

EVOLUTIONARY ARCHAEOLOGY OR EVOLUTIONARY ARCHAEOLOGIES? FROM PROGRESSIONISM TO THE PURSUIT OF A DARWINIAN ARCHAEOLOGY

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Abstract. *The path to a Darwin-inspired evolutionary framework has had a historical development that should be addressed to comprehend how it came to be and how its application in archaeology has had different iterations, some of them far from what can be considered a Darwinian approach. The purpose of this paper is to provide an understanding of processes more related to what Darwin espoused as descent with modification by contextualising the theoretical framework of different evolutionary archaeologies using Darwin's original concept of evolution espoused in 1859. I use Richard Dawkins' concept of Universal Darwinism, further developed and explained in detail by Sydow and used extensively by Richard Nelson in evolutionary economics.*

Keywords: *evolution, Darwinism, archaeology, evolution, complexity.*

Introduction

The explanatory power of evolutionary theory has not only been extensively discussed in disciplines related to the natural sciences but also in fields linked with the social sciences. Key to understanding evolution is exploration of its distinct iterations since Darwin's 1859 opus, *On the Origin of Species*,¹ which lays out the main principles behind evolution.

This paper is about a body of theoretical knowledge that developed in the latter part of the twentieth century and which aligns with a strand of Universal Darwinism involving a broad view of evolutionary theory. As Nelson stated in the following illustrative quote:

a broad evolutionary theory that posits that change occurs through a process that involves variation, selective retention [and] sources of new variation ... is a very powerful source of understanding regarding human cultural change, as well as change in the composition and nature of biological species. And this broad theory, after all, was Darwin's great insight and contribution. A Universal Darwinism that is as open to the nature of the detailed mechanisms involved, as Darwin was when he wrote, would be a very useful theory, that facilitates and stimulates interesting discussion across a wide range of disciplines.²

In this sense, careful and more detailed discussion is needed to set apart this strand of evolutionary theory from previous ones used in archaeology,

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¹ Darwin 1964.

² Nelson 2006, p. 493.

especially with cultural evolution and its offspring, processual evolutionary archaeology.

As it was in the nineteenth century

Like many biologists working with evolutionary frameworks, archaeologists interested in evolution pondered whether their conceptions and interpretations were Darwinian. However, some disregarded that possibility,³ believing that cultural evolution cannot be equated in *strictum sensum* with biological evolution and that the comparative analogy within both is misleading and dangerous.⁴

Archaeology is usually concerned with temporal sequencing, which is an important part of its theoretical and methodological development. Sequencing – at least chronologically rather than typologically – was greatly refined in archaeology's origins with the inclusion of the stratigraphic method. Artefacts are cultural markers which need to be placed in time and space to accurately label the material characteristics of a society. Descriptive categories are given privileged status as markers, leaving aside the “whys” and “hows” of those categories. This concern was reinforced by nineteenth-century cultural evolutionists such as Tylor, Spencer, Lubbock and Morgan, who set the path for unilinear sequences of cultural change, establishing unilinear developments.

In *Progress: Its Law and Cause*,⁵ Spencer wrongly equates evolution with unilinear progress, setting the basis for a still prevalent misconception about cultural evolution in the social sciences,

It is settled beyond dispute that organic progress consists in a change from the homogeneous to the heterogeneous. [...] From the earliest traceable cosmical changes down to the latest results of civilisation, we shall find that the transformation of the homogeneous into the heterogeneous, is that in which progress essentially consists.⁶

For Spencer, an advanced degree of complexity points to a highly evolved entity, hence complexity as a result becomes the epitome of evolution, complexity that is achieved through aggregation of hierarchical administrative entities subordinated to a central power. This basic and rather simplistic notion of “descent with modification” was also shared by Morgan, who wrote:

it is undeniable that portions of the human family have existed in a state of savagery, other portions in a state of barbarism, and still other portions in a

³ Flannery 1995; Rambo 1991; Spencer 1997.

⁴ Flannery 1995.

⁵ Spencer 1891.

⁶ *Ibid.*, p. 234.

state of civilization, it seems equally so that these three distinct conditions are connected with each other in a natural as well as necessary sequence of progress.⁷

Morgan discerns two categories, *societas* and *populus*, the first referring to people and their relationships, while the second describing the way people integrate themselves through institutions, where the principle of aggregation to create composite *populus* defines how complex a *populus* is (this is similar to Spencer's idea of homogeneous less-complex organisations and heterogeneous complex organisations). Not being an archaeologist but an anthropologist, Morgan dismissed Thomsen's chronological sequencing, on the grounds that Thomsen's periods (the Stone, Bronze and Iron Ages) were not mutually exclusive (stone tools were still used in the Iron Age, for example).⁸ While Thomsen's innovative way of classifying museum artefacts was useful for sequencing chronologies, Morgan was interested in describing the traits that define a particular society and place it on the evolutionary ladder, sequencing societies according to their traits.

Lubbock, on the other hand, as an archaeology aficionado, followed on from Thomsen's classification but took it as indicative of cultural development, thus temporal sequencing became synonymous with evolutionary stages (*sensum* Morgan) and the chronological sequence became an evolutionary one, albeit an unilinear one. In *Pre-Historic Times as Illustrated by Ancient Remains, and the Manners and Customs of Modern Savages* and *The Origin of Civilization and the Primitive Condition of Man*,⁹ he paid a great deal of attention to what he called "savages" – and for a good reason. Lubbock argued that natural selection did not act on savages to adapt them to a different and more advanced way of life and, therefore, they had no ability to attain the evolutionary advancement that Lubbock's own (Western) civilisation had attained. The use of the concept of natural selection was rare among cultural evolutionary scholars from the nineteenth century, but Lubbock used it to assert the inferiority of non-European societies, the equivalent of the "savages" who stayed that way due to their biological inability to progress. Lubbock went to a great deal of trouble to explain why "savages" remained that way and were unable to "progress," rather than explaining the processes that "civilised" societies went through to reach that stage.¹⁰

Another important figure in evolutionary theory from the nineteenth century is Edward Tylor, who wrote the important essay, *Primitive Culture*.¹¹

⁷ Morgan 1877, p. 4.

⁸ Morgan 1881.

⁹ Lubbock 1865; Lubbock 1870.

¹⁰ Lubbock 1865.

¹¹ Tylor 1871.

In this essay the tradition of unilinear progressive evolutionary complexity continues, adding the flavour of uniform causes, transversal to all evolutionary stages, independent of geographic location.¹² Tylor, like Lubbock, focuses on the material record of contemporary societies living in what he would call a “primitive condition,” using mainly ethnographic data. According to Tylor, culture is constantly being replaced with better and improved versions; a version is considered improved when it is closer to a “civilised” standard, which, in the case of Tylor and Lubbock, means is any western European country. The process of cultural change is mostly based on temporally sequencing social traits that are lumped together to characterise a given society.

None of Morgan, Spencer, Tylor or Lubbock’s models can be considered Darwinian; rather, they are progressionist, concerned with trait sequencing rather than change processes or mechanisms that trigger descent with modification at the social or cultural level. Tylor, for example, in the second edition of *Primitive Culture*, recognised that most of his theoretical scheme did not emerge from Darwin himself;¹³ he is more aligned to Spencer than he was willing to acknowledge, but is certain about his assertion of not being influenced by Darwin’s logic.

Progress becomes the *sine qua non* of cultural evolution, a condition that is not Darwinian at all. Survival is an important goal in Darwinian evolution, being in the form of passing genes to the next generation or developing social mechanisms to retain power and passing them on to the next generation of individuals who share the same gene pool or class. If we equate progress with survival, there would be an intrinsic contradiction, as progress would be the only way to achieve survival (albeit in any form). Or, to use Spencer’s terms, the overcomplexity and heterogenous nature of a society can cause it to collapse,¹⁴ hence the progressionist view of cultural evolution is intrinsically flawed.

Ecology, energy and complexity

A refinement of progressionists views of cultural evolution came with the inclusion of environmental studies as adaptive forces that triggered cultural responses, which is a type of Darwinian logic. This is how, paradoxically, Darwinian logic came to aide the progressionist view. This refinement, first espoused by Julian Steward, was called cultural ecology, and it sought to

explain the origin of particular cultural features and patterns which characterize different areas rather than to derive general principles applicable

¹² Ibid.

¹³ Ibid.

¹⁴ Tainter 1990.

to any cultural-environmental situation [...] it introduces the local environment as the extra-cultural factor in the fruitless assumption that culture comes from culture.¹⁵

Here the key element is that “extra-cultural” factor, which varies and invites adaptive answers to the “cultural core,” an interplay among subsistence activities; economic arrangements; and social, political, and religious patterns, on the argument that they are intrinsically connected – and affected or “selected” – by the other. There can be other aspects outside the cultural core that are mostly originated through diffusion or random innovation, and these should be studied through the lens of cultural history. Steward never questioned which external aspects of culture could be induced into the cultural core by being selected by it, or whether random innovations (analogous to biological mutations) were deemed to increase societies’ fitness and alter the cultural core. Cultural ecology investigates elements from the culture core that originate due to environmental pressures. In cultural evolution, from the viewpoint of cultural ecology, only the environment can force the development of technological conditions that will be further selected. But unlike previous evolutionary explanations, cultural ecology is multilinear instead of unilinear, on the reasoning that, given the existence of multiple environments, the cultural response should be an adaptation to those environments, causing a specific environment to generate specific cultural adaptations.¹⁶ The cultural ecology method involves analysing the relationship between exploitive or productive technologies with the environment (climate, topography, soils, hydrography, fauna, vegetational cover); analysing behavioural patterns that take advantage of certain areas with specific technologies; and understanding the interrelationships between features such as demography, settlement patterns, kinship, land use and other environmentally derived cultural traits. Rather than focusing on the stylistic analysis of artefacts, Steward highlighted the need to work with settlement patterns, subsistence economics and demographics. For him, the cultural adaptations generated by cultural core and its environment are the key to understanding cultural change, leaving aside non-environmentally derived cultural attributes, which are usually transmitted by diffusion and have no major influence in the fitness of a society. Cultural ecology sought to investigate, through comparative studies, whether societies would develop similar cultural features or follow similar trajectories if they experienced analogous environmental pressures. If they did, this would imply their cultural cores were similar, right down to the technologies and institutions derived from those cores, but not non-environmentally derived features,

¹⁵ Steward 1972, p. 36.

¹⁶ Steward 1972.

which, as I already mentioned, made their way into a particular culture via diffusion.

Leslie White was another face of evolutionary theory in anthropology, and was a major influence among archaeologists. His understanding of evolution was based on thermodynamics and he was vehemently opposed to any form of cultural history represented in Boasian anthropology.¹⁷ White's evolutionary approach was more aligned with that of Morgan (and, by extension, Spencer) and he took an essentialist progressive view of cultural change, much like the nineteenth century anthropologists.

For White, all social orders of living creatures were frameworks: natural wholes composed of interrelated parts. In this way, they display themselves to our perception from two viewpoints, structural and functional (a loose resemblance of Morgan's *societas* and *populus*). On the one hand, we may ponder social frameworks from the angle of the kind of parts of which the total is composed, while on the other, we may centre our consideration upon the interrelationship of these parts. Structure and function are thus two ways of looking at a single entity. A social system is composed of segments, classes and special structures, where a segment is one part, similar to another indefinite number of parts, for example, a family, as all families are similar. Aggregation of families could give form to a clan, and clans are similar one another as each clan is an aggregation of families. Therefore, families and clans are segments of a social system. A class is a collection of parts that are different in composition, structure and function to another, while special structures are structures with specialised functions within a social system. Special structures are segments or classes with functions outside of the ordinary, such as shamans, chiefs and kings: elements related to integration and social control.¹⁸

Functionalism and evolutionism have not always gone hand-in-hand, especially during Boas' reign as a champion of diffusionism and anti-evolutionism. Functionalism in general is a synchronic theory linking together social organisms with functions in a specific time, but does not consider how those organisms came to be or how their functions changed through time. White cleverly bypassed that synchronic hurdle by linking social components with functions from a diachronic perspective.

Unlike Steward, White disregarded environmental influences and cultural diffusion as evolutionary catalysers, focusing his approach on understanding the succession of prime cultural advancements embedded in the cultural core, such as technological features and special structures. His reasoning rendered ineffective the study of "non-advanced" cultures as an

¹⁷ White 2007.

¹⁸ *Ibid.*

evolutionary stage, as they became irrelevant when superseded by more “advanced” ones.¹⁹ Interesting enough, his focus on energy was an environmental one, as energy is extracted from the environment. Technology is the proxy used to extract and process energy, and he used the amount of energy harnessed as an indicator of the cultural level of advancement of a cultural system. Measuring energy is a challenging task, and a separate issue from classifying technology, hence the true evolutionary indicator is technological development, as “cultural development could take place only within the limits set by the source of energy. But within these limits cultural advance could be affected by technological improvements.”²⁰ Therefore, for White, social frameworks represent a social form of articulation of mechanical authority over the powers of nature, thus social systems evolve because the quantity of energy controlled per capita increases while alternative factors remain constant. From this perspective, social evolution becomes nothing more than a characteristic of technological progress.

This take on evolution is unilineal and progressive: more sophisticated than the strand espoused by Spencer, Morgan and their peers, but nonetheless epistemologically similar. The conception of interrelated parts within a social system comes from Spencer’s evolutionism, mentioned earlier. Spencer’s aggregation is comparable to White’s concept of classes and segments, while the interaction among social institutions espoused by Morgan’s *societas* and *populus* and their units of analysis also bears a strong relation to White’s special structures.

White’s technological and thermodynamic approach and Steward’s cultural ecological method exerted great influence among archaeologists, leading to the emergence of processual evolutionism, as noted previously, following Spencer and Redmond, who state that they “prefer to see culture not as a collection of traits but as a system occupied by human actors who group themselves into nested sets of organisational levels and pursue conscious, purposive strategies intended to further their own interests.”²¹

Processual evolutionism was also influenced by the works of cultural anthropologists Elman Service and Marshal Sahlins, who espoused also an unilinear approach of the process that led to descent with modification in social systems, inspired – again – by the nineteenth-century evolutionary anthropologists. As they explicitly acknowledge, “we attempt to build on the ground plan laid out by the nineteenth-century anthropological pioneers. Our perspective is plain old evolutionary, not neo-evolutionary.”²² Following this

¹⁹ Ibid.

²⁰ Ibid., p. 367.

²¹ Spencer, Redmond 2001, p. 197.

²² Sahlins, Service 1970, p. 4.

line, they proposed general and specific processes of cultural evolution, which represent a cleverer variation of unilinear evolution; they differentiate general and specific evolution as two manifestations of the same process.

On one side, it creates diversity through adaptive modification: new forms differentiate from old. On the other side, evolution generates progress: higher forms arise from, and surpass, lower. The first of these directions is Specific Evolution, and the second General Evolution.²³

General evolution is one major general process of cultural evolution, similar in all societies, characterised by increasing complexity through time, in which social systems diminish their levels of homogeneity and increase their heterogeneity (sensum Spencer) leading to greater efficiency in their processes of harnessing energy (sensum White). The ultimate outcome is a highly complex social system with multiples instances and institutions, with the ultimate technology able to efficiently extract energy from the environment. In this conception there is only one trend: progression to complexity.

Specific evolution is a way to recognise variability in the record given the myriad environments across the planet which exert pressure upon social systems, forcing them to adapt to that pressure, hence the use of the term “adaptive modification” – a nice nickname for Darwin’s adaptation concept. All social innovations march inexorably towards a goal: complexity and efficiency in extracting energy from the environment. Until this point the concept of survival, so prevalent in Darwin’s 1859 opus, was barely mentioned in cultural evolutionary studies. Everything must change for the sake of progression, for the sake of efficiency, and for the sake of being close to the aforementioned ultimate goal, related to the perfection of Western civilisation. This is reflected in Service’s concept of the evolutionary ladder, consisting of four progressively complex stages – band, tribe, chiefdom and state – in which highly complex states represent the civilised world.²⁴

Processual evolutionism

Archaeology is more than the refinement of typologies and the embellishment of particularities explained by the omniscient process of cultural diffusion, or something akin to it. This was the scenario that led to the emergence of a new theoretical ground that aimed to elicit meaningful interpretations about social processes and not just to rely on descriptions such as “post-fired painted carinated rims with rounded lips” as evidence of trade. That’s not to say that typologies are not useful or necessary in

²³ Ibid., p. 12.

²⁴ Service 1968.

archaeology, but a technique cannot be a theory or a discipline, hence the critique of Boasian anthropology and archaeology.

In this new context, just as the celebration of the centennial of Darwin's *Origins of the Species* was fading, Joseph Caldwell published a small five-page-long paper called "The New American Archaeology," stating that this theoretical shift was due to an "interest in recent years towards problems of far greater generality than pertain to any single excavated prehistoric site."²⁵ This interest came, partially, from the evolutionary revival in anthropology described in the last section. Among the various trends that Caldwell mentions, there is a concern for processes of cultural change through time (not the mere descriptions of traits per archaeological phase), the relationship with ecology, and the study of settlement patterns and prehistoric demography.

Within this approach, Lewis Binford suggested, in 1962, that

"material culture" can and does represent the structure of the total cultural system [...]. Similarly, change in the total cultural system must be viewed in an adaptive context both social and environmental, not whimsically viewed as the result of "influences," "stimuli," or even "migrations."²⁶

"Material culture," or the archaeological record, as part of a social system, informs archaeologists about social behaviour which is adaptive to social and environmental conditions. Binford saw culture as an extra-somatic means of adaptation and gave equal weight to social and environmental influences in modifying culture and behaviour, though more leverage to non-environmental adaptational (selective?) pressures. Material culture is the manifestation of a system that is under constant pressure from environmental and social forces. Binford, who was a student of Leslie White, welcomed Steward's ideas with open arms and adapted archaeological theory to serve the greater good of cultural evolutionary theory.

An epistemological trait marks processual evolutionism, which is the understanding of material culture as part of a large system. As changes occur in the dynamic social system, the argument goes, the material culture will change as a result. This systemic view was inspired by the biologist Ludwig von Bertalanffy and his General Systems Theory, which in fact was derived from organismic biology.²⁷ For Binford, the social system is composed of

subsystems within the broader cultural system which are: (a) extra-somatic or not, dependent upon biological process for modification or structural definition (this is not to say that the form and process cannot be viewed as rooted in biological process, only that diversity and processes of

²⁵ Caldwell 1959, p. 303.

²⁶ Binford 1962, p. 217.

²⁷ Bertalanffy 1972, p. 410.

diversification are not explicable in terms of biological process), and which (b) function to adapt the human organism, conceived generically, to its total environment, both physical and social.²⁸

This is remarkably similar to Bertalanffy's argument regarding organismic biology as an interrelated and organic symbiosis of multiple subsystems – a perspective that is necessary to understand the general laws of biology and provide a compressive explanation of the general system behaviour. Binford, following White's attempt to build causality into cultural behaviour among social systems, argues that cultural behaviour can be explained through cultural laws²⁹ – laws that can be deduced from the static archaeological record and the behavioural system that produced it.³⁰ In this sense, the articulation between the static archaeological record and the dynamic social system was the role of archaeology: not only the retrieving and formal description of the record but also the explanation of the social processes that conditioned said behaviour. Identification of correlations between forms of social organisation classified on the idea of functional features and structural forms of material elements is a necessary step to tackle evolutionary processes in social systems. Hence archaeology can provide insightful information regarding the social processes that originate evolutionary changes, as these processes “operate between a living system and its environmental field.”³¹ Binford's views of evolution are, as we have seen, rooted on systems theory (established by a biologist) and ecology (cultural ecology?). The way he permeates culture through ecology and ecology through culture could even be seen as an argument for a co-evolutionary approach.

Besides the systemic approach and its methodological application, there is one particular theoretical contribution that has not been accurately emphasised; Binford did not necessarily view evolution as a progressive process, unlike previous researchers. He pointed out that

the locus of evolutionary change is between a system and its environment, and the outcome of the operation of evolutionary process could be extinction, a decrease in complexity, reorganization of the system without any major increase or decrease in complexity, or the emergence of higher forms.³²

At some point, Binford saw evolution not as a guiding hand towards complexity and civilisation but as a process in which social systems could change and adapt themselves to new social and environmental circumstances in order to preserve themselves or some of their features – and this could

²⁸ Binford 1962, p. 278.

²⁹ Binford 1962; Binford 1964; Binford 1965.

³⁰ Binford 1962.

³¹ Binford 1972, p. 106.

³² *Ibid.*, p. 108.

signify a scaling down of their former complexity. He comprehended that the goal in evolution is survival, not progression, and that decomplexification or devolution can be as valid a means of survival as progression.

In 1972 a small but influential paper written by Kent Flannery was published in the *Annual Review of Ecology Systematics*; the title was very suggestive: “The Cultural Evolution of Civilizations.”³³ In this paper, Flannery focused on the processes that led to the emergence of civilisations, high cultures, or states. His approach was very much in the vein of cultural ecology, even though he criticised cultural ecologists for not including information exchange in the equation of evolution but focusing mainly on environmental settings as energy carriers and the symbiosis between social systems and the environment in producing energy. For Flannery, institutions, ideology, art, rituals and so on played an important role in process of social change, not as mere catalysers of the energy received from the environment but as transformational entities that could very much affect the evolutionary path. Social institutions and their ideological baggage take pre-eminence – or at least equal importance – as other factors claimed from the end of the nineteenth century. True to that is the formal understanding of what a system is in Bertalanffy’s sense: a framework in which ideas (ideology, rituals, religions, taboos, etc.) are more than just incidental units of information but integral parts of the system. This is also relatable to Steward’s cultural core, mentioned previously.

Dealing with the issue of the evolution of social complexity (civilisations), Flannery’s approach is progressive, with a linear path towards complexity from bands, to tribes, to chiefdoms, to states, where the state (civilisation) appears as “a very complex system, one whose complexity can be measured in terms of segregation (the amount of internal differentiation and specialisation of subsystems) and centralisation (the degree of linkage between the various subsystems and the highest-order controls in society).”³⁴ It resembles Spencer’s model of homogeneity versus heterogeneity and organic evolution, in which the functional heterogeneity of social subsystems tends to originate new, functionally specialised subsystems, until environmental and social pressures trigger the process again. Flannery permeates environmental pressures through institutions and their levels of cohesion in decision making: the more institutions of subsystems a social system has, the longer decisions will take unless some level of discretionarily is given to a selected component or components of said system. This brings up the discussion of linearity versus promotion versus hyper-coherence in Flannery’s model. If complex organisations have hierarchical organisations,

³³ Flannery 1972.

³⁴ *Ibid.*, p. 409.

promotion is related with the ascension from one subsystem to a higher position, to generalise its functions and oversee the behaviour of lower subsystems, while a new subsystem may take its former position with specific functions. As Flannery puts it, “promotion contributes heavily to the process of segregation, since it generates new institutions.”³⁵ Linearity occurs when a lower-level subsystem is permanently circumvented by a higher-order one in order to correct the behaviour of the subsystem that supposedly had to be checked by the lower subsystem. This

results from the breakdown or whatever autonomy the various small subsystems (or institutions) in a larger system may have; one by one, they are coupled more closely to each other and/or to the central hierarchical control until [...] change in one does in fact affect all the others too directly and rapidly.³⁶

Hyper-coherence can occur due to extreme linearisation in which some subsystems are bypassed, other discarded and some even co-opted by others, reducing the distance between high-order subsystems and low-order ones, creating a scenario in which environmental and social stress can rapidly affect any subsystem, as they have all lost autonomy and are closely related one to another. Flannery’s conditions are derived from Rappaport’s pathologies of social systems such as meddling, usurpation and hyper-integration.³⁶

A system can exert different venues for cohesion, established by the conditions of hyper-coherence, linearisation and promotion. Hyper-coherence endangers the survival of the system as makes it more vulnerable to social and environmental pressures, which can cause either the disappearance of the entire social system or a condition labelled by Flannery as “devolution.” This is the loss of complexity of the social system, materialised in the aggregation of subsystem into fewer nodes, moving from heterogeneity to homogeneity (in Spencerian terms) or, as Flannery would say, from segregation to centralisation.

Flannery’s model equals environmental factors with social ones, assigning great importance to “agency,” which is filtered by the agenda of those who oversee the subsystems. Conflict is a very possible outcome, and the factors that trigger processes of hyper-coherence, linearisation and promotion cannot solely be environmental or managerial, but must also be politically motivated. Hence the discussion shifted from environmental adaptation to social adaptation, with equal probabilities of generating evolutionary processes, as evolution can be prompted by political or social agents that act upon a particular agenda, adapting the behaviour of social subsystems to their interests. We are dealing here with the social construct

³⁵ Ibid., p. 413.

³⁶ Rappaport 1999.

known as “ideology.” Ideology is not just “noise” or cultural epiphenomena, nor is it a third-grade cultural trait transmitted by diffusion.

To say that processual evolutionism is just but a unified theoretical corpus would be a dangerous oversimplification. Binford’s take on cultural evolution disregarded ideology (and religion) as cultural epiphenomena (a critique Flannery makes – not of Binford, but of cultural ecologists, as mentioned earlier). Binford asserted that religion and ideology were cultural epiphenomena and their study bordered the realms of paleopsychology,³⁷ subsuming ideology and religion as cultural by-products of adaptative strategies with no evolutionary power. Yes, ideology may be a by-product but, does it have evolutionary power? Can it trigger evolutionary processes?

Flannery’s input was revitalising in adding more avenues for studying cultural evolution from a materialistic point of view, and studying environmental settings and ideology, not just cultural epiphenomena.

Universal Darwinism, social sciences and archaeology

In the previous pages we established that what has been termed as cultural evolution during the emergence of processual archaeology invokes causalities and processes that cannot be identified as Darwinian evolution – or at least not as Darwin envisioned his theory. Instead, they are more aligned with the evolutionary principles evoked by scholars such as Spencer, Lubbock and Taylor during the nineteenth century, later refined by Steward, White and others. As Feinman points out, “cultural evolutionary approaches in archaeology have themselves shifted greatly over the last century or so, although at the most general level major research queries have been somewhat more stable.”³⁸

The important elements of Darwinian theory are variation, inheritance and selection; these should be intersected with continuity, as the first three elements must be continuous if they are to have a steady and ongoing impact on fidelity, longevity and replication through time.³⁹ Darwinian theory is not limited to biology and related disciplines: it can be applied to other non-biological fields, as exemplified in the work of various scholars.⁴⁰ These efforts can be grouped (with the risk of oversimplifying a diverse scenario) into a school of thought called “Universal Darwinism,” proposed by Richard Dawkins in 1983 on the grounds that Darwin’s theory is “probably the only theory that can adequately account for the phenomena that we associate with

³⁷ Binford 1962.

³⁸ Feinman 2000, p. 4.

³⁹ Dawkins 1976.

⁴⁰ Aldrich et al. 2008; Boyd, Richerson 1988; Dawkins 1983; Hodgson 2004; Hodgson Knudsen 2006; Knudsen 2001; Levit et al. 2011; Nelson, Winter 1982; Richerson, Boyd 2012.

life.”⁴¹ As I have stated elsewhere,⁴² under this reasoning the contributions of Williams’ adaptation and selection,⁴³ Lewontin’s units of selection,⁴⁴ Cavalli-Sforza’s cultural transmission,⁴⁵ Darden and Cain’s selection theories,⁴⁶ Dawkins’ selfishness model,⁴⁷ Griffiths and Gray’s system development⁴⁸ and Nelson’s evolutionary sciences⁴⁹ can be included.

Universal Darwinism is not a uniform theory, however. One strand of it (called biologicistic Darwinism) implies that that all entities (social and biological) behave according to the laws of biology, implying that the social sciences should be biologised. It is, effectively, a reductionist view of evolutionary processes.⁵⁰ The other strand of universal Darwinism is called “process Darwinism,” which implies that Darwinian processes can enlighten events where evolution occurs, regardless of the field where they occur.⁵¹

Does selection operate at the level of material culture? Does it operate on ideas, social systems, social classes or social factions? Probably the main difference between biologicistic Darwinism and process Darwinism in archaeology is the answer to these questions. Darwinian archaeology⁵² assumes selection acts upon material culture; it is a form of biologicistic Darwinism. Probably the most important contribution of Darwinian archaeology has been the effort to set archaeology apart from Spencer’s and Tylor’s assumptions of unilinear evolution and progression towards complexity. As Dunnell stated, “the approach represented by cultural evolution is a social philosophy directly derived from the tradition of Herbert Spencer and the early anthropologists and is unrelated to Darwinian principles,”⁵³ a position that has been the leitmotiv of this paper.

Dunnell wanted to give archaeology a more active role in the evolutionary debate by using evolutionary theory in the same way it was used in biological entities, focusing on artefacts, their frequencies and distributions,⁵⁴ which leads to the establishment of refined seriations and typologies in which hypotheses of cultural transmission, copying errors and

⁴¹ Dawkins 1983, p. 403.

⁴² Mesía-Montenegro 2018.

⁴³ Williams 1966.

⁴⁴ Lewontin 1970.

⁴⁵ Cavalli-Sforza, Feldman 1981.

⁴⁶ Darden, Cain 1989.

⁴⁷ Dawkins 1976.

⁴⁸ Griffiths, Gray 1994.

⁴⁹ Nelson 2007.

⁵⁰ Sydow 2001, Sydow 2012.

⁵¹ Sydow 2012.

⁵² Dunnell 1970, Dunnell 1980.

⁵³ Dunnell 1980, p. 37.

⁵⁴ Dunnell 1970, Dunnell 1980.

variation in artefacts are tested. Could this be seen as a return to cultural history? I would argue not: Dunnell's approach is not a return to Boasian-inspired archaeology – which was hesitant and untrusting towards evolution – but rather the refinement of a method whose purpose is to explain the nature of artefacts and their use, why and how they change, why some are abandoned and why others persist. As artefact change and artefact frequency are the only hard data that can be discerned from the archaeological record, Dunnell's approach implicitly states that behaviour cannot be understood – nor ideology, as suggested by Binford – and that archaeology is doomed to only study direct, measurable phenomena. This attitude has been called “radical empiricism,”⁵⁵ a theory that again has been a dominant focus in the construction of seriations and stylistic variation.⁵⁶ It has also been called “artefact physics,” a method in which archaeologists must abandon their desire to understand behaviour – because behaviour is unattainable – and be content with over-empiricism.⁵⁷ This begs the question, how can we reconstruct crucial evolutionary processes with “artefact physics?”

Efforts have been made to fix or correct possible misreadings and broaden the scope of Darwinian archaeology,⁵⁸ marking a shift from more biologically oriented interpretations of acts of natural selection – or social selection – towards ideas and explanations of phenomena that are not observable first hand. Darwinian archaeology has moved from biologicistic Darwinism towards process Darwinism, based around the belief that selection operates on ideas, social systems, social classes and social factions.

Process Darwinism is a “world-view that Darwinian processes could provide an adequate exhaustive explanation not only for biology, but for any subject areas where evolution occurs.”⁵⁹ In the same vein, Nelson distinguishes between closely following biological theory to explain cultural or social change, and exploring how evolutionary theory should be structured to reflect cultural or social evolutionary processes and biological evolution.⁶⁰ Process Darwinism is a non-biologicistic approach and it can be useful for studying social processes, past and present. But we cannot assume *prima facie* that this type of Universal Darwinism does not house diversity under its name, as it is a cluster of related stances that has been applied in disciplines as diverse as economics, psychology, management, sociology, anthropology and archaeology. In archaeology it has been applied under a variety of names, all sharing the same principles of application, such as variation, inheritance,

⁵⁵ Boone, Smith 1998.

⁵⁶ Neiman 1995.

⁵⁷ DeBoer, Lathrap 1979.

⁵⁸ Lyman, O'Brien 1998; O'Brien, Lyman 2000.

⁵⁹ Sydow 2012, p. 217.

⁶⁰ Nelson 2006; Nelson 2007.

fitness and their cumulative social by-products. The work of Brian Hayden is worth mentioning here as belonging to this trend, although I doubt he would like to be labelled with this brand, preferring instead his paleo-political ecology perspective.⁶¹ His work on ritual, feasting and power is illustrative of the application of evolutionary theory to social processes which interplay closely with the underpinnings of biological causation in the emergence of AAA (ambitious, abrasive and accumulative) personalities and the use of feasts, ritual, religion and secret societies by aggrandisers in order to legitimise their power.⁶²

A social system is composed of various entities managed by different social actors, often representing factions within the social system. These factions compete among themselves for dominance, trying to replicate their advantages into the next generation or laterally within their kin or allies. Those elements that can help them secure their privileges and advantageous conditions are thus selected as beneficial. Competition provides a tense scenario in which struggle becomes a key element in establishing leadership at different levels, and, as I have stated elsewhere, there is a need to develop ways to convince potential allies to join a particular faction. Religion is certainly one of these ways and can provide a range of competitive advantages.⁶³ Religion can be selected as an advantage to obtain, legitimise and preserve authority. This can thus be replicated by future members of the system and normalised through rituals and cultural values which become a material manifestation of a higher selected trait that is being constantly legitimised. Ritual and cultural practices can change as adaptive strategies for the survival of the main trait selected (see the Catholic religion as an example). In previous publications, I have argued that religion is the main selected trait that allows authorities to preserve their privileged social position, especially when religion powerfully permeates the social relations of production.⁶⁴ But even an advantageous position can, when it becomes too advantageous and risks overexploiting those at the base, become a non-adaptive trait that must be regulated if those with the upper hand want to retain their privileges.

Recent discussions on the existence of inequality without complexity are illustrative of the dismissal of progressionist evolution, rather than offering evidence of the invalidity of evolutionary theory. They amount to the discussion of social groups evolving towards social forms that allow the survival and reproduction of the system, or the social reproduction of the

⁶¹ Hayden 2014.

⁶² Hayden 1995a; Hayden 1995b; Hayden 2001; Hayden 2014; Hayden 2018; Hayden, Gargett 1990.

⁶³ Aldenderfer 2010; Hayden 2018; Rappaport 1999; Rick 2005.

⁶⁴ Mesía-Montenegro 2017; Mesía-Montenegro 2018.

agents who have privileges within the system,⁶⁵ which is characteristic of complex hunter-gatherers.

Along the same lines, the evolution of cooperation has been a topic of interest within evolutionary theory as well. Why do people cooperate among themselves when there is an innate selfish tendency in human behaviour to look out for oneself? Cooperation might be thought as an aspect of egalitarianism, a component or trait that is thought to be “good” and believed to be an inherited product of a “natural” stage in very early social development where social inequality was ethically outlawed as a transgression against basic social rules. Egalitarianism is not a natural condition in humanity – at least not from the primatologist’s point of view. Humans are not subject to Rousseau’s fallacy, in which all are inherently caring, dependable and good; nor do they fit the Hegelian spiral in which an idea is pure until it reaches contact with nature (this spiral was later problematised by Marx in the development of his historical materialism – another version of progressionist evolution). Cooperation may well be as important as competition in the development of social inequality and the most important factor in the survival and reproduction of social systems. It can even be a strategy for facing competition more efficiently. Is cooperation another form of competition? Yes, but not all cooperation leads to competition, nor does all competition involve cooperation. Cooperation is defined as “actions that require individuals to incur some cost or risk associated with other individuals receiving a benefit.”⁶⁶ It is a concept intrinsically related with “collective action”: “a processual approach that derives its insights from predictions about the social actions of members of a political community under varied conditions. From this perspective, social process are expected to transcend local cultural differences”⁶⁷ in which “the optimal strategy from the perspective of an individual differs from the optimal strategy viewed from the perspective of a group.”⁶⁸ Essentially, a person gives up his interest in favour of the interests of others, posing an intrinsic problem in identifying these reasons and the strategies used by leaders in order to make others do things that will not provide an immediate reward but are beneficial for the system of which they are part. As such, could it be argued that this is an iteration of game theory? The concept of “collective action” is a cross-cultural one with a strong evolutionary component, despite being rooted in the philosophical axioms of Rousseau and Hobbes, which implied ethical choices

⁶⁵ Ames 2007; Ames 2010; Glassow 2004.

⁶⁶ Carballo et al. 2014, p. 3.

⁶⁷ Blanton, Fargher 2007, p. 4.

⁶⁸ Carballo et al. 2014, p. 3.

for the good of humankind.⁶⁹ It should not be confused with altruistic behaviour in which the payoff is received by the recipient of the action: while in cooperation, both actors and recipients receive mutual benefit.

Blanton and Fargher⁷⁰ have criticised the biological approach of Darwinian anthropology espoused by sociobiology and its later iterations⁷¹ as an attempt to generalise prosocial behaviour (group selection?) give the fact that not all human behaviour is aimed at benefitting the group. This is concomitant with the fact that AAA-type personalities strive for power and dominance. In this case I certainly do not see an opposition between cooperation and competition, or even selfishness, as these three behaviours are complementary strategies for the ultimate goals which are survival, reproduction, and fitness.

In contrast to Hayden's opinion regarding the role of feasting in the evolution of social complexity from a competitive point of view,⁷² Stanish offers a different spin to feasting, arguing that communal action is prevalent in the management of feasting practices, based on the premise that it is a tool for overcoming the collective action problem. Overcoming this problem is necessary, as "the development of evolutionary stable social organizations that overcome the collective action problem is a prerequisite for the evolution of social complexity."⁷³ Feasts foster cooperation, long-term relationships, exchange and trade networks, communal bonding and ideological reinforcement⁷⁴ as well as important opportunities to construct, test and put into practice the norms of cooperative behaviour.⁷⁵

But who develops the norms of competitive behaviour? Elites? Authorities? Villagers? Specialists? All of them? Persuasion is an important element in this strategy, and the notion of the "greater good" must be legitimised. Cooperation for competition – or the "let's cooperate to compete" model – seems to be a plausible evolutionary strategy and a probable scenario for some cases, such as the Central Andes Formative, in which, I argue, religion was the "legitimiser" (the institution or set of organised ideologies) selected as a convincing tool to entice (or manipulate?) choices to cooperate and compete.⁷⁶ But any attempt to understand these particular evolutionary dynamics – for example, the variability and degrees of cooperation and competition – should include different outlets in the

⁶⁹ Hobbes 2016; Rousseau 2001.

⁷⁰ Blanton, Fargher 2012.

⁷¹ Sydow 2012.

⁷² Hayden 2001; Hayden 2014; Hayden, Villeneuve 2010.

⁷³ Stanish et al. 2018, p. 6716.

⁷⁴ Dietler 2001; Dietler, Herbich 2001; Hayden 2014.

⁷⁵ Stanish 2017.

⁷⁶ Mesía-Montenegro 2017; Rick 2005.

archaeological record, such as the domestic and corporate contexts. In the Central Andes, as I have previously mentioned, archaeology and ethnography have shown that political, economic and religious management is certainly embedded in religion, which transforms actions – at least in the eyes of the public – into religious acts where acceptance of those decisions border on the acceptance of the will of the gods. In a recent contribution, Stanish argues that cooperation is attained by ritualising the economy,⁷⁷ a correct statement but nevertheless insufficient, as the economy is only one aspect of polity management (although from the Marxist point of view, the statement would not be inadequate, as the economy is the basis of social relations of production, and hence the cornerstone of norms and religion). Polanyi offered a related explanation, arguing for the use of the “embedded economy” in which all social relations are embedded in the economic system where “the vital importance of the economic factor to the existence of society precludes any other result.”⁷⁸ Through a series of important works, Stanish has argued consistently for the substantive economic approach in the comprehension of pre-Hispanic political economy in the Central Andes.⁷⁹ The substantive economy and its by product, the “embedded economy,” derives from the Marxist political economic tradition, where economics is “an instituted process of interaction serving the satisfaction of material wants.”⁸⁰ The work of Polanyi is in some ways an interpretation and elaboration of orthodox Marxism.⁸¹ Nonetheless, I would like to rephrase Polanyi and argue that all social relations are embedded in a religious/ideological system in which the vital importance of religious or ideological factors to the existence of society precludes any other result.

Some views of cooperation and collective action contemplate the role of agency, or “cultural essentialism,” in which cumulative individuals’ decisions are at the core of the nature and the evolution of cooperation, or even collective resistance.⁸² This, of course, involves cooperation, and it comes with the critique that most contemporary evolutionary approaches are a form of “deterministic oppression theory.”⁸³ While agency undoubtedly plays a role in cultural evolution, agency is part of a social context. The material conditions of existence, as well as the individual’s placement within society, will act upon his or her perception of reality and his or her perceived

⁷⁷ Stanish 2017.

⁷⁸ Polanyi 2001, p. 56.

⁷⁹ Stanish 1992; Stanish 1997; Stanish 2003; Stanish 2004.

⁸⁰ Polanyi 1977, p. 31.

⁸¹ Halperin 1984.

⁸² Brumfiel 1992.

⁸³ Blanton, Fargher 2007.

social placement. False consciousness can be one of the layers for agency development with the aid of religion.

Cooperation is another strategy for survival, replication and fitness. I certainly may be accused – probably rightly so – of taking a cynical view of mankind in which interest guides behaviour, and interest guides decisions as to which strategy to use. Even *truly* altruistic behaviour is guided by self-interest, that of emotional reward (provided by religion/ideology) where cognitive dissonance may play a key role in justifying non-rational decisions by – ironically – rationalising them to avoid the uneasiness generated by the nature of those decisions.⁸⁴

Thus, I would argue that cooperation and even competition are achieved – and legitimised – by ritualising not only the economy but all instances of polity management, and for this ritualisation all social institutions are necessary.

Conclusions

Over the past decades, the awareness of what is and what is not Darwinian evolutionary archaeology has been persistent and has benefited from the social sciences rather from the biological sciences. When Dunnell argued in favour of a biologicistic Darwinian approach, he decreased archaeology's explanatory power to describe artefactual phenotypic change, precluding archaeology's ability to make rigorous evolutionary explanations on general problems such as the evolution on power, authority, inequality and so on. These topics ironically were (and are) the strong focus of progressionist evolutionism. As we have seen in this paper, progressionism – and the various strands within it – has always looked for answers in related social and environmental sciences, feeding off the methods and knowledge that arise from these disciplines, while Darwinian archaeology closed its boundaries to all but biologist Darwinism. To escape this intellectual prison, a broad integration of archaeology with other social sciences that pursue evolutionary processes with a Darwinian approach was needed. The integration of concepts such as variation, inheritance and fitness has expanded to the major research problems mentioned above, which leads me to argue that archaeology has reached a moment in which it can finally make good use of a proper evolutionary approach that is not only inspired by but derived from Darwin's general theory of descent, albeit with some modification. It took us almost 150 years, but it is never too late. The integration of Darwinian process approaches to the study of social problems falls under what Dawkins called Universal Darwinism, a school of thought that greatly benefited from the transdisciplinary use of evolutionary theory. In this sense, archaeology can

⁸⁴ Akerlof, Dickens 1982; Burris et al. 1997; Festinger 1962.

derive great benefit from evolutionary economics, evolutionary psychology, evolutionary linguistics, evolutionary aesthetics, evolutionary medicine, etc. I by no means intend to argue that all the great contributions of progressionism are to be discarded, rather that they should be looked at with different evolutionary eyes.

It is archaeology's responsibility to provide the most accurate account of the evolution of human behaviour through time. The accomplishment of this goal, or at least the effort of trying to accomplish it, should come from the archaeological record and from evolutionary theory. The archaeological record is far from perfect: it has several degrees of resolution and it is for the most part incomplete. Evolutionary theory, on the other hand, is – as we have seen – diverse and focused on various aspects of human behaviour. Universal process Darwinism – that is, the application of evolutionary principles not only to biological entities but to social ones as well – is also a social theory focused on the variation, inheritance and fitness of social institutions. The archaeological record is diverse, and this diversity allows evolutionary accounts to focus on certain attributes that can provide sounded hypotheses for both specific and general social problems. Archaeology thus can become an evolutionary social science.

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LISTA ABREVIERILOR DE PERIODICE

AA	– American Antiquity. Society of American Archaeology. Washington DC.
AAMT	– Advances in Archaeological Method and Theory. Elsevier, Amsterdam.
AAntrop.	– American Anthropologist. American Anthropology Association. Arlington.
ACSS	– Ancient Civilizations from Scythia to Siberia. Leiden.
ActaMN	– Acta Musei Napocensis. Muzeul Național de Istorie a Transilvaniei. Cluj-Napoca.
AEE	– American Economic Review. American Economic Association. Pittsburgh.
AHC	– Art History & Criticism / Meno Istoriija ir kritika. Vytautas Magnus University. Kaunas (Lithuania).
AIIAI/AIIX	– Anuarul Institutului de Istorie și Arheologie „A. D. Xenopol” Iași (din 1990 Anuarul Institutului de Istorie „A. D. Xenopol” Iași). Iași.
AIM	– Arheologicheskie issledovaniya v Moldavii. Chișinău.
AJP	– American Journal of Philology. University of Pennsylvania. Philadelphia.
AM	– Ancient Mesoamerica. Cambridge University Press. Cambridge.
AMJ	– The Academy of Management Journal. Academy of Management. New York.
AHR	– The American Historical Review. The American Historical Association. Washington DC.
AIIN	– Anuarul Institutului de Istorie Națională. Universitatea din Cluj.
Am. Anthropol.	– American Anthropologist. Wiley. Hoboken (New Jersey).
Angustia	– Angustia. Muzeul Național al Carpaților Răsăriteni. Sfântu Gheorghe.
Antiquity	– Cambridge University Press. Cambridge (UK).
AÖG	– Archiv für österreichische Geschichte. Viena.
Apulum	– Apulum. Acta Musei Apulensis. Muzeul Național al Unirii. Alba Iulia.
ARES	– Annual Review of Ecology and Systematics. Palo Alto.
Arhitectura	– Arhitectura. Uniunea Arhitecților din România. București.
ArhMed	– Arheologia medievală. Muzeul Banatului Montan. Reșița.
ArhMold	– Arheologia Moldovei. Institutul de Arheologie. Iași.

Lista abrevierilor de periodice

- Arkheologicheskie vesti** – Arkheologicheskie vesti. Institut istorii material’noj kul’tury Rossijskoj akademii nauk. Moscova.
- Arkheologiya** – Arkheologiya. Natsional’na akademiya nauk Ukraini. Institut Arkheologii. Kiev.
- ASGE** – Arkheologicheskiy sbornik Gosudarstvennogo Ermitazha. Ermitazh. Sankt-Petersburg.
- ASUAIC** – Analele Științifice ale Universității „Al. I. Cuza” din Iași”. Istorie.
- AUASH** – Annales Universitatis Apulensis. Series Historica. Universitatea „1 Decembrie 1918” din Alba Iulia.
- AVSL** – Archiv des Vereins für Siebenbürgische Landeskunde, Sibiu
- BASP** – Basic and Applied Social Psychology. Taylor & Francis.
- BHAUT** – Bibliotheca Historica et Archaeologica Universitatis Timisiensis, Universitatea de Vest. Timișoara.
- BP** – Biology & Philosophy. Springer. Zurich.
- București** – București – Materiale de istorie și muzeografie. Muzeul Municipiului București.
- Byzantion** – Byzantion. Revue Internationale des Études Byzantines. Peeters Publishers.
- CA** – Current Anthropology. University of Chicago. Chicago.
- Carpica** – Carpica. Complexul Muzeal „Julian Antonescu” Bacău.
- CHR** – Comparative Humanities Review. Bucknell University.
- CICSA** – Centrul de Istorie Comparată a Societăților Antice, buletin trimestrial al Universității din București, Facultatea de Istorie. București.
- Civilization** – Publishers Enterprises Group. Hamrun (Malta).
- CMC** – Consumption Markets & Culture. Taylor & Francis.
- Corviniana** – Corviniana. Acta Musei Corvinensis. Muzeul Castelului Corvineștilor. Hunedoara.
- CMAS** – Conservation and Management of Archaeological Sites. Taylor & Francis. Abingdon-on-Thames (UK).
- Dacia** – Dacia. Recherches et découvertes archéologiques en Roumanie. București, I (1924)-XII (1948). Nouvelle série: Revue d’archéologie et d’histoire ancienne. București.
- DH** – Diplomatic History. Society for Historians of American Foreign Relations (SHAFR). Oxford.
- EJST** – European Journal of Social Theory. SAGE Publications.
- Empiria** – Empiria. Universidad Nacional de Educación a Distancia. Madrid.
- EMúz** – Erdélyi Múzeum. Erdélyi Múzeum az Erdélyi Múzeum-Egyesület, Kolozsvár (Cluj), 1, 1874-1948, 1991 și urm.
- EphNap** – Ephemeris Napocensis. Institutul de Arheologie și Istoria Artei Cluj-Napoca.

Eurasia Antiqua	– Eurasia Antiqua. Deutsche Archäologisches Institut, Eurasien-Abteilung. Berlin.
Facilities	– Facilities. Emerald. Bingley (UK).
HA	– Human Affairs. The Slovak Academy of Sciences Bratislava.
Heritage	– Heritage. MDPI AG in Switzerland.
HI	– Habitat International. Elsevier. Amsterdam (The Netherlands).
Historia	– Historia: Zeitschrift für Alte Geschichte. Steiner. Stuttgart.
HS	– Heritage & Society. Taylor & Francis. Abingdon-on-Thames (UK).
HSD	– Heritage and Sustainable Development. Research and Development Academy. Ilijaš.
IRSPSD	– International Review for Spatial Planning and Sustainable Development. Spatial Planning and Sustainable Development. Kanazawa City, Ishikawa, Japan.
ISPRS	– ISPRS – International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences. International Society for Photogrammetry and Remote Sensing.
Istros	– Istros. Buletinul Muzeului Brăilei "Carol I". Brăila.
Îndrumător bisericesc	– Îndrumător bisericesc. Mitropolia Ardealului. Sibiu.
JAA	– Journal of Anthropological Archaeology. Elsevier. Amsterdam.
JAC	– Journal of Architectural Conservation. Taylor & Francis. Abingdon-on-Thames (UK).
JAHA	– Journal of Ancient History and Archaeology. Institutul de Arheologie și Istoria Artei, Universitatea Tehnică. Cluj-Napoca.
JAMT	– Journal of Archaeological Method and Theory. New York.
JAR	– Journal of Archaeological Research. Springer. Zurich.
JCWS	– Journal of Cold War Studies. Harvard Project on Cold War Studies. Cambridge.
JEE	– Journal of Evolutionary Economics. Springer. Zurich.
JP	– The Journal of Philosophy. Elsevier. Amsterdam.
KSIA	– Kratkie soobshcheniya Instituta arkheologii AN SSSR. Moskva.
LAA	– Latin American Antiquity. Society of American Archaeology. Washington DC.
Materials	– Materials. MDPI AG in Switzerland.
MH	– Melita Historica. Malta Historical Society. Floriana.
MMJ	– University of Malta Medical School. Msida (Malta).

Lista abrevierilor de periodice

Monumente istorice	– Monumente istorice – Studii și lucrări de restaurare. Direcția Monumentelor Istorice. București.
MTT	– Magyar Történelmi Tár. Magyar Tudományos Akadémia Történelmi Bizottsága. Budapesta.
NAV	– Nizhnevolzhskij arkheologicheskij vestnik. Volgogradskij gosudarstvennyj universitet. Volgograd.
PAV	– Peterburgskij arkheologicheskij vestnik. Sankt Peterburg.
Plural	– Plural. Revista Departamentului de Istorie și Geografie a Universității Pedagogice de Stat „Ion Creangă”. Chișinău.
PNAS	– Proceedings of the National Academy of Sciences of the United States of America. Washington DC.
ProCIPA	– Proceedings of CIPA. Comité International de la Photogrammétrie Architecturale.
ProSPIE	– Proceedings of SPIE - The International Society for Optical Engineering. International Society for Optics and Photonics. Washington DC.
PS	– Philosophy of Science. Cambridge University Press, Cambridge.
RA	– Rossijskaya Arkheologiya. Institut arkheologii Rossijskoj akademii nauk. Moscova.
RArhiv.	– Revista Arhivelor. Arhivele Naționale ale României. București.
REA	– Research in Economic Anthropology. Society for Economic Anthropology. Washington DC.
Representations	– University of California Press. Berkeley (California).
RESEE	– Revue des Études Sud-Est Européennes. Institutul de Studii Sud-Est Europene al Academiei Române. București.
RHSEE/RESEE	– Revue historique du sud-est européen. Academia Română. București, Paris (din 1963 Revue des études sud-est européennes).
RI	– Revista de Istorie (din 1990 Revista istorică). Academia Română. București.
Riv.M	– Rives méditerranéennes. Presses universitaires de Provence. Aix-en-Provence.
RREI	– Revue Roumaine d'Études Internationales. Academia Română. București.
RRH	– Revue Roumaine d'Histoire. Academia Română. București.
SA	– Sovetskaya Arheologiya. Institut arkheologii Akademii nauk SSSR. Moscova.
SAI	– Svod Arkheologicheskikh Istochnikov. Moscova.
Sargetia	– Sargetia. Acta Musei Devensis. Muzeul Civilizației Dacice și Romane. Deva.

Science	– Science. American Association for the Advancement of Science. Washington DC.
SJA	– Southwestern Journal of Anthropology. University of Chicago.
SMIM	– Studii și materiale de istorie modernă. Institutul de Istorie „Nicolae Iorga” al Academiei Române. București.
StCl	– Studii clasice. Societatea de Studii Clasice. București.
Stratum plus	– Stratum plus. Arkheologiya i kul'turnaya antropologiya. Vysshaya Antropologicheskaya Shkola. Chișinău.
Studia Litterarum	– Studia Litterarum. Institut Mirovoy literatury imeni A. M. Gor'kogo Rossiyskoy Akademii Nauk. Moscova.
Studii	– Studii. Revistă de istorie (din 1974 Revista de istorie și din 1990 Revista istorică). Academia Română. București.
Sustainability	– Sustainability. MDPI. Basel (Switzerland).
Századok	– Századok. Magyar Történelmi Társulat. Budapesta.
Tabor	– Tabor. Revistă de cultură și spiritualitate românească. Mitropolia Clujului, Albei, Crisanei și Maramuresului. Cluj-Napoca.
TörSze	– Történelmi Szemle. Bölcsészettudományi Kutatóközpont Történettudományi Intézet. Budapesta.
Terra Sebus	– Terra Sebus. Acta Musei Sabesiensis. Muzeul Municipal „Ioan Raica” Sebeș.
Thraco-Dacica	– Thraco-Dacica, serie nouă. Institutul de Arheologie „Vasile Pârvan”. București.
VDI	– Vestnik drevnei istorii. Institut vseobshchej istorii Rossijskoj akademii nauk. Moscova.