

Evidence for an Ideographic Use of the Poverty Point Objects[†]



Poverty Point is a massive Archaic Period complex in West Carroll Parish, Louisiana, built around 1700 BC. It consists of concentric earthworks some 4000 feet in diameter surrounding a central plaza facing the Bayou Macon to the east. While not the oldest mound-builder site in North America (Watson Brake is some 1700 years older!), the builders of Poverty Point seem to have established a large culture area, with over 100 known sites and evidence of a far-flung trade network. Many of these sites (e.g. Jaketown) remained at least intermittently occupied after the Archaic, and the rough geometry of a trade network centered just above the Mississippi Delta was retained or recurred throughout later culture periods.

The most famous feature of Poverty Point are The Poverty Point Objects (PPOs)¹: small ceramic artifacts found in great profusion (estimates run to the millions²) at this site, and also abundantly at Jaketown. They are found in much smaller numbers at sites all over North America, depending to some extent on what one recognizes as a PPO.

There are three common features of the PPOs, as normally understood. They are all ceramic. They are almost all roughly in the same size scale: about 5 cm in diameter, or just slightly smaller than a golf ball. Finally, and most intriguingly, they are very strongly typed. The PPOs are not simply amorphous ceramic blobs, but neither are they a riot of different stylistic choices. The vast majority of them appear to be deliberately mass-produced in one of a small number of formats, so distinctly that different researchers have little trouble categorizing them in the same system, even between sites:

One of the interesting and puzzling things about Poverty Point objects is that they run remarkably true to type. For hand-molded objects that are crudely finished and almost certainly intended for ephemeral [cooking] use, it is surprising that they can be classified at all. Yet we found them about as easy to type and sort as potsherds. The number of intermediate specimens is almost negligible³.

Since the 1950s, a standard breakdown of the PPOs into several major types has existed. A visual diagram of these types (I believe drawn by Clarence Webb) has been reproduced in virtually every paper on the topic, and I will follow suit here. Confusingly, the lettering on the diagram does not correspond to the letter-names given to the types: “biconical grooved” is type A3, “cylindrical with

[†] First published in *Hebdomedary* #89, May 4th, 2020. My thanks to Susannah for editing. Mistakes are my own, probably despite her better judgment. This is edit 1.1. Aerial photo taken by the Army Corps of Engineers, 1938.

1 One of the more recent overviews is “Poverty Point Objects Reconsidered” by Christopher Hays, Richard Weinstein, and James Stoltman, in *Southeastern Archaeology* (2016), pp. 1-24.

2 James Ford and Clarence Webb, “Poverty Point: A Late Archaic Site in Louisiana”, *Anthropological Papers of the American Museum of Natural History*, 46:1, 1956, which is the basis for much of the discussion in this article. They estimate up to 24 million PPOs based on the density found in the cuts.

3 From “The Jaketown Site in West-Central Mississippi”, James A. Ford, Philip Philips, William G. Haag, *Anthropological Papers of the American Museum of Natural History*, 45:1, 1955.

lateral grooves” is type B, and so forth. In 1956, Ford and Webb included another diagram showing 14 examples of “unusual forms”; by 1977⁴, Webb had expanded this diagram to show 84 different forms. No authors to my knowledge have tried to quantify the different varieties of these “unusual forms”, but various comments suggest that many of them recur and would seem to constitute sub-types in their own right.

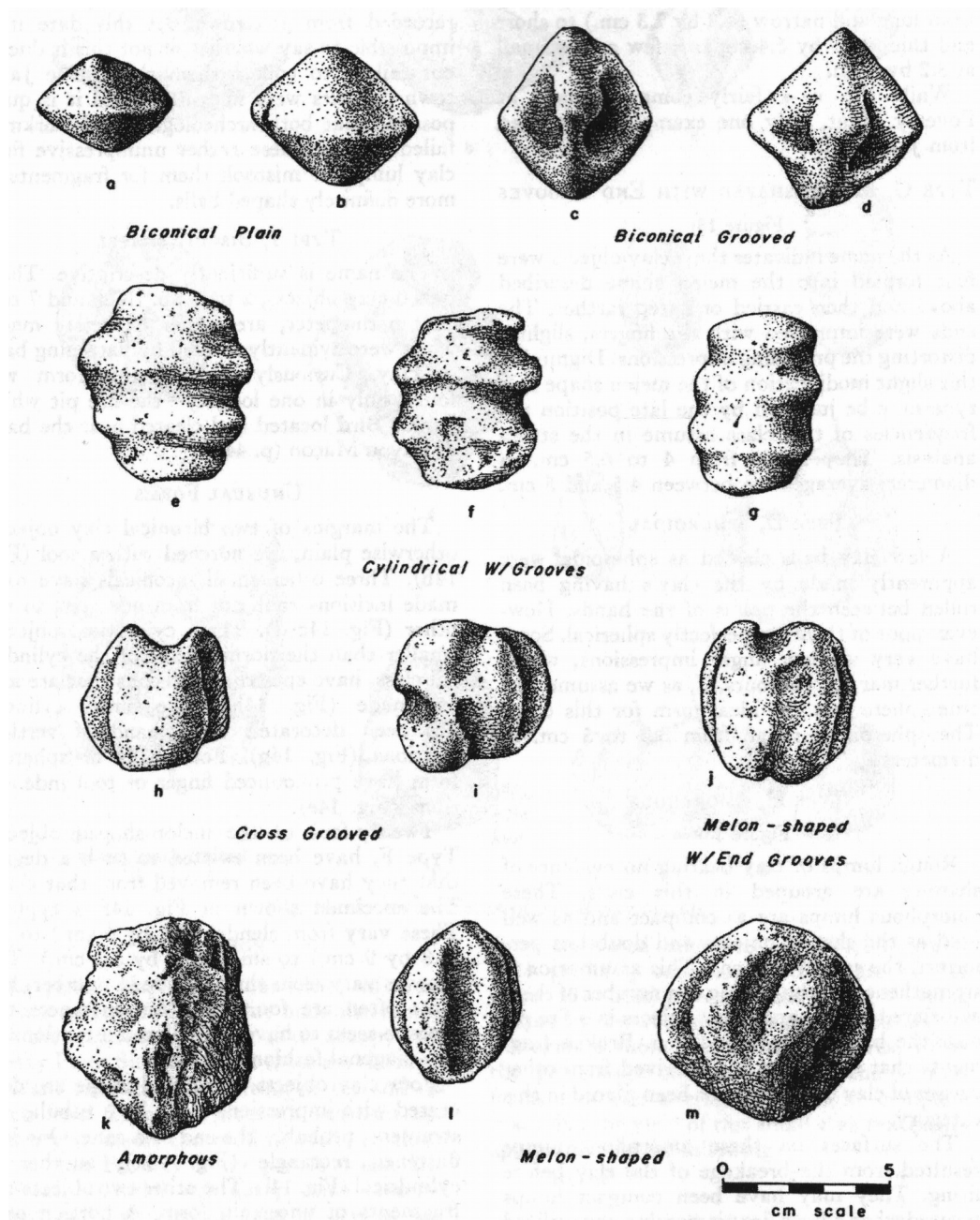


FIG. 13. Common types of baked clay cooking balls from Poverty Point refuse deposits.

4 Clarence Webb, “The Extent and content of Poverty Point culture” *American Antiquity* 33:297-321. Diagram reproduced later in this article.

Since early excavations in the 1952, the general hypothesis has been that the PPOs are heat-transfer masses, used for cooking food. In 1956, Ford and Webb wrote: “*the discovery of several cooking pits with these clay objects in place dispelled any doubts as to their function, so that we may as well cease being scientifically diffident and refer to them as artificial cooking stones.*” The question was re-opened, however, by Hyde and Folan in a 1980 presentation in Chiapas and subsequent paper⁵, in which they argued that the PPOs were actually ideographic tokens, perhaps along the lines of the Inca *quipu*, which could be strung⁶ or bagged together to form more or less complex concepts. This would constitute, in effect, a sort of modular ideographic pidgin for negotiating trade, tribute, or other logistically specific information, perhaps across language boundaries. The ideographic hypothesis does not seem to have received much attention.

Finally, a few authors (as mentioned in Hays and colleagues) raise the possibility that the PPOs were pilgrimage tokens or otherwise functioned as mementos of Poverty Point, perhaps in addition to being cooking objects.

But all these hypotheses are largely conjectural. Ford and Webb's heat-transfer-mass explanation has no basis in North American ethnography⁷; it is in fact based on an analogy from Australia. Similarly, the ideographic hypothesis is striking precisely because there is no record of a New World writing system at this early date, and there are no known pre-Columbian writing systems at all outside Mesoamerica. Hyde and Folan offer an example of clay tokens used ideographically in Western Asia, and draw some fragile parallels to Zapotec hieroglyphs. Hays and colleagues reference pilgrimage tokens in the Christian, Muslim, and Buddhist traditions.

In what follows, I would like to submit two lines of more regional evidence which, I think, help substantiate Hyde and Folan's general suggestion that the PPOs were a form of ideographic communication. First, though, I would like to examine some difficulties with the heat-transfer hypothesis, which remains the standard explanation.

Problems With the Heat-Transfer Hypothesis

Ford and colleague's heat-transfer-mass explanation is based on an example from an entirely different context: an early account of Aboriginal Australian culture described by Peter Beveridge⁸. This is a strange comparison at face value, since the two cultures are not at all similar, lived in drastically different environmental contexts, and the cooking practice described by Beveridge does not involve molded re-usable heat-transfer objects, just the use lumps of clay in the cooking process. Ford and colleagues introduced this analogy in 1955 with the qualifier that it is “not presented as evidence”, but a year later Ford and Webb refer back to it as an entirely settled question.

There was no compelling reason for the occupants of Poverty Point to go to the trouble of creating baked-clay heat transfer masses. As is widely noted, the site contains “a considerable quantity of fire-cracked stone” in small shards. These could plausibly have been used as heat transfer masses, if the local peoples indeed used such a technique for cooking. Stone is in many ways preferable to ceramic for this type of cooking, and it does not require a tedious production process. Hyde and Folan note that there is fire-cracked stone at many other sites which seem to have *imported* PPOs. It seems implausible that there would have been a long-distance trade in a manufactured good that was little better than the local pebbles.

Moreover, as Ford and Webb note, “fragments of steatite vessels are fairly common” at Poverty

5 Burma Hyde and William Folan, “The Dawn of Writing in the New World: Tokens and Trade at Poverty Point, Louisiana, and related Sites” *Louisiana Archaeology* 7 pp. 67-82 (1980).

6 Most of the PPOs, however, are not pierced and were certainly not designed to be strung like beads.

7 At least insofar as I can find, and I've put in some time looking. Ford and Webb noticeably don't offer any such claim.

8 In *The Aborigines of Victoria and Riverina* (1889).

Point. Soapstone cookware is far more practical than immersion heat-transfer, but the authors do not even discuss the possibility that steatite vessels were used for cooking. The PPOs also overlap stratigraphically with ceramic pots, which (again) would seem to obviate the needs for immersion heat-transfer. Ford and colleagues suggest: “*Perhaps some of the old cherished recipes called for Poverty Point objects in the stew pots*”, which even they note seems a little weak.

If the function of the PPOs was simply to transfer heat, it is also difficult to explain why they would have been manufactured in many specific styles, highly typed, but all roughly the same size and weight. Ford and Webb suggested that the different shapes of the PPOs might have allowed for different cooking techniques for different dishes, and went on to demonstrate that the different PPO types have slightly different heat-transfer properties (as, of course, all things with different shapes do). I am not an experimental archaeologist⁹, but I do spend a fairly large amount of time cooking over open fire-pits using simple tools¹⁰. It seems patently absurd to me that minor differences in the shape of a clay ball would have a significant impact on the final dish¹¹. Indeed, if we raise this question, it invites another: if the PPOs are a diversified cooking technology, why are they so uniform in size? Surely some dishes might require heat transfer from larger or smaller masses, not masses of slightly different shapes?

Jon Gibson is cited in Hays and colleagues as having experimentally determined that it takes about 40 PPOs to cook a meal. Many sites, however, have yielded smaller numbers of PPOs. Ford and colleagues list 37 sites with PPOs, apart from Poverty Point itself and Jaketown. The mean number of objects found at these sites is 9, and the top of the range is only 41. We can assume that many of these finds, to be sure, are incomplete. But it is also interesting to note that among the the small troves described, all but the smallest contain multiple *types* of PPOs. For example, at the Tchefuncte site (31-P-1), five PPOs were discovered, in two types. At Weems (5-T-7), there were six PPOs found, in three types. And so forth. This diversity seems more consistent with an ideographic usage than a cooking usage.

I also think we can reject the idea that the discovery of PPOs in fire pits confirms the heat-transfer hypothesis. In fact, most PPOs have not been found in fire pits. Hyde and Folan suggest that the ones discovered in fire pits may have been left behind during their production, not their use. But I don't think these placements are so significant. Fire pits in many societies, including our own, acquire refuse items that are not part of the cooking process and often do not burn.

Finally, I'd like to submit a piece of historiographic evidence that specifically mentions communication tokens being thrown into fire pits.

9 I did get to spend a lovely afternoon drinking wine with an experimental archaeologist in Italy, as he attempted to injure a block of stone in various ways, with me-the-former-stonecarver saying “*no, no, you're doin' it wrong*”.

10 On two occasions with students, I've tried to re-create Ötzi's last meal, per his stomach contents. One takeaway from those experiences is the possibility that the greens he had eaten were a kind of insulator: leaves used to snatch things out of a fire without burning one's fingers.

11 Christopher Pierce is cited in Hays and colleagues as reaching a similar conclusion experimentally: the shape of the objects has “no impact on performance” on cooking. But the idea seems to be a crowd-pleaser. From one of the State of Louisiana websites: “[*Archaeologists*] found, if they always put the same number of Poverty Point objects in the oven every time they cooked, that the shapes (cylindrical, biconical, spheriodial, etc.) controlled how hot the pit got and how long it stayed hot. Using different shaped objects was apparently the cooks' means of regulating cooking temperature, just like setting the time and power level in modern microwave ovens.” Really?

Montigny's Account

Jean-Francois Benjamin Dumont de Montigny was a French lieutenant, grocer, and author in the Louisiana colony. His life (born in Paris in 1696, died in Pondicherry in 1760, and spent much of the intervening time in America) is a capsule study in early modern colonialism. De Montigny also provides one of the only firsthand accounts of the Natchez Rebellion in 1729, in the form of an epic poem¹² (and later a memoir). This is significant for our purposes because the Natchez were the closest thing to direct descendants of Poverty Point in the early modern era. Here is de Montigny's relation of how the Natchez had conspired with surrounding tribes to attack the French encampment at Fort Rosalie:

La chose fut ainsi, et comme, par bonheur,
Ces nations n'ont point de mois, ni de semaine
Supputés justement, et que c'est, avec peine,
Qu'ils savent supputer, il leur faut, pour cela,
Quelque chose pour marque en de semblables cas;
Partout, dans ces cantons, on appelle bûchettes
Ces equilles de bois, faits comme des allumettes.
S'étoient donc accordés pour cet événement,
Ils devoient de la lune à son commencement
Frapper, chacun chez eux, sur la terre ennemie,
Nous connaissant pour tel ; et, selon leur génie,
Ils s'étoient délivrés soixante et trois morceaux
De ces sortes de bois, qui servoient à défaut
De tout calendrier. Toutes les mainées
Le chef venoit au temple et, de ses mains ridées,
Jetoit une bûchete aux braisiers fumants
Des feux qu'ils croient tous être de tous les temps.

*Here's how it happened: it was a stroke of good luck
That these nations know neither the month nor the week
To keep time by, and it is only with greatest pains
That they count days at all. They must use the means
Of a token or marker. And in cases like this
They send out to their villages bundles of sticks,
Small faggots of twigs, made like our matchsticks.
It was agreed in their planning that for this massacre
They would strike near the time of the moon's first quarter
And all would attack, in their own place, the enemy
(As we would now be known); and according to the scheme,
They prepared the matchstick bundles, for the number sixty three.
The sticks were like a calendar, that each morning would be
Consulted by a chief, who at the temple took in hand
One of the matchsticks, to throw in the smoking stand
Of the fire that they worshipped as a sacred flame
And each nation, at each temple, would henceforth do the same.¹³*

This episode occurs at a distance of almost three thousand years from the Poverty Point Culture, but the cultural heritage from Poverty Point to the Mississippian, Plaquemine, and Natchez culture

12 I cannot help but note that this epic immortalizes the name of Sergeant Brinville, who died at the hands of a Natchez sharp-shooter while attempting to “moon” the enemy. Yeshua ben Sira wrote: “Some there be which have no memorial; who are perished, as though they had never been; and are become as though they had never been born”. But Brinville's name will be hung in the stars forever:

One morning, at dawn, a sergeant, quite facile
In the ruses of war, whose name was Brinville
Was chosen for the job of aiming the cannon
And met with great misfortune on that one occasion.
He wanted the enemy to be mocked and harassed
So he lowered his britches and showed them his ass.
But in answer, the Natchez, they shot back a ball
Which lodged between his buttocks, a wound that was fatal.
For bravado, in short, he suffered mortally,
Which should warn us how deadly are the wages of folly,
And that the safest course on all such occasions,
Is to have a strong heart without losing one's reason

13 This and the above are from *Verse poem on the establishment of the province of Louisiana or Mississippi, with all that occurred there from 1716 to 1741: The Massacre of the French at the post at Natchez, the Manners and Customs of the Indians, their dances, religions, etc.; and all that concerns that land in general*. Translated by Gordon Sayre, who notes that his translation was based partially on a WPA Federal Writers Project translation in 1940, by Henri Delville de Sinclair (not to be confused with Henry Sinclair, 14th century Jarl of Orkney and centerpiece of endless conspiracy theories).

groups seems fairly direct. The Natchez were (also) a mound-building culture centered on the Mississippi, with elaborate hierarchical systems, long-distance trade and tribute patterns, and large-scale public centers. They are presumably the ethnic and cultural descendants of Poverty Point, and indeed their center of government was only about 75 miles from Poverty Point.

In this context—which is at least a bit more relevant than Australia or western Asia—Montigny offers us an account of an indigenous system of tokens used to communicate logistical information long-range, and indeed used to calculate with. His use of “*en de semblables cas*” implies that this was a standardized system, not a sudden contingency. That’s all very provocative. Finally, he offers an explanation for why the tokens might end up in a fire pit. He describes them being thrown there after being consulted in semi-ritual terms, though given the military context, one might infer that it’s a security precaution, as well. (A later plot twist is that the young son of the Natchez chief accidentally throws some of these tokens into the fire himself, thus upsetting the count. This whole episode may be slightly impressionistic: it appears that one of the weaknesses in the Natchez Revolt was that Great Sun Tattooed Serpent had died in 1728, and his replacement as supreme military commander was a very young man.)

There are some weaknesses here, above all the enormous gap in time between Poverty Point and the Natchez culture. Montigny was not an eyewitness observer to the events described here, though he had lived and worked in the area for 18 years, and was a keen observer of the Natchez and other peoples in the area. He describes the tokens as being wooden, not ceramic. And he does not describe them as being ideographic, merely quantitative: the implication is the qualitative context of this countdown was being communicated verbally. On the other hand, he seems to imply that this was a standard procedure. So here we have a description of a people who are culturally descendants of Poverty Point using a bundled token system for long-distance communication, much as Hyde and Folan suggest. That’s far more than we can say for the heat-transfer-mass argument.

A Possible Statistical Approach

I would like to offer a few observations from statistics, both as (tentative) evidence and as a proposal for further study. Inventories of the Poverty Point artifacts broken out by observed category have been created a number of times, both from surface collections and from excavations. Connolly’s recent paper¹⁴ compares his own surface collections with those described by Webb, and breaks down six major categories following earlier authors (including Webb). What piques my interest, though, is the shape of these distributions, at least insofar as we can measure them at present.

There are a number of observations (usually mis-termed “laws”) that relate various semiotic patterns to certain kinds of distribution. These include the Zipf-Mandelbrot law (for word frequency)¹⁵; Benford’s Law (for digit frequency in numerical tables); Lotka’s Law (for publications per author); and Bradford’s Law (for citations). The details vary, but all of these “laws” observe that empirical rank-order distributions for the given phenomena tend to approach a power-law distribution. Specifically, they often conform to Zipfian distributions¹⁶ with particular (relatively low) shape variables known as *s*-values¹⁷. The underlying mechanism here is not entirely well-understood, and it applies to

14 “Scratching the Surface: The Role of Surface Collections in Solving the ‘Mystery’ of Poverty Point” Robert Connolly, *Louisiana Archaeology* (2008).

15 An approximately equivalent formulation is known as the Herdan-Heaps Law.

16 That is, a distribution where the frequency of the *j*th category out of *N* categories is in the form shown here, for some “shape value” of *s*:

$$p(j) = \frac{\frac{1}{j^s}}{\sum \frac{1}{n^s}}$$

17 In practice, many such empirical distributions can be modeled slightly better using a piecewise function in which two or

phenomena beyond semiotics (e.g. Gibrat's Law of city and firm size), but it seems to involve systems of strong interdependence ratios. To use the linguistic example, the six nouns I am using in this sentence cannot really be here without the three verbs, three articles, four quantifiers, a conjunction and so on. In general, these observations have been curiosities rather than analytical jumping-off points, although Benford's Law has been successfully used in forensic accounting and other types of fraud detection¹⁸.

Zipf's Law claims that most empirical rank-order distributions can be reasonably well modeled as Zipfian curves for some shape-value s . For instance, a discrete uniform distribution (such as the frequency of the four suits in a deck of cards) can be thought of as a Zipfian distribution with $s=0$. If we compare an empirical distribution E to possible Zipfian curves across the parameter-space, using a series of Kolmogorov-Smirnov tests¹⁹, we can establish an optimum Zipfian approximation $Z(s)$: the s -value for which the empirical curve E most closely approaches a Zipfian curve Z . In all the cases discussed here, E and Z are essentially identical²⁰.

This enters a shadowy zone of probability theory, since we are interested in the character of a prior distribution, not as a statistical matter in its own right, but because it has known associations with a certain kind of data. There are sharp limits to this approach, but it's still intriguing. Connolly's collection of PPOs comes in at $Z(s) = 0.755$, and Webb (per Connolly's paper) comes in at $Z(s) = 0.655$. These optimal- s -values seem to be fairly low when compared with other sorts of American Indian archaeological inventories subjected to this kind of analysis: ceramics, projectile points, etc.²¹. In fact, across a (brief) survey, 0.655 is the lowest value I've seen, by a hair. Two other sites have inventories whose $Z(s)$ is quite close to the ones from Connolly, so it's certainly *possible* to find such low $Z(s)$ values in a non-semiotic context. But this range of s -values is more typical of (known) semiotic distributions, specifically grapheme frequencies and lexeme frequencies, if only the major entries are considered. For instance, the six most common words in this article correspond to a $Z(s)$ of 0.61; all the words in the article make it about 1.14, which is in the range of most English texts.

In the diagram below, I've compared the PPO counts in Connolly to a number of semiotic samples; a number of other American Indian archaeological inventories (for which no semiotic claims are suggested), and three undeciphered inscriptions: the Cascajal Block (Veracruz, Mexico, c900 BC, $Z(s) = 0.52$), one side of the Phaistos Disc (Crete, Greece, 2nd M BC, $Z(s) = 0.73$), and the Newton Stone (Aberdeenshire, Scotland, medieval/early modern, $Z(s) = 0.755$). All of these choices are quite informal, there's not a lot of data points, and the method could certainly be improved. Still, the pattern is striking:

three different s -values occur, with neat inflection points. This often jumps out in log-log graphs of rank-order statistics.

18 Fake transaction values based on a crude randomization algorithm do not display the same digit-frequency distribution as real transactions.

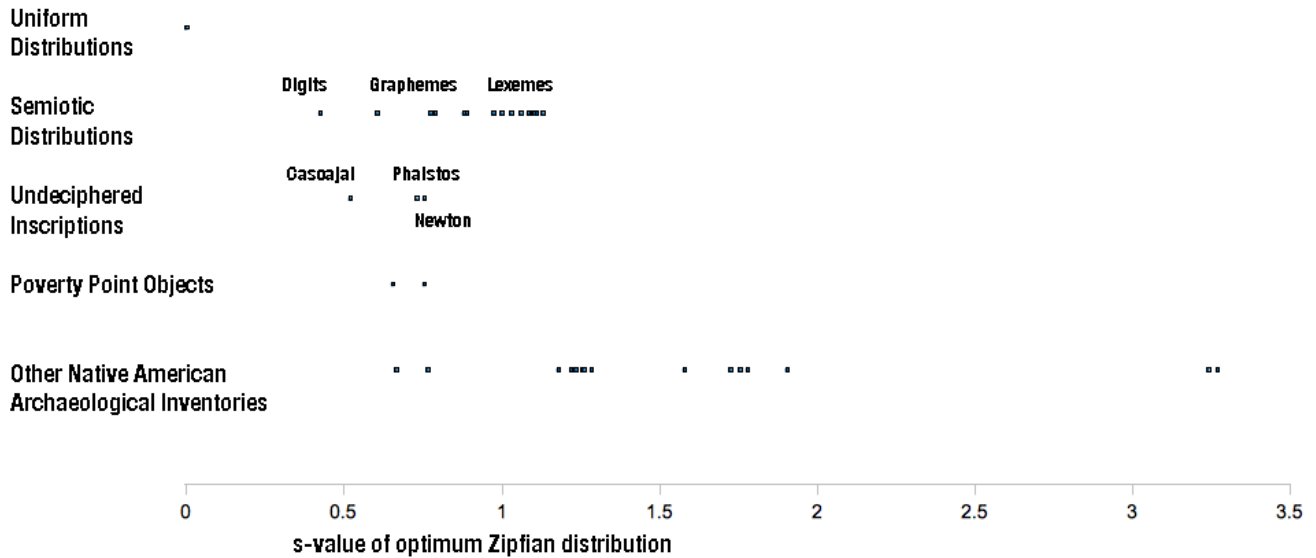
19 The beautifully simple and powerful non-parametric "vodka test". The test statistic D is the supremum of $|\text{cdf}(x) - \text{cdf}(y)|$ where $\text{cdf}(_)$ is the cumulative distribution function of a normalized variable. Put in visual terms, D is the longest vertical line you can jam between the curves of $\text{cdf}(x)$ and $\text{cdf}(y)$: boom, that's it. As Daithí Ó Cruaíoch, coder for *The Guardian*, marvels: "*it is really surprising that such a useful test exists. This is an unkind Universe, we should be completely on our own.*"

20 There are several recipes for hypothesis-testing using vodka tests. I am using the convergence formula:

$$P = 2 \sum_{j=1}^{j=\infty} -1^{j-1} e^{-2j^2 \left(D \left(\sqrt{\frac{n_1 n_2}{n_1 + n_2}} + 0.12 + \frac{0.11}{\sqrt{\frac{n_1 n_2}{n_1 + n_2}}} \right) \right)^2}$$

which is too fun not to include here. n_1 and n_2 are the number of categories in the distributions, P is the probability that the test statistic is greater than the observed value. But since we're optimizing across the parameter space, this is fairly moot. The optimized curves Z are very, very close to the empirical curves E in all cases.

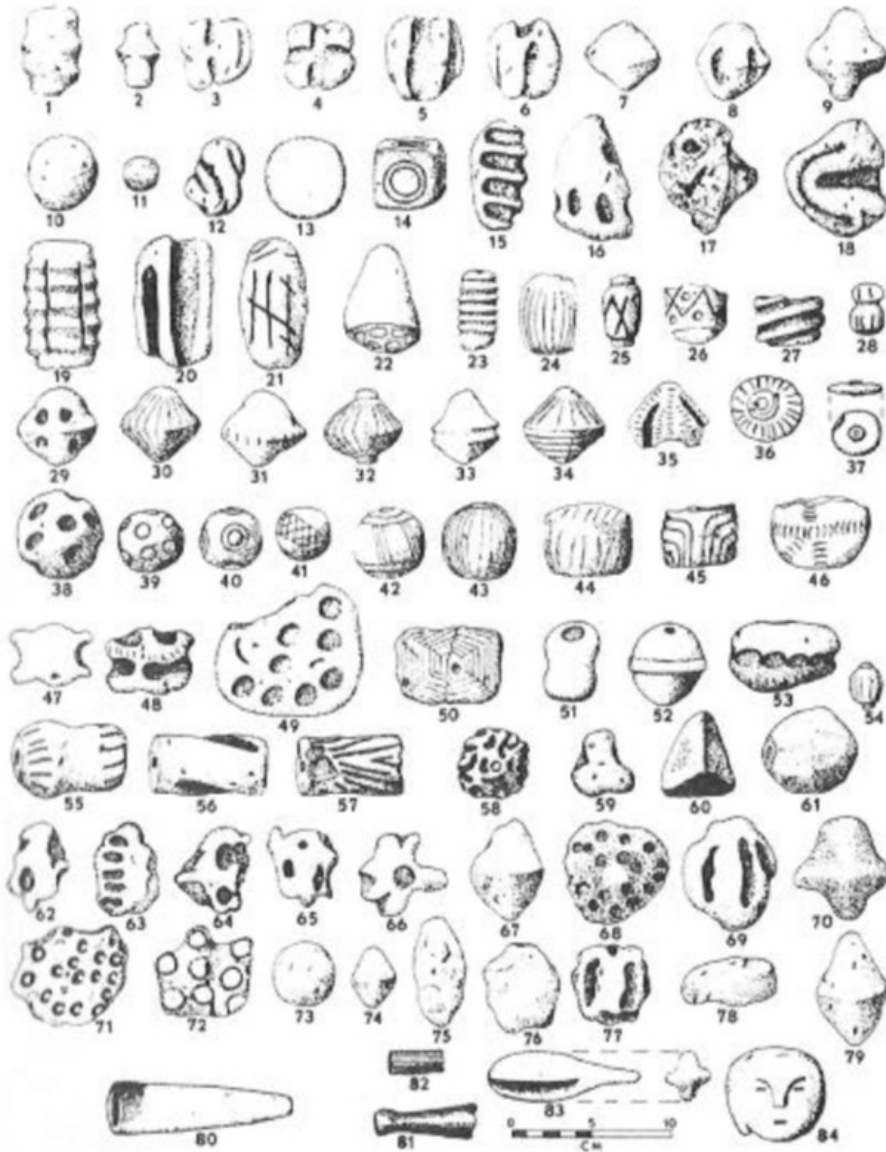
21 This is strictly a convenience sample of 15 inventories from Poverty Point (not the PPOs), a Paiute Village, Isabella Meadows, the Patterson Mound, and Site Ker-74.



The fact that the Z(s) values for the PPOs is more consistent with semiotic than archaeological data is tantalizing, but there are a lot of qualifiers. I do not believe that the categorical breakdowns offered in the literature are actually correct, for reasons I'll explain in a moment. All these data points incorporate a briar patch of biases: survivorship bias for different artifacts, ontological decisions on the part of researchers, and so on. I don't want to address these issues at an analytical level, because the underlying data is too weak to support such analysis. Rather, I'd like to outline what I see as the two main problems in the data, and a possible way forward, and a hypothesis to test.

First: a standard breakdown of the PPO types has been used by archaeologists since the 1950s, as noted above. But it has been widely noted from the outset that some of the major types exist in multiple versions: for instance, Ford and colleagues identify three subtypes of the “biconical grooved” type, though they don't quantify them. Other authors have followed suit. It's worth mentioning that this is an example of how a working hypothesis impacts data collection and thus hypothesis testing. If the PPOs are heat-transfer masses, it's probably irrelevant whether they have two or three grooves; if they're ideographic, that might be the difference between graphemes like “F” and “E”, or (more likely) “2” and “3”.

Second: beyond the major types, there are at least dozens of “unusual types” which occur only rarely in collections. In any production process, we might expect to find pieces that differ from the intended design accidentally, but some of the “unusual types” recur relatively often, and seem best viewed as intentional but rare PPO designs. (The diagram below is from Webb's 1977 paper, mentioned above, and in my view includes a few forms that are probably not PPOs.)



Again, collections at Poverty Point also include a small number of “figurines”, which are also baked clay objects in the 5 cm range, and appear strongly typed themselves. The figurines are “modeled in the round” (arms crossed or absent, no legs, no neck and sometimes no head), so they are compact and more or less spherical, along the same lines as the PPOs. I do not see any *a priori* reason to consider the figurines as a separate category from the PPOs, but this has been the usual practice²².

There has been a bit of morphometric work on other artifacts from Poverty Point²³. I hope that the points I am raising in this paper encourage researchers to focus morphometry on the PPOs and objects like the “figurines” which should plausibly be viewed within the same ontology as the PPOs. That would allow us to make more objective categorical assignments, with an eye to improving the quality of the PPO categorical distribution. Those, in turn, could be tested for optimal-s-value across the Zipfian parameter space. If this is indeed an ideographic system, I would predict that the Z(s) will

22 To use an example from Egyptian hieroglyphics, most of the more common glyphs are almost abstract (and usually quite simple); most of the less common glyphs are visually specific representations. Similarly, Mayan script incorporated logograms alongside phonetic and numeric ideograms.

23 Carl Lipo, Timothy Hunt and Robert Dunnell, “Formal Analyses and Functional Accounts of Groundstone ‘Plummet’ from Poverty Point, Louisiana”, *Journal of Archaeological Science*, 9/5/2011.

rise to roughly 1-1.2 as more of the distribution's tail is included. Moreover, the smaller troves at sites like Schwing (32-K-2) or Crippen Point (21-N-10) may be especially useful in this analysis, since they represent independent (and perhaps more coherent) samples than Poverty Point or Jaketown. It would be especially nice to know if any of these smaller collections appear to be intact collections, which might plausibly represent individual communiques.

Such an approach can never be conclusive, but it seems worthwhile. And since we've gotten this far, let me just throw my hat fully into the ring. We're probably not going to be able to decode this. There's no Rosetta stone here, it's more like a bunch of alphabet blocks thrown in a heap. But Type A, “biconical plain”, is almost certainly a unit marker: it's a 3,700-year-old version of the digit 1.

Conclusion

I cannot avoid the fact that the question here is weighted down by supremacist biases and humanist counter-biases, and I want to risk some normative statements in addressing those. European colonial projects repeatedly justified themselves by arguing that the colonized peoples and their ancestors were technologically inferior to Europe—specifically in arenas such as metalworking, lithics, monumental architecture—and written language. This inferiority narrative was so crucial to colonial politics that it has served as a revisionist template. Diego de Landa, for instance, embarked on a nearly successful campaign to eradicate all traces of Mayan literature, the existence of which was inconvenient to the claim that the Maya were a primitive people²⁴. British archaeologists insisted until a very late hour that the megalithic architecture of Great Zimbabwe was not created by black Africans, though this was obviously the case.

In arguing against these claims—which is inherent to what I'm doing in this paper—it's possible and even tempting to suggest that they had merit in the first place. I do not believe that's true. Whatever I'm doing in this pages is loosely in emulation of Montaigne, and I want to invoke Montaigne's point in his wonderful provocation, *Of Cannibals* (1580): we ought not imagine that one people is “better” or “worse” than another because of the presence or absence of any given technology. Ideographic systems are an impressive tool, no doubt, but we should not judge the worth of a people by their toolkits.

If we need to make such intercultural comparisons at all, surely the more reasonable approach is, “how do these peoples use the tools at their disposal?” Is the knife for pruning vines or for killing people? In the case of the Natchez, at least, it would appear that long-range token communication was used (among other things) to facilitate warfare and what we can loosely identify as a centralized theocratic government. That's consistent with every other instance of written language in history, and I don't feel especially bound to respect those uses. Writing has other uses, happily, and some of them are dear to my heart. But my aim in this paper is certainly not to differentially praise the Poverty Point culture because they may have had a kind of writing.

We may never know how the Poverty Point culture used the tool of ideographic tokens that they seem to have created. And perhaps it's not really our business. I would rather use this opportunity for reflection: archaeologists and historians today have a large and growing toolkit. But the question of when and where we use those tools is, as ever, subject to our own biases and whims. If the PPOs are indeed an ideographic system, perhaps the most useful thing we can learn from that is that something as complex as a language can hide in plain sight for a long time, if we aren't looking for it.

²⁴ His comment on the matter remains one of the most intellectually horrifying things ever written: “*We found a large number of books in these characters and, as they contained nothing in which were not to be seen as superstition and lies of the devil, we burned them all, which [the Maya] regretted to an amazing degree, and which caused them much affliction.*” Later, De Landa devoted a good deal of effort to locating the texts that had survived his own purge, and much of what we know about Mayan literature is thanks to him. The fact that we don't know a whole lot more is also thanks to him.