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INTRODUCTION

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To approach the theme of time and temporality in the twenty-first century requires us to think in multiple new directions and attend to a burgeoning body of literature. First of all, there is the context of the natural sciences: uniform, independent Newtonian time has become questionable under the public influence of Einstein's theories of special and general relativity, while physicists continue to debate, and to disagree about, the nature of time (Smolin 2013). Moreover, art and literature have presented us with ever evolving explorations of time as experienced on the scale of human life in the century past, from Marcel Proust's project of searching for the lost time to the switches of time and space in the Wachowskis' The Matrix – explorations that have begun to be analyzed by cultural theorists such as Ronald Schleifer (2000, for modernism) or Ursula Heise (1997, for postmodernism).

In fact, "time" has been a fertile ground for reflection in the humanities in general. Across various disciplines, the notion of time has been problematized and, as a result, enormously enriched – from philosophy to literary theory and art history, from historiography through the history of science to theology and the study of religion. Scholars, readers, and writers today are trained from their undergraduate years to diagnose the type of time used in a given text and, moreover, to fashion and mold it with the new tools available today. To mention only a few examples that are also indirectly relevant for the present volume: several studies over the past few years have been devoted to philosophical concepts of time – classical, continental, and analytical (e.g., McCumber 2011; Dyke and Bardon 2013). In literary theory, the concept of "chronotope," developed by Mikhail Bakhtin (1981, Russian 1975, drafted 1937/1938), has proven to be a powerful tool allowing readers to assess the configuration of space and time in a given narrative. Anthropologists have reflected, *inter alia*, on temporal experience as

socialized and internalized by way of concepts and rituals (Gingrich 1994) or pointed to the constraining effects of time-telling devices (Birth 2012).

Closer to the temporal focus of the present volume, "time" has seen a recent upsurge also in the various disciplines concerned with the study of antiquity. The shadow of "the plurality of times" made its debut into the field with a groundbreaking study by Donald Wilcox (1987), who has shown the extent to which pre-Newtonian chronologies were devoid of the "Western" sense of uniform time. Theories of temporality in literature are by no means irrelevant for ancient texts, as demonstrated for the classics by Kennedy (2013) (and earlier Csapo and Miller 1998; Dunn 2007), as well as for biblical narrative by Sternberg (1987). This new awareness has also been applied to ancient philosophy, initially in the monumental work by Sorabji (1983), and more recently, for example, by Roark (2011), who reassessed the role of time in Aristotle's physics. A cultural history of Jewish temporality with systematic ambitions in two volumes has been published by Sophie Anne Goldberg (2000, 2004). A strong emphasis in research has been on calendars, both Greco-Roman (Hannah 2005) and Jewish (Stern 2001). Important studies have focused on the political and ideological dimensions of calendars, particularly Rüpke (2011, German 1995) on Rome, and Stern (2012) on empires more widely. This implies a certain shift in approach: as Stern (2012: 2) writes,

> Far more than a technical device, the calendar was at the heart of ancient societies and cultures, as an organizing principle of social life and as constitutive of ideologies and world views. The calendar should not be confined, as it sometimes is, to the history of science or to a marginal aspect of the history of religions. It firmly belongs to the core of social history.

Other contributions to calendar studies address specific issues such as the indeterminacy or the contrast between observation and calculation in lunar calendars (Ben-Dov, Horowitz, and Steele 2012). Feeney (2007) provides a wide-ranging study of Roman synchronism and chronology, myth and history, as well as calendar ideology.

Of course, time in antiquity remains closely related to the history of science, as far as the technology is concerned with which time could be measured, marked, or told (Hannah 2009). But the history of science also has important implications for social and intellectual history. An important advance has been the decipherment and explanation of the Antikythera Mechanism (Freeth et al. 2008); this early computer based on gears and wheels perfected the ancient ability to synchronize various calendrical and astronomical systems. This brings us to the practice and intellectual

background of ancient astronomy and astrology more widely, which has been the focus of several studies, from Babylonian astronomical-astrological texts (Brack-Bernsen and Steele 2004), through the study of parapegmata and astrometereology (Lehoux 2007) and of the role of time and astronomy in Roman public architecture (Hannah and Magli 2011) to Roman astronomical poetry (Volk 2009).

The present volume fits within this recent interest in the study of time in antiquity and intersects with several of the lines of inquiry outlined earlier, while contributing a specific focus and angle. It proceeds from the observation that some of the fundamental questions of human society and culture have to do with the relationship between time and *human agency*. Time as experienced by human beings is constructed, and the chapters of this book amply demonstrate this for different historical periods, cultures, and expressions of human life. Ritual has a particular role in the construction of time by human agents and constitutes a powerful bridge between the foundational beliefs of a society and their materialization in real life (Durkheim 1915; Bell 1997). Other means of constructing time include visual representations of time or its divisions, the metaphorization of the human body in relation to time and temporality, or the deployment of propaganda steering both the properties of time and public memory. The overarching theme of the book is thus the interface of human agency and ancient time reckoning in their historical context.

Many of the following chapters focus on cyclical time. In part, this has to do with the basic cycles of nature and of the human body that relate to human perception of time: the phases generated by the sun and the moon, the sequence of the seasons, the cycle of illnesses brought about by seasonal weather, or the female menstruation cycle. It is by observing them that human beings are able to enforce a sense of order onto their activities. Although seemingly rigid and uniform, these cycles are mediated to every individual by a powerful social matrix that sets the parameters for how they are experienced and what they convey. The present volume addresses these themes in a variety of sources from the cuneiform tradition and ancient Egypt through to Jewish and Christian texts from late antiquity.

Developing an important line of recent research further, the first three chapters are concerned with time, ideology, and identity in the Hellenistic-Roman world. *Jonathan Ben-Dov* investigates the relationship between time and natural law in Jewish sources from the Hellenistic-Roman period and compares the results with the Greco-Egyptian Decree of Canopus of 238 BCE. He concludes that all of these sources found ways integral to their own national culture of connecting time with the idea of nature, with some

interesting similarities in approach. *Sacha Stern* demonstrates the close relationship between politics, power relations, and the history of calendars in the Roman Empire. He suggests that the institution of the calendar of Asia in 8 BCE, Jewish retention of a lunar calendar, lunar dating practices in late antique Italy, and the display of the lunar Coligny calendar in Gaul express different ways of relating to the Roman rulers and the Julian calendar, ranging from political loyalty to autonomy and subtle dissidence. *Jörg Rüpke* argues that the instantaneous success of Caesar's calendar reform, despite the conservatism of contemporary society, can be explained by a twofold contextualization: first, by the process of "rationalizing" religion in the late republic and, second, by the Augustan development of "doubling religion," that is, superimposing the concept of *feriae* as devoted to a single god with a more open concept, in which imperial agency could dedicate a day to all, or unspecified, gods. The calendar thereby became a medium for the diffusion of imperial propaganda.

The next two chapters investigate the interplay between time, science, and ideology. *John Steele* examines the ways in which Babylonian texts concerned with astral medicine differentiate between "real" time, in the sense of durations of illnesses, the timing of harvesting medical ingredients and the performance of therapeutic rituals, and "constructed" time, by which schemes for the appropriate treatment of a patient are inferred from a given calendar date. Building on the recent study of the Antikythera Mechanism, *Robert Hannah* explores the philosophical background to this and related devices. Hannah argues that such instruments ultimately served to provide a theoretical basis into which the observable phenomena, especially regarding the planetary system, could be fitted, thereby exemplifying a worldview aligning well with Platonic cosmology.

Four chapters explore the fields of myth, metaphor, and visual art. For ancient Egypt, *Alexandra von Lieven* presents different types of divine figurations of time, such as personifications of the year, the months, the decades, the days, and the hours, as well as the so-called chronocrats, some of which are published here for the first time. These are found in both textual and pictorial sources, especially as decoration of temple walls and ceilings or in manuals of priestly knowledge from temple libraries. Such knowledge enabled the priests to officiate within rituals linked to cosmological cycles and gave them power over time. While much of this will have served the needs of the king, personifications of time are also attested in private manuscripts, suggesting that other members of the elite also had access to such practices. *Lorenzo Verderame* discusses the ancient Mesopotamian concept of time, from its mythological foundation to calendrical festivals. On a ritual and

mythological level, renewal of kingship is associated with the Babylonian New Year, during which Marduk's absence and return are enacted by the king's disposal and reinstallation. In addition to the better-known association of royalty with the sun, the connection with the heavenly bodies as the driving forces of the calendar is upheld in the identification of the king with the moon god Nanna(r)/Sîn.

SeungJung Kim brings us forward to representations of time and moment in classical Greek art. Her chapter is based on her new 3D reconstruction of Lysippus's famous sculpture of Kairos (third quarter of the fourth century BCE) – realized together with graphic artist and sculptor Dave Cortes. Kim argues that the so-called Pioneer Group of vase painters at the end of the sixth century BCE began an engagement of the viewer that can be called phenomenological, in the sense that the vase decorations of this group exploit the struggle against gravity for an experience of the moment passed that is fundamentally *felt*. The Lysippan Kairos at the end of the classical period, then, providing a *spatial* solution to the gravitational equilibrium as the epitome of the elusive *temporal* concept is but the culmination of this move. The contribution by *Sarit Kattan Gribetz* examines the use of metaphors of women's bodies relative to time from the Hebrew Bible through Second Temple and rabbinic sources. Metaphors of pregnancy, labor, and birth are often invoked in relation to the anticipation of a nearing redemptive or eschatological time. Metaphors of women's bodies are also used when discussing calendrical time, especially in early rabbinic texts. Kattan Gribetz also engages the paradox that, the gendered nature of these metaphors notwithstanding, women themselves were barred by rabbinic doctrine from time-related commandments and from an active role in redemption.

The final set of four chapters deals with time in Jewish and Christian ritual and calendrical practice. *Lutz Doering* focuses on the ambiguities surrounding the beginning of the Sabbath and festivals in ancient Jewish sources, assumed to take place sometime in the evening but difficult to pinpoint. Jews up to the early rabbinic period responded in two ways, thereby "bracketing" the start of day: some required an early start of rest, whereby time prior to the day was invested with appropriate behavior, while others spent the beginning of the Sabbath and festivals at common meals, transitioning into the holy day under the controlled inertia of being seated at table and performing short rituals on account of the sanctity of the day. *Daniel Stökl Ben Ezra* compares the ways Judaism and Christianity impregnated popular cyclical time with sophisticated narratives. Both "biblified time" through the creation of a cycle of public liturgical readings of scriptural passages that had

not necessarily been connected before. On the other hand, both "seasoned the Bible" by contextualizing selected passages in cyclical rather than linear times creating a multidimensional reenactment of its religious ideals. Inspired by the approach of Yuval (2006), Stökl Ben Ezra argues that part of the Jewish selection of annual readings in Palestine (where the main lectionary was triennial) is a response to the challenge posed by the powerful, ritualized narrative present in the Christian lectionaries from the late fourth century onward. Continuing the relationship between Jewish and Christian festivals, *Robert Hayward* explores the similarities between the texts and customs associated with the Jewish New Year, which falls in Tishri (September/October), and the texts of the Mass for the Wednesday of the Ember days of September in the rites of the Roman Church. Though proclaimed as a fast day, the Mass of the Wednesday emphasizes various themes of rejoicing and enthronement, all of which are shared with the Jewish New Year. Hayward suggests that both Jews and Christians may have had an interest in defending the Almighty and his creation, thus presenting a common front against Gnostic teachers active in Rome. In the final contribution to this volume, *Clemens Leonhard* argues that Christians naturally would have celebrated the festivals of their city and that this would initially have *inhibited* the development of "Christian" festivals: both Christians integrating into their municipal organization (as Tertullian claims they did) and those promoting citizenship in a heavenly city (as suggested by Gal. 4:26, Hebrews, and Revelation) would have rejected such festivals on similar grounds. According to Leonhard, Sunday was celebrated as a day of regular meetings only from the second century. Hence, there is no basis for claiming continuity of festal celebration between the first and the late fourth centuries. He provocatively claims that the suggestion that festivals and the construction of sacred time would continuously build up group identity by shaping collective memory is a simplistic cliché. This final chapter therefore reintegrates the early Christian construction of time into the wider context of the Roman Empire.

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