

second chapter, Catherine J. Allen, whose work is widely cited by other authors in the volume, updates our views of animism in light of her ethnographic work among contemporary peoples of the Andes. In chapter 3, Mannheim and Carreño present a challenging linguistic examination of the very broad notion of social agency among Quechua speakers and how it pertains to their interactions with *wak'as*.

Part III, 'Wak'as in the time of the Inkas', follows with seven case-studies of *wak'a* use. Makowski offers a detailed description of his recent work at the archaeological site of Pachacamac (chap. 5); and in chapter 7 Dean gives a generalized overview of Inca carved outcrops. Meddens (chap. 8) provides a summary of his important work on the intriguing *ushnus* (stone platforms) found in mountain passes of the Ayacucho region; while McEwan (chap. 9) discusses various classes of objects that were frequently left by the Inkas at *wak'as* as offerings. To this mix of case-studies, Chase and Kosiba provide insightful chapters that are developed from their robust archaeological and archival work in the regions of Huarochirí and Cuzco. For me, these contributions by Chase (chap. 4) and Kosiba (chap. 6) – along with the concluding chapter by Topic concerning the remarkable case of the Catequil *wak'a* of the Áncash region – are the finest pieces in the volume. To read sixteenth-century descriptions of specific *wak'as* and to then see the archaeological field data collected on them brings their history to life in very special ways.

In part IV, 'Deeper histories of wak'as in the Andean past', Bray has selected two Middle Horizon (650–1000 CE) scholars, one representing the Wari civilization (Cook, chap. 10) and another the Tiwanaku (Janusek, chap. 11), to examine possible *wak'a* worship in pre-Inca times. Cook selects to discuss the D-shaped structures of the Wari, long believed to be temples, while Janusek focuses on Tiwanaku stone monoliths.

Although readers – depending on their particular interests – will find some chapters of this edited volume to be stronger than others, the organizational form of the book is exactly what an edited volume should be. Bray has selected an important and well-defined topic and passed it through a prism of diverse scholarly positions; the resulting essays proffer new understandings on the archaeology of *wak'as* in the Andes. I recommend this book for library collections and for scholars, primarily archaeologists, who are interested in pre-historic religious practices in the Andes.

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GALLAGA M., EMILIANO & MARC G. BLAINEY (eds).
Manufactured light: mirrors in the Mesoamerican realm. xiii, 324 pp., maps, tables, figs, illus., bibliogr. Boulder: Univ. Press of Colorado, 2016. £21.00 (paper)

Manufactured light is a timely and important collection on the production, use, and symbolism of mirrors in Mesoamerica. While the title suggests that the book is about mirrors more generally, the chapters are heavily weighted towards a discussion of iron-ore mirrors. The chapters are organized thematically with the first five focused on manufacturing techniques. Chapters 6–12 centre on the function and symbolism of mirrors.

Gallaga M.'s introduction lays out the book's basic organization and provides some context on the importance of mirrors cross-culturally. He points out that in Mesoamerica, mirrors were so important that Paul Kirchoff ('Mesoamerica', *Acta Americana* 1, 1943) included them as one of many culture traits that defined the culture region. However, examples from the Southwest, Lower Central America, and the Andes are mentioned in a number of chapters, and therein lies the problem of the culture region concept. Following Arthur Joyce ('Sacred space and social relations in Oaxaca', in J. Hendon & R. Joyce, eds, *Mesoamerican archaeology*, 2004), pyrite mirrors perhaps should be seen as one among many material correlates of practices linked to social stratification. Nevertheless, this book addresses a lacuna in our understanding of iron-ore mirrors, their manufacture, and symbolic complexes. Furthermore, this collection goes on to address a significant gap in our understanding of how prestige was signalled, and how relationships of power were concentrated within the meanings, uses, and manufacture of mirrors.

One of the book's strengths is its interdisciplinary approach. Various contributions by Gallaga M. and Melgar *et al.* address the question of manufacturing techniques through the experimental replication of pyrite mosaic mirrors. The experiments are grounded in data gleaned from the analysis of archaeological examples using scanning electron microscopy (SEM) and other scientific techniques. Chapters 4, 5, 7, and 8, by Kovacevich, Gazzola *et al.*, Mountjoy, and Legemann, respectively, are archaeological case-studies of mirror production from the Maya region and Central and West Mexico. Nearly all the contributors note that mirrors have been symbols of prestige and their distribution highly restricted to the upper classes. Kovacevich presents data from Cancún, where a

workshop of artisans engaged in mirror production was identified and where he found mirrors in non-elite contexts as well. Gazzola *et al.* discuss evidence from Teotihuacán on the use and manufacture of pyrite mirrors – a number of examples that have been found as components in larger offerings at all of the major politico-religious structures in the city. Mountjoy analyses several pyrite ornaments from Jalisco's Mascota Valley; and Legemann presents evidence of iron-ore mirrors from sites in Zacatecas. These two chapters illustrate the importance of economic and ideological interactions across Mesoamerica.

Lunazzi's contribution (chap. 6) is an 'exploratory or experimental think-piece' written for an archaeological audience (p. 138). His chapter presents an interesting discussion of the optical qualities of various kinds of stones used to make mirrors. The contributions by Blainey (chap. 9), McGraw (chap. 10), and Dennet and Blainey (chap. 11) use the physical qualities and ritual functions of mirrors and other luminous, reflective materials such as crystals to discuss mirrors' importance in the Mayan region and its periphery. Blainey's innovative contribution describes the reflective qualities of mirrors and their use with entheogenic substances in shamanic divination, thus evoking the experiential components of Maya religion. McGraw describes the contemporary ritual use of crystals and other materials as part of an overall reflective surface complex that Blainey, in his earlier work, defined for the Maya. Ethnography among highland Maya groups shows that reflective surfaces continue to play an important role in scrying and divination practices. Dennet and Blainey propose new models for understanding the economic and ideological relationships between Lower Central America and the Maya area, based in part on the exchange of mirrors. Kindl (chap. 12) studied the Wixaritari (Huichol) ritual use of mirrors and other related objects to argue that mirrors serve in a reflexive manner as 'instruments of mediation through the visible and the invisible world' (p. 278). This ritual and symbolic complex is related to the concept of *nierika*, which includes the creative process of making ritual objects.

Taube effectively ties the book's eclectic chapters together through a thematic discussion centred on the 'ontology of mirror stones' (p. 286). Additionally, he fills in a few gaps by expanding somewhat on Olmec mirrors, and providing additional details on the symbolic complex of mirrors and reflective surfaces in Mesoamerica with additional iconographic, ethnohistoric, and ethnographic evidence. Briefly

put, Gallaga M. and Blainey's book is an important contribution to the scholarship of experimental archaeology, craft production, and mirrors more specifically.

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GRIECO, ANTHONY. *Shepherds in the cave.*

DVD/PAL, 60 minutes, colour. London: The RAI, 2016. £50.00 + VAT

This documentary promotes the Fornello sustainable preservation project, which is being managed by the art restoration and conservation workshop Messors, under the direction of Giovanni Ragone and Tonio Creanza. A feature of Fornello, in the Murgia region of Puglia (Italy), is a conglomeration of caves, one of which contains the Byzantine frescos that are being restored by the project team. This restoration is at the centre of the film, but it is also entwined with the project's other ambitions: to restore the site, using environmentally sustainable methods, in order to make it habitable, and to enable local shepherds to use the caves for cheese-making and -ageing. Messors' ultimate aim is to realize Fornello as a living, historical site: 'By utilizing the practices that already were being used by its original inhabitants, it will serve as a vital model of conservation and sustainable living' (<http://messors.com/wp-content/uploads/2017/11/Fornello-Sustainable-Preservation-Project.pdf>, accessed 14 February 2018).

The film opens with a scene of shepherds driving their flock, before talking to camera, and this is followed by Creanza's explanation of the archaeology of the Byzantine frescos. As with so many cave sites in Italy, Fornello has been closed and is inaccessible to the public and the shepherds who would otherwise use it; a point which is highly politicized in the film. Through his cinematography, the film-maker Anthony Grieco succeeds in setting the caves within the wider Puglian countryside, juxtaposing this with scenes inside the caves themselves. Much of the film's focus is on the restoration and details of the frescos, but these scenes are interspersed with those depicting other caves, particularly those used for cheese-making and -ageing. A scene in which the project team and others are eating dinner inside the fresco cave arguably brings together the two main aims of the project, although I felt rather uncomfortable with this use of an unprotected and inaccessible site.

The purpose of the documentary is rather unclear, but it may be aimed at raising awareness