viewer. K'awiil, a deity associated with lightning but also the vegetation that flourishes from lightning strikes, sits on a throne amidst rich foodstuffs (fig. 11, left). There is a basket of what may be maize seeds, spilling also out of his mouth, a bag of chocolate beans is behind him, a bowl of three stylized tamales in front. The text above and below, not pictured here, may specify the "plenty" (3 *wi*'?), possibly indicated by the bowl with tamales, along with the presence of seeds (*saak*) and food and drink (*waaj*, *ha*'). Yet his left hand supports the sign 1 *k'an*, "1 yellow," in the bag behind is 1 *yax*, "1 blue/green." Ordinarily, adjectives do not appear as nouns in Mayan languages, and their use in the capstone demands an explanation. In several sources, the combination of yellow and blue-green (the Maya did not distinguish these colors) touches on general concepts of "abundance" (Q'eq'chi', *raxal q'anal*), "glory, majesty" (Ch'olti', *canal yaxal* [*k'anal yaxal*]), "reward, merit" (Poqom, *kanalrax*a), and "riches… good things of fortune, glory, prosperity [*Próspero cosa… Gloria; Paraíso*]" (Cakchiquel, *q'anal, raxal*).[38] The dyads, a set of evident contrasts, yield a range of meanings that go from the specific, "abundance," to the oblique or suggestive, "glory." As a glyphic pair in the Classic period—the preceding combinations are from Colonial or more recent sources—the dyad also signals the idea of things put in order, usually in terms of a totality, *tz'ak*.[39] Yet its fundamental undergirding seems more vegetative and agricultural, of green growth leading to its eventual dry, yellow state, ready for harvest. It connotes and, in many scenes, openly exults in an abundance of food, a bounty of things stored and eaten, to be immediately consumed or processed into steamed breads and liquids. The wider allusions may emanate from a basic concept of fertile production. As a guess, the rooms below these capstones may have stored foods as a buttress of elite wealth, in goods to be sequestered and distributed; or, in a more esoteric vein, they motion to a common trope in Mesoamerican belief, to the mythic, underground chambers where corn was stored, to be released by blasts of lightning from a Storm God.[40]

to an attentive youth (Kimbell Art Museum, Fort Worth, Texas; AP 2004.04). The full text reads 1-K'AN-na 1-YAX u tu-ta-lL cho-ko-na? ta-ta-bi ch'o[ko]? -ji-AJAW, much of which remains opaque in meaning. Another vase of roughly similar date situates the *yax* and *k'an* signs on a brazier in which an infant is being sacrificed (K3844 in the Kerr series of photographic rollouts). The image is enigmatic but involves supernatural beings. *K'an* also occurs as part of a field of signs across the background of mythic or supernatural images, such as the wall of a tomb at Tikal, the probable interment of an Early Classic ruler of the city; Shook & Kidder 1961. Of uncertain function, these may impart a blessed, almost bejeweled ambiance in remote or mythic time, the air itself an embodiment of beauty. Stuart (2022) refers to them as "elemental words" that evoke beneficence and creation.

38 All references from Stuart 2022. For precise lexical citations: Q'eq'chi, Haeserijn 1979: 282; Ch'olti', Robertson et al. 2013: 71; Poqom, Feldman 2004: 82; Cakchiquel, de Coto 1983: 249, CCXXVI.

39 Stuart 2003: fig. 1a.

40 Taube 1993: 66–67; also Chinchilla Mazariegos 2017: 220–221; Zender 2006: 9–10, fig. 10.

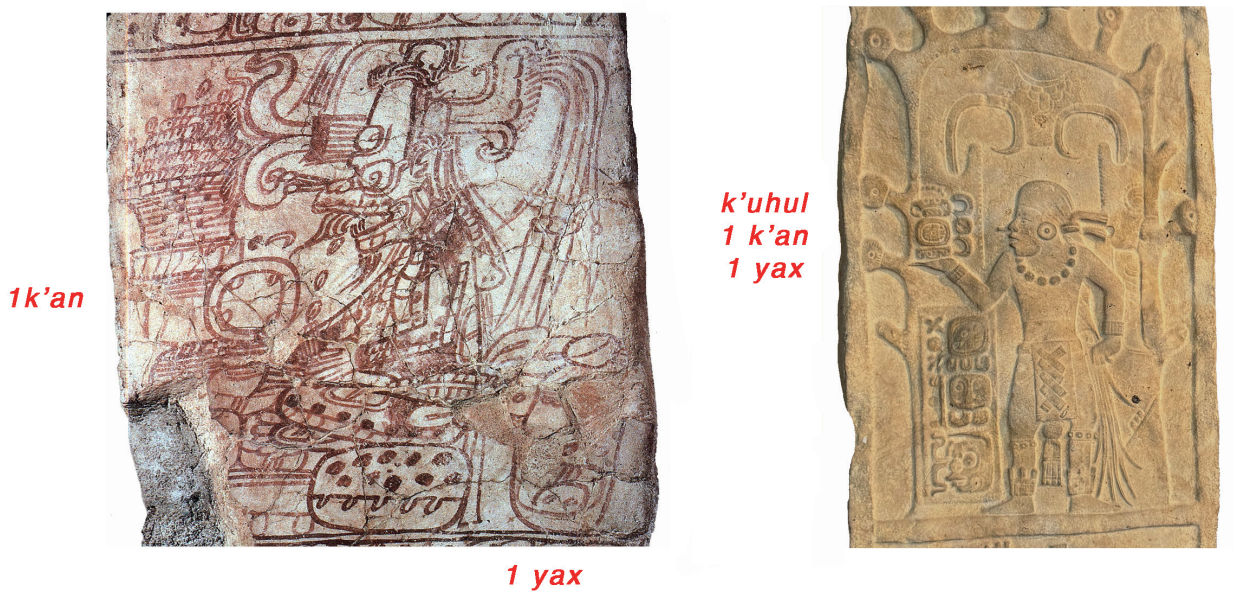

Fig. 11. Dzibilnocac Capstone 3, ca. 750 CE, and Ceibal Stela 3, 9th century CE (left, Instituto Nacional de Antropología e Historia de México, CC BY-NC, https://mediateca.inah.gob.mx/islandora_74/islandora/object/objetoprehispanico%3A17975; right, photograph by Eric Poeschla)

A more enigmatic spelling of this color combination occurs in a scene from the final years of the Classic period, although its date continues to pose uncertainties. It is not even clear whether the event is in dynastic time or in some remote past—the presence of a god as the main actor suggests the latter (fig. 11, right).[41] A figure with hair or feathers down to the ground and septum bar—a distinctly non-Maya or non-standard ornament—holds up the colors, but here qualified by the word for "holy" or "sacred," *k'uhul*. He emerges from an aperture of both stone and wood (well-known traits of these materials mark its surface), along with floral elements. Not visible in the photograph are Mexican Storm Gods above and, below, musicians with attributes of Wind Gods. This is a stormy, noisy, festive emergence. Most Maya texts place verbs after dates, but this includes the name of the local patron god, a combination of two deities, including K'awiil. The foreign inflections are apparent as is a link to surfacing from a jeweled cave or hole, rain and wind, perhaps cuing the agricultural prosperity brought forth by the central figure.

A slightly less clear example of these colors occurs on a capstone now at the University of Pennsylvania Museum—the signs are partly eroded, and the suffixes (**na**) seem more conventionalized than reinforcements for phonetic readings (fig. 12, left). On it a Maize god with kyphosis or scoliosis of the back offers the signs to K'awiil, the deity of lightning and vegetation. That deity

41 If from the Classic period, possible dates depend on the style of the carving and the slightly eroded day sign: Dec. 16, 872 CE (1 Ajaw 8 K'ank'in, 10.2.3.7.0 in the Maya Long Count system), and Dec. 7, 898 CE (1 Ok 8 K'ank'in, 10.3.9.13.10). There is a slim chance that the date is misspelled, corresponding to 1 Ajaw 3 K'ankin, 10.3.0.0.0, May 1, 889 CE, but this would be a striking and unexpected blunder on a carefully shaped monument.

holds up two *Spondylus* (thorny oyster) shells as though in reciprocal offerings.[42] Color signs mark the upper left and lower right, in the floating array more usual to Maya writing. The juxtaposed, numbered signs for colors are further treated as "burdens," *kuch*, of a voluptuous goddess in the Dresden Codex from ca. 1400 CE (Dresden 18a, fig. 12, right). The gendering here indicates a merger of a glyph for agricultural bounty and a cossetted child usually held with such a back strap: the embodiment of tending and near-parental care. Other hand-held glyphs occur in images—maize of "structure" glyphs on the stucco frieze from Holmul Building A, Group II, and sets of glyphs piled into a plate for bloodletting implements on Naranjo Stela 45 (for a "stingray-spine" god, *kokaan k'uh*)—but a longer tabulation would probably not change the conclusion that these images concern deities.[43]

Fig. 12. Left, capstone with K'awiil and a hunchbacked Maize God holding color signs. The mixed orientation of texts on the painting, some read right-to-left, others left-to-right, is unusual. It may reflect the varied positioning of the painting in relation to the reader or viewer, and to the doorway leading into the room under the capstone (University of Pennsylvania Museum, #65–44–1). Right, detail from page of the Dresden Codex, p, 18a (Codex Dresdensis - Sächsische Landesbibliothek-Staats-und Universitätsbibliothek, Dresden Mscr.Dresd.R.310)

42 Deities with such back bulges are rare but do exist in Maya imagery (Beliaev & Houston 2020: fig. 3). In one image, the back (*paat*) was evidently intended to be sawn through (*juhtaj*) to release a snake from the wound.

43 Estrada-Belli & Tokovinine 2016: fig. 4; Graham & von Euw 1975: 63–64. An anonymous reviewer suggested I add these clear examples.

4. Glyphs that support

But the most rooted of all glyphs out of place are those spelling place names.[44] So heavy they cannot be held, the very firmament lying underneath, such glyphs have been noted by specialists since the detection of place names within texts (fig. 13). The example depicted here carries its semantic weight mostly in the toponym underfoot, for it is a stela otherwise without a text. Place signs are considerably larger in pictorial fields than those grasped by hands. Figures stand on them, and the glyphs themselves reveal their stony, hill-like essence (*witz* in the inscriptions), often an explicit part of their names. Maize gods and corn foliage grow or emerge from their clefts, in ways natural to growth from pockets of soil in the karstic landscape of the Maya. Place names can also repeat. Sometimes this is because of a common epithet. Hix Witz, "Hill of the Jaguar," applies to several locations, from Zapote Bobal, Guatemala, to La Honradez in the same country.[45] A rocky outcrop with a feline would not have been noteworthy in any tropical jungle of the Maya region. But there are also place names that express a succession, in the same way that Athens, Georgia, only exists because of Athens, Greece, or Mora, Minnesota, because of immigrants from Mora in Sweden; the academic prestige of their originals led to Oxford, Mississippi and Cambridge, Massachusetts. So also for the Classic Maya: some repeated places, in several instances shown as glyphs of considerable size, are distinguished by whether they are the "first" such location, designated by the color adjective, *yax*, "blue-green" but also "first." A stela at Dos Pilas, Guatemala, refers to the original homeland of a ruler's dynasty, Tikal, over 120 km to the northeast, the distinction confirmed by the prefixation of *yax*.[46] This place glyph is doubly out of place at Dos Pilas, not just as intrusion into an image. Its findspot is not in the first but *second* location of the dynasty, and the stela refers in its eroded text and partial image to events in a city the royal family left behind.

Fig. 13. Base of Tamarindito Stela 3, Guatemala, ca. 750 CE (photograph by Daniel Chauche)

44 Stuart & Houston 1994: 57–68; Tokovinine 2013: 48–55.

45 Fitzsimmons 2015; von Euw & Graham 1983: 101, 110.

46 Houston 1993: fig. 3–28.

5. Glyphs out of place

The glyphs featured in this essay were rendered anciently as though endowed with real weight or mass. They functioned as part of the graphic repertoire of Maya carvers and scribes. An image could be loaded with information from two domains: of pictures, a disposition in multi-directional space, and of texts, words arranged in a single direction, vectorial, grounded in logographs that had to be read, not just viewed. They interact, seemingly in fused messages. Yet their cognitive processing, while graphic and visual, operated by what seem to have been distinct stages. Unlike glyphs out of place, most texts, even explanatory ones, do not obey gravity or seem not to. They hover in places convenient to their labeling function next to this or that figure or scene. At least one day sign exists as an actual if small object: a shell carved into the shape of a day sign 4 Ajaw, probably an evocation of distant time, the beginning of part of the Maya calendar (fig. 14). It faces in a way counter to conventional reading order, and, to judge from its two drilled holes, was probably worn as a pectoral.

Fig. 14. Day sign 4 Ajaw, in shell, ht. 7.7 cm
(The Art Museum, Princeton University, Princeton, NJ PUAM# 1983–51, K2843)

This is a piece of great rarity. The reality is that glyphs out of place affect only a select group of actors. They name people who might be hard to distinguish because of their dress, and of these almost all are of high or highest rank. They also serve as place names that both sustain a key figure and fold the sheer magnitude of a Maya city or its sub-sectors into a single label. By a process of graphic efficiency, the land has become a sign of itself. However, most beings with hand-held signs are supernatural or fused with such figures, or they are foreign or deceased. They deploy a limited category of signs relating to time, seasons, and the lush bounty that results from these phases of the year. More to the point, the signs they hold are out of place because their contexts are mythic or godly. To clasp a glyph was in essence, it appears, a non-human act. The anomaly of such signs underscores the wonder of their appearance and the impediments, for mere men and women, of bringing holdable text into the existential domain of pictures.

Bibliography

Angenot, V. 1996. "Lire la paroi. Les vectorialités dans l'imagerie des tombes privées de l'Ancien Empire égyptien," *Annales d'Histoire de l'Art et d'Archéologie* 18: 7–21.

Baines, J. 1985. *Fecundity Figures: Egyptian Personification and the Iconography of a Genre*. Warminster, Aris and Phillips.

Baines, J. 2007. *Visual and Written Culture in Ancient Egypt*. Oxford, Oxford University Press.

Baron, J.P. 2016. *Patron Gods and Patron Lords. The Semiotics of Classic Maya Community Cults*. Boulder, University Press of Colorado.

Barrera Vásquez, A., Bastarrachea Manzano, J.R., Brito Sansores, W. 1980. *Diccionario Maya Cordemex. Maya-Español, Español-Maya.* Mérida, Yucatan, Ediciones, Cordemex.

Beliaev, D. & Houston, S. 2020. "A Sacrificial Sign in Maya Writing," *Maya Decipherment. Ideas on Maya Writing and Iconography – Boundary End Archaeology Center*. https://mayadecipherment.com/2020/06/20/a-sacrificial-sign-in-maya-writing/ Accessed July 24, 2024.

Brisset, C.-A., Dumora, F., Simon-Oikawa, M. eds. 2018. *Rébus d'ici et d'ailleurs. Écriture, image, signe*. Paris, Hémisphères Editions.

Cabrera Castro, R. 2017. "La Ventilla and the Plaza of the Glyphs." In: *Teotihuacan. City of Water, City of Fire*, ed. by M.H. Robb: 108–117. Berkeley, University of California Press.

Chinchilla Mazariegos, O. 2017. *Art and Myth of the Ancient Maya*. New Haven, Yale University Press.

Coe, M.D. 2012. *Breaking the Maya Code*, Third edition. London, Thames and Hudson.

Cohn, N. 2016. "A Multimodal Parallel Architecture: A Cognitive Framework for Multimodal Interactions," *Cognition* 146: 304–323.

Cohn, N. & Schilperoord, J. 2022. "Remarks on Multimodality: Grammatical Interactions in the Parallel Architecture," *Frontiers in Artificial Intelligence* 2022 Jan 4; 4: 778060. https://www.frontiersin.org/journals/artificial-intelligence/articles/10.3389/frai.2021.778060/full. Accessed July 23, 2024.

Curran, B. 2007. *The Egyptian Renaissance. The Afterlife of Ancient Egypt in Early Modern Italy*. Chicago, University of Chicago Press.

de Coto, T. 1983. Thesaurus verborum[m]. *Vocabulario de la lengua Cakchiquel v[el] Guatemalteca: nueuamente hecho y recopilado con summo estudio, trauajo y erudición*. Mexico City, Universidad Nacional Autónoma de México.

Elkins, J. 1999. *The Domain of Images*. Ithaca, Cornell University Press.

Esparza Olguín, O.Q. 2020. "El señorío de Cobá durante el periodo Clásico." In: *Guerras, jerarquías políticas y poder en la sociedad maya clásica*, ed. by G. Bernal Romero & Octavio Q. Esparza Olguín: 95–124. Mexico City, Universidad Nacional Autónoma de México.

Esparza Olguín, O.Q. & Benavides Castillo, A. 2020. "La Tapa de Bóveda 23 de Santa Rosa Xtampak," *Mexicon* 42: 2–5.

Estrada-Belli, F. & Tokovinine, A. 2016. "A King's Apotheosis. Iconography, Text, and Politics from a Classic Maya Temple at Holmul," *Latin American Antiquity* 27: 149–168.

Fash, W.L. 1991. *Scribes, Warriors, and Kings. The City of Copán and the Ancient Maya*. London, Thames & Hudson.

Feldman, L.H. 2004. *A Dictionary of Poqom Maya in the Colonial Era*. Lancaster, CA, Labyrinthos.

Fischer, H.G. 1972. "Some Emblematic Uses of Hieroglyphs with Particular Reference to an Archaic Ritual Vessel," *Metropolitan Museum Journal* 5: 5–23.

Fischer, H.G. 1986. *L'Écriture et l'art de l'Égypte ancienne. Quatre leçons sur la paléographie et l'épigraphie pharaoniqu*es. Paris, Presses Universitaires de France.

Fitzsimmons, J.L. 2015. "The Charismatic Polity. Zapote Bobal and the Birth of Authority at Jaguar Hill." In: *Classic Maya Polities of the Southern Lowlands*, ed. by D. B. Marken & J. L. Fitzsimmons: 225–242. Boulder, University Press of Colorado.

Galis, D. 1980. "Concealed Wisdom. Renaissance Hieroglyphic and Lorenzo Lotto's Bergamo *Intarsie*," *The Art Bulletin* 62: 363–375.

Giehlow, K. 2015. *The Humanist Interpretation of Hieroglyphs in the Allegorical Studies of the Renaissance. With A Focus on the Triumphal Arch of Maximilian I*. Leiden, Brill.

Graham, I. & von Euw, E. 1975. *Corpus of Maya Hieroglyphic Inscriptions, Volume 2, Part 1. Naranjo*. Cambridge, MA, Peabody Museum of Archaeology and Ethnology, Harvard University.

Grube, N. & Esparza Olguín, O.Q. 2017. "Two Captives from Uxul," *Textdatenbank und Wörterbuch des Klassischen Maya Research Note 6*, mayawoerterbuch.de/two-captives-from-uxul/ (accessed 22.07.2024).

Haeserijn, E. 1979. *Diccionario K'ekchi' Español*. Guatemala City, Piedra Santa.

Hamann, B. 2008. "How Maya Hieroglyphs Got Their Name. Egypt, Mexico, and China in Western Grammatology since the Fifteenth Century," *Proceedings of the American Philosophical Society* 152: 1–68.

Helmke, C., Hoggarth, J.A., Awe, J.J. 2018. *A Reading of the Komkom Vase Discovered at Baking Pot, Belize*. San Francisco, Precolumbia Mesoweb Press.

Helmke, C. & Nielsen, J. 2014. "If Mountains Could Speak. Ancient Toponyms Recorded at Teotihuacan, México," *Contributions in New World Archaeology* 7: 73–112.

Helmke, C. & Nielsen, J. 2011. *The Writing System of Cacaxtla, Tlaxcala, Mexico*, Ancient America 2. Barnardsville, N.C.: Boundary End Archaeology Research Center.

Houston, S. 1993. *Hieroglyphs and History at Dos Pilas: Dynastic Politics of the Classic Maya*. Austin, University of Texas Press.

Houston, S. 2004. "Writing in Early Mesoamerica." In: *The First Writing. Script Invention as History and Process*, ed. by S.D. Houston: 274–309. Cambridge, Cambridge University Press.

Houston, S. 2018. *The Gifted Passage. Young Men in Classic Maya Art and Text*. New Haven, Yale University Press.

Houston, S. 2022a. "Impossible Unities: Full-Figure Glyphs among the Maya." In: *The Hidden Language of Graphic Signs: Cryptic Writing and Meaningful Marks*, ed. by J. Bodel & S. Houston: 54–79. Cambridge, Cambridge University Press.

Houston, S. 2022b. "What Writing Looks Like." In: *Image, Thought, and the Making of Social Worlds*, Freiburger Studien zur Archäologie und visuellen Kultur, ed. by D. Wengrow: 327–345. Heidelberg, Propylaeum, Heidelberg.

Houston, S. 2023. "Call Me by My Name. Self-reference and its Absence on Maya Doorways," Talk presented at a conference "Tikal and its Wooden Memory," Museum der Kulturen Basel, Oct. 13.

Houston, S. & Martin, S. 2012. "Mythic Prototypes and Mythic Writing," *Maya Decipherment. Ideas on Maya Writing and Iconography – Boundary End Archaeology Center*. https://mayadecipherment.com/2012/01/04/mythic-prototypes-and-maya-writing/ accessed July 22, 2024.

Houston, S. & Stauder, A. 2020. "What Is a Hieroglyph?," *L'Homme* 233: 9–44.

Houston, S. & Stuart, D. 2013. " 'Hastily but Carelessly Torn'. Maya Glyphs from Palenque in Montrose, Scotland." In: *Decorum and Experience Essays in Ancient Culture for John Baines*, ed. by E. Frood & A. McDonald: 226–231. Oxford, Griffith Institute.

Houston, S., Stuart, D., Taube, K. 2021. "Seasonal Gods and Cosmic Rulers." In: *A Maya Universe in Stone*, ed. by S. Houston: 92–151. Los Angeles, Getty Research Institute.

Houston, S., Stuart, D., Taube, K. 2006. *The Memory of Bones. Body, Being, and Experience among the Classic Maya*. Austin, University of Texas Press.

Houston, S. & Taube, K. 2010. "Statuette of Chahk." In: *Fiery Pool. Maya and the Mythic Sea*, by Daniel Finamore & Stephen D. Houston: 241–242. New Haven: Yale University Press.

Howard, R.M. 2024. "Reviving Ancient Egypt in the Renaissance Hieroglyph. Humanist Aspirations to Immortality," *Arts* 13(4): 116. https://www.mdpi.com/2076-0752/13/4/116 accessed July 23, 2024.

Hull, K. 2016. *A Dictionary of Ch'orti'. Mayan—Spanish—English*. Salt Lake City, University of Utah Press.

Lacadena García-Gallo, A. 2002. "Nuevas evidencias para la lectura de T158," *Mayab* 15: 41–47.

Magidor, O. 2024. "Category Mistakes." In: *The Stanford Encyclopedia of Philosophy, Summer 2024 Edition*, ed. by E.N. Zalta & U. Nodelman. https://plato.stanford.edu/entries/category-mistakes/ accessed July 24, 2024.

Martin, S. 2006. "On Pre-Columbian Narrative: Representation Across the Word-Image Divide." In: *A Pre-Columbian World*, ed. by J. Quilter & M. Miller: 55–105. Washington, D.C., Dumbarton Oaks Research Library and Collection.

Martin, S. 2015. "The Old Man of the Maya Universe: A Unitary Dimension to Ancient Maya Religion." In: *Maya Archaeology 3*, ed. by C. Golden, S. Houston, J. Skidmore: 186–227. San Francisco, Precolumbia Mesoweb Press.

Martin, S. & Grube, N. 2008. *Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya,* 2nd edition. London, Thames & Hudson.

Martin, S., Houston, S., Zender, M. 2015. "Sculptors and Subjects: Notes on the Incised Text of Calakmul Stela 51." In *Maya Decipherment. Ideas on Maya Writing and Iconography—Boundary End Archaeology Center*. https://mayadecipherment.com/2015/01/07/sculptors-and-subjects-notes-on-the-incised-text-of-calakmul-stela-51/ (accessed 22.07.2024).

Matteo, S. 2023. "A Codex Style Maya Plate in the Collection of the *Royal Museums of Art and History*, Brussels," *Mexicon* 45(1): 2–4.

Millon, C. 1988. "A Reexamination of the Teotihuacan Tassel Headdress Insignia." In: *Feathered Serpents and Flowering Trees. Reconstructing the Murals of Teotihuacan*, ed. by K. Berrin: 114–134. San Francisco, The Fine Arts Museum of San Francisco.

Nöth, W. 2000. "46. Der Zusammenhang von Text und Bild." In: *1. Halbband Text- und Gesprächslinguistik*, ed. by K. Brinker, G. Antos, W. Heinemann, S.F. Sager: 489–496. Berlin, De Gruyter Mouton.

Proskouriakoff, T. 1993. *Maya History*, edited by R.A. Joyce. Austin, University of Texas Press.

Robertson, J.S., Law, D., Haertel, R.A. 2010. *Colonial Ch'olti'. The Seventeenth-Century Morán Manuscript*. Norman, University of Oklahoma Press.

Ryle, G. 2002. *A Concept of Mind*. Chicago, University of Chicago Press.

Schele, L. & Miller, M. 1986. *The Blood of Kings. Dynasty and Ritual in Maya Art*. Fort Worth, Kimbell Art Museum.

Schele, L. & Mathews, P. 1979. *The* Bodega *of Palenque, Chiapas, Mexico*. Washington, D.C., Dumbarton Oaks Research Library and Collection.

Shook, E. M. & Kidder, A. II. 1961. "The Painted Tomb At Tikal," *Expedition Magazine* 4(1). https://www.penn.museum/sites/expedition/the-painted-tomb-at-tikal accessed October 17, 2024.

Staines Cicero, L. 2008. "Las tapas de bóveda pintadas en el área maya," *Arqueología Mexicana* 93: 41–45.

Stone, A. & Zender, M. 2011. *Reading Maya Art. A Hieroglyphic Guide to Ancient Maya Painting and Sculpture*. London, Thames & Hudson.

Stuart, D. 1998. " 'The Fire Enters His House': Architecture and Ritual in Classic Maya Texts." In: *Function and Meaning in Classic Maya Architecture*, ed. by S.D. Houston: 373–425. Washington, D.C., Dumbarton Oaks Research Library and Collection.

Stuart, D. 2003. "On the Paired Variants of **TZ'AK**," *Mesoweb*: www.mesoweb.com/stuart/notes/tzak.pdf accessed July 22, 2024.

Stuart, D. 2004. "New Year Records in Classic Maya Inscriptions," *The PARI Journal* 5(2): 1–6.

Stuart, D. 2021. *King and Cosmos. An Interpretation of the Aztec Calendar Stone*. San Francisco, Precolumbia Mesoweb Press.

Stuart, D. 2022. "The Green and the Yellow. Metaphors of Color, Cyclical Process, and Divinity in Maya Language and Art," talk presented at the 2022 Mesoamerica Meetings, Jan. 15.

Stuart, D. 2024a. "Day Sign Notes. Caban." In *Maya Decipherment. Ideas on Maya Writing and Iconography—Boundary End Archaeology Center*. https://mayadecipherment.com/2024/08/12/day-sign-notes-caban/ accessed Oct. 16, 2024.

Stuart, D. 2024b. *Spearthrower Owl. A Teotihuacan Ruler in Maya History*, Studies in Pre-Columbian Art and Archaeology 41. Washington, D.C., Dumbarton Oaks, Trustees for Harvard University.

Stuart, D., Barrientos, T., Tokovinine, A., Aquino, D. 2023. "La recuperación de la estela 43 de Naranjo. Un breve acercamiento a la importancia histórica e iconográfico de un monumento Maya perdido." In: *35 Simposio de Investigaciones Arqueológicas en Guatemala 2022, Tomo 1*, ed. by B. Arroyo, L. Méndez Salinas, G. Ajú Álvarez: 219–232. Guatemala City, Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal.

Stuart, D. & Houston, S. 1994. *Classic Maya Place Names*. Studies in Pre-Columbian Art and Archaeology 33, Washington, D.C., Dumbarton Oaks Research Library and Collection.

Taube, K.A. 1993. *Aztec and Maya Myths*. Austin, University of Texas Press.

Taube, K.A. 2000. *The Writing System of Teotihuacan*, Ancient America 1. Bernardsville & Washington, D.C., Center for Ancient American Studies.

Taube, K.A. 2011. "Teotihuacan and the Development of Writing in Early Classic Central Mexico." In: *Their Way of Writing. Scripts, Signs, and Pictographs in Pre-Columbian America*, ed. by E.H. Boone & G. Urton: 77–109. Washington, D.C., Dumbarton Oaks Research Library and Collection.

Thompson, J.E.S. 1950. *Maya Hieroglyphic Writing. An Introduction*. Washington, D.C., Carnegie Institution of Washington.

Tokovinine, A. 2013. *Place and Identity in Classic Maya Narratives*, Studies in Pre-Columbian Art and Archaeology 37. Washington, D.C., Dumbarton Oaks Research Library and Collection.

Vernus, P. 2016. "De l'image au signe d'écriture, du signe d'écriture à l'image, de l'image au signe d'écriture : la ronde sémiotique de la civilisation pharaonique," *Actes sémiotiques* 119: 1–20. https://www.unilim.fr/actes-semiotiques/5633 accessed July 23, 2024.

von Euw, E. & Graham, I. 1983. *Corpus of Maya Hieroglyphic Inscriptions, Volume 5, Part 2. Xultun, La Honradez, Uaxactun*. Cambridge, MA, Peabody Museum of Archaeology and Ethnology, Harvard University.

Winand, J. 2022. "Athanasius Kircher et le déchiffrement des hieroglyphs. Réalité ou fiction?," *Revue de l'Histoire des Religions* 239: 217–255.

Winand, J. 2023. "Hieroglyphs in the Renaissance: Rebirth or New Life? (Part 1)," *Hieroglyphs* 1: 45–107.

Zender, M. 2006. "Teasing the Turtle from its Shell. **AHK** and **MAHK** in Maya Writing," *The PARI Journal* 6(3): 1–14.

Zender, M. 2019. "The Classic Maya Causative," *The PARI Journal* 20(2): 28–40.