1 Deep-Time Images and the Challenges of Globalization

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Abstract

In this collection of papers on globalization and rock art, we begin to examine how rock art research was historically shaped by a deep Eurocentric bias. We use the concept of deep time, following the recent focus of historians and other disciplines, where an appropriate scale of space and time is being explored to understand the human past (following McGrath and Jebb, Long history, deep time. Deepening histories of place. ANU Press, Canberra. https://doi.org/10.26530/OAPEN_578874, 2015; Griffiths, Deep time dreaming: uncovering ancient Australia. Black Inc., Carlton, 2018). A focus on the "deep time story", as Billy (Griffiths, Deep time dreaming: uncovering ancient Australia. Black Inc., Carlton, p. 5, 2018) asserts, reminds us that history is but one way of thinking about the relationships between past and present. Rock art research has multiple lenses, rather than being a universal science or all-knowing truth. Deeply engrained Eurocentric biases that drove the earliest research efforts into deep time art and its makers, has shifted to a more global perspective on rock art and the people who made it, by those who are involved in its research, and by those for whom it has multiple significances. The proliferation of rock art research in colonized parts of the world, particularly the USA, Australia and Africa, continues to call into question this Eurocentrism. This shift in focus has been fueled, in part, by globalization, which has resulted in many benefits for rock art researchers, including the expansion of inquiry into new territories and the rapid sharing of developments in new methods for surveying, recording and dating rock images. Globalization has also generated new challenges and tensions. There are still many countries and territories that are excluded from these discussions, and Western hegemony and patrimony as promoted by institutions such as UNESCO, often collide with the interests of nationalism and local communities. The chapters in this volume explore these tensions and many suggest strategies to promote more critical attitudes toward globalization.

Keywords

Globalization · Deep-time images · Rock art · Cave art · Absolute dating methods · Eurocentrism

1.1 Introduction

This volume explores many facets of globalization in rock art research. While the origins of 'globalization' can be traced back to the 1940s, this buzzword became popular in the 1990s as "it captured the increasingly interdependent nature of social life on our planet" (Steger 2013: 1). Thirty years later, there are thousands of books and papers on this oft-contested term. That said, most definitions of globalization share multiple elements. 'Globalization' refers to the progressive incorporation of many countries into a world economy defined by the massive flow of goods, services, capital and labor (Stiglitz 2007: 4). It is generally perceived "as primarily an economic phenomenon mediated by cutting-edge information and communication technologies" (Steger 2013: xi). Globalization also refers to "the international flow of ideas and knowledges, the sharing of cultures, global civil society, and the global environment movement" (Stiglitz

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2007: 4). In this idealized view, globalization denotes a connectivity in which "as more people become more connected across greater distances, they create a new world society in which they do more similar things, affect each other's lives more deeply" (Lechner 2009: xiii). Even the champions of globalization seem to agree that "the evidence is overwhelming that it has failed to live up to this potential" (Stiglitz 2007: 5). The past decade has witnessed an increasing discontent with what is generally perceived as "an inevitable techno-economic juggernaut spreading the logic of capitalism and Western values by eradicating local traditions and national cultures" (Steger 2013: 1). It is not surprising that the term 'global' has become a common epithet to describe some of the most pressing crises that the world faces today: global warming (and climate change), global pandemic (the SARs COVID-19 outbreak), and global economic inequality.

Rock art researchers use the terms 'globalization' and 'global' to suggest that we can now recognize the many worldwide facets of rock art (e.g., Lorblanchet and Bahn 2017; David 2017; David and McNiven 2018; Moro Abadía and González Morales 2020). As we argue in Sect. 1.2 of this introduction, this somewhat obvious realization has taken so long partly because the history of rock art research has been marked by colonial views and resultant prejudices. In this context, while various rock art traditions (such as those in America, Australia, and South Africa) developed independently of, and simultaneously with, the tradition in Europe, the latter was considered the most valuable for many years. This was due to the privileged position of Europe in world archaeology. And while the focus continued, there was an efflorescence around the new world of new practices (e.g. Loendorf et al. 2006; Taçon et al. 2022), and, with the turn of the twenty-first century, bringing changes through the impact of globalization in archaeology. As we examine in Sect. 1.3 of this introduction, new techniques for prospecting, recording, and, especially being able to infer the age of rock art images (e.g., using techniques such as accelerator mass spectrometry (AMS) and Uranium Series dating) have largely demonstrated that rock art is a foundational human practice found on almost every continent. These technical developments are synchronic with the global expansion of science and the internationalization of research. This, combined with the impacts of the Internet and social media, has generated an unprecedented flux of information about rock art images. That said, globalization remains a challenge for many engaged in rock art research and management. As we see in Sect. 1.4, tensions between 'the global' and the 'local' arise. The so-called 'globalization' of rock art research remains largely in the English-speaking Global North with huge areas – Central and South America, Africa, Asia – still excluded from the conversation. Moreover, there is a tension between traditional modes of preservation (anchored in the Western ideal that rock art is a 'universal' form of heritage and should be preserved as such), and alternative frameworks of management that are more community-oriented (i.e., grounded in the idea that rock images belong to specific groups of people that should take care of them, preferably by using/engaging with them). Finally, we review in this introduction how the chapters in this book contribute to thinking about rock art globally. These papers foster critical thinking on globalization as well as seek to expand the discussion beyond the normative European focus. Importantly, this corpus calls into question traditional divides to explore the many dimensions of worldwide imageries.

1.2 Eurocentrism: A Long-Standing Bias in Rock Art Research

In 1860 Modesto Cubillas lost his dog while hunting near the cave of Altamira in Northern Spain. The dog "had climbed into a cave and found itself unable to come out. [He] opened up a hole and found a large cavern" (Bednarik 2013: 59). Cubillas mentioned his finding to Marquis Marcelino Sanz de Sautuola, "a local gentleman and [the] landowner, [who] first visited the cave in 1875. Sautuola noticed some black painted signs on the wall but thought little of them" (Bahn and Vertut 1997: 17). Then, in 1878, Sautuola travelled to the World Exposition in Paris where "he was particularly attracted to an exhibit of prehistoric tools and small objects of art that had been found in France" (Curtis 2008: 48). He decided to excavate near Altamira, accompanied by his 9-year old daughter Maria. At some point, "Maria wandered off to play deeper in the cave. Suddenly, from a low side chamber, the marquis heard a cry: "Toros! Toros!" (Bulls! Bulls!). Sautuola hurried over and María pointed to a polychrome (multi-colored) bison, one of numerous animal paintings on the rock […] María (had) made one of the greatest archaeological discoveries of the nineteenth century" (Fagan 2018: 90). Sautuola published a booklet suggesting that the paintings were from prehistoric times (de Sautuola 1880). The scientific establishment rejected Sautuola's discovery until towards the turn of the twentieth century when several caves (La Mouthe, Combarelles, Font-de-Gaume) with convincing contexts of antiquity were discovered in France. This story of debate and disbelief ended in 1902, with the publication of a paper by the well-known prehistorian of the time, Émile Cartailhac, in which he recognized the prehistoric antiquity of Altamira – resulting in possibly the most famous early rock art retraction (Cartailhac 1902).

Almost invariably, rock art and art history books celebrate this story as the first significant episode of the history of rock art research (e.g., Bahn and Vertut 1997; Lewis-Williams 2002; White 2003; Moro Abadía et al. 2013; David 2017): a narrative manifest in the origins of this highly Eurocentric

discipline. In reality, many rock images had already been 'discovered' across the globe long before Altamira (e.g., Phillip 1789). And we should keep in mind that in rock art research and archaeology the concept of 'discovery' is, in itself, highly problematic. In places such as North America, South Africa, and Australia, rock art imagery is not just 'from the past', but forms part of current living and on-going traditions. In this sense, it is false to claim that these images were 'discovered' in the nineteenth century. More accurately, they were just reported by Western people, as part of a worldwide trend of learned societies and museums increasing anthropological understandings of cultural groups across the world and making significant collections of their material culture. Antiquarian interests substantiated the West's quest to understand its own deep antiquity. And the recording of people in 'exotic' places was encouraged by the learned societies of Great Britain and France, described by Thomas (2011:15) as an 'ethnomania' that drove the 'indefatigable' collection of new and interesting facts (Thomas 2011:62), resulting in the eventual emergence of an anthropological knowledge and the arrangement of collections in museums. Hicks (2013) has argued that this was central to the development of anthropology's four-field approach prevalent in North America.

Many rock images across the globe were published before 1902. In North America, scholars such as Cotton Mather and Thomas Jefferson (yes, the third president of the United States) commented on rock images in the eighteenth century. The first synthesis of American rock art was published by Henry Rowe Schoolcraft, a geologist appointed as federal agent to the Chippewa people of the Lake Superior region. Schoolcraft married a woman who was part Ojibwa and he contributed to dismantling the myth of the Moundbuilders (Whitley and Clottes 2005). In his *Historical and statistical information respecting the history, condition and prospects of the Indian tribes of the United States* (first published in 1847, more than 30 years before Sautuola's booklet), he reproduced many rock images and suggested that they were a form of "picture-writing" (Schoolcraft 1851–1857: 333). Garrick Mallery published his first book devoted to North American rock art in 1894. In this book, Mallery developed Schoolcraft's idea and suggested that rock images were "a mode of expressing thoughts or noting facts by marks which at first were confined to the portrayal of natural or artificial objects" (Mallery 1894: 25). It is important to note that Mallery's impressive account had no parallel in Europe at least until 1906, when Cartailhac and Breuil published *La Caverne d'Altamira* (Cartailhac and Breuil 1906).

In Africa, travelers and explorers reported rock images long before the beginnings of the twentieth century. For instance, British geologist Georges William Stow first came to South Africa in 1843. In the 1860s and 1870s, he made copies of rock images in the south-eastern Free State and the Eastern Cape Province of South Africa (Lewis-Williams and Challis 2011: 34). In 1875, Stow "sent many of these copies to Cape Town, where Bleek and Lloyd showed them to /Xam San people, who came from the central parts of the subcontinent" (Lewis-Williams and Challis 2010: 2–3). Lucy Lloyd also received the manuscript of *The Native Races of South Africa* that contained images of many rock paintings from across the country. The manuscript was edited by archivists George McCall Theal and published in 1905 (Stow and Theal 1905). After Stow passed away in 1882, Wilhem Bleek's daughter, Dorothea, kept his collection of rock art copies and published a commented version in 1930 under the title of *Rock-paintings in South Africa* (Stow and Bleek 1930).

People first commented on Australian rock art over 115 years before the 'official' recognition of Altamira in 1902. Governor Arthur Phillip, who set up the penal colony in Sydney Harbour in 1788, was one of the first to comment on the numerous drawings and carvings in the vicinity of the settlement,

> In all these excursions of Governor Phillip, and in the neighborhood of Botany Bay and Port Jackson, the figures of animals, of shields, and weapons, and even of men, have been carved upon the rocks, roughly indeed, but sufficiently well to ascertain very fully what was the object intended. Fish were often represented, and in one place the form of a large lizard was sketched out with tolerable accuracy. On the top of one of the hills, the figure of a man in the attitude usually assumed by them when they begin to dance, was executed in a still superior style. That the arts of imitation and amusement, should thus in any degree precede those of necessity, seems an exception to the rules laid down by theory for the progress of invention, But perhaps it may better be considered as a proof that the climate is never so severe as to make the provision of covering or shelter a matter of absolute necessity (Phillip 1789: 126).

Painter George Angas (1847) documented the production of engraved art around the harbor by known and named individuals, and ethnographers began to document rock art as part of the long-term and widespread evidence for Aboriginal Australia's cultural practices (e.g., Mathews 1893, 1895). Surveyor W.D. Campbell (1899) also published the numerous open engraving sites of the Sydney districts, recorded very accurately from horseback as he surveyed cadastral and other land tenure details. Significantly, also in 1899, Walter Baldwin Spencer and Francis Gillen published *The Native Tribes in Australia*, a book that included a chapter on rock paintings (Spencer and Gillen 1899, 614–618). Spencer and Gillen described several ceremonies among the Arrernte people of Central Australia. They explained that, while every totemic group had its own ceremony (and these ceremonies were all different), "the important point is that one and all have for the sole object the purpose of increasing the number of the animals or plants after which the totem is called" (Spencer and Gillen 1899, 169). This book greatly influenced a number of early twentieth century French rock art

researchers (including Salomon Reinach and Henri Breuil) but it is rarely mentioned as one of the monuments of early rock art research. During the early 1900s rock art documentation continued across the continent with the professionalization of specialist academic fields by people with varying backgrounds: for example, the Frobenius expeditions to the Pilbara and Kimberley regions of Australia (Kuba and Porr 2022) and focused recordings by D.S. Davidson and Fred McCarthy across much of the continent (see McDonald 2022; Taçon et al. 2022).

As these examples illustrate, during early stages of rock art research, European imagery was privileged and the primary audience for its outputs were Western/ European intellectual traditions. Rock art research outside Europe remained largely irrelevant for European audiences during the first half of twentieth century, at which time, the French prehistorian (and priest), the Abbé Henri Breuil, was considered by Oxford and Cambridge to be "the world's leading authority on Paleolithic art" (Bahn 1998: 62). Breuil not only discovered several caves with imagery, but also was recognized as among the first to promote the interpretation of rock images in terms of hunting magic. Breuil's focus on European cave art (until Ucko and Rosenfeld 1967) overshadowed rock art research occurring in places other than Europe. However, the period from 1900 to 1950 was a time of prolific research activity in many parts of the globe. In North America, significant works were published during this period, especially in California and the Great Basin. In 1929, Julian Steward published a major synthesis on the petroglyphs of California and Nevada (Steward 1929). One year later, Anna Gayton examined the connections between rock art and shamanism at the sites of the Yokuts and Western Mono in the California southern Sierra Nevada (Gayton 1930). While these works were certainly not exempt from the prevailing ethnocentrism (Steward, for instance, declared that no knowledge about the meaning of the petroglyphs could be obtained "from Indians living at present", 1929: 224), they merit recognition. Equally, there were significant early works on African rock art. We have already mentioned the publication of Stow's *Rock-paintings in South Africa* in 1930; but at the same time, German anthropologist Frobenius devoted three volumes to African rock art (Frobenius and Obermaier 1925; Frobenius 1931, 1937). Frobenius was among the first to suggest a shamanistic interpretation of rock art in South Africa (Kuba and Porr 2022), despite many suggesting that little could be said of "the motives which prompted the execution of the [South African] paintings or engravings" (Burkitt 1928: 156). Western scholars such as Alex Willcox, were persuaded that "Paleolithic man and his modern representative the Bushman remained, in their capacity for abstract thinking, always young children […] they achieved a degree of adaptation to their environments in which conceptual thinking was not necessary. Civilized man has taken another path" (Willcox 1956: 85). The 1940s also witnessed some important developments in Australian rock art research. For instance, the 1948 American–Australian Scientific Expedition to Arnhem Land set the foundations of later rock art research, while Charles Mountford made significant contributions to the ethnography of Australian rock art (Clarke et al. 2022).

If Breuil eclipsed several non-European scholars during the first half of the twentieth century, Leroi-Gourhan equally overshadowed the work of many researchers in North America, Africa and Australia during the 1960s and 1970s. Leroi-Gourhan is often credited for a structuralist approach in rock art research. In short, he proposed that, far from being randomly distributed, rock art representations composed structured symbolic systems. Additionally, he rejected the use of ethnographic analogies in rock art research. Subsequent authors called into question Leroi-Gourhan's theoretical approach (e.g., Ucko and Rosenfeld 1967), yet his predominance, enhanced by his comprehensive publications, published in many different languages (e.g., 1965), remained unchallenged until the end of the twentieth century despite his own "retreat" from some of his earlier interpretations.

During the 1960s and 1970s, many scholars engaged with Indigenous cosmologies that have set the groundwork for our current approaches. For instance, Peter Ucko played a major role in the development of Australian rock art research. In particular, "he championed Aboriginal peoples' rights to be recognised as the owners and managers of their own heritage, as well as providing the mechanisms to increase the discourse around rock art research and archaeological practice" (McDonald 2022: 58). Moreover, as Director of the Australian Institute of Aboriginal Studies (AIAS), he invited European specialists to visit and funded their conducting research on a variety of Australian sites. Similarly, David Lewis-Williams was pivotal for the development of modern approaches to deep-time images in South Africa (Lewis-Williams 1972; Lewis-Williams and Biesele 1978). He promoted a greater emphasis on San ethnography, developed an approach somewhat influenced by structuralism, and suggested that "the paintings and the myths perform a similar function in depicting and elucidating varied relationships between man and nature […] both the paintings and the myths, then, perform similar functions; they arise from the same needs and drives" (Lewis-Williams 1972: 63; although see Lewis-Williams 2012).

As this brief review illustrates, the development of non-European rock art has been relatively overlooked in the history and development of European rock art research. This is partly because Western archaeology has been shaped by a 'profound Eurocentric bias' that privileges the European record (McBrearty and Brooks 2000: 453), but there are other reasons that explain the perceived 'superiority' of European rock art. It was once argued that the extent and richness of the Franco-Cantabrian cave art made European

Upper-Paleolithic imagery a unique phenomenon in terms of scale and magnitude. While this is true to a certain extent (enhanced, in part, by preservation factors and dedicated research), multiple regions of Australia, North America, and South Africa also host an impressive number of representations and styles with a deep-time record rivaling that of Europe (e.g. David et al. 2017; Finch et al. 2021; Mulvaney et al. 2023; Mulvaney 2015; Veth et al. 2018; Vinnicombe 1976). European cave art is also renowned for its 'realistic' painting style (e.g., the iconic representations of such sites as Altamira and Niaux). This 'naturalism' (i.e., the mode of representation that sought to imitate/copy nature as exactly and accurately as possible) in art history has marked Western perceptions of rock art (Moro Abadía et al. 2013). This 'realism' is not exclusive to the European record, however, nor does it represent "the" pinnacle of artistic abilities and aesthetics – except of course, to a western aesthetic.

Further rationale for the primacy of Europe in rock art research has been that, until recently, European cave art was thought to be significantly older than any other rock art tradition in the world. This belief was partly a product of the extraordinary concentration of preserved, accessible Upper Paleolithic sites in Europe and well-supported researchers, and partly a result of the limitations of chronometric dating methods available before the 1990s, when the AMS (Accelerator Mass Spectrometry) dating method allowed for smaller sample sizes, enabling better chronological control without extensive damage to rock art motifs. For more than a century, the prestige of European cave art was in part predicated on it being the oldest art by anatomically-modern humans made on Earth. While French scholars continue to develop innovative approaches to Upper Paleolithic rock art (Fritz et al. 2017), including pigment paint recipes (Walter and Cardinali 2013); technical and technological studies (Fritz 2014); intensive dating programmes (Quiles et al. 2016); *chaîne opératoire* and implications of this for gender studies (e.g., Fritz et al. 2016); other understandings of deep time art production (e.g. Fritz and Tosello 2015); as well as the spectacular atlas for Chauvet (Delannoy and Geneste 2020); and the replicative productions of the imagery from Chauvet, Cosquer and Lascaux; the fact remains that a more global focus of our knowledge base has emerged during the past 20 years.

1.3 Globalization and Rock Art Research

At the end of the twentieth century, a number of parallel processes converged to challenge the dominance of European cave art. A globalized world emerged after the fall of the Berlin Wall (in 1989) and the dissolution of the Soviet Union (in 1991) as founded on a multiculturalist paradigm that accommodates the ethnically-and culturally-diverse societies produced by the global movement of people, capital and goods. Critical views of Eurocentrism flourished in this multicultural framework. In the 1990s, academia witnessed the rise of postcolonial studies. This field examined "the various institutions of European colonialism, the discursive operation of empire, the subtleties of subject construction in colonial discourse and the resistance of those subjects, and, most importantly perhaps, the differing responses to such incursions and their contemporary colonial legacies in both pre- and post- independence nations and communities" (Ashcroff et al. 1998: 187). Under the influence of Edward Said (1978) and other literary critics, postcolonial authors claimed that the political independence of most colonies had not translated into freedom from colonialist values that persisted "along with political, economic and cultural models… after independence" (Ashcroff et al. 1998: 64). Over the past 20 years, the postcolonial project has evolved into new forms of critique. While postcolonial studies attacked the effects of Western imperialism upon non-Western countries, the target shifted towards the colonial structures of settler countries. In the United States of America, Canada, Australia and South Africa, there has been an increasing demand for the deconstruction of Western ideologies – offering "a different perspective to human and civil rights-based approaches to justice, an unsettling one, rather than a complementary one" (Tuck and Wayne Yang 2012: 36). Postcolonialism and decolonization have had an impact in many of the social sciences. In archaeology, calls for decolonization "have become frequent, loud, and global" (Lippert et al. 2020: 7). Archaeologists are now urged to challenge the asymmetries of power that dominate the production of archaeological narratives. They have been asked to contest the link between Eurocentrism and "the structures of Western colonialism, which erase contemporary Native presence, introduce irreconcilable ruptures between present and past, and are essential to a framework of archaeological objectivity in empirical observation" (Schneider and Hayes 2020: 133).

It is thus not unexpected that the privileged position of European cave art has been increasingly called into question. In fact, it is not exaggeration to state that, effectively since Leroi-Gourhan's works in the 1970s and 1980s, the center of rock art research has somewhat shifted from Europe to other regions, such as Australia, North America, and South Africa. This process is as much (if not more) influenced by recent technological developments in scientific methods in the field as with the proliferation and acceptance of non-Eurocentric attitudes or post-colonial/ decolonizing frameworks (but see, e.g., Brady and Kearney 2016). While these new methods are not without problems (see Sauvet's chapter in this volume) the increased accuracy and range of new chronometric-dating techniques has been fundamental in dismantling the pervasive belief in the European origins of all rock art, as well as the notion that Paleolithic art was (almost) exclusive to Northern Spain and Southern France (see Ruiz-Redondo's

chapter in this volume). This process began in the 1990s when Accelerator Mass Spectrometer (AMS) radiocarbon dating was first applied in the European caves of Altamira, El Castillo, Niaux, and Gargas (Valladas et al. 1991; Clottes et al. 1992; Moure Romanillo et al. 1996). At this time the technique was also applied in southern Africa (Brandt and Carder 1987) and Australia (McDonald et al. 1990). The French results demonstrated that Leroi-Gourhan's stylistic/chronological system was flawed in fundamental ways and, in particular, that rock art had not evolved in a linear fashion from simple to complex throughout the Paleolithic (Clottes et al. 1995). Moreover, radiocarbon dates soon indicated that what we could consider to be human symbolic behavior–previously thought to have emerged in Europe at the beginnings of the Upper Paleolithic–had appeared significantly earlier in Africa. The radiocarbon dating of two pieces of ochre bearing what are taken to be symbolic engravings from Blombos cave to about 75,000 years ago (Henshilwood et al. 2002; Henshilwood et al. 2018) stimulated the search for early traces of what might be considered to be symbolism all across Africa. The 'abstract' imagery in Blombos Cave promoted the idea of an early emergence of 'drawing' in Africa. Subsequent archaeological research has demonstrated that personal ornamentation existed in Africa during the Middle Stone Age with such materials found from sites from the North [such as the Grotte des Pigeons in Morocco (Bouzouggar et al. 2007), and Oued Djebbana in Algeria, (Vanhaeren et al. 2006, and the South (such as at Sibudu and Blombos Cave in South Africa (d'Errico et al. 2008, 2015)]. Similarly, shell beads, as a marker of symbolic practices, have been discovered in many places across the globe, including Skhul in Israel (Vanhaeren et al. 2006), Jerimalai in Timor-Leste (Langley and O'Connor 2016; Langley et al. 2016) and from numerous Australian sites (Balme and Morse 2006; Balme et al. 2018).

And if radiocarbon dating has made it evident that these indicators of symbolism did not originate in Europe, uranium-series dating has demolished the idea that the earliest cave art is exclusive to France and Spain (see Brum, Oktaviana's and Aubert's chapter in this volume). Using this method on coralloid speleothems from cave walls, archaeologists have dated human hand stencils (to ca. 39,900 years ago) and two babirusa ('pig-deer') to ca. 35,400 years ago in Borneo, indicating that 'humans were producing rock art by ~40 kyr ago at opposite ends of the Pleistocene Eurasian world' (Aubert et al. 2014). More recently, this same team of archaeologists have dated the carbonate deposits covering two red stencils and a figurative animal painting in the cave of Lubang Jeriji Saléh (Borneo). The hand stencils have yielded a minimum date of 37,200 years ago, and the figurative painting depicting a purported hunting scene to 40,000 years ago (Aubert et al. 2018a, b) confirm that figurative art was being produced in island southeast Asia at the same time as Chauvet Cave in France (see also Quiles et al. 2016).

These technical developments have challenged and reframed many conceptions of rock art. But a full dismantling of Eurocentrism has also required the socio-political reconfiguration of rock art research. European scholars no longer dominate the discipline with their privileged access to the main European sites and in setting the tone of theoretical debate. Over the past two decades, scientific research has diversified (in France and globally) and the times in which one or two scholars (*'les mandarins'*, in the French parlance) controlled entire areas of inquiry are happily over. Today, many different specialists (from many different backgrounds) study rock art and praxis has greatly benefited from multidisciplinarity as well as cultural diversity amongst its scientists. Moreover, we have witnessed a decentralization of research and the reconceptualization of what is central – and what is more ephemeral – research. Franco-Cantabrian rock art was at the forefront of twentieth century research while non-European traditions were considered peripheral (at least from the viewpoint of European scholars). However, with the rise of national research agendas in a plethora of new rock art regions, the global research milieu has evolved towards multiple centers leading research innovation and methodological predominance. The Australasian case is the most obvious. As we have shown, the genesis of professional Australian rock art research can be traced back to the nineteenth century. However, the development of new dating techniques has garnered international attention, at sites such as Nawarla Gabarnmang (David et al. 2013) and various locales in Sulawesi (Aubert et al. 2014) and Borneo (Aubert et al. 2018a, b). There are now numerous known early art sites which are the fruits of intensive regional rock art projects in Arnhem Land (David et al. 2017) and the Kimberley (e.g., Finch et al. 2020; Finch et al. 2021; Green et al. 2021; Veth et al. 2018) and a national research agenda focusing on first peopling of Sahul through the southern arc of dispersal (e.g., Crabtree et al. 2021). The fact that some of these sites contain the oldest rock art on Earth has enhanced this worldwide recognition.

The rise of multiple unrelated rock art 'centers' has had an interpretive impact. Rock images have been traditionally understood according to models that were very much in the Western intellectual tradition. For instance, cave paintings have been considered in representational terms, i.e., as representations that carry meanings (for one critique of representationalism, see Jones 2021). Similarly, rock images have been often conceptualized with reference to art history dichotomies, such as figurative/abstract, realistic/non-realistic, real/imaginary, etc. Traditional conceptualizations are now being challenged in multiple ways (see, for instance, Jones and Cochrane 2018). Within the Western tradition, philosophers

such as Bruno Latour, Charles Peirce, Gilles Deleuze, Manuel de Landa, and others are inspiring *more than representational* approaches (such as assemblage theory, ontology, post-anthropocentrism, and Peircean semiotics) that are having an impact in rock art research (see, for instance, Wallis 2009, 2013; Jones 2017; Troncoso et al. 2020). Further, in places such as Australia and North America, Indigenous knowledges are generating many new avenues of research for deep-time images. For instance, engagement with Indigenous ontologies is expanding traditional conceptualization of images beyond representationalism (Jones 2017; Tapper et al. 2020). And the same can be said about recent research on Indigenous landscapes and animism (e.g., Creese 2011, 2017; Porr 2018; Zawadzka 2019). While some of these approaches can be traced back to at least the early 2000s (e.g., David 2002), it has been in the last 20 years that they are having a worldwide impact in rock art studies due to the emergence of places such as Australia and United States as new more globally recognized research foci.

The onset of a new global order has coincided temporally with a worldwide reorganization of rock art research, with the Internet playing a principal role. To a certain extent, rock art studies have always had an international dimension. For instance, European scholars like Breuil and Frobenius extensively engaged with African rock art, while French researchers such as Leroi-Gourhan researched sites from Northern Spain. However, this 'beyond-the-borders' dimension was restricted to a small number of privileged individuals and places. During the twentieth century, communication among scholars from different countries was restricted to sporadic conferences (and letters). In this setting, rock art research remained locally – and nationally – oriented. This began to change towards the end of the twentieth century. For instance, in 1995, the French Ministry of Culture launched an international competition to choose the team that would undertake the scientific study of the Chauvet paintings and its pristine cave environment. While the two potential team leaders were French both proposed teams that would include several international specialists (Balter 1996). Clottes, upon having been selected to lead the research, established a formal international scientific advisory committee that met regularly to discuss on-going research as well as the auxiliary projects such as the creation of a replica and the nomination of the site for UNESCO World Heritage status. International recognition became an important factor in scientific research. Additionally, core publications such as Rock Art Research and the International Newsletter On Rock Art (INORA) played an important role in this process. That said, it was the emergence of the internet in the 1990's that strongly modified scientific research. The World Wide Web has fueled the constitution of new international networks, increasing equitable access and circulation of information to unprecedented levels. Some publishing companies with specialized scientific content have made thousands of papers and books available online and are experimenting with more open access. While there is nothing philanthropic about this (for-profit journal publishers are academically restricted to Western countries and financially unsustainable for many universities), and indeed there is still deep inequity in access between the different continents, it is equally true that more and more scholars have access to academic literature (especially with the development of open repositories. A large comprehensive data base of rock art publications was developed (https://musnaz.org/rock_art_studies_db/). The digital revolution has also engendered new formats for deep-time imagery. Since the turn of the new millennium, we have witnessed an 'explosion' of digital rock art research projects, including the virtual replicas that allow 'visits' of renowned caves such as Lascaux. (https://archeologie.culture.fr/lascaux/fr/visiter-grottelascaux/salle-taureaux), Cosquer (http://grottecosquer.fr/visite.html), Font-de-Gaume (http://font-de-gaume.monuments-nationaux.fr/fr/), Chauvet (https://archeologie.culture.gouv.fr/chauvet/en) and Altamira (https://www.culturaydeporte.gob.es/mnaltamira/cueva-altamira/recorrido-virtual.html) all of these being in Europe. The *Musée de la Civilisation*'s virtual exhibition of rock art in Canada (https://imagesdanslapierre.mcq.org/en/) is an outside-of-Europe example, but still in the Global North.

1.4 The Pitfalls of Globalization

Most of the globalization effects discussed so far, broadly speaking, can be characterized as 'positive'. For instance, Eurocentrism has been effectively challenged in multiple ways that have brought other corpuses of rock art into the wider understandings. Moreover, among these 'positive' effects, we should mention the internationalization of research, the incorporation of Indigenous knowledges to our interpretive frameworks along with the increasing co-production of rock art research with Indigenous groups, and the worldwide circulation of information related to rock art sites. That said, globalization is certainly not without pitfalls. While the circulation of information has exponentially increased, access to this information remains inequitably restricted to a privileged number of people and countries. Similarly, the great progress in technological advances in science has accelerated many of the processes involved in rock art research. However, as Isabelle Stengers (2018) has pointed out in relation to science in general, it is far from clear that this acceleration is necessarily producing better science. In addition to these issues (that are common to many sciences), we examine in this section some challenges that are more specific to rock art research. First, globalization is

still developing ways of thinking that are embedded in pre-globalized styles of theorizing and practicing research. Second, globalization has been mainly limited to the Global North and, therefore, huge areas remain excluded from the conversation. Related to this point, it is important to keep in mind that globalization is a Western project that involves a number of homogenizing and universalizing processes that necessarily generate tensions and resistance.

Globalization has fueled criticism on some of the most obvious biases of traditional rock art research. However, the ways in which we think about rock images (especially in places like Europe) are sometimes anchored in theorizing styles that originated in a pre-globalized world and are not *necessarily* adequate for the current context. For instance, much rock art research has been driven by 'origins research', a style of theorizing that assumes that "both our biological beginnings and the inception of cultural complexity were attained during our early prehistory" (Gamble and Gittins 2004: 97). This has resulted in "a search for an unproblematic center- a point of origins which allows unequivocal meaning to be possible" (Gamble and Gittins 2004: 106; see also Conkey with Williams 1991; Wobst and Keene 1983). The pursuit of *the* origins has been particularly pertinent in rock art research. The authentication of rock art initiated a 'gold rush' for scholars seeking the 'beginnings of art' (Bataille 1955) in the caves of France and Spain. This search continued during the twentieth century in Europe given the assumption that rock art had originated during the so-called 'Upper Paleolithic revolution'. The search is now global, as noted above, with the deep time dates from Sulawesi and Lubang Jeriji Saléh. Carbonate crusts overlying pigment motifs in three Spanish caves (La Pasiega, Maltravieso and Ardales) at ca. 65,000 years ago has pushed this chronology still deeper – and brought into play the possibility of Neanderthal authorship (Hoffmann et al. 2018). While these dates have been called into question (Aubert et al. 2018a, b; White et al. 2020), they have reignited the debate as to whether symbolic behavior is a necessary hallmark of modern humans as well as what constitutes "symbolic behavior". The race to locate the 'oldest' art on Earth is fueled by multiple academic and non-academic factors. For example, scholars working with very old art have easier pathways to prestigious journals (such as *Science* and *Nature*), academic funding, as they benefit from 'the reward system in science' (Merton 1957: 642). This is directly related to the popularity of 'origins research' among the public and the mass media (see, for instance, the proliferation of labels such as the 'origins of language', the 'origins of modern humans', the 'origins of society', etc.).

No matter how fascinating the search for the 'origins' is (and while we understand that scholars need recognition and support by funding organizations, public institutions, etc.), this orientation has spurned pernicious effects (see Conkey's chapter in this volume). The focus on the 'origins' of art reflects a prejudice that has oriented rock art studies for centuries, i.e., the idea that the older the rock image, the more important it is. This is obvious, for instance, when one examines academic (and popular) perceptions of Paleolithic and post-Paleolithic images. Paleolithic imagery carries an aura of exclusivity and gets more academic and media attention than any other 'prehistoric' representations (see John Robb's chapter in this volume). As he explains, when you Google 'rock art prehistoric Europe' you get a smaller than representative set of images (mainly Paleolithic cave paintings from Lascaux, Chauvet and Altamira). The privileged position of Paleolithic imagery is rooted in its deep antiquity and its purported connections with the origins of western ancestors. However, the fact remains that the bison on the ceiling of Altamira or the horses at Lascaux *are not more important* than a Mi'kmaw image in eastern Canada or a San painting in Southern Africa. The European preference for Upper Paleolithic art is certainly not the fault of globalization, but this bias becomes increasingly untenable in a globalized context of international rock art research.

There is another problematic outcome of globalization that impacts rock art research. While we have celebrated the inclusion of more countries and territories in the global rock art conversation, this globalization is still embedded in a socio-economic and political reality. The term 'Global North' is used to refer to the nations of the world that are characterized by greater economic and industrial development and includes Europe, North America and Australia. The 'Global South', on the other hand, refers to less industrialized, 'developing countries' in Asia, Africa, Oceania and Latin America. Not surprisingly, the full benefits of globalization of rock art research have largely been restricted to the Global North. While Europe's centrality has been challenged, overall, countries from the Global North continue to reinforce their hegemony in the field. Huge areas of exclusion remain across the Global South. South America is illustrative of this point: Western specialists are largely unaware of rock art from this continent. This results from multiple factors, including the marginal position of South America in the context of world archaeology (relative to North America, despite having some 'older' occupation dates, e.g., Lahaye et al. 2013) along with the assumed 'young' age of its rock art. Yet South America, with a rich and burgeoning intellectual tradition includes an impressive number of rock art places. In Brazil, for instance, regions such as Piauí, Minas Gerais, and Mato Grosso are home of the sites of Serra da Capivara (Pessis and Guidon 2007), Cidade de Pedra (Paillet 2006, Vilhena Vialou 2006), Santa Elina (d'Errico and Vialou 2007), and others. In Argentina, sites such as Cueva de las Manos (Aschero 2018; Aschero and Schneier 2021), Los Toldos (Carden et al. 2018), and Piedra Museo (Carden 2022) has made the Provincia de Santa Cruz one of the richest depositories of rock art in America. In the Colombian

Amazon, archaeologists have documented thousands of rock paintings at Serranía de la Lindosa and propose a chronology starting 12,000 years ago (Morcote-Ríos et al. 2021; Iriarte et al. 2022). This concentration of images, together with the hundreds of pictographs reported at Chiribiquete National Park (Castaño-Uribe and Van der Hammen 2005), make this area amongst the richest rock art regions in the world. A significant number of these sites have been dated to the late Pleistocene/early Holocene transition (Podestá and Strecker 2014). These examples illustrate the pressing need to incorporate South American and continental Africa and Asia into the global conversations about rock art.

Globalization continues to promote a 'Western' hegemony of rock art research at multiple levels. As many authors point out, English is the language of globalization, and has become the *lingua franca* of science (Tardy 2004; Ferguson et al. 2011; Bennett 2013; Suzina 2020). Examples are innumerable: English is the language of communication among scientists from different countries, English-speaking publishing companies control the academic publication market, the most prestigious journals are in English, academic promotion in non-English speaking countries is mainly based on the number of publications in English-speaking journals, international meetings are held in English, etc. This continues to have several consequences in our field. We are witnessing a linguistic impoverishment of rock art studies. Languages that were important during the twentieth century (German, Spanish and, especially, French) are becoming progressively less relevant in international discussions about deep-time images. In this setting, English functions as "an additional barrier to achieving more equitable participation and a diversity of perspectives" (Suzina 2020: 171). Moreover, since languages are not just systems of symbols, but they express different worldviews, the English hegemony has important epistemological and ontological consequences. Scholars from many different places and origins are forced to translate their views and perspectives into those theorizing styles and Western interpretative frameworks that are dominant in the English-speaking world. And it is important to remember that other-than-English speaking scholars have made significant contributions to rock art research. For instance, the so-called structuralist authors (Leroi-Gourhan, Laming-Emperaire) were relevant to rock art research in the 1960s and they published almost exclusively in French. More recently, the engagement with different Indigenous ontologies has greatly invigorated the theoretical debate (even if English is still the language of the discussion).

The 'colonialism' of rock art research introduces additional frictions. Many of concepts and ideas in the field arise from Enlightenment Western thought. The notion of heritage (*patrimoine*, in French) originated after the French Revolution to designate those monuments, artwork and archaeological sites of an outstanding cultural, artistic and historic value to the French state. During the second half of the nineteenth century, Monuments Acts were passed in virtually every European country, including Britain (1882) and France (1887), and preservation became a burning issue in Italy and Germany (Swenson 2011: 140). The idea of cultural heritage, which initially referred to the historic and cultural patrimony of the different Western nations, expanded after World War II to incorporate several monuments considered of universal importance. In this setting, the creation of UNESCO in 1946 marked the beginnings of a global movement for the preservation of cultural heritage all around the world. The campaign launched by this organization in 1960 to relocate the Temples of Abu Simbel in Egypt (in danger of being swamped by the Nile after the building of the Aswan Dam) was the first in a series of similar initiatives to preserve the 'world's' heritage. And from the 1950s, several voices called for the preservation of natural heritage, i.e., those natural sites and features considered of a universal value from a geological, biological or environmental viewpoint. As a result of these developments, in 1972 UNESCO adopted the *Convention concerning the protection of the World Cultural and Natural Heritage* seeking to guarantee the preservation of monuments, buildings and archaeological sites as well as those natural sites of outstanding universal value. At this time, UNESCO's General Conference in Paris established the World Heritage Committee, whose main function was to elaborate a list of threatened cultural and natural sites to promote corrective action. The first World Heritage Sites were announced in 1978 and, since then, more than eleven hundred sites have been inscribed on the World Heritage List (https://whc.unesco.org/en/list/). Rock art sites have been an important part of the list from the very beginning. Since the inscription of the cave art from the Vézère Valley (France) and the rock paintings from Valcamonica (Italy) in 1979, numerous other rock art sites have been added to the list, including Kakadu National Park in Australia (inscribed in 1981, rock art/cultural values added in 1987), Tassili n'Ajjer in Algeria (in 1982), Altamira in Spain (in 1985), Alta in Norway (in 1985), Serra de Capivara in Brazil (in 1992), Chauvet in France (2014), Chiribiquete National Park in Colombia (added in 2018) as well as many caves across Northern Spain (see Palacio- Pérez's chapter in this volume).

These efforts to preserve rock art around the world are laudable and praiseworthy but they are also problematic. In fact, the idea of World Heritage (as well as UNESCO itself) crystallized in the years immediately after World War II in a context marked by an increasing commitment to peace and international solidarity (Meskell and Brumann 2015: 24). In this setting, UNESCO's initial approach to heritage developed out of the notion of 'outstanding universal value', i.e., the idea that certain cultural (and/or natural) places are so exceptional that they transcend national or cultural boundar-

ies to become part of humanity's heritage (Jokilehto 2008; Labadi 2013). Since the 1970s, however, many commentators have questioned UNESCO's universalism. They have argued that, under a façade of humanitarianism and good intentions, universalism – or as they frame it, 'patrimony' – imposes largely European values that risks diminishing local cultural difference (Eriksen 2001; Meskell and Brumann 2015). The UNESCO response to these critiques has been to shift from "the initial project of constructing cultural unity of a global level [and] been replaced by a celebration of the virtues of cultural diversity" (Stoczkowski 2009: 11). In this context, UNESCO has sought to promote a more inclusive approach as well as stakeholder collaborations with different local communities, and more recently acknowledge the primary rights of Indigenous groups to speak for their heritage (ICOMOS GA2023, Scientific Symposium, held in Sydney). That said, the tensions between the universal and the local are particularly critical in the case of rock art sites – as they are for the nature /culture divide – which many Indigenous groups find a perplexing way to compartmentalize the real world. The idea that rock art sites or broader heritage estates belong to an abstract humanity's universal heritage (which requires them to be placed under the protection of intergovernmental Western organizations) is contradictory with the belief systems (increasingly prevalent in settler countries) that rock art sites belong to the ancestors of different Indigenous communities – and indeed are part of broader cultural (i.e. often natural) landscapes. Additionally, UNESCO's World Heritage is inevitably linked to the Western idea of nation-state. As de Cesari has pointed out, "there is no World Heritage without nation-state sovereignty, and it is nation-states (and experts) that are constituted as the proper actors on the World Heritage stage" (de Cesari 2010: 309). Only state parties (i.e.,countries that have adhered to the World Heritage Convention) can introduce nominations to the World Heritage Committee. This means that while communities and ethnic groups can initiate the nomination process (see Stevens and McDonald's and Palacio-Pérez's chapters in this volume), this is subsumed into a broader and often complex process involving multiple layers of government. The selection process remains in the hands of the States Parties, making them "the key actors, thus leaving all key processes at a country level in the hands of national elites" (Askew 2010: 22). Moreover, once a site has been inscribed in the list, "the World Heritage Committee has both the right and the duty to monitor its state of conservation, relying again on the expert services of ICOMOS, IUCN, ICCROM, and the [World Heritage] Center" (Meskell and Brumann 2015: 26). These interfaces illustrate the tension between the global and the local and remain at the core of current debates about the appropriate management and preservation of rock art sites.

1.5 Organization and Relevance of This Volume

Globalization is a multi-faceted process that has profoundly impacted the ongoing praxis of rock art research. The ways in which rock art scholars organize, undertake, and publish their research has significantly evolved in the past 20 years, changing their role(s) as experts, their relationships with different groups of people, and the ways in which they present their results to the public. If we had to summarize in one word what has happened to rock art research during the past 20 years, it would be intensification. Rock art projects across the globe have multiplied, as have the number of practitioners; international collaborations have expanded; the methods for surveying, locating, examining and quantifying the age of rock art sites have exponentially increased in number and quality; and information about rock art sites can now circulate at unprecedented levels. Overall, this intensification has benefited rock art studies, and these are in many countries considered mainstream archaeological endeavours (Conkey 2005). There are vibrant funding streams in a number of countries, e.g., Australia's ARC funding has provided millions of dollars to major rock art projects funded through a number of universities (McDonald 2022) while ERC funding in Europe has funded major rock art research projects such as the Levantine focused LArcHer project led by Ines Domingo Sanz; and the multidisciplinary ARTSOUNDSCAPES: led by Margarita Dìaz Andreu – https://ia.ub.edu/projects-and-contracts).

But it has also fueled new (as well as, old) tensions and problems. This explains the passionate reactions that globalization engenders. For some, globalization has greatly helped the entire world to embrace rock art research. For others, it has merely continued to promote the global spread of Western (and English-speaking) values. Notwithstanding these different reactions, both adversaries and advocates of globalization acknowledge the speed with which changes have occurred. And in this fast-moving world, there is often little time to think critically about these processes (see Conkey's chapter in this volume). The risk of an age in which science continues to improve our ability to know many things about deep-time images encourages "method-idolatry": an overdependence on methods in the absence of critical thought and theorized outcomes. Similarly, the acknowledgement and celebration of Indigenous knowledges can only occur if given appropriate space: in current academia there is a shortage of time to critically examine and meaningfully engage with these knowledges, when 'key performance indicators' and 'research impacts' – the modern drivers of intellectual discourse – engender constant pressure to publish – or perish.

In this setting, our hope is that this volume serves to promote critical reflection on the many impacts of globalization in rock art research. We present these offerings in five sections. Section One – *Recentering rock art* – examines the worldwide reorganization of rock art research and the emergence of new centers beyond Western Europe. Aitor Ruiz-Redondo examines how Paleolithic art research has globally expanded beyond the Franco-Cantabrian region. Adam Brumm, Adhi Agus Oktaviana, and Maxime Aubert focus on the emergence of Indonesia and Australia as one of the centers of rock art research in the twenty-first century. Andrés Troncoso examines South American rock art with reference to Stenger's idea of 'cosmopolitics' (2005). Peter Veth, Sam Harper, and Martin Porr reframe parallels in rock art representation from two distant areas: Europe and Kimberley in Australia.

In this comparative vein, chapters in Section Two –*Comparative views on global art* – examine analogies and differences between disparate geographical areas. Oscar Moro Abadía and Amy Chase call into question the traditional eurocentric divide between European and Indigenous rock art. Danae Fiore, Bryn Tapper, Dagmara Zawadzka, and Agustín Acevedo highlight important analogies between the rock art research of the two distinct poles of the American continent: Southern Argentina and Eastern Canada. Elizabeth Vellicky and her multinational coauthors develop an Ochre Experience Model that is applicable across national boundaries along with several innovative methods. Using a similar transnational perspective, George Sauvet examines some of the pros and cons of the various chronometric dating techniques and challenges the on-going race to discover the oldest art in the world.

In recent years, rock art studies have become transnational (as illustrated by various chapters in this volume) and, equally important, interdisciplinary. Section Three –*Interdisciplinary global rock art* – offers several innovative and inspirational perspectives on rock art written by specialists in other disciplines. The multidisciplinary team of Jean-Jacques Delannoy, Bruno David, and Kim Genuite combines geomorphological and archaeological methods to offer an innovative model for reconstructing rock art landscapes. Whitney Davis, an art historian, ironically reflects on the obsession of archaeologists and art historians to find the earliest dated rock images in the world, providing an important critical approach to some popular ideas in rock art research. Art historian John Onians provides informative and salient neuroscientific observations about rock art research. He seeks to call into question various ideas about rock images that are common to the fields of archaeology, anthropology, and art history. In a different vein, another art historian, Rémi Labrusse, similarly examines the reception of rock art among contemporary artists from a historical viewpoint. His work is important to understand the different ways in which deep-time images have inspired modern imageries.

Section Four –*Rock art management: Tensions of Local versus global* – draws attention to the conflicts inherent in the preservation and management of rock art research in a globalized context. Eduardo Palacio-Pérez examines the process of nomination of several Spanish Cantabrian caves to the UNESCO World Heritage list. He illustrates how, in Europe, the management of rock art is shaped by the tension between a number of apparently antagonistic goals, such as preservation and touristic exploitation. In colonized countries, the tensions are of a different kind. In Australia, local Aboriginal communities, settler national institutions, and international agencies often have different (and sometimes contradictory) views on the management of rock art sites. The chapter by Amy Stevens and Jo McDonald on the nomination of the Murujuga cultural landscape onto the World Heritage List illustrates these frictions. Additionally, prevalent narratives within each of these local, national and transnational groups may be problematic. For instance, as Silvia Tomášková shows in her chapter about South Africa rock art, the widespread insistence on the ancient roots of Indigenous communities in a place may sometimes deprive these peoples of a relevant role in global history. Moreover, globalization has also generated new challenges for the preservation of rock art images. As Paul Taçon's chapter shows, graffiti and vandalism at rock art sites has increased alarmingly during recent years. His reflections are relevant to understanding how we can prevent the ignorant destruction of Global rock art.

The Fifth Section examines *Rock art and the challenges of the Global now*. John Robb analyzes the impact of digitalization in rock art studies. His focus is on how rock representations are subsequently transformed into a myriad of images that circulate in an increasing number of media and formats. The proliferation of digital images has engendered new challenges in our globalized world. For instance, Jamie Hampson and Sam Challis examine how Indigenous rock art motifs from North America, Northern Australia, and Southern Africa are often re-imagined and appropriated for commercial and economic reasons. Taking a different perspective on this, Laura Mayer and Martin Porr reflect on the many processes involved in the creation, management and exploitation of 3D replicas of renowned caves, such as Lascaux and Chauvet. We conclude this section with Meg Conkey's examination of the benefits of 'slow science' for rock art research. In the age of relentless acceleration, Conkey's chapter is the perfect closure for a book that, first and foremost, seeks to provoke reflection about the many dimensions of globalization in rock art research.

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