

# *Calamities and Countermeasures in Pre-modern South Asia*

Vienna and online, November 8–9, 2024

## **Workshop Programme**

Version: 05/2024

Organisers:

Vitus Angermeier, Patrick Zeitlhuber



Epidemics and Crisis Management  
in Pre-modern South Asia



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# Schedule

Time zone: UTC+1

## Day 1: Friday, November 8<sup>th</sup>

9:00-9:15 Welcoming Session

### Section 1: Crises in the Epic Literature.

9:15-10:00 [Giacomo Benedetti](#): *The great 12-years drought and its consequences in Epic and Puranic tradition*

10:00-10:45 [Adam Bowles](#): *Social crises and their theorising: the mixing of social classes and norms in the Mahābhārata*

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### Section 2: Protective Spells in Brahmanism and Buddhism

11:15-12:00 [Anthony Keller](#): *Diseases and their ritual treatments in the Kauśika-Sūtra*

12:00-12:45 [Francesco Bianchini](#): *Communal well-being and safety in selected dhāraṇī sources*

--- LUNCH BREAK ---

14:15-15:00 [Daisy Sze Yui Cheung](#): *Protecting the state by means of a sūtra: the ritual use of the Suvarṇaprabhāsottamasūtra against calamities*

15:00-15:45 [Patrick Zeithuber](#): *The Significance of the Ratanasutta as a Countermeasure against the Plague in Vaiśālī*

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### Section 3: Communal Medicine Against Diverse Plagues

16:15-17:00 [Matthew Robertson](#): *The Divine Element in Early Ayurvedic Epidemiology*

17:00-17:45 [Dominik Wujastyk](#): *Surviving Snakes, Rats, Scorpions and Spiders*

--- WORKSHOP DINNER ---

## Day 2: Saturday, November 9<sup>th</sup>

### Section 3: Dealing with Disasters

09:15-10:00 [Vitus Angermeier](#): *Whatever helps. Modes of reaction towards calamities in the Arthaśāstra*

10:00-10:45 [Liqun Zhou](#): *Divination and Earthquakes in Pre-modern India: The Case of the Śārdūlakarṇāvadāna*

--- BREAK ---

11:15-12:00 [Eugen Ciurtin](#): *The Early South Asian Seismic Risk*

12:00-12:45 [Saarthak Singh & Daniela De Simone](#): *Destruction, desertion, ruin and restoration: Earthquake impact on medieval monuments in central India*

--- LUNCH BREAK ---

### Section 4: On the Crossroads of Health and Religion

14:15-15:00 [Julia Shaw](#): *Monastic Landscapes, Urbanism, and Ecological Public Health: An Archaeological Perspective*

15:00-15:45 [Federico Divino](#): *“The World is Ablaze”: Unraveling Buddhist Ascetic conception of Catastrophes and ‘Therapeutic’ Apocalypse*

--- BREAK ---

16:15-17:00 [Gudrun Melzer](#): *The iconography of disease-eradicating deities in South Asia before the thirteenth century: An overview*

17:00–17:30 Concluding session: Recap of the workshop, outlook on the proceedings

Vitus **Angermeier** (University of Vienna)

## **Whatever helps. Modes of reaction towards calamities in the *Arthaśāstra***

Nov 9<sup>th</sup>, 09:15–10:00

The foremost objective of the *Arthaśāstra* (AŚ, 50 BCE – 300 CE) is teaching the king or a prince (i.e., a king in the making) how to successfully do his job: Ruling a country and securing its survival and prosperity. As part of this task, it is the ruler's responsibility to be prepared to ward off all kinds of calamities – from himself, from his subjects on the individual level, from certain professions during times of distress, likewise from socially and religiously defined segments of society, and from the whole kingdom in case of major disasters. To this end, the work contains a whole section (AŚ 8) on the assessment of various defects (*vyasana*) of the constituents of a kingdom, including a chapter (AŚ 8.4) on great dangers (*mahābhaya*), threats like fires, floods, droughts, and epidemics. Additionally, there are many suggestions and exemption clauses, that shall facilitate survival of the subjects in times of distress, and one more chapter enumerating practical countermeasures for natural and other disasters (AŚ 4.3).

In this talk, I will focus on the modes of reaction that were available to the king according to the *Arthaśāstra*. What measures could he fall back on in the event of crisis? Which red lines must not be crossed under any circumstances? What fell in the king's own responsibility and which tasks could he delegate? Which experts were available and could be consulted or mobilised? Were there certain taboos, or people and powers the should not be made use of in solving the crisis? How far does the alleged utilitarianism of the *Arthaśāstra* go when faced with calamities?

Giacomo **Benedetti** (University of Florence)

## **The great twelve-year drought and its consequences in Epic and Purāṇic tradition**

Nov 8<sup>th</sup>, 09:15–10:00

In the *Mahābhārata* and *Purāṇas* we find several mentions of a drought lasting twelve years that brought a terrible crisis in regions of ancient India, in the period between the end of *Tretā* and the beginning of *Dvāpara Yuga*. This drought is related to different characters, like the Ṛṣis *Viśvāmitra*, *Agastya* and *Sārasvata* or kings *Triśaṅku* and *Samvaraṇa*, with different reasons (and often no reason) for the drought, for instance it can be caused by the abandonment of the kingdom by the king, or by a *dīkṣā* of a Ṛṣi extending for twelve years. The impact of the drought has been described in detail,

mentioning the death of people and animals, abandonment of cities and agriculture, crime, eating forbidden food and cannibalism, and in one case also the loss of the memory of Vedic recitation.

This drought seems to have been an epochal event, imprinted in the collective memory, and, with the help of the Purāṇic genealogies and chronological hints, we propose to place it in a particular period of a sudden and intense drought, which scientific research has identified as being around 2000 BC. This historical drought probably caused the crisis of the Indus Valley civilization entailing the abandonment of several sites. The presentation will thus show how the literary descriptions and their association with specific ancient characters can help us in comparing Indian historical tradition with archaeological reconstruction and in proposing a new chronology of Indian civilization.

Francesco **Bianchini** (University of Cambridge)

### **Communal well-being and safety in selected *dhāraṇī* sources**

Nov 8<sup>th</sup>, 12:00–12:45

This talk will address the topic of communal well-being as treated in *dhāraṇī* sources, focusing on texts associated with the Pañcarakṣā collection. Recent editions and translations allow for a deeper and more comprehensive look at these sources, including their complex relation with the wider religious and social background of the late Gupta and post-Gupta periods (ca. 500-1200 CE). On the pragmatic level, spell-masters who can influence communal health are said to come from different backgrounds and are sometimes described as lay followers. Collecting relevant passages, one can explore how these figure relate to the Buddhist *saṅgha* and state officials, as well as their particular set of apotropaic duties and skills (incl. weather control). On the theoretical level, various technical terms throw light on the Buddhist ideology and values underpinning practices of communal health. Some of these values are presented in connection with the exercise of royal power and duties, thus illustrating the close entanglement between politics and the ideology of care in pre-modern South Asia.

Adam **Bowles** (University of Queensland)

### **Social crises and their theorising: the mixing of social classes and norms in the *Mahābhārata***

Nov 8<sup>th</sup>, 10:00–10:45

The ideas of *varṇasaṃkara* (the mixing of social classes) and *dharmasaṃkara* (the mixing of social norms) are part of the normative landscape of social thought in *dharmasāstra* and the *Mahābhārata*, the latter accounting for the vast majority of the

appearances of these terms. They are used typically in a pejorative sense to describe a social ill that is taken to be indicative of a wider, perhaps cosmological, problem. Yet cases of *varṇasaṃkara* and *dharmasaṃkara* appear also as important narrative devices in the Mahābhārata. For example, many cases of *niyoga* in the Mbh involve *varṇasaṃkara*, even though the *dharmasāstras* normally instruct that the substitute partner is savarṇa with the ‘father’; the Rāma Jāmadagnya myth is premised on *varṇasaṃkara* to revive the kṣatriya families and the heroes ultimately are a product of *varṇasaṃkara* through the intercession of Vyāsa. *Dharmasaṃkara* similarly can take on an ameliorative aspect; it is often an implicit remedy to cases of *āpad* that have rendered normative social occupations impossible to follow. In the paper I propose to map all the incidences of the terms in the Mahābhārata and reflect on them in their broader ideological and narrative landscapes.

Daisy Sze Yui **Cheung** (Austrian Academy of Sciences)

### **Protecting the state by means of a sūtra: the ritual use of the Suvarṇaprabhāsottamasūtra against calamities**

Nov 8<sup>th</sup>, 14:15–15:00

The *Suvarṇaprabhāsottamasūtra* (also known as *Suvarṇabhāsottamasūtra* or *Suvarṇaprabhāsasūtra*) is a seminal Mahāyāna Buddhist sūtra. It was highly influential in pre-modern South Asia, Central Asia, and East Asia, being utilised to protect states against diseases, famines, enemies, and other calamities. In self-referential passages within the *Suvarṇaprabhāsottamasūtra*, it is stated that the unwholesome behaviours of the king are the cause of calamities, and the countermeasures involve reciting, studying, memorizing, preserving, and propagating the sūtra. This paper investigates the aforementioned self-referential passages and examines the historical use of the *Suvarṇaprabhāsottamasūtra* in India and China. Additionally, it explores the ritualistic use of this sūtra in Indian Buddhist tantric practices and the contemporary practice of reciting this sūtra in Nepal, as well as the creation of amulets containing this sūtra by present-day followers of Tibetan Buddhism.

Eugen **Ciurtin** (Institute for the History of Religions, Bucharest)

### **The Early South Asian Seismic Risk**

Nov 9<sup>th</sup>, 11:15–12:00

This paper will attempt to answer the questions *how*, *when*, and *why* intellectual traditions of seismic early South Asia conceived the phenomenon of earthquakes as both supremely violent and as non-violence supreme. Following a suggestion graciously offered by Dominik Wujastyk (*in litteris*, December 2009), I will first study earth-

quakes in classical and commentarial Āyurveda specifically as causes of epidemics (e.g. *Carakasamhitā*, *Vimānasthāna* 3.3–7), as a *bhūmikampa* produces the noted earth disturbances favouring diseases. I will then move on to address the early Indic vistas of non-violent earthquakes, following the preliminary inspection of some 200 independent Indic texts (Buddhist, Jain, Hindu) in Sanskrit, Pali and Gāndhārī ([Ciurтин 2009](#) and [2012](#)), highlighting the general Buddhist exclusion of earthquakes from the regular lists of calamities. Other calamities (droughts, famines, floods) are recorded in early Buddhist testimonia in a very similar way to how they are described in classical medical compendia. Thirdly, I will compare the historical volatility of positive earthquakes associated with the Buddha in some cultural contexts outside Greater India, first along the Buddhist roads to China and then in Tibet as reflected by *vaidyas* now Buddhists. Finally, I will offer some gleanings on the nascence of an Asian sense of ‘seismic risk’ at the crossroads of multiple Indian ways of knowing.

Federico **Divino** (University of Antwerp)

### **“The World is Ablaze”: Unraveling Buddhist Ascetic conception of Catastrophes and ‘Therapeutic’ Apocalypse**

Nov 9<sup>th</sup>, 15:00–15:45

In this contribution, I will examine the apocalyptic conceptions within Early Buddhism as the cornerstone of a ‘therapeutic’ outlook that underpins not only innovative perspectives on medicine and illness but also their approach to disaster and crisis management through ascetic practice. I will explore why, in Buddhism, the origin of the world (*lokassa samudaya*) is etiologically equated to the origin of suffering (*dukkhasamudaya*), suggesting that Buddhist conception of *lokanta* (“the end of the world”) may also serve as the archetype for constructing the ‘therapeutic’ model of the Four Noble Truths, as many scholars have hypothesized in the past that the *cattāri ariya-saccāni* structure actually arises as a medical-like model (disease, etiology, prescription, therapy). Furthermore, I will investigate the philosophical and historical-cultural premises that lead the Buddhist ascetic to aspire to the apocalyptic view (*lokanta*).

Buddhism harbors a quite peculiar conception of catastrophe. The notion of “disaster” or “misfortune” (*vyasana*, *-byasana*) is linked to five catastrophic orders: family (*ñāti*), wealth or opulence (*bhoga*), illness (*roga*), conduct (*sīla*), and views or opinions (*diṭṭhi*). This conception reflects both innovative views within Buddhist thought (their ideas of suffering and illness) and their opposition to any world schema or construction outlined by previous epistemological forms (the rejection of family to maintain social order, and the ‘opinions’ that constitute norms), notably the Vedic one.

On one hand, there exists a prescriptive and normative force attributing the primary cause of disasters to the deviation from moral precepts, the *adhārmika* behavior. On

the other, Buddhists proposed an ascetic vision (hence the disdain for worldliness and opulence) that was in clear opposition (*nāstika*) to normative models. However, this does not imply a lack of their own etiological view on the nature of disasters. Yet, they are generally positioned at the extreme opposite to the ‘orthodox’ view. The world, which is upheld by the *dhārmika* order, is seen by early Buddhism as the backdrop of all catastrophes, and thus their asceticism proposes an antithetical path to that of supporting the world: an apocalypse (*lokanta*) as a *medicīna ūniversālis*. The Buddhist ascetic, emerging as a therapist for these catastrophes, is a pragmatic figure who possesses a peculiar view on healing and illness –innovative for those times– resulting from an intellectual battle in the face of a crisis that responded to the exigencies of evolving societal dynamics, thereby unraveling the inherent dialectical interplay between the realms of (bio)politics and asceticism.

Anthony **Keller** (University of Strasbourg)

### **Diseases and their ritual treatments in the *Kauśika-Sūtra***

Nov 8<sup>th</sup>, 11:15–12:00

The relationship between *Atharvaveda* and Ayurvedic remedies has been extensively studied throughout the history of Indian studies. It has been possible to draw up a number of typologies testifying to the knowledge, if not exhaustive, at least precise, of a range of illnesses and remedies from Vedic times onwards. In the *Atharvaveda*, the former are diverse, ranging from poisoning and virility problems to fevers and less well-identified disorders. Their origins vary, from the very mundane (snakebites, cold, dampness, baldness etc.) to those caused by seemingly inexplicable forces ("Rudra's arrow", a sorcerer's curse etc.). In all cases, a full panoply of remedies is on display within the *Atharvaveda*, particularly in what appear to be its earliest layers. Thus, invocations are numerous to extirpate evil, and plants as well as other substances are repeatedly mentioned as healing agencies (*śara*, *kuṣṭha*, *lāhṣā*, *śamī*, *pippalī*, *guggulu*, *amulets* etc.).

Although Atharvedic hymns often have a pronounced ritualistic tendency, it is not easy to reconstruct from their stanzas alone the rites that were actually practiced. However, it may happen that certain indications are described by action verbs, with the remedy as their object, and thus allow a first approach. Thus, our paper will explore the "magical" rituals of the *Kauśika-Sūtra* insofar as they constituted countermeasures to health disorders. In order not to disperse ourselves, we will select ritual operations aimed at countering ailments that we can associate with contagious diseases with epidemic potential, which we can position in a broader context, including other types of collective calamities, and whose treatment by the *Kauśika-Sūtra* testifies to an explicit appropriation of Atharvaveda hymns for health purposes.



Gudrun **Melzer** (Ludwig-Maximilians-Universität München)

## **The iconography of disease-eradicating deities in South Asia before the thirteenth century: An overview**

Nov 9<sup>th</sup>, 16:15–17:00

We will mainly look at Buddhist and Hindu stone sculptures from Northern India, especially from the northeast. Some iconographic elements can also be found in later Tibetan iconography.

Which features clearly refer to diseases? When do which deities appear, how large are the depictions and in what context do they appear in the temples? How are temporal differences between the first depictions and textual traditions to be understood? Before, however, drawing conclusions as to whether epidemics could have been behind the seemingly sudden increase in the visibility of such deities in art after the 10th century, we will have to place the observations in the context of larger, overarching developments in Indian art.

Matthew **Robertson** (Murray State University )

## **The Divine Element in Early Ayurvedic Epidemiology**

Nov 8<sup>th</sup>, 16:15–17:00

This paper examines a psychogenic theory of epidemic disease from the early works of Ayurveda. Building on scholarship that highlights the fundamental interrelation of humans and their environments in Ayurvedic theory, the paper explores Ayurveda's theories of karma, yoga, dharma, and the psychological nature of divinity to show how faults of human awareness are logically linked to the root causes of mass health crises. To this end, I analyze the etiology and symptomatology of "faulty awareness" (*prajñāparādha*) and its critical role in determining the condition of human-divine relations. The discourse of faulty awareness, I show, overlaps significantly with coeval discourses on the decline of the yugas and the disappearance of the gods from the world. Echoing sources like the *Mahābhārata*, *Arthasāstra*, and Aśoka's edicts, Ayurveda forges an understanding of health that posits fundamental and necessary interrelations between medicine, religion, ethics, climate, and politics

Julia Shaw (University College London)

## **Monastic Landscapes, Urbanism, and Ecological Public Health: An Archaeological Perspective**

Nov 9<sup>th</sup>, 14:15–15:30

This paper begins with a historiographic consideration of some of the challenges of constructing an ‘archaeology of Ayurveda’ for early-historic India including the fact that components of the Ayurvedic *materia medica* appear in the archaeological record in culinary contexts that long predate the formal codifications represented in the classical Sanskrit corpus. Moving away from medicine as a set of ‘discrete practices’ to medico-ecological worldviews that encompass cultural attitudes towards the socio-natural environment and related public health concerns, I will focus on two aspects of the early-historical archaeological setting of the Ayurvedic texts, namely the rise of urbanism, and the spread of Buddhist monasticism in order to assess theories that i) present Ayurveda as a ‘solution’ to specifically ‘urban’ illnesses, including those associated with lowland agriculture; and ii) that present the Buddhist monastery as an agent for the dissemination of medical knowledge and practice. Drawing on aspects of art, architecture, settlement distribution, and archaeological landscapes at selected South Asian urban and monastic sites, I discuss the control of and resilience to contemporary public health challenges and related sources of ‘suffering’ such as zoonotic and infectious disease, extreme climatic and seismic events, pestilence, drought, flooding, and pollution, and how such examples relate to current discourse in ‘Ecological Public Health’. Discussion will include social and physical distancing between monasteries and settlements, monastic engagement with water and land management practices in gardens, lowland agriculture, and upland forest contexts, and associated deities and cults of ‘nature’, and its anthropogenic control.

Saarthak Singh & Daniela De Simone (Ghent University)

## **Destruction, desertion, ruin and restoration: Earthquake impact on medieval monuments in central India**

Nov 9<sup>th</sup>, 12:00–12:45

The destruction triggered by recent earthquakes is no less violent than that wrought by warfare. But the protracted nature of armed conflict has dominated public discourse and identity politics, leaving us unprepared to contend with the force of natural calamities in devastating entire cities, inflecting historical memory, and endangering cultural heritage. This paper focuses on historical earthquake damage to medieval masonry monuments and how it intersected with military conflict to inform perceptions of urban upheaval and abandonment. Premodern earthquake activity has been identified by those working on masonry structures in the vulnerable zone of the

Himalaya, but the vast swathe of central India classified as “low-risk” has fallen into the blind spot of seismological studies. Extending the investigation to damaged monuments in the Malwa region of central India, an intra-plate context subject to isolated seismic events, can help explain the survival of certain temple clusters while providing historical clarity for why, when and where temples were destroyed, damaged, rebuilt or abandoned. As a way out of simplistic narratives of Islamic conquest, temple desecration and iconoclasm, the site of Omkareshwar provides a useful test case. Located in the Vindhya fracture zone, it has extensive remains of massive stone temples and fortifications that attest to different degrees of damage: many reduced to large piles of rubble, some damaged and rebuilt, while others are partly collapsed in disrepair. We present results from ongoing archaeoseismological research on the site, identifying broader patterns and problems posed by structural damage, documented in the archaeological landscape and rationalised in the popular imagination.

Dominik **Wujastyk** (University of Alberta)

### **Surviving Snakes, Rats, Scorpions and Spiders**

Nov 8<sup>th</sup>, 17:00–17:45

Today, India has the highest number of deaths due to snakebite in the world, with 35,000–50,000 people dying per year according to the World Health Organization. Proportionally high figures are reported for the other countries of South Asia. The topic was given serious attention by ancient medical authors in India. The most extensive and detailed treatment of this subject comprises the fifth major division of the *Compendium of Suśruta*, dating from the early centuries of the first millennium. This treatise dealt specifically with the subject of toxins, their classification, symptoms and treatment. The assassination of kings by poisoning was important enough to be treated at length. Further chapters describe the classification of snakes, the mechanism of their different venoms and the associated treatments, the repelling of poisons through specially-treated drums, and the effects of the bites of various rodents, scorpions and spiders. Parts of this toxicological material was also represented in Kauṭilya’s treatise on statecraft, the *Arthaśāstra* and other parts gained wider influence in the medieval world through translation into Arabic. This presentation will survey the topic with special reference to the earliest known recension of the *Suśrutasaṃhitā* as preserved in Nepalese manuscripts from the ninth century.

Patrick **Zeitlhuber** (University of Vienna)

## **The Significance of the *Ratanasutta* as a Countermeasure against the Plague in Vaiśālī**

Nov 8<sup>th</sup>, 15:00–15:45

The commentaries *Paramatthajotikā I* and *II* (traditionally ascribed to Buddhaghosa, 5th cent. CE) on the *Ratanasutta*, which is a text in Pāli in the Theravāda Buddhist canon, state that Vaiśālī (Pā. Vesālī) was plagued by a threefold terror (*tividha bhaya*). Due to a drought, a famine broke out. Many people died and the stench of rotting corpses attracted evil spirits (*amanussas*), which caused the spread of the serpent's breath disease (*ahivātakaroga*). The inhabitants suffered severely, so the king sent for the Buddha for help.

When the Buddha arrived with his entourage of mendicants, also Sakka, the ruler of the gods, accompanied him with a host of deities. Most of the evil spirits were driven out by this sight. Against the remaining fiends, the Buddha told his disciple Ānanda to memorize the *Ratanasutta* and perform a *paritta* ceremony whilst reciting it and sprinkling water.

In this paper, I will investigate the significance of the *Ratanasutta* in light of its commentaries *Paramatthajotikā I* and *II* by asking the questions: Why was the *Ratanasutta* the appropriate countermeasure against the plagues? Are there clues in the sutta itself? Do the commentaries give reasons for that? Are the sutta, the stories in the commentary about the origins of the Licchavis, the threefold terror of Vaiśālī, and the story of Susīma interrelated? And if so, what is their significance?

Liqun **Zhou** (Beijing Foreign Studies University)

## **Divination and Earthquakes in Pre-modern India: The Case of the *Śārdūlakarṇāvadāna***

Nov 9<sup>th</sup>, 10:00–10:45

Buddhism's arrival in China brought not only Buddhist philosophy, but also an entire Indian culture. The knowledge of astrology upheld by certain brahmin families, integrated into the Buddhist scriptures. The earliest Chinese translation of this kind is an astrology text which is part of the story of the *Śārdūlakarṇāvadāna* (Śk-av). This text describes the theory and divination practices regarding earthquakes. The theory deals with the causation and categorisation of earthquakes, revealing large differences between the Buddhist and the Brahminical astrological tradition. The divination practices of earthquakes include predictions over 28 nakṣatra-days, indicating which country or kingdom would suffer from an earthquake, which career would be struck by calamities, and which animals would get into troubles.

These descriptions differ not only from Chinese earthquake theories, but also from ordinary Buddhist conceptions of earthquakes. Contrarily, earthquake divination as depicted in the renowned *Brhatsamhitā* by Varāhamihira has a lot in common with that in the Śk-av. The divinations elucidate different aspects of social cultural psychology in pre-modern India. The importance attached to divination regarding earthquakes in both the Chinese translation and the Sanskrit version of Śk-av points to the common concern about this issue in South Asia and East Asia, both regions with high population density. Furthermore, the examination of this text helps to understand the process of transmission of astrological knowledge from a brahmin family in ancient India to the Buddhist canons in China.