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CONTENTS PAGES

EDITORIAL

5

RESEARCH - COMMONS: AN ARCHAEOLOGICAL PERSPECTIVE

- P.G. Gould** Community in archaeology: an assessment 7
- S. Rippon** Communities, continuity, and change: territorial identities in early medieval southern Britain 25
- G.P. Brogiolo** Comunità rurali e beni collettivi tra fonti scritte e paesaggi stratificati 59
- A.M. Stagno, J. Narbarte Hernández, C. Tejerizo García** The social dimension of commons between practices and jurisdiction. Case studies from southern Europe (17<sup>th</sup>-21<sup>st</sup> c.) 81

BEYOND THE THEME

- J. Benedito-Nuez, J.J. Ferrer-Maestro, J.M. Melchor-Monserrat** Pervivencia y transformación: testimonios arqueológicos de la dinámica urbana de la ciudad romana de *Saguntum* entre los siglos III y VII 111
- E. Zanini** Cost, value and wealth redistribution: micro- and macro-economy in Early Byzantine evergetism 137
- S. Bortolotto, N. Cattaneo, A. Garzulino, S. Massa, S.M. Masseroli, R.M. Rombolà** Castelseprio archaeological site: LiDAR and GIS multiscale dataset supporting on-field investigation and enhancing landscape understanding 163
- F. Andriani, F. Armenise, G.A. Panzarino, S. Sublimi Saponetti** Signs of interpersonal violence and war: paleotraumatology in Apulia during the Late Antiquity and the Middle Ages 189

<b>E. Dorado, J. Herrerin, I. Ramirez, L. Parro</b>	Klippel-Feil Syndrome in a Mudejar population: a sign of endogamy in a social minority	253
<b>G. Marra</b>	Studio del paesaggio storico urbano di Ascoli Piceno nel Basso Medioevo: dalla ricostruzione alla comunicazione digitale con Google Earth	267
<b>C. Bonacchi, M. Lorenzon</b>	Assessing the transforming social values of cities in the <i>longue durée</i> : analysis of a Florence neighbourhood from the Middle Ages to the present	303
<b>G. De Felice</b>	<i>Novecento</i> . Apulia at war. A project of archaeology of the contemporary past between research, education and participation	327
<b>DOSSIER - ARCHAEOLOGY AND SCHOOL</b>		
<b>S. Schivo</b>	L'archeologia nei manuali di storia: il caso di Padova	349
<b>J.C. González Vargas, R. Fabregat, A. Carrillo-Ramos, T. Jové</b>	Motiv-ARCHE: an augmented reality application to co-create cultural heritage resources with teenagers	387
<b>REVIEWS</b>		439
T. Ingold, <i>Making. Antropologia, archeologia, arte e architettura</i> - by <b>E. Giannichedda</b>		
G.P. Brogiolo, P.M. De Marchi (eds), <i>I Longobardi a nord di Milano. Centri di potere tra Adda e Ticino</i> - by <b>E. Salvatori</b>		
Y. van den Hurk, <i>On the Hunt for Medieval Whales. Zooarchaeological, historical and social perspectives on cetacean exploitation in medieval northern and western Europe</i> - by <b>M. Fecchio</b>		
R. Fantoni, R. Cerri, P. de Vingo (eds), <i>La Pietra Ollare nelle Alpi. Coltivazione e utilizzo nelle zone di provenienza</i> - by <b>P. Vedovetto</b>		
J. Darlington, <i>Fake Heritage: Why we rebuild monuments</i> - by <b>F. Benetti</b>		

Peter G. Gould\*

# Community in archaeology: an assessment

## 1. Introduction

This dossier grew out of a conference in Venice in December 2019 devoted to the topic of community in archaeology. As the papers by Brogiolo, Rippon and Stagno illustrate, pre-historic and historical archaeologists are studying archaeological contexts to understand the dynamics of people's lives in past communities. Also, public archaeologists are creating new communities around public participation in archaeology or by promoting community economic development catalyzed by heritage resources. Community, of course, is not a straightforward concept. As Anderson (2006) has pointed out, "community" may simply refer to people living in physical proximity to one another or to people who share theological, political, professional, or a host of other affiliations regardless of location. Those "imagined communities" overlap and often co-exist in a shared geography, challenging us to disentangle the interests and motivations of members of communities that are imbricated in a particular physical location. In archaeology, community has even more complex resonances: People associate with places through a shared history, frequently a contested history, and always a history of change that archaeologists must interpret from the complex context of the archaeological record itself.

Some in archaeology have romanticized communities shorn of those complications, but every archaeologist who has worked in small communities can testify that dissent is endemic, group cohesion is achieved with difficulty, and it is sustained only through exertion by community members. Understanding why individuals in the past made the effort to cooperate requires a theoretical frame from which to begin the analysis of the archaeological record. Similarly, theories about how and why communities cohere in the present are required to frame eth-

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ical and impactful contemporary practice. Those past and present problems of community in archaeology can be linked together through emerging theories about the personal and contextual factors that motivate individual actors when they encounter situations that require collective action. This paper gathers together the strands of those collective action theories in order to illustrate how they have been and may be used to advance archaeological interpretation, whether of people in the past or practice with contemporary communities.

## 2. Collective action theories

Collective action theories have been developed by scholars building on findings from psychology, biology, evolutionary theory, sociology, ethnography, complexity theory and the archaeological record, but the work began as a reaction to the political, social, and practical implications of neoclassical economic theory. Our exploration of collective action must begin there.

Theorists trace inquiries about the nature of human collaboration back to Aristotle and the Enlightenment. By the mid-20<sup>th</sup> century, though, *Homo economicus*, the model of utterly self-interest driven human behavior and motivation promulgated by neoclassical economists had become the dominant perspective driving neoliberal economic policy, social philosophy and business practice globally. The model proposed that selfish behavior was the key to economic prosperity and efficiency. The theory also suggested that selfish behavior would fatally undermine cooperation, a perspective encapsulated most definitively in economist Mancur Olson's classic *The Logic of Collective Action* (1965). Olson argued that the human drive for self-aggrandizement precluded collaborative behavior within any but the smallest self-policing communities. Three years later, ecologist Garrett Hardin (1968), in a now classic mind-experiment utilizing a mathematical game known as the "prisoner's dilemma", argued that cooperation would be impossible even to manage the smallest of collective resources, the traditional shared pasture. His paper not only highlighted the role of game theory in collective action scholarship, but its title, *The Tragedy of the Commons*, became a trope cited by thousands who bought in to Olson and Hardin's deep skepticism about the capacity of people to work together. A challenge exposed by Olson and Hardin's interpretation of *H. economicus* was that "public goods", shared resources available for use by all, would be exploited by "free riders" who would enjoy the benefits of shared resources but evade contributing to their production or preservation. Collective action always would need to be coerced. Therefore, if the political will existed, governments would need to step in to protect public goods, which in many countries came to include archaeological and heritage resources.

Reality has been uncongenial to this theory. Without question, failures of collective action occur regularly, but starting in the final years of the 20<sup>th</sup> century in-

creasing numbers of scholars identified thousands of examples of collaboration precisely in those situations in which neoclassical economists argued it should fail (see Commons 1961; Netting 1974; R. Hardin 1982; McKay, Acheson 1987; Wade 1988, and see the Digital Library of the Commons, <http://dlc.dlib.indiana.edu/dlc/>). This rebellion against *H. economicus* found its most prominent exponent in the work of Elinor Ostrom and her colleagues at Indiana University. Ostrom's seminal volume, *Governing the Commons* (1990), the foundation for the Nobel Prize in economics she received in 2009, made a stark case against neo-classical pessimism, at least under a set of defined circumstances. Ostrom's focus was on common pool resources (CPRs), which, unlike public goods, are shared resources from which it was possible, if expensive, to exclude unauthorized users and where use was rivalrous (one individual's use reduced the quantity available to others). Hardin's grazing commons, the site of his "tragedy", is a classic CPR. For Ostrom and her collaborators, the interesting question – and one that concerns archaeologists probing the subject today – is how resources held in common, especially CPRs, are "governed". That is, what are the institutions – the formal organizations and the informal group norms, rituals and other "rules of the game" (North 1990, p. 3) – through which groups of people access, provide, use and maintain collectively held resources despite a natural inclination toward self-aggrandizement.

In the course of their work, Ostrom and her colleagues studied numerous commons encountered in archaeology in both site- and landscape-scale contexts. In *Governing the Commons*, Ostrom (1990, chapters 3 and 5) reviewed studies on the governance of Alpine timber and grazing commons collectively managed since the 1400's, common lands regulated by villages for centuries in Japan, irrigation systems in Spain inaugurated in 1435 but built on canal systems as much as 1000 years old, Zanjera irrigation systems in the Philippines first referenced by Spanish priests in the 1630's, and Turkish and Sri Lankan fisheries that had been community managed for centuries. From that collection of case studies, Ostrom reasoned a series of conditions under which cooperative CPR governance was feasible. This list of "governance principles" for CPRs, which she enumerated in *Governing the Commons* (1990, chapter 3) and modified subsequently in her Nobel Prize acceptance lecture (2010, p. 653), stipulated that collective sustainable use of common resources was possible if:

- The sustainably managed commons exhibits clear boundary rules that specify the geographic range of the resource and specifies who may appropriate from it;
- Rules on both appropriation and provision (e.g., maintenance) are congruent with local social, environmental and economic conditions, and the distribution of costs to community members is proportionate to the benefits they receive;
- Rules enable broad participation in decision making;



- Monitoring of community obligations is conducted by the users or by agents accountable to the users;
- Sanctions for infractions are graduated in accordance with the severity of the rule-breaking;
- Rapid, low-cost and local institutions exist to resolve conflicts;
- The rights of individuals to form an entity to manage the common resource receive at least minimal official recognition; and
- In complex, larger-scale geographical contexts, governance institutions are organized into nested layers that delegate decision-making to the lowest possible levels (see the discussion on polycentricity below).

Although other researchers have extended her case studies and identified additional conditions that promote community collaboration (see Baland, Platteau 1996; Agrawal 2001), Ostrom's list has become the iconic description of the features of sustainable, self-organized collaborative governance by small communities. Importantly, her research extended beyond case studies. She also built on work during the same period by psychologists Amos Tversky and Daniel Kahneman, who had begun to test the behavioral assumptions underlying *H. economicus* among human subjects using game theory-driven laboratory experiments (for an accessible summary, see Kahneman 2011). Ostrom's workshop colleagues and others carried Kahneman and Tversky's work further through experimental "games" testing theories of human collaboration that were conducted with living subjects in many corners of the globe (see Ostrom *et al.* 1994).

These studies put a behavioral psychology foundation beneath Ostrom's field study findings. Experimental studies found that individuals placed in situations requiring a choice are not unwaveringly selfish. Instead, individuals in the experiments exhibited behavior that ranged from self-interest to altruism. Test subjects regularly demonstrated a strong sense of fair play and reciprocity even when it was to their own disadvantage and made choices far removed from the rational calculator *H. economicus* (for key points of what is now known as "behavioral" economics see Gintis 2000). More importantly, researchers found in these experiments that cooperative behavior was sustained for long periods if incentives for cooperation and sanctions for defection from cooperative groups were in place. This proved especially true if the parties involved were in a position to communicate disapproval and if cooperative games, like real life, extended over a long time. Indeed, in extended-duration games, theorists discovered that the most successful approach to sustaining collaborative behavior was a general policy of cooperation that was abandoned only momentarily to sanction a defector, after which cooperation should resume (Axelrod 1984).

Economists Samuel Bowles and Herbert Gintis (2013) later melded behavioral economics and game theory with archaeology and anthropology. Using simulation models, data drawn from anthropological and archaeological re-

search back to the Neolithic, and Darwinian evolutionary principles, they applied the new field of evolutionary game theory to the conditions under which human cooperation could emerge. Bowles and Gintis argued that a combination of human altruism, environmental factors, and the practical reality that tasks often require multiple people – whether for hunting or for war – made cooperative groups more fit for survival in a competitive world. To sustain that cooperation, they argued, groups developed social norms and cultural practices that were passed from generation to generation through culture as long as the benefits of cooperation outweighed the costs to individuals. As Ostrom had anticipated, the Bowles and Gintis simulations identified the importance of incentives for collaboration and sanctions for those who defect from the group. Ultimately, they argued that not only is cooperation apparently an element in the human psychological makeup, but from the earliest human times it may have proven evolutionarily valuable in determining which groups adapt most successfully to their circumstances and so expand their domains.

Thus, the essential findings of studies into collective action suggest that cooperation among individuals regularly occurs and has occurred in the past, and that it is based both on innate human characteristics and reasoned benefit/cost calculations bounded by the socio-cultural context in which individuals find themselves. Humans do not always cooperate, but if circumstances suggest that collective action is the best course, humans in groups weigh the costs and benefits to become “conditional cooperators”.

### **3. Collective action in pre-historic and historic archaeology**

Theories of collective action find their way into archaeology largely as a result of questions arising from the post-processual shift to acknowledging human agency as a central reality of social, cultural, political and economic life. This is not the place for an extended consideration of post-processual archaeology (see Shanks, Tilley 1987; Hodder, Hutson 2003; and for a critical evaluation Trigger 2006, chapter 8), and even the term “agency”, as Dobres and Robb (2000) emphasized, is a problematic concept subject to numerous interpretations. For the present purpose, though, agency may stand for archaeology’s recognition that men and women, as individuals and in groups, have throughout human history been able, within social, cultural and economic constraints, to influence the course of their lives and to take collective action. As Sassaman put it:

“In relating collectivism to agency, I do not intend to suggest that collectivities consist solely of like-minded actors. Rather, agency theory allows that individuals with varied, even contradictory motives or goals converge in collective formations in relation to similarly constituted formations...Agency is intrinsically bound up

with the notion of power, specifically social power. Broadly defined, social power is the ability of human actors to pursue goals within the parameters of structural properties of interaction" (Sassaman 2000, pp. 149-150).

The archaeological record is replete with evidence of collectively managed resources, and the very fact that collectively governed resources exist implies that individuals somehow created institutions to manage conflict and enjoy the fruits of cooperation. For example, in UK archaeological contexts, Aston (1985, pp. 114-115) identified commons resources in pastures for animals, ponds for fish, forests, mining and subsistence digging, clay for potteries, peat cutting for fuel, and firewood. Burghi and Stuber (2014) identified three dozen cultivated and wild crops traditionally extracted from commons for nutritional and household uses. Ancient communal institutions for allocating water and maintaining irrigation systems, classic types of CPRs, have been identified in the Andes (Trawick 2001; Kendall 2005) with roots in centuries old practices and institutions (Erickson 2006; Cottyn 2018). Simpson *et al.* (2001) identified mechanisms for governing collective grazing lands in Iceland dating from at least the 1200's AD. Saitta (2007) focused on collective action in the archaeological exploration of the 20<sup>th</sup> century Colorado Coal Field Wars.

Most archaeological studies identifying common resources do not explicitly incorporate collective action theories, but some have done so. Serjeantson (2001) applied collective action theories to understand the exploitation for trade of Great Auks and Gannets in Italy starting early in the 1<sup>st</sup> millennium BCE. Kimball (2006) utilized commons theories to evaluate the nature of goods involved in trade during the Mesolithic in Ireland. Other archaeologists have applied collective action theories directly to the historic water, fishery, and land management practices of Indigenous peoples of the Americas (Eerkens 1999; Bayman, Sullivan 3rd 2008; Campbell, Butler 2010; Nelson *et al.* 2011; Froese *et al.* 2014, see this volume; Aiuvalasit 2017; Chase 2019). Lindholm *et al.* (2013) used a commons governance framework to analyze pre-industrial Swedish forests, as did Lozny (2013) to assess ancient mountain grazing commons in the Pyrenees. Stagno (2014) has led a project to apply commons theories to an archaeological study of social dynamics and conflicts on common lands in European mountain areas. Taking advantage of written records, Bathe (2014) has addressed the governance and laws of commons in the UK from 1000 CE. Smout (2014) evaluated the debate between Hardin and Ostrom with reference to the management of fishing commons on the Firth of Forth. Oosthuizen (2011, 2013a, 2013b) has applied Ostrom's principles of commons governance to probe the processes for governance and institutional change in Anglo-Saxon English landscape commons. Rotherham *et al.* (2014), in a special issue of the journal *Landscape Archaeology and Ecology* devoted to historic and contemporary challenges of commons management, presented 21 cases from around the globe that analyzed commons in the historic landscape.

This mounting evidence of collective governance has led a handful of archaeologists to search for theoretical explanations for the collective action identified in the archaeological record. Among the earliest of these efforts were studies by Peter Richerson and Robert Boyd, who argued for an evolutionary model of human psychology and cultural adaptation that promoted group cooperation even as it differentiated people into competing groups (Boyd 2005; Richerson 2005; Boyd, Richerson 2009). Their work heavily influenced Bowles and Gintis and many others. In the introduction to his edited volume, David Carballo (2013) links collective action theories to the sustained importance in ancient social groups of the “4 r’s”: reputation (as an incentive), retribution (as a sanction), reciprocity and rewards, each of these an essential part of the governance principles offered by Ostrom and others. The papers in Carballo’s volume present evidence of individual autonomy and collective action in both monumental and quotidian aspects of the archaeological record.

Stanish (2017) has drawn on evolutionary game theory as explicated by Bowles and Gintis, ethnographic analogies, and archaeological field work to present a theory on the origins of small scale complex societies in pre-history based on collective action and the related emergence of ritual institutions. At the other extreme of social scale, Richard Blanton and Lane Fargher (Blanton, Fargher 2007, 2009; Blanton 2016) conducted a cross-cultural and inter-temporal analysis of collective action evident from archaeological field data. Blanton then incorporated developments from anthropology, psychology, neuroscience and economics to argue that the existence of large-scale public works and the emergence of nation states in antiquity implies voluntary collaboration between leaders and those whose labor and taxes made them possible. Inevitably, grand theoretical propositions such as Stanish’s and Blanton’s will be subjected to criticism from every discipline they have touched. For our purposes, these studies reflect growing interest in acknowledging collective action in the past and utilizing collective action theories to understand their dynamics in large- and small-scale contexts.

#### **4. Collective action in public archaeology**

Archaeological engagement with the public at sites, museums, and other contexts, variously labeled public or community archaeology, has emerged as a fundamental area of practice – some would argue the most important – in contemporary heritage management. Archaeology was born by effete antiquaries who were later displaced by scholars from academia, neither of whom naturally embraced interactions with local communities. Practical issues, particularly the need for labor and for public support, opened the door to public archaeology as a necessary innovation (McGimsey 1972). Since the later 20<sup>th</sup> century, though,

public engagement at museums and archaeological sites, participation in the excavation process, and involvement in activities focused on local community heritage have assumed prominence in terms of employment and attention for archaeologists on a global scale (Moshenska, Dhanjal 2012; Okamura, Matsuda 2012). Three developments are driving this process and each can be informed by collective action theories applied to the present.

First, heritage-driven tourism has emerged as a central pillar of economic development strategies worldwide (see papers in Burtenshaw, Gould 2015). International organizations have labeled heritage a “driver to development” (ICOMOS 2011), national culture ministries have foregrounded heritage tourism in economic development strategies, and non-governmental organizations such as the Sustainable Preservation Initiative or the Global Heritage Fund have sought to build community economic development in emerging countries on the back of archaeological tourism. Heritage tourism has become a successful growth engine in wealthier countries (see, e.g., Bewley, Maeer 2014), but endeavors in emerging economies have produced mixed results. Challenges include a lack of business skills among community members, political contention, difficult-to-access sites, dysfunctional social conditions, inadequate financing, or external shocks such as global economic recession (Little, Borona 2014; Morris 2014; O'Reilly 2014; see also papers in Gould, Pyburn 2017). Critics of tourism-driven development also focus on the adverse consequences for local communities, including the exclusion of local voices from tourism planning, the leakages of economic benefits out of communities to national and international corporate interests, and the destruction of tangible and intangible heritage values through commoditization in order to satisfy a mass tourist market (Porter, Salazar 2005; Timothy, Nyaupane 2009, pp. 56-70; Herrera 2013; O'Reilly 2014; Pyburn 2014; Salazar, Zhu 2015; Pyburn 2021). The economic and ethical consequences of these challenges illustrate the disempowerment of communities in economic development and raise questions about whether strategies rooted in community-level collective action may enable archaeologists to address community needs more effectively.

Second, the top-down, expert-driven approach of traditional archaeological practice excluded or minimized the value of local contributions and neglected the adverse consequences of archaeological and heritage interventions on local communities. The result in some quarters has been a turn towards activism that calls on archaeologists and heritage practitioners to prioritize and act to redress social ills in the course of their archaeological work (Pyburn 2007; McGuire 2008; Sabloff 2008; Stottman 2010; Atalay *et al.* 2014). Activism, in practice, requires proven tools to accomplish socially desirable objectives. Again, collective action theories such as Ostrom's governance principles can help archaeologists identify practices that hinder or promote the sustainable empowerment of living communities.



Finally, due in part to the above two trends, community engagement by archaeologists has become an ethical obligation. Major archaeological associations worldwide now incorporate community engagement in their codes of ethical practice (Gould 2014, p. 66). International compacts such as the Faro Convention (Council of Europe 2005) focus on access to heritage as a human right. Critical scholars have condemned the neglect of community interests in archaeological practice (Smith, Waterton 2009; Watson, Waterton 2011). Perhaps most compellingly in the long run, funding agencies in some countries have begun to require demonstrable positive impact on local communities a condition for grant awards (Maeer 2017, see also [heritagefund.org.uk/funding/national-lottery-grants-heritage-2021-22](https://heritagefund.org.uk/funding/national-lottery-grants-heritage-2021-22)). Community engagement is a fundamental ethical principle in archaeology today (Gnecco, Lippert 2015) with community-led projects an emerging theme in the field (see, e.g., Leventhal *et al.* 2014). Some archaeologists are seeking to build community in digital contexts (Wilkins 2020), while others attempt to build actual communities, for example among veterans suffering from post-conflict trauma (Winterton 2014). A central question for public and community archaeologists today is how and when to ensure that community engagement is effective, sustainable and ethical. Collective action theories are a starting point for the answer.

That work has begun. Over the years, archaeologists have demonstrated that community-based management can successfully sustain historic commons and contribute to the well-being of contemporary communities in emerging economies. Frequently, these studies have assessed reinvigorating centuries-old traditional irrigation and farming commons for the benefit of the members of contemporary local communities (Erickson, Chandler 1989; Erickson 1992; Kendall 2005; Balée, Erickson 2006; Erickson 2006; Barghouth, Al-Saed 2009; Guttman-Bond 2010; G. Olson 2012; Tan 2017; Chen *et al.* 2018). Those authors describe community-based work reflecting the principles of collective action even if most did not incorporate theory explicitly. A few authors have overtly applied collective action theories and models to rebuild collective engagement with traditional commons under threat from development (Bolthouse 2014; Mackay 2014; Benesch *et al.* 2015). Thus, collective action principles can inform the way archaeologists work with communities even to resuscitate the governance of ancient commons.

Collective action theories also have been applied to contemporary practice in community archaeology (González 2014; González *et al.* 2017; Lekakis 2020), community-managed archaeological and heritage sites (Gould, Paterlini 2017), and community-based economic development programs centered on archaeological and heritage sites (Pyburn 2017; Gould 2018). Commons governance theories have been incorporated into the development of management best practices for the heritage of native American tribes (Welch *et al.* 2009) and of other indigenous peoples (Rutte 2011), including such sensitive topics such as the repatriation of human remains (Flessas 2008).

In short, ethical practice by archaeologists when they interact with contemporary communities can benefit from reflection on and incorporation of the principles and evidence underlying collective action. Ostrom's and related theories provide a basis for public archaeologists to collaborate with community members to devise projects that are community-driven, ethical, effective and ultimately self-sustaining. When communities become intimately involved in archaeological practice, as increasingly is the standard with Indigenous communities and others with personal connection to the heritage, examining field practice through the lens of collective action theories can empower local communities and mitigate the adverse consequences of archaeological interventions and heritage commercialization.

## 5. Open issues and future directions

Three broad and difficult matters of theory and practice remain to be addressed if collective action theories are to realize their potential to contribute to archaeology.

First, as much as scholars reach for a “theory of collective action”, the diversity of sources – economics, psychology, ethnography, archaeology, mathematics – has not produced a cohesive theory of collective, collaborative behavior. The confluence of historical and contemporary data does strongly affirm the reality that humans collaborate to achieve collective ends, but we are not close to a theory with predictive value of the conditions under which people will subordinate personal to collective interests. The benefits and costs of collaboration are too situation-specific. At present, collective action theories are useful primarily to understand the features and dynamics of institutions that exist, not to understand how they came to be. When Ostrom formulated her “design principles illustrated by long-enduring CPR institutions” (1990, p. 90), she was careful not only to underscore their tentative nature but to emphasize that these principles were reasoned from existing institutional solutions observed in the field. Ostrom herself was clear that her principles could not be treated as “blueprints” for community organization (Ostrom 2005, p. 257). A general theory of how collective institutions come into existence, or even of which list of principles is definitive, remains an elusive area of study across the commons literature and particularly in archaeology. We are learning from social psychologists, sociologists and even community organizers that assembling individuals into groups with distinctive, *sui generis* cultures, practices and rules is a challenge. Archaeological practice involving living communities affects those communities, for better or worse, in a feedback loop that we can appreciate best only in hindsight. Collective action principles currently provide limited guidance about the most effective ways to construct new community institutions in an ethical, humane and sustainable manner.

Second, the data base on which archaeological conclusions are drawn is inherently tentative. Advanced scientific techniques enable archaeologists to ex-

tract increasingly detailed physical evidence from the material record, through which they seek to infer the nature of the environment, institutions, values, and motivations of the people whose past they excavate. Such inference is not the same as directly observing those features in past societies, though, and one need not be a post-processualist to acknowledge that we can never know what truly was in the minds of the people who inhabited the ancient preserves that we excavate. Furthermore, interpretations drawn from the archaeological record inevitably are based on limited samples and, as frequently occurs, may be sharply revised by subsequent discoveries (see e.g. Hodges 2012). The historical records that purport to explain governance mechanisms of a past time, whether survey maps or documents, usually were created by elites and ruling groups and carry their inevitable biases. Similarly, analogizing from relatively contemporary ethnographic studies to the deep past implicitly is based on the assumption that human psychology and social behavior have been largely invariant except for adjustments to changing cultural, environmental or economic influences.

Third, archaeologists have been sensitized in recent decades to the biases inherent in our research methods, and considerable caution is appropriate when applying economic and political theories that emerged in a Western, post-enlightenment context to other cultures and contexts including those from the past. Scholars seeking to extrapolate theories backward in time to cultures preceding or independent of the post-Enlightenment West bear the burden to demonstrate that the governance models emerging from collective action theories can be applied to ancient or non-Western cultures. This is especially problematic where the archaeological record is the only voice available for the peoples of the past. This is not to invalidate the many works cited in this review; it is merely to make the obvious point that any inferences about the past built on theories evolved in contemporary Western circumstances must be subjected to special scrutiny.

Despite these qualifications, there are steps we can take to advance understanding of collective action and community organization in the past and in the present.

First, this paper demonstrates that the study of community behavior – in the past and in the future – is an intensely interdisciplinary activity. Questions about collaboration and community have engaged economists, psychologists, political scientists, anthropologists, archaeologists and many others. While each discipline's questions may be unique, the methods and the subject matter – human communities – are shared. Archaeologists, whether focused on understanding past human societies or engagement with contemporary communities, need to gird themselves to engage across disciplines, critically applying theories and evidence from a broad range of scholars. Ostrom herself employed archaeological data, ethnography, case study research, game theory, and behavioral and institutional economics in her work. We can do no less to advance understanding of cooperation in archaeological contexts.

Furthermore, we should be prepared to employ new tools in order to delve more deeply into the “hows” and “whys” of the collaborations we encounter in past and present communities. It is beyond the scope of this paper to explore additional approaches in detail, but three merit preliminary mention. One, the Ostrom Workshop’s Institutional Analysis and Development (IAD) framework (Ostrom 2005; McGinnis n.d.), was devised by Ostrom and her colleagues to structure inquiries into the interaction among biophysical and material conditions, the attributes of particular communities, and the rules governing community collaborations, when changing circumstances require new solutions to dilemmas over the provision and use of common resources. Within the IAD, the decisions of individual actors in an “action arena” (a situation requiring resolution of a social dilemma arising from a common resource) are bounded by the roles they play, the actions available to them in those roles, and the various types of rules that determine the payoffs and consequences from their actions. The IAD framework should be readily recognizable to anthropological archaeologists: it is not very different from Brumfiel’s (2000, p. 249) anthropological description of actors with agency who are “socially constituted beings who are embedded in sociocultural and ecological surroundings that both define their goals and constrain their actions”. The IAD may be a particularly useful approach to dissecting the decisions of actors in contemporary heritage management contexts.

Similarly, the concept of polycentric governance, developed by Elinor Ostrom, her husband Vincent and others (see Ostrom 2010; Thiel *et al.* 2019) may be a useful lens through which to understand how power is distributed among actors and groups in society and how conflicts among them may be resolved. Ostrom reflected the essence of polycentricity in her eighth governance principle for CPRs. That is, where commons are complex and hierarchical in nature, the best practice is to push decisions as far down toward the local community level as possible, leaving higher levels in the structure to set commons-wide rules and resolve conflicts. For example, Cottyn (2018) presents an analysis of the overlapping official and indigenous structures for rural communal land systems in Bolivia that have persisted for centuries. Although the chapter was not written with polycentric governance in mind, the conditions described in Bolivia both echo and could be informed by polycentric analysis. Similarly, in a contemporary context, I have speculated whether polycentric governance of heritage sites might contribute to more democratic and equitable outcomes for surrounding communities (Gould in press). Commons exist within contexts of ambiguous, overlapping and evolving rights of ownership and usufruct involving actors with varying degrees of economic, political or social power. The polycentric approach provides a means to characterize the institutions created by community members in order to manage both contention and change, and thus to understand the dynamics and the ultimate success or failure of those institutions.

Finally, especially if we are to pursue engagement with living communities in an ethical and effective manner, insights into group dynamics and conflict resolution may lead to better understanding of how the rules for collective action may be established. For example, Myers *et al.* (2016) have argued that business negotiating methods may be effectively applied to build consensus and resolve conflicts in heritage contexts. While researching business negotiating skills may seem far afield for some archaeologists, it seems probable that negotiation skills have characterized those who built communal institutions from the very beginning of human social life. Research into such areas may be of enormous benefit to public archaeologists struggling to define ethical approaches to practice. Without doubt, this paper will call to mind techniques and approaches from other disciplines that equally may be applied to advancing commons research. We should welcome all such ideas and evaluate whether, and under what conditions, they can advance archaeological understanding of communities and collaboration both past and present.

## Abstract

Archaeologists seek to understand the dynamics of life in past communities while public archaeologists embrace community participation in archaeology or make heritage a catalyst for community economic progress. Our theoretical understanding of the roots of collaboration within communities, whether past or present, is limited, however. Archaeology needs theories to frame understanding of the personal and contextual factors that motivate individual actors to collaborate when conditions require collective action. This paper reviews how developing theories of collective action have been applied in pre-historic, historical and public archaeology and assesses the limitations and potential of those theories for future research and practice.

**Keywords:** commons, collective action, archaeological theory, public archaeology, community archaeology.

*L'archeologia cerca di comprendere le dinamiche della vita nelle comunità del passato, mentre l'archeologia pubblica indaga la partecipazione della comunità all'archeologia o fa del patrimonio un catalizzatore per il progresso economico della comunità. La nostra comprensione teorica delle radici della collaborazione all'interno delle comunità, passate o presenti, è tuttavia limitata. L'archeologia ha bisogno di teorie per inquadrare la comprensione dei fattori personali e contestuali che motivano i singoli attori a collaborare quando le condizioni richiedono un'azione collettiva. Questo articolo esamina come le teorie dell'azione collettiva, in via di sviluppo, sono state applicate all'archeologia preistorica, storica e pubblica e valuta i limiti e il potenziale di tali teorie per la ricerca e la pratica future.*

**Parole chiave:** beni comuni, azione collettiva, teoria archeologica, archeologia pubblica, community archaeology.



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