The Neolithic Argonauts of the Western Mediterranean and Other Underdetermined Hypotheses of Colonial Encounters

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Abstract The more we charge specific historical events with explanatory causality, the more possible alternative pasts we will be able to construct. In this paper I argue that this fact critically affects the interpretations of those of us who rely on an extremely limited and incomplete data set, and no available textual source. This adds up to the fact that prehistorians seldom have the evidence to claim that a particular set of occurrences may in fact be a transformative event in a Sewellian sense, partially—but not only—because of the difficulties in establishing any detailed succession of happenings, and thus have problems arguing that a specific event had a structural effect. Nevertheless, and as Sewell also suggests, we may shift in spatial and temporal scales and confront “eventful” analyses of macrohistorical processes. In order to discuss these issues I have used a characteristically underdetermined hypothesis: the arrival of seafaring Neolithic colonists—Argonauts—on the Iberian coast, a local event that has been said to have a structural effect at a regional scale.

An event is a significant occurrence, its significance depending on the structure within which it occurs for its existence and effect (Sahlins 1988:142). The elaboration of Sahlins’s approach by Sewell (2005) suggests that historians should first define the structural transformation to be explained, followed by the observation of the contingent sequence of occurrences that may have had an effect on the structure in which it had taken place. Events are precisely those sequences that generate structural results. Although his exemplary case studies are bounded in both time and scale, he suggests that eventful analyses should not be limited to short temporal and/or geographical scales. An eventful analysis of large-scale or macrohistorical processes should accept global contingency, path dependency, and the existence
of temporally heterogeneous causalities. The temporality of Sewellian events is theoretically constructed in relation to the time scale of the processes being studied (Sewell 2005:121). The approach, as applied by Beck and others (2007), may be enlightening for those of us that rely exclusively on the archaeological record for our historical interpretations, but I believe that its general applicability can be problematic in at least three different ways. First, the more we charge specific historical events with explanatory causality, the more possible alternative pasts we will be able to construct. It is a matter of the probabilistic nature of our inferences. This issue, important for all historians, becomes critical for those of us that work in our deep prehistory, with an extremely limited and incomplete data set and no available textual source. Our interpretations are most frequently underdetermined and, in the best scenario possible, only Ockham’s razor may allow us to decide between competing accounts. Secondly, prehistorians have serious difficulties in establishing any accurate succession of occurrences, something certainly problematic given Sewell’s insistence in the critical importance of the sequence of happenings in shaping the possible structural effects of the events. The most common way that prehistorians go about it is by increasing the time scale of the observation, and that may be why we may feel more comfortable focusing on “eventful” macrohistorical processes. Finally, and even if we are ready to assume multiple and equally possible pasts, we seldom have the evidence to persuasively claim that a particular set of occurrences may in fact be a transformative event in its Sewellian sense.

In this paper I explore and critically review a well-known Old World archaeological interpretation that gives a decisive historical role to a hypothetical event, and charges it with transformative significance: the arrival of foreign Neolithic Argonauts to the western Mediterranean coast as a set of occurrences triggering a fast short-term cascade of structural transformations throughout Iberia. The structural transformation that this event is supposed to have set off is the demise of hunter-gatherers and the consolidation of the so-called peasant way of life.

There is an increasing consensus that the Mesolithic-Neolithic transition in Iberia was substantially fast. With some few exceptions, as the northern Cantabrian region (see Arias 2007; Straus 2009), most hunter-gatherer groups were substituted by or became agropastoralists in perhaps no more than 200 years. For a good number of scholars, this is the time span between the arrival of the Neolithic Argonauts on the eastern coast (c. 5550 cal BC) and the colonization of the interior steppe-like region some time around 5400 cal BC or maybe earlier. In most cases the archaeological record offers no transition. It suggests a sharp change, with a sudden, almost-entire reliance on domestics and an important use of pottery containers, among other material traits. These remains, together with some pits and feeble domestic structures, are considered by some to be the material result of the earliest peasant societies in Iberia. In short, the arrival of the Neolithic Argonauts involved a large-scale landscape transformation of void “islands,” triggering a further assimilation, acculturation, or annihilation of hunter-gatherers (García Puchol et al. 2009:237).

The supporters of the wave of advance and its variants assume that all domestic plants (wheat, barley, and legumes), animals (sheep, goats, pigs, and cattle), certain technologies (ceramic, polished stone), and a whole village way of life moved into Europe from Anatolia as components of a package. By the time they arrived at the western Mediterranean, these
groups produced the impressed ware called Cardial, and wherever the combination of material remains has been recorded without previous transitional archaeological data, they have been considered an evidence of never-directly-found pure Neolithic colonizers. The exceptionally fast arrival of this package at the Mediterranean coast of Iberia has allowed Zilhão (2001) to propose a maritime colonization of coastal spots void of hunter-gatherers. Early Neolithic evidence recently discovered in the interior areas of Iberia has been interpreted in similar terms, as Neolithic incomers, mainly because of the lack or limited amount of previous Mesolithic evidence.

In the following section, I will present a case study that can be well understood as a Sewellian event. It represents an Early Neolithic distinctive transformation of the built environment and signals the beginning of agro-pastoral ways of life in Iberia. My focus will be regionally based, the spatial pattern of a set of outstanding sites throughout the Serpis Valley, in the western Mediterranean coast of Iberia. I will show how a whole assemblage of new archaeological remains appear as something novel in a specific period of time c. 5500 cal BC but, unlike other examples proposed by Beck et al. (2007), recent studies suggest that neither can the direct origin be tracked back, nor the immediate results followed at a local scale. The hypothesis of the arrival of ethnically different seafaring groups as the triggering event—Argonauts with the Neolithic package, knowledge, and knowhow—has been mobilized in order to explain archaeological discontinuities, while the results of these discontinuities have been raised to the level of structural transformations.

My aim is twofold. On the one hand, to show how, although seemingly coherent with the archaeological record, the Argonaut hypothesis is highly underdetermined. Any alternative hypothesis explaining the same evidence without the need to incorporate an eventful colonial encounter would be more parsimonious (Vicent 1997). On the other hand, to call into question the theory that all material discontinuities that archaeologists tend to label as changes between “periods” or “cultures” are in fact structural changes in historical terms. In the final section I highlight the problems of overestimating our capability to archaeologically discriminate events and our need as prehistorians to avoid charging possible events with causality. Nevertheless, although events may be elusive, long-term sequences are frequently accessible. If I have understood correctly the gist of Beck et al.’s arguments, it is not so much about the actual recognition of the event as of recognizing the historical contingency of the order in which the sequences that we analyze take place, whatever the scale we can reasonably access. This would be a truly historically informed Prehistory. In order to do so, we must shift both the time and spatial scales to acknowledge that our prehistory is filled with contingent processes that are by nature, and even if we cannot recognize them, eventful.

**The Argonauts Arrive: East Iberia c. 5500 cal BC**

The Serpis valley (aka Alcoi valley, Alicante, Spain) and its surroundings is one of the most intensely archaeologically researched areas in Iberia, and one with particularly dense Early Neolithic evidence (Bernabeu et al. 2008) (Figure 1). The easiest entrance to this fertile valley of about 800 square kilometers is located less than 15 kilometers away from the Mediterranean coast. The valley bottom is almost completely surrounded by mountains.
Heights vary from 300 to 1300 meters above sea level. These mountains are part of the northern spurs of the Betic chain, running south-southeast, parallel to the coastline and thus leaving small coastal plains. In fact, except for the lowlands of Valencia and Murcia (both known for their agricultural productivity), the next wide coastal plain south is the Guadalquivir valley, on the Atlantic coast. The diversity of elevations, geographical environments, and vegetation communities makes the Serpis valley especially apt for human occupation (Barton 2006:27).
Up to 32 Early Neolithic sites have been recorded in the area, 51 if we include others in the surrounding region of Alicante (García Puchol 2006). They include mainly caves, but also rock shelters and river basin open air sites. The kind of evidence is strikingly diverse: some few timber buildings, a ditch enclosure, burial and habitation caves, and different styles of rock art paintings. When considered as a unified system, the archaeological record of the valley is outstandingly ritualistic in nature, and it may well be conceived as a good case of a ritualized landscape. The area has the oldest radiocarbon dates on short-life domestic samples in all Iberia (5620–5481 cal BC) and has been interpreted by many as one of the clearest evidences of Neolithic colonization of an area void of Mesolithic populations by so-called Cardial groups (for their characteristic impressed shell–decorated ware) or pure Neolithic, both ethnically and culturally foreign.

The highly compartmentalized and typologically detailed sequence, the lack of evidence of Mesolithic–Neolithic interaction, the absence of continuity in all known stratigraphies, and the extremely scarce presence of Late Mesolithic (B phase) in the valley and its vicinity, makes the appearance of the first Neolithic evidence an abrupt change. This change has been explained in the context of the wave of advance model as a clear-cut example of marine pioneer Neolithic colonization (Bernabeu 2006; Zilhão 2001). Whatever its interpretation may be, the archaeological record offers a case of radical change involving schemas and resources that are materialized in several ways: consumption patterns, the built environment, and the increase in ritualized/symbolic materiality.

The rock art sanctuaries at Pla de Petracos and La Sarga are visibly located decorating the rock shelters on the cliffs of two of the entrances to the valley system when approached from the coast. The former site includes 16 panels with macroschematic, Levantine, and schematic styles decorating eight shelters (Hernández et al. 2004), and the latter 26 panels with macroschematic and Levantine styles on three shelters (Hernández et al. 2002). These three rock art styles are significantly different in relation to: (1) the size of their representations, from the almost human-scale figures in the macroschematic to the miniature-like naturalistic Levantine motives; (2) the highly symbolic motives of both schematic styles, which contrast with the naturalistic and narrative hunting-gathering scenes represented in the Levantine style. Overlapping representations in rock art, and formal similarities with elements portrayed on portable objects, suggest that all styles were practiced at least since the Early Neolithic (Cruz-Berrocal and Vicent 2007; McClure et al. 2008). All these strategically located accumulations of symbolic expressions signal the entrance to a valley that includes, among other, the following evidence.

The Cova de L’Or (Martí 1977; Martí et al. 1980), a cavity of about 700 square meters, has one of the best Early Neolithic archaeological collections in Iberia. It is also paradigmatic because of the significant set of materials recovered in a previously unoccupied cave: marine shell ornaments; hair needles; polished axes; bone burins; rings; needles; shell, stone, and fish vertebrae beads; bracelets; bone palette knives and spoons; plaquettes, bones, and drilled teeth; flutes made of bird bones; a bird clay figurine decorated with cardium shell (Martí et al. 2001); an abundant flint industry, some with cereal wear marks; 267 (MNI) domestic sheep and/or goats and 72 pigs among other less consumed animals, out of which more than 70 percent is represented by young specimens; dispersed human
bones; and an important set of complete finely elaborated and highly decorated Cardial ware vessels, one of them filled with two kilograms of red pigment powder made out of local hematite and cinnabar obtained from a long distance source (García et al. 2006). These remains were accompanied by one of the highest accumulations of cereal seeds in Neolithic Iberia: a unique deposit of toasted wheat and barley seeds. Two samples obtained from the deposit analyzed by Hopf (1966) included 3,416 seeds of three different kinds of wheat and 2,176 of two kinds of barley seeds. This cave, located well away from the nearest arable land, has been considered a place of social storage (Vincent 1989) and all the evidence suggests certain long-distance connections, the coming together of different small groups, and their probable involvement in ritual activities.

The next set of evidence comes from the only open-air site documented and systematically dug on the valley bottom. The site, known as Mas D’Is, is located right by the source of the river Penàguila (Bernabeu et al. 2002, 2003, 2006). The area has been highly modified by erosion, creating a characteristic landscape of creeks and slightly sloped agricultural lands. As a result of this erosion, the preserved extension of the site is approximately ten hectares. The Cardial Neolithic record has been located in two separated areas. The earliest structures are a set of 28 postholes of around 15 cm width each, ten of which have been interpreted as part of a big apsidal timber longhouse of about ten meters long and four wide. Other similar posthole structures, still quite undefined, are located 250 meters northwest from this. These rather small postholes are somehow related to other structures such as an oven and several concentrations of stones. As happens in many other Early Neolithic sites of Western Europe, the Early Neolithic domestic evidence in Iberia is quite slight, especially when compared to later III millennium BC villages.

Slightly north of these postholes lies a 59 meter long, 12 m wide, and 4 m deep ditch that has been interpreted as a circular causewayed enclosure (Bernabeu et al. 2002, 2003, 2006), but that may well be an isolated ditch. Its early Neolithic radiocarbon date suggests the coming together probably of several dispersed groups, which would invest an important amount of their labor in modifying the built environment in a way unknown in the preceding periods. Again, unlike later Copper Age enclosures, this first monumental ditch was left unfilled and was slowly refilled by natural processes, occasionally interrupted by short-time—maybe seasonal—activities. Contrasting with the richness and variety of items accumulated in caves such as the Cova de L’Or, the ditch at Mas D’Is represents a set of gatherings that left little more evidence than a radically modified space, an earthwork.

Finally, the last set of evidence refers to seven small early Neolithic burial caves, all located on the mountains north of the valley (Bernabeu et al. 2001), that should be added to the already mentioned human remains at the Cova de L’Or and Cova de La Sarsa. These burial caves signify the surrounding landscape, increasing its ritual significance.

By the turn of the fifth millennium the evidence of human activity in the valley seems to disappear. The intensified ritualized landscape deployed at the Serpis valley was abandoned, and its highly symbolic and unique built environment lost its significance. By then, most Iberians were already Neolithic.

The case of the Serpis valley, intensely investigated and especially apt for human occupation, has been used as one of the best examples of colonization. At the center of the
interpretation of all the described radical material change of patterns in the archaeological record is the presence of incoming Argonauts of the western Mediterranean.

**Underdetermined Events, Contingent Sequences**

The sharp transition, and the fact that domestics appear without previous agritropic, has been explained through the arrival of foreign and ethnically different Neolithic colonizing groups to Iberia. As Martí (2008:23) claims, “The introduction of agriculture and domestic animals requires the need to resort to some kind of demic diffusion, notably where there is no documented prior human substrate.” The hypothesis of a colonizing event, mobilized in order to interpret a radical change in the archaeological record, becomes central to the explanation of the earliest Neolithic evidence and the further presence of Neolithic traits throughout Iberia as its cascading effect. In brief, the arrival of the Argonauts is presented as a sine qua non set of transformative occurrences causing a regional structural change.

There are at least two questions that arise from this interpretation. In the first instance, whether the hypothesis would resist the application of Ockham’s razor, that is, if any alternative interpretation explaining the same archaeological data would be more parsimonious (Vicent 1997). Secondly, and in a broader temporal and spatial scale, whether the suggested change really exemplifies a structural transformation whose post-event evidence we should seek out in subsequent periods. That is, if we should understand the Early Neolithic as a macrohistorical Sewellian event, accepting that the first period of the three-tier Neolithic reflects a historical-sociological transformation: the introduction of a peasant way of life, as suggested by some authors (e.g. Bernabeu et al. 2003).

The answer to the first question seems to me straightforward. The arrival of Argonauts is a highly underdetermined hypothesis, and the increase of archaeological data throughout Iberia will only multiply the possibility of similar alternative interpretations. As I already suggested, prehistorians have serious difficulties in recognizing events, and even if we did so, the more we charge them with causality, the more possible alternative pasts we will be able to construct. A rapid transformation of hunter-gatherers in some few generations would probably leave no other trace than a radical change in whatever is finally preserved in and of the archaeological record. It would be somehow naïve to expect that all the detailed steps of short-term transitions in our prehistory would be widely detectable. Some of the most spectacular transformations in the Iberian archaeological record, such as the sharp and transition-less emergence of Los Millares culture, or the abrupt change between the Millarian Copper and Argaric Bronze Age cultures (e.g., Gilman 2002; Chapman 2003), would suggest that building hypotheses reliant on colonial encounters may be a risky business (see Martínez Navarrete 1989 for a critical historiographic review of the colonial model). On the other hand, making hunter-gatherers agents of their own historical change may not be that unreasonable. In fact, as Michael Jochim—unsuspected of being “indigenist”—has recently stated, “If Iberian hunter-gatherers were previously mobile and maintained spatially extensive contacts, then one might expect a much faster rate of agricultural expansion, as the knowledge and crops could be widely distributed over great distances” (Jochim 2009:309). This seems to me more parsimonious, at least considering what we know about the spread
of Neolithic traits throughout Iberia. It would probably be more robust in explaining sets of archaeological data that are either increasingly problematic or openly contradictory with the seafaring colonial model. Nevertheless, the colonial hypothesis functions as some kind of normal science, and if it was the case it may possess “a built-in mechanism that ensures the relaxation of the restrictions that bound research whenever the paradigm from which they derive ceases to function effectively” (Kuhn 1973:24).

The second question relates to the existence or not of a structural change, and becomes a matter of the chosen spatial and temporal scale of observation. I believe that by narrowing our analysis to such possible events and their suggested short-term cascade effects, we may be overlooking or underestimating the incredible rate of variability of the archaeological record throughout the Neolithic sequence.

There is the important rate of variability throughout the different Neolithic sites inside Iberia and beyond, including those colonizers that are supposed to be ethnically distinctive. Funerary evidence, architecture, consumption patterns, symbolic expressions, or craft manufacture are highly variable. This variability questions in itself the existence of any kind of colonial encounters, but also the directionality of the Neolithic as a fast and unified structural change.

Certainly, variability can only be observed at a certain spatial scale. For those working in other areas of the world (e.g., North America), it would seem enlightening to observe the overall geographical extension of the object at debate for those that defend the existence of ethnically pure Neolithic colonizers: the western Mediterranean, with its 821,000 square kilometers, could be fitted into the area occupied by the Great Lakes or the Gulf of Mexico. Sicily, Corsica, Sardinia, among 32 other islands, shorten distances between certain coasts. For what we can hint about pre-Neolithic societies, marine fishery may have been a well-developed subsistence strategy in the Iberian Levant since the late Paleolithic (Morales and Roselló 2004:120), and we now know that both Sardinia and Cyprus had recurring seasonal occupations since at least the eleventh and ninth millennia BC respectively (Knapp 2008:21). This suggests that seafaring contacts and exchange networks were probably at work on the Iberian coastlines well before the appearance of the first domestics. The possibility of movement of people and things would have been favored by certain qualities of the western Mediterranean coast: extended visibility and connectivity of the maritime, among others. Horden and Purcell (2000:137) have put forward an example that may be of great usefulness in the present case: the geography of the northwest Mediterranean coast from the Arno to the Ebro valleys can be considered a single maritime façade with small coastal plains and four important corridors leading to the continental interior. One could go on suggesting that the next wide coastal plain is the Valencia region, where some of the finest and earliest Neolithic evidence has been recovered and is the object of my case study.

Although the connectivity of the western Mediterranean coast has been historically variable, it seems that the Neolithic is one such period in history where this connectivity was increasingly materialized in the archaeological record. The example of the distribution of obsidian from the four Mediterranean island sources at Pantelleria, Lipari, Palmarola, and Monte Arci (Robb 2007:194) is a good example of the role of seascapes during this period. We should nevertheless not overestimate this connectivity during the Early Neolithic. Indicators such as the obsidian distribution in Italy suggest that although routes were probably...
the most common spreading mechanism, obsidian remains are still quite scarce when compared to later periods (Robb 2007:196). We should also not assume that those that inhabited coastal areas were all necessarily seafaring oriented groups, as the magisterial description of the Fijian Rewa by Sahlins (2004) suggests. In any case, it seems that the Neolithic did involve an increase in the materialization of movements, at least of objects, an observation that adds to the increase in materiality in general, as suggested by Hodder (2005:131).

Summing up, a reasonable spatial scale to observe the possible structural transformation of society during the Early Neolithic should involve all Iberia in the context of the western Mediterranean. When observed to this scale, local events such as those described in the previous case study seem to be more occurrences than eventful transformations.

We are thus left with the matter of choosing the temporal scale. By focusing on the Early (Cardial) Neolithic as a coherent short-term transformative event—in Sewell’s sense—we lose sight of maybe one of the most important structural transformations produced throughout the Neolithic: the fact that, contrary to what most historians or sociologists would think, all the evidence for a village way of life did not clearly appear in Iberia until approximately two and one-half millennia after those events took place. To put it in Sewell’s terms, I would suggest that what we know as the Neolithic (VI–IV millennia BC) has its historical significance in being a long-term period of ruptures in the articulation of resources and schemas, only rearticulated and distinctly materialized by the early third millennia BC.

For all we know, many if not all the resources, knowledge, knowhow, and technologies were in the hands or available to Iberian late sixth millennium BC groups. Nevertheless, when compared to a peninsular scale, these groups seemed to have used, reused, transformed, and invented a whole array of material expressions in their own specific way. It was only by c. 3000 cal BC, at this very specific historical context, that all these adopted and transformed array of materials actually resulted in a novel sociohistorical pattern: the emergence of effective lineages, capable of mobilizing important amounts of population, creating novel patterns of wealth, increasing territoriality, and transforming the landscape as had never been seen previously. It was the combination of traditionally available resources and some later incorporated set of technologies (e.g., the plough) that were displayed and recombined, allowing the historical objective conditions for the closing of the structural change in a specific contingent moment in time and space. I believe that this moment—which we call the Copper Age (Los Millares culture and its contemporaries)—is the one and only termination of the social processes that we know as Neolithic.

The contingencies of history are again surprising when observed at a western Mediterranean scale. These expanding agro-pastoral village lifestyles emerged by the time of the demise of Italian villages (Robb 2007:305). But in order to understand those divergent tendencies of Copper Age societies we should shift again to the regional and local scales.

**Concluding Remarks**

I share with other authors (such as Zilhão 2003:220) the view that people must have made their own prehistory. We nevertheless do not need social imperatives, nor Argonauts of the western Mediterranean, to interpret the Neolithic. It seems easier to me not to subsume the
agency of those who peopled our prehistory under imperatives that homogenize in a single event what was a clearly diverse array of processes, and to accept that a diversity of groups incorporated, interpreted, and finally invented their own Neolithic.

Throughout this paper I have suggested that events are, of course, important for prehistorians, but that by focusing on them we run the risk of losing the perspective given by long-term history and, as a result, overlooking certain key structural transformations. Events and structures are observation criteria and the scales of observation are critical to any historical analysis. As I have tried to show, by folding all the Neolithic into a short-term eventful structural change we may miss the opportunity to systematically organize contingent occurrences, that is, to scrutinize the structure (Sahlins 1988:135).

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