**Obsah obrázku text

Popis byl vytvořen automatickyObsah obrázku text

Popis byl vytvořen automaticky**

**PREHISTORIC, ANCIENT AND MEDIEVAL MEDICINE: NEW PERSPECTIVES AND CHALLENGES FOR THE TWENTY-FIRST CENTURY**

Institute for History of Medicine and Foreign Languages

First Faculty of Medicine

Charles University

U Nemocnice 4

Prague 2, Czech Republic

**21st – 23rd September 2022**

**Book of ABSTRACTS**

This interdisciplinary symposium aims to bring together scholars of different disciplines and specialisations who are interested in various aspects of medicine in the prehistoric, ancient, and medieval world as broadly defined.

We are delighted to report that support has been overwhelming and that we have attracted papers or participation from scholars in thirteen different countries: Austria, Canada, the Czech Republic, Germany, Greece, Hungary, Israel, Italy, Latvia, Slovakia, Switzerland, United Kingdom and the United States of America.

In this abstract book, you will find abstracts of all submitted 34 papers and 3 keynote lectures presenting various aspects of prehistoric, ancient and medieval medicine. New research projects, both from the field and laboratory-based, together with more theoretical and/or methodological approaches, as well as new methods and their applications will be described. The geographical spread of the topics is from the Near East through Europe to Mesoamerica.

The main conference venue is the **building no. 497, U Nemocnice 4, Prague 2-New Town**. It is a seat of the Institute for History of Medicine and Foreign Languages (ground floor, left) and the Institute of Scientific Information (the rest of the building). This building will host all conference sessions on Days One to Three (Wednesday, 21st to Friday 23rd September):

The **main conference hall** – no. 1.26 – is located on the ground floor, to the right. It can accommodate 100 persons.

The **small conference hall** – no. 1.20 – which will host one conference session on Day Two (Wednesday 22nd September) in the morning, is situated within the premises of the Institute for History of Medicine and Foreign Languages (ground floor, left). It will also house the registration desk and can accommodate 30 persons.

**CONFERENCE ORGANISING AND ACADEMIC COMMITTEE:**

Prof. Assoc. Karel Cerny, Ph.D.*(Institute for History of Medicine and Foreign Languages, First Faculty of Medicine, Charles University)*

Prof. Assoc. Tomas Alusik, Ph.D.*(Institute for History of Medicine and Foreign Languages, First Faculty of Medicine, Charles University)*

Dr. Andrej Shbat, MA, PhD.*(Institute of Anatomy, First Faculty of Medicine, Charles University)*

Lucie Buresova, BA, MA, MSc.*(Institute for History of Medicine and Foreign Languages, First Faculty of Medicine, Charles University)*

Professor Robert Arnott*(Green Templeton College, University of Oxford)*

Mag. Dr. Rupert Breitwieser*(Altertumswissenschaften, Universität Salzburg)*

**SYMPOSIUM Administration:**

Prof. Assoc. Tomas Alusik, Ph.D.

Email: [alusikt@gmail.com](http://about:blank/)

**Session 1:** **Archaeology of medicine and Charles University projects**

**Tomas Alusik – Pavla Alusikova Dostalikova** (Charles University, Prague): Asklepieion of Paros Re-Study Project 2018-2022

Asklepieion of Paros Re-Study Project is focused on the re-identification, re-study and a subsequent (re)publication of all preserved artefacts from the site of Asklepieion of Paros (Asklepieion-Pythion complex at the suburbs of Parikia; 37° 4'41.60" N, 25° 8'26.84" E) and the archival sources related to the excavations. The site was excavated by German archaeologist Otto Rubensohn (1867-1964) in 1898-1899, for the German Archaeological Institute. The most of artefacts found during his investigations were published in a single paper (by him; c. 50 pages) in 1902, in accordance with the standards of the time. Several artefacts found both by Rubensohn and during the various activities in the following decades and most of the architectural members have not been published yet – or have been published insufficiently (not in a proper way, according to the modern standards). As we are based at the medical history department, an important viewpoint of the Project focuses on the archaeology of medicine and palaeopathology. We were recently granted permission to study the archival documents (the original b&w excavation photos and photos of artefacts, plans, architectural drawings and excavation diaries), incl. Rubensohn’s estate, deposited in Berlin. A combination of archaeological investigation, museum study and historical/archival research is applied to the Project, to find and publish and publish any new information related to Rubensohn’s excavation and Parian Asklepieion in general.

**Lucie Burešová** (Charles University, Prague): The benefits of a closer look: Traceology analysis of the La Tène Period and Roman Age surgical tools found in Central Europe

The image of therapeutic practices and individual processes of treatment, in the La Tène Period and Roman Age, on the territory of Central Europe, is still not clear. However, artefacts interpreted as surgical tools so far could have untapped potential in uncovering some aspects of the field. Would a microscopically close look on artefacts help? If archaeology waited for the upgrade of technology to revise previous interpretations of the artefacts, now might be the right time to act. Since basic microscopic equipment for low magnification, and of a satisfactory quality, is accessible and widely used, there is no reason to examine the artefacts only through the unaided eye. Above that, several archaeological laboratories in Europe own specialized optical microscopes, scanning electron microscopes, or laser scanning confocal microscopes for thorough examination of artefacts by high magnification. Specific manufacturing practices, additional adjustments, and the use of tools leave characteristic traces that can be distinguished from each other. These are traces often effectively detectable by microscopy. However, the tools found in Central Europe have not yet been subjected to comprehensive research of traces of production processes and traces of subsequent modifications. Examination of a sufficient number of experimental samples would provide data to shed a light on the three main issues of the topic. Namely, distinguishing the difference between artefacts originating in Central Europe and tools originating in Roman or Greek territories (1), distinguishing between artefacts originating in the studied period and medieval or modern objects (2), and distinguishing between the real artefacts and counterfeits created in the 19th century and the beginning of the 20th century (3). The goal of this paper is to present case studies of a traceology examination of selected artefacts. Those cases provide a definition of specific traces, which can be used while distinguishing barbarian products from products of ancient craftsmen, artefacts from particular periods, and original tools from forgeries. Presented cases provide a methodical approach for subsequent experiments in the discussed field.

**Rupert Breitwieser** (Paris Lodron Universität Salzburg): Dealing with epidemics in antiquity - social reactions and emotions

*“…hundreds of thousands of people are sick, all are depressed and afraid, and nobody shakes hands, when one person coughs, the others quickly turn away, everyone gargles, washes themselves with Lysol and other disinfectants, but the epidemic continues to grow. We don´t have enough doctors, not enough medicine, hardly any means of transportation for the sick and the dead, everything is lacking…*” (diary entry, Vienna Oct. 1918)

Sickness, suffering and death have been a defining experience since the beginning of human existence, individually and for the whole society. Already in the Ancient Near East, the confrontation with illness and death and the fears and worries associated with them was so defining that, in addition to the actual medical texts, we find reference in numerous prayers, incantations, letters and poetry. Epidemics were primarily seen as a punishment of the gods, and the gods and demons brought them upon people. Only a variety of different rituals and exorcisms could sometimes protect, often mixing ritual action and actual treatment of the sick.

The earliest written description of an epidemic in European literature can be found in the Iliad. The arrows shot by Apollo that release the "plague", are punishment for an offense. The earliest authentic description of a historic outbreak is dated the time of the Peloponnesian War. The Attic plague serves as a dramatic turning point in the history of Thucydides, the long road to perdition starts. Thucydides' suspicion that fountains poisoned by the Peloponnesians caused the outbreak of the disease is also remarkable. The disastrous effect spreads out not only by drinking polluted water, but mainly by the inhalation of polluted air called *míasma*.

The outbreak of the third pandemic of antiquity, the "Antonine Plague", is associated with Apollo too, because Roman soldiers, after conquering the city of Seleukia, plundered the temple of Apollo Komaeus. There they opened an alcove or box, from which the pestilential miasma escaped and the whole empire was contaminated. Chaldean magicians had locked it there. Following the trade routes at the time, the Antonine plague reached Smyrna in 165 AD and Rome in 166 AD. With the beginning of the war against the Markomans and Quads, the Antonine plague was also dragged into the western and northern provinces. A list of the members of the Mithras community from Virunum, the largest and most detailed Roman inscription in Austria, is a clue to the death rate from this pandemic.

**Robert Arnott** (University of Oxford): Disease and Healing in Hittite Anatolia: a critical review

Hans Güterbock, speaking at the thirty-fourth annual meeting of the American Association for the History of Medicine in Chicago in May 1961, began with the emphatic statement that “There is no Hittite medicine!” Based upon the state of knowledge at the time, his instincts may well have been right. In more than sixty years since his remarks, a great amount of new work on the subject, principally on the texts, has been undertaken. Like all ancient societies, the Hittites suffered both illness and physical trauma and within their society there would have emerged individuals whose role it was to dispense the remedies and provide the skills necessary for healing. The Hittite texts reveal many instances in which therapeutic intervention was deemed appropriate for responding to physical problems or restoring soundness of body and that medicine in the Hittite world was a relatively skilled and respected occupation and internationally shared. However, the evidence on which this conclusion is based, is limited to some ritual texts together with medical texts in the Hittite language, most in a poor state of preservation. In addition, the royal archives of Hattuša have produced several texts in Akkadian, some provided with translations into Hittite. It is now possible to present a critical review of the evidence, textual, osteological and archaeological, that we have for the existence of disease, health and healing amongst the Hittites.

**Ieva Ancevska** (Liepaja University): Healing places in Latvian healing tradition – throughout history and nowadays

In ancient traditions, the healing power of the Earth has played an important role –particularly in certain natural areas, forests, groves and hills where Baltic nations were rooted. According to folklore materials – lakes, rivers, caves, stones and stone groups, large or unusual trees, including sacred groves and forests – were all used for healing activities. Most of these places were used not only for healing but also for different rituals, so the places associated with treatment are not only mentioned in folklore but also in descriptions of cult sites.

In Latvian healing tradition, the most important healing place was a steam sauna where the most therapeutic methods were performed through the history. In Latvian and other cultures’ traditions the steam sauna has often been mentioned as a place for curing, healing, childbirth, and other important rituals. Various historical sources describe sauna as a place for improving and maintaining health. This paper indicates the common features between the Latvian tradition and that of other nations that have used saunas for health purposes, a place for childbirth or other important rituals.

Natural traditions are commonly used to restore and maintain health. Issues concerning the renewal of human energy resources and the restoration of health are nowadays becoming of increasing importance. To understand these processes, various scientific studies have been carried out on the functioning of the human immune system and the impact of the environment on immunity and health. One of the new concepts created by this research is *biophilia* - a phenomenon that explains the interactions between the human beings and nature, the positive effects of nature on health.

Scientists from different countries have shown in their studies that natural resources contain immune-positive substances. These studies confirm that contemporary science deals with the healing properties of various natural resources and develops ever more new treatment methods based on the knowledge of folk medicine.

Nowadays, a lot of people are actively searching for ways to strengthen their immune system and restore health. In the last couple of years, natural healing resources and sauna rituals have regained popularity in Latvian society as a place for cleansing and immune system strengthening.

**Session 2:** **Prehistoric Aegean, Egyptian and Near Eastern Medicine**

**Brandelyn Andres** (Yavapai College, Prescott, USA): The Maintenance of Female Sexual and Reproductive Health in the Ancient Aegean

Aegean landscape paintings, particularly those produced by the Cycladic and Cretan cultures, are celebrated for their vibrant and detailed representations of the Mediterranean topography. It has long been argued that these depictions have religious and political significance; however, iconographic and ethnobotanical considerations indicate that in certain instances they additionally functioned as purveyors of medicinal information.

The paintings addressed in this study, which date to the Neo-Palatial period and were produced on the islands of Thera and Crete, are associated with one another through a consistent set of symbolism that emphasized florae beneficial to female sexual and reproductive health. These plants not only operated as aphrodisiacs and contraceptives, but also offered relief from menstrual-related issues, general gynecological ailments, and problems with childbirth and lactation. In support of this artistic evidence are texts which indicate that the Aegean-specific usage of medicinal plants by women was part of a wider homeopathic practice, with traditions shared by Mesopotamia, Egypt, the Near East, and, later, the cultures of ancient Greece and Rome.

In addition to common floral symbolism, the paintings in this study are further linked by their similar affiliations with elite identity and female initiation practices. These contexts not only explain the motivation behind privileging female sexual health, but they also illustrate the social, political, and economic roles of medicine in the Aegean world. In a political system that was managed by elite families, either as an oligarchy or a plutocracy, the perpetuation of dynastic lineage was critical to the preservation of power. These paintings, therefore, functioned as instructional material for young Cretan and Theran women. While undergoing marriage-related initiation rites, the elite females were introduced to plants of specific therapeutic value as a means of socialization, providing medical knowledge that granted them the agency to care fort heir sexual health which, in turn, insured that they met the primary expectation embodied in the social categories of wife and mother: the ability to successfully reproduce.

**Christofilis Maggidis** (Mycenaean Foundation; Institute of World Politics; American College of Greece):The ‘House of the Idols’ at Mycenae: A Mycenaean Shrine of Healing and Magic

The Mycenaean world and particularly Mycenae flourished in the 14th and 13th centuries BC. This period was marked by regional centralization of power, state formation, and advanced socio-economic organization, geared towards surplus production and overseas trade, both coordinated and regulated by the palace administration and sustained by palatial bureaucracy.

Mycenaean expansionism caused conflicts of interest, considerable diplomatic tension, and, occasionally, armed conflict between the Mycenaean Greeks and the Hittite empire in Asia Minor, as documented in the Hittite tablets. One of the Hittite tablets, however, refers to Greek aid in a medical emergency. This particular tablet (AhT 20/CTH 570.1) records an oracle enquiry into the cause of a sudden illness that afflicted king Mursili II, causing loss of speech. The rituals prescribed therein included summoning the god of Ahhiyawa (land of the Achai(w)oi/Achaeans?) and the god of Lazpa (Lesbos), probably as healing deities with special qualities. It is likely, therefore, that certain cult statues and figurines were transported from the Cult Center of Mycenae and from the island of Lesbos to the Hittite capital, Hattusa, to cure the king of the Hatti.

The Cult Center of Mycenae was laid out on the terraced southwestern slope of the citadel and in close proximity to the royal Grave Circle A, a landmark for ancestral veneration. The sacred precinct was eventually enclosed by an extension of the Cyclopean fortification wall, being internally accessible through a ramp with a gated entrance (ca. 1250 BC). The Cult Center comprised several shrines and temples that were associated with various cults, such as Temple Gamma on the highest terrace, equipped with three altars for blood sacrifices and possibly dedicated to the cult of a war deity (A-ta-na/Athena?), and the Shrine of Frescoes on ground level, associated with a goddess of agriculture and fertility (Da-ma-ta/Demeter?). Between them, on the middle terrace, stood another megaron-shaped temple with dark-coated walls, furnished with a stepped altar and platforms, an upper-level sanctum and a hidden alcove behind it. In the temple were found twenty-seven large anthropomorphic terracotta idols (0.35-0.69m) of forbidding appearance, painted in a dark color all over the body and face except for some reserved areas around the eyes and mouth, and bearing holes in their body (possibly for adornment with beads of amber, rock crystal, lapis lazuli, carnelian and blue glass), along with fifteen coiled clay snake figures, also painted with a dark monochrome color. Some fragmented idols, dumped in the sealed alcove, had been apparently decommissioned; those found intact in the upper-level sanctum, however, were stored to be used for healing purposes and magical rituals, as indicated by their demonic form, apotropaic appearance, special handling (placed against the wall, facing away), and corroborating iconographic evidence of mule-headed or demon-headed figures in procession on signet rings, seals, plaques, and frescoes from Mycenae and Tiryns.

The Mycenaean Linear B tablets provide further textual documentation for the use of poison-based drugs (pa-ma-ko/pharmakon?) or particular herbs and plants (ku-ru-ko or ko-ro-ko/crocus flower?) for therapeutic and medical purposes. Saffron spice, a substance produced from the crocus flower and widely used for pain relief, fertility, and for inducing labor or abortion, was recorded in Linear B texts as valuable economic commodity, while the crocus flower was frequently represented in Minoan vase-painting, wall frescoes, and votive objects, which attests to its wider and pervasive significance in trade, medicine, religion, and culture in the Minoan-Mycenaean world.

The present paper attempts to conglomerate the available archaeological, architectural, iconographic, and literary evidence from Mycenae and Mycenaean Greece with comparative references to similar healing practices in the Eastern Mediterranean (Egypt, Anatolia, Near East) in order to re-examine and contextualize the Shrine of the Idols as a special healing place at Mycenae.

**Veronika Sobotková** (University of West Bohemia, Pilsen):Diagnostic system in the medicine of ancient Mesopotamia

Mesopotamian physicians were carefully and systematically educated and followed clear procedures and instructions established by a written codified tradition. This tradition has been preserved, and consists of a rich corpus of various diagnostic-prognostic, therapeutic and oratory texts. This contribution focuses on the diagnostic system, specifically on the types of symptoms observed, whole clinical picture of illness and on the special system of classification of diseases. It also points to the unique separation of diagnostics from therapy.

**Letizia Savino** (Johannes Gutenberg-Universität Mainz):New Studies on a Mesopotamian Prescription Against ‘Mountain Fever’

The present paper is the result of new study on an Akkadian medical ritual reported in two cuneiform clay tablets and discovered in the Hittite capital city of Ḫattuša. Its purpose is to fight an illness called “mountain fever” (*li’bu šadî*) through a substitution ritual that involves the crafting of clay figurines representing pack donkeys and the patient, figurines which are later discarded outside the city in the close proximity of a thorn bush (*ašāgu*). The text of this ritual, which stands unique in its formulation, fits in the context of ritual medical texts of Mesopotamian tradition (*āšipūtu*), but bears remarkable formal and linguistic anomalies. In the analysis both the peculiarities of the text, which have been highlighted and commented, and the links it has with other ritual texts of Mesopotamian and Hittite tradition have been taken into account, in order to suggest a possible foreign origin. This approach, which has benefited from recent works of other scholars, as well as a wider view of the manuscripts not only from the point of view of their content, but also of their pagination and linguistic features, has made it possible to locate the origin of the manuscripts with the Syrian area corresponding to the border with the former empire of Mittani as the most plausible. Aspects such as the layout of the two tablets, their palaeography and language are explored and commented, duly underlying the evidence of a foreign Syrian provenience. Lastly, parallels with other texts both from Ḫattuša and from Mesopotamia have been highlighted and commented to further stress the distance from Hittite praxes and the similarities with Mesopotamian traditions. Studies like the one presented can be extremely beneficial to help chart the movement of ritual medical practices among different Ancient Near Eastern realities, shedding more lights on the processes of circulations of experts and expertise in the (ritual-)medical field in the Second Millennium BCE.

**Electra Apostola – Eirini Skaroglou** (University of the Aegean): Herbal medicine in ancient Egypt: Skin disorders and treatment

The use of herbal products in modern medicine has impressively increased over the past four decades and many of them constitute today basic elements in the treatment of serious health diseases worldwide. Although the use of therapeutic plants goes back to the Paleolithic period, some of the first systematic recordings of herbals in medical recipes are found in Ancient Egyptian Medical Papyri dating from the Middle Kingdom to the Ptolemaic Period. These papyri include not only descriptions of diseases and occasionally even diagnosis, but mainly information about treatment based on remedies made of herbs, animal substances and minerals, surgical operations and magical spells. This paper aims to trace different cases of treatments for skin diseases, ulcers and swellings, burns, wounds, skin reactions to bites and stings, as well as hair problems. The study will explore evidence from ancient Egyptian medical papyri (e.g. Ebers Papyrus, Edwin Smith Papyrus, London Papyrus, Hearst Papyrus, etc), and will focus on: a) the species of plants used, b) their preparation (e.g. grinding, boiling,) and mixing with other substances (e.g. minerals, animal products), c) methods of use (e.g. internal or external application, fumigation, etc), and d) the time of treatment. For the purposes of this research, a critical examination of plants still used to treat skin disorders, will allow us to investigate whether their therapeutic value is confirmed or has been reevaluated in modern medicine.

**Hana Vymazalová** (Charles University, Prague):Life after the Pyramid Age: Secondary burials at Djedkare's royal cemetery at Saqqara (Egypt)

Djedkare’s royal cemetery at south Saqqara (Egypt) has been systematically explored since 2010 by the archaeological mission of the Charles University (Faculty of Arts, Czech Institute of Egyptology) headed by Mohamed Megahed. This work focuses not only on the pyramid complex of king Djedkare but also the surrounding cemetery, untouched by earlier excavators. The discovery of several monuments from the late Fifth Dynasty (mid 3rd millennium BCE) enlarged our knowledge about king Djedkare and his family and court members. At the same time, however, a large amount of evidence from later periods has been uncovered at this site, which shows that the necropolis was continually used for two thousand years, at least until the Late Period (mid 1st millennium. BCE). While the Fifth Dynasty evidence includes costly tombs of the elite built of stone and decorated with painted reliefs, in later periods the site was used by lower levels of the population who buried their dead in mats or cheap wooden coffins placed in the sand around the earlier monuments. The wish to rest in the shadow of the king’s pyramid reflects the aspiration of the later population to connect themselves with the famous past, the golden age of the pyramid builders. Several hundreds of these “secondary burials” have been uncovered at Djedkare’s cemetery during the past years. Such finds have been usually omitted by earlier scholars who uncovered pyramid complexes mostly about 100 years ago. The Djedkare Project however shows that they constitute a valuable group of evidence attesting to the history of this site, as well as the development of burial customs and material culture between the late 3rd–mid 1st millennium BCE. In addition, they provide us with the opportunity to study the population of Egypt through human remains, reflecting the quality of life, medical care and other such aspects. The anthropological and osteological research is still ongoing and only about a half of the finds have been studied until today, showing, however, the large potential of this material for our understanding of ancient societies.

**Session 3:** **Medieval Medicine from Interdisciplinary Perspective**

**Efraim Lev** (University of Haifa): Arabic Medicine and Pharmacology as Practiced by Jews in Medieval Muslim Lands

The literature on medicine and pharmacology in medieval Muslim society is vast and detailed. Yet study and assessment of the practical aspects of medicine and pharmacology in the Mediterranean society, requires examination of authentic documents. The prescriptions, lists of Materia Medica, letters, parts of books and medical notebooks found in the Cairo Genizah are important sources of knowledge that supply us with a valuable historical dimension. In my paper I will present the outcome of 20 years of research of the thousands of documents dealing with medical aspects at the Cairo Geniza, and many Arabic sources dealing especially with Jewish practitioners. The research provides a better understanding of everyday practical and theoretical Arabic medicine and pharmacology in medieval Muslim countries as well as information on various aspects of the Jewish physicians and pharmacists of that period.

**Dimitra Makri** (Research Center for Anatolian Civilizations, Koç University, Istanbul) **– Ilias Nesseris** (Austrian Academy of Sciences, Vienna): The Treatment of Ophthalmological diseases in the Byzantine World (online)

The eye（οφθαλμός), one of the primary sensory organs of the human body, is everyday affected by various climatological conditions, such as exposure to sunlight or dryness; it is also afflicted by various diseases caused by coming into touch with contaminated substances, for instance polluted water, wounds derived from accidents as well as genetic factors. Ophthalmological diseases attracted the interest of notable physicians of the Byzantine world, who dedicated part of their work to the description and treatment of these ocular afflictions. The aim of this paper is to give a detailed insight into the therapy of eye disorders caused by natural or other factors through an interdisciplinary approach utilizing material from a wide array of textual sources (medical treatises, inscriptions, papyri and ostraca). Furthermore, focus shall also be given to medical preparations and various interventional therapies described by a number of Byzantine doctors.

**Matěj Gogola** (Comenius University, Bratislava): New challenges for Slovak historiography of medieval medicine

Medieval medicine of today’s Slovakia territory has not received yet any current evaluation within Slovak historiography. Last scientific syntheses were created in the late 80ʼs of the 20th century and do not compare favourably with analogous works from the point of view of modern methodology. Partial topics or rather larger units (as a monastic and scholastic medicine, infirmaries, hospitals, leprosaria, physicians, hygiene, (non)infectious diseases – endemics, epidemics, pandemics, etc. as parts of social history or history of everyday life) are only a fraction of a stunning mosaic revealing history of medieval medicine in Central Europe, especially Slovakia. Some issues are well processed in many papers of contemporary Slovak historians. However, some relevant sources still wait for their critical evaluation.

A project focused on medieval personalities, institutions and knowledge in the territory of today’s Slovakia is currently running at the Faculty of Medicine, Comenius University in Bratislava. Researchers from several departments cooperate to obtain a clearer perspective on how to look at medieval and early modern Slovak medicine with some details that we want to point out in our paper.

**Antonella Pedergnana** (University of Zurich) **– Roger Seiler** (University of Zurich) **– Renata Huber** (Amt für Denkmalpflege und Archäologie, Canton Zug) **– Patrick Eppenberger** (University of Zurich): Oral health in early medieval Switzerland: the site of Baar-Früebergstrasse (ZG, Switzerland)

The study of the oral health of historical populations is a particularly interesting parameter for the reconstruction of their living conditions. Teeth are composed of the hardest tissues in the human body and are often exceptionally well-preserved in the archeological record. Various oral pathologies can be identified in both teeth and the surrounding alveolar bone, permitting inferences on the individual oral health.

The early medieval cemetery of Baar-Früebergstrasse cemetery in central Switzerland represents an ideal case study due to the excellent preservation of the dentitions and to the comprehensive documentation and evaluation of the archeological context.

Our results comprise evidence of various oral pathologies and were evaluated in relation of the biological sex, age, and “social status” of the individuals studied. Significant differences were observed between the sexes and age group, and social status appears to be a possible factor influencing the frequency and expression of oral pathologies.

**Joshua T. Schnell** (Brown University):Medicinal Dimensions of Marketplace Activity among the Ancient Maya: A Case Study from Piedras Negras, Guatemala

Marketplaces in Mesoamerica were, and still are, bustling centers of commerce drawing vendors, service providers, and consumers from all over the region. At the time the Spanish arrived in the Mexica Empire, the massive marketplace at Tlatelolco was the largest in the region and drew upwards of 60,000 people every day. Marketplaces in the Mexican highlands were lively and diverse settings filled with large numbers of people engaging in an incredible diversity of activities, from the buying and selling of goods, to dances and ceremonies, and even medicine and healing. Hernán Cortés, upon first visiting Tlatelolco, noted the presence of many houses where medicines were sold, likening them to European apothecaries of the time. These medicines were likely purchased used, and even prescribed by the multitude of physicians also offering their services in the marketplace, according to Fray Benardino de Sahagún. These early records also indicate that sweatbaths, structures with important ritual and medicinal functions, were prominent components of many markets in the area as well. In the Maya region, the presence of pre-conquest marketplaces has historically been the subject of some debate, but this has changed drastically over the past two decades and marketplaces have been identified at a multitude of sites such as Tikal, Calakmul, and Buenavista del Cayo on the basis of combined epigraphic, geochemical, spatial, and artifactual evidence. One such marketplace, at the site of Piedras Negras in Guatemala, will be the focus of this talk. In addition to more traditional lines of evidence such as the production of commodity goods and the spatial arrangement of this area of site, the Piedras Negras marketplace is noteworthy due to abundant evidence for medicinal practices such as dental extractions, dental modifications, medicinal plant remains, and the presence of multiple monumental sweatbaths. Using the Piedras Negras marketplace as a case study, this paper will explore the medicinal functions of the vibrant and diverse world of Mesoamerican marketplaces.

**Robin Pánek** (Charles University, Prague): Hospitaller Care of the Order of St. John in the Holy Land in the Medieval period

The paper deals primarily with largely neglected hospitaller care of the knighthood orders at the time of their presence in the Holy Land. Followed is primarily the Order of St. John (Order of Maltese Knights), but other two hospitaller orders (Teutonic Order and Order of St. Lazarus) are briefly mentioned. The lecture aims to analyse the scope and quality of this lesser-known mission of knighthood orders from their founding in the Holy Land until the fall of Acre in 1291. The analysis is based on preserved official order sources (rules, statutes and hospitaller procedures of the individual orders), reports of eye-witnesses of the orders’ care and professional literature of recognised authors dealing with chivalric orders. These orders were at the same time orders chivalric and hospitaller and often spent considerable resources on care for the poor, sick and needy. It is precisely the fact that these orders not only fought against the enemies of the Latin Christian faith with weapon in hand, but at the same time often treated members of other religions in their hospitals, which contributed to their unusual role at the time of the Crusader states. The task of this lecture is to present the form of this unusual connection and also argue that the Order of St. John was the most successful and most respected hospitaller chivalric order regarding this mission.

**Session 4:** **Medicine in the Graeco-Roman World**

**Velia Boecker** (Philipps-Universität Marburg): Healing Places in the Ancient World: So-called healing sanctuaries revisited. New perspectives on archaeological sites in Central Italy (4th – 1st cent. BC)

After tackling the question which cult sites we do consider as healing cults – i.e. which kind of topography, architecture, written sources, venerated deities and specific finds provide the basis to assume an ancient sanctuary was specialised in healing – the presentation will focus on the phenomenon of anatomical votives in sanctuaries of Latium (Italy) dedicated in the 4th to 1st cent. BC. These votives were hitherto understood as indicators for so-called healing cults. The archaeological and historical contexts though, e.g. the associated finds as well as the topographic position of the sites and their traditions, have hardly been focused yet. Featuring a holistic and contextualising approach the lecture will present the analysis of more than 100 sites in Latium with a total of over 15.000 anatomical votives regarding their connection to environmental parameters as springs, lakes, mountain tops, caves and connections to roads and settlements. Quantitative and gender-specific analyses are also taken into account. Based on this data the socalled healing cults of Latium can be divided into two main groups which differ from their location, the composition of the dedicated votives, the venerated deities and probably the dedicants. These two groups presumably root in local cult traditions and were spread by entangled communities with shared or similar religious conceptions. Given that, anatomical votives can be understood as part of an indigenous identity within a broader network of cultural exchange. Very likely the anatomical votives should not be seen as objects with a prescribed meaning in a static cultic frame but as multivalent offerings in a dynamic frame of reference. This change of perspective contributes to new insight on tradition, interrelations and alignments of archaeological sites formerly addressed as healing places.

**Judit Pásztókai-Szeőke** (Independent Researcher): Dress to heal? Natural dyes and dye-plants as herbal remedies in the Roman times

Shortly after the accidental, but revolutionizing discovery by William Perkins in 1856, mass-produced bright and cheap synthetic textile dyes had glutted both the textile industry and trade. By the 20th century they crowded out the plant-based natural dyes finally and due to the industrialized production of these colourful textiles in our consumer societies, the colour of garments and textiles is simply regarded as decorative, occasionally simbolic, even by researchers of pre-industrial societies.

Two textile refurbishing workshops in Roman Savaria and Siscia yielded an abundant corpus of textile tools and inscribed commercial lead tags. Tools in general are a very useful source for the textile technologies applied locally by the workers. The tags were used as ID-labels for valuable garments entrusted by clients to the care of this workshop for refurbishing (e.g. mending, cleaning and redying) them.

Based on the recent research on these workshops, the proposed paper would argue for the functionality of some plant-based natural textile colours beside just being socially symbolic and also emphasize the interdependence and vital importance of corporeal and sartorial hygiene in densely populated regions, such as urban areas or military camps and the tragic consequences of the absence of hygienic practices in the past.

**Mark Beumer** (Charles University, Prague): From Asklepieion to Kosmidion? Temple Sleep: A Dynamic Ritual in Late Antiquity

In 419-418 BC, Telemachos founded an Asklepieion at the south slopes of the Athenian akropolis. This sanctuary was dedicated to the Greek god of Healing Asklepios and his most important daughter, Hygieia, the goddess of Health. Here, the healing ritual temple sleep or therapeutic incubation was practiced to heal patients from their afflictions. In the 5th century AD, the Asklepieion was transformed into a church for Saint Andrew which was inside the Asklepieion where the healing ritual continued. Later, between the 6th and 7th centuries, a large basilica of the Hagioi Anargyroi, the physician saints who heal free of charge – in this case Saints Kosmas and Damianos – was erected over the site of the former Asklepieion, replacing the smaller church of Andrew. Also here, incubation was continued. This paper examines this double ritual dynamic which is unique in this discourse.

**Jared J. Eddy** (National Jewish Health, Denver): Nutrition and health in imperial Roman populations with implications for tuberculosis

Tuberculosis has been an important pathogen for ancient societies since the foundation of civilization.  Most individuals who are exposed to *Mycobacterium tuberculosis* (the bacteria that causes tuberculosis) demonstrate sufficient immunity to contain the bacteria in a latent state for years and often their entire lifetime.  However, any immunological weakening may result in inability to ultimately control an initial infection (primary disease), or result in reactivation later in life (reactivation disease).  The World Health Organization (WHO) in recent years has recognized the importance of adequate nutrition both in preventing the incidence of tuberculosis in those at risk, and in generating more favorable outcomes for those with tuberculosis.  Thus, any understanding of the impact of tuberculosis in ancient Rome and other ancient societies must include an analysis of the nutritional status of the population in question.  This paper will pair the latest science on the importance of nutrition in tuberculosis with a summary of evidence for nutritional status in ancient early imperial Rome.  Methodological issues such as the use of proxy data, the complexity of “nutrition,” and the host-pathogen interaction will be discussed.

**Athanasios Sideris** (Charles University, Prague/Masaryk University, Brno):“You need to visit Antikyra”: Healing Classical Madness (online)

The paper discusses the emergence of the small Phokian city of Antikyra, close to Delphi, as a specialized center for various diseases, especially though mental ones, during the Classical period and its progressive transformation into a curative center of international reputation in the Roman Imperial times. The city’s notoriety for cures of melancholy, epilepsy and madness was related to a medicinal plant, the hellebore, which grew there and was picked by local physicians, specialized in its elaboration for patient-adjusted treatments. The paper concludes by tracing down the transformation of the locality’s name into a literary *locus* in the literature of Renaissance and Early Modernity.

**Conan** **Doyle** (Charles University, Prague): Temperament and Emotion: The physical causes of emotional distress in Late Latin medical theory

Late antique Greek speaking medical authors and their Latin compilers and translators conceived of emotion and mental disturbance as thoroughly physiological phenomena, explaining them as the effect of the four humours (blood, black bile, yellow bile and phlegm) on the brain, paying special attention to the effect of the digestive system on mood. This embodied nature of the mind and emotion in ancient and medieval medical thought survives to this day in words like melancholy, phlegmatic, sanguine or choleric to describe emotional states, personality traits or even depressive illness in modern English. Descriptions of types of mania often include detailed physical symptoms, as well as changes in behaviour and affect. Though this system was rooted in a Neoplatonic philosophy of the human body as a microcosm of the universe rather than empirical science, some of the medical descriptions of mental disorders seem to contain surprisingly astute clinical observations combined with remarkably sensible recommendations for the modification of the diet and lifestyle of the patient.

**Session 5:** **Asklepios and Hippocratic-Galenic Medicine**

**Ariadne Klonizaki** (National Archaeological Museum, Athens): The social impact of the cult of Asklepios in Greece

The paper will address the subject of unconditional access of sensitive social groups in the sanctuaries of Asklepios during the classical and the hellenistic period. It will argue through epigraphic and archaeological evidence that the Asklepieia were places of social refugee, supported by the Polis. Asklepios was the provider of treatment and a solution of some kind for a large number of people in the Greek world. He was the embodiment of people's deep need for what each of them believed was salvation from a disease, problem or misfortune. We can attribute to the meaning of salvation anything that a person considered particularly important for his or her life and happiness: this could be vision for the blind; the ability to walk for the paralyzed; the restoration of a broken vase for a desperate slave; giving birth for women; relief for war veterans. The cult of Asklepios appealed to those who were in danger of social exclusion.  People followed him willingly. They adopted Asclepius with ease, a popular demand that is a unique feature of his cult, which relates to the philosophical and social context of the era. The cult spread because this deity, with the characteristics it had acquired from the 5th century BC, responds to both the personal and social needs of the era, in particular in the aftermath of social disasters such as plague and wars.

**Sascha Boelcke** (Christian-Albrechts-Universität zu Kiel): Establishing a Healing Place – New thoughts on Tiber Island

Many Healing Places were established in a particular position: when water is necessary a site near a spring or a river is reasonable, where fresh air is needed a location outside of a city is favourable. Both factors are important for several sanctuaries of the Greek healing god Asklepios, in the Roman world known as Aesculapius, whose cult spread within a short period of time from a minor sanctuary in Thessaly all around the Mediterranean Sea. Legend has it that in 293 BC the cult was imported by the Romans via ship due to an epidemic. The sacred serpent from Epidauros left the vessel and swam towards the island in the middle of the Tiber river. The island became only very late a part of the city. Before Rome spread from the eastern banks of the river to the western banks, sailors and fishermen inhabited Transtiberim, modern Trastevere, while a wooden bridge connected both sides south of the island. The island in the Tiber river was surrounded by the city of Rome and its periphery and fairly isolated it seems. The ancient sources don’t tell much about the island before the establishment of the sanctuary of Aesculapius and thus it appears to be a very remote and probably deserted place. Therefore, it seems appropriate to identify the island as an ideal place for unwanted people without sending them into exile. In this talk ideas will be presented regarding the island in the Tiber and its unspoken importance for medicine, health and death in ancient Rome. It comes down to the question: Why did the serpent of Aesculapius choose the island as her new home?

**Sylva Fischerová** (Charles University, Prague): An Archaeology of Temperaments, or from Humours to four Temperaments

My contribution focuses on the very complicated process during which the well-known theory of the four temperaments (i.e. sanguine, choleric, melancholic, phlegmatic) was established. The main components of this process are, first, the concept of elements and concept of mixture and its ratio; then, the concept of “characters”; third, the mutual interplay between the normal and the pathological and between the psychical and physical, “mind and body”, as well as the connections between the macro- and microcosm; perhaps decisive being the strategy of schematization, typification and classification. From the chronological point of view, we proceed from Homer via the treatises of the *Corpus Hippocraticum*, the Ps.-Aristotelian *Problem* XXX, Galen’s works to a number of mostly anonymous treatises (like Ps.-Hippocrates, *Ad Galenum discipulum liber de pulsibus et de temperamentis corporis humani*; *Hippocratis et Galeni philosophia de natura hominis*; Vindicianus, *Epistula ad Pentadium*; Ps.-John Damascenus, *Quid est homo*? etc.) in which the four temperaments theory is finally constituted.

The very specific role of black bile in the process will also be introduced; or, to put it from a different point of view, why do we not have (alongside with sanguine, choleric and phlegmatic persons) “aquatic” or “hydrotic”, instead of melancholic people?

**Matyáš Havrda** (Institute of Philosophy, Czech Academy of Sciences): Galen’s Treatise On Demonstration: Research Update

In his early career, before he set out to write his systematic treatises on therapeutics, pharmacology, diagnostics, and other topics relevant to the study of medicine, Galen was, for many years, preoccupied with the methodological foundations of natural-philosophical inquiry. The main fruit of these endeavours was his monumental treatise *On Demonstration*, consisting of fifteen books. The treatise was lost already in antiquity, but parts of it can be reconstructed from later sources, and from Galen himself. After Iwan von Müller’s pioneering attempt to collect the available testimonies (1895), the treatise became a focus of new scholarly interest in the last several decades. This was partly due to the growing appreciation of Galen as a logician and methodologist of science, and partly to the new discoveries of relevant material in the Arabic and early Christian sources. Currently, Dr. Pauline Koetschet of CNRS and I are preparing a new edition and translation of the fragments and testimonies of the treatise. In this paper, I will provide a report on the current state of research about *On Demonstration*: the sources of its reconstruction, the structure of the treatise, and its tenets.

**Kyriakoula Manaridou** (Nette-Gut Forensic Psychiatry Hospital, Weißenthurm) **– Charalambos Dokos** (Universität zu Köln): Life coaching in Graeco-Roman world: the foundations of modern philosophical Psychotherapy and Counseling

This essay examines the concept of life coaching in Graeco-Roman world through the philosophical thinking. Beyond the meaningful philosophical theoretical positions, we believe that ancient philosophers were the ‘life coachers’ of antiquity. Socrates stated in Plato’s Apology (38a5–6) the known ‘ἀνεξέταστος βίος οὐ βιωτὸς ἀνθρώπῳ’ (the unexamined life is not worth living). Socrates is one of a kind ancient life coacher that believed that Philosophy was the most important pursuit above all else. This quote is one of the fundamentals of modern Psychotherapy and release the need of understanding through questioning and logical argument to rethink life. From the early years of the philosophical thinking; the explanations on the good life and what is happiness was subject of further discussion. Epicurus wrote at the beginning of the Letter to Menoecus ‘you have to be concerned about what produces happiness’. In the quest for Ευδαιμονία (happiness) there was a significant evolution in the philosophical basis of the management of mental disorders. Galen proposed the revolution of the ideal physician and philosopher. Celsus, Aretaeus and Caelius Aurelianus have proposed by far that Philosophy and Psychotherapy go hand in hand. The question that arises is whether the ancient medical doctors have the adequate knowledge concerning Philosophy in treatment of mental disorders. One is for sure that a lot has changed since Galen; Psychotherapy found its way through modern science, however analyses of various psychotherapeutic interventions (cognitive therapy, behavioral therapy, humanistic therapy) have by far their roots in philosophical approach of life. The idea of fragility of happiness is stated in Greek tragedy from Aristotle, a great philosopher of the time ‘δι' ἐλέουκαὶ φόβου περαίνουσα τὴν τῶν τοιούτων παθημάτων κάθαρσιν΄ (and through pity and fear it effects relief (catharsis) to such [and similar] emotions) (Poetics, VI 1449b 2–3). Greek tragedy is concerned the ultimate psychotherapy approach in human life in not only the possession of happiness. Through the pity and fear most of the times the patient with mental disorder now worry about the blows of fate and the disease obstacles to the possession of Ευδαιμονία (happiness). Why the training programs of psychotherapy lack in philosophical thinking and rarely integrates Philosophy? Also Epistemology is an unknown field for those who are been trained or under training in Psychotherapy. What is changed and what are the theoretical challenges for a competent psychotherapist? Is there a need to see the relevance of Philosophy in the field of Psychotherapy?

**Tomáš Glomb** (University of Bergen/University of West Bohemia, Pilsen): Was Asclepius more popular during the Antonine Plague? A quantitative evaluation of Latin inscriptions

The paper focuses on the topic of the popularity of Asclepius, the Greco-Roman god of healing, in times of the Antonine Plague that was endangering the Roman Empire between ca 165-180 CE. The hypothesis produced by the academic debate that was tested in the presented case study is that the cult was more popular in times of the Antonine Plague because there was a higher demand for healing cults in the population. The paper presents a quantitative apparatus for testing this hypothesis. Specifically, the methodology applied to the research problem was mainly temporal modeling of the epigraphic evidence by use of Monte Carlo algorithms to explore whether Asclepius was worshipped more intensely in Latin inscriptions, as represented by epigraphic databases, during or shortly after the Antonine Plague. The results reveal that there is no apparent increase in the number of inscriptions dedicated to Asclepius in the times of the Antonine Plague that would deviate significantly from the temporal distribution of general epigraphic trend as represented by epigraphic databases, or inscriptions dedicated to other deities such as Apollo or Jupiter. The conclusion of the presented case study is that the tested hypothesis is not valid at least in the context of Latin epigraphy which is a medium that is frequently used in the academic debate on this topic as crucial evidence. The paper also showcases how uncertainties in historical data can be overcome by temporal modeling in general and thus the presented method can appeal also to scholars outside the debate on the cult of Asclepius.

**Session 6:** **Medicine of Late Antiquity & Online Session**

**Dimitra Makri** (Research Center for Anatolian Civilizations, Koç University, Istanbul): The Medicinal Uses of Myrrh (Σμύρνα) in Late Antiquity (online)

The world of fragrances that captivate people with their attractive and discreet smell or sometimes repel them with their unpleasant sensation, is a favourite subject of ancient Greek literature. Trees, flowers and herbs, which offer a vast variety of aromatic substances with applications such as aromatherapy, as well as spices that enhance the flavor of food and stimulate appetite, have a very vivid presence in the everyday life of people in Antiquity. The aim of this paper is to give a detailed insight into the medicinal uses of myrrh and its extract by the inhabitants of the Graeco-Roman and Byzantine world through the examination of the surviving papyri and ostraca, literary sources and inscriptions. Initially, the importance of myrrh as a basic medical substance as well as its role in the production of various medicines and unguents will be examined. Furthermore, the medical applications of σμύρνα for the relief from and treatment of various diseases (ophthalmological, gynaecological, dermatological etc.) will be also investigated. Lastly, its use for embalming the dead will be also presented.

**Daniel Vaucher** (Independent Researcher): The Rhetorics of Healing: Strategies of Persuasion in three Late Antique Healing Prayers (online)

Early Christianity was also perceived by its environment as a religion of healing (cf. G.B. Ferngren, Early Christianity as a Religion of Healing, Bulletin of the History of Medicine 66 (1992), 1-15). On the one hand, this applied to the increased attention given to the needy and sick; on the other hand, many charismatic personalities appeared as healers and exorcists who cast out demons (which were thought to be at the origin of diseases). Christian liturgy attempted to replicate these exorcisms and bring them under the control of the clergy. Nevertheless, private exorcistic rituals persisted throughout antiquity and into the Middle Ages.

The sick, the "possessed" and the handicapped tried to cure their ailments by means of supernatural remedies, or to prevent diseases by means of such remedies. This turn to superstition should not be understood as a contrast to ancient and medieval medicine, but on the contrary as its essential component (cf. O. Riha, Medizin und Magie im Mittelalter, in: Das Mittelalter 10 (2005), pp. 64-72). In Christian times, this turn was expressed in apotropaic and healing prayers – a genre closely related to the pagan incantations and rites. These prayers could be directed against specific ailments, or they could also have a generalized effect against diseases, the evil eye, and demons.

The popularity of such apotropaic prayers and talismans (while at the same time condemned by the Church) shows that Christians as well as members of other religions indulged in the "superstition" of miraculous healing in emergency situations. Arabic paper stripes, for example, of the "Prayers of Saint Cyprian" were found, proving their use as amulets; a "Prayer of Mary ad Bartos" was found on the wall of a bishop's tomb, or the famous "Letter to Abgar” on a lintel in Ephesus. These examples illustrate how apotropaic prayers were effectively *used* to ward off evil as well as for healing.

My paper will address three topics: I will ask in what context healing prayers were applied and against what diseases they were used. Then, I will analyse the rhetorical and stylistic means by which such prayers were made "effective". Thirdly, I will examine who comes into question as the authors as well as the users of such ritual prayer texts. I will show that the condemnation by the church represents an "elitist discourse" that does not coincide with the actions and sensibilities of ordinary citizens as well as of certain members of the clergy.

**Vlastimil Drbal** (Czech Centre for Mediterranean Archaeology, Prague): Pilgrimage to the Healing Cults in the Near East and Egypt during the Late Antiquity (online)

Pilgrims’ journeys to places, where people hoped in their or their close relatives’ healings were a part of both ancient and later Christian culture. This paper aims to connect these two, perhaps seemingly unrelated traditions and show that Christian pilgrimage to the healing cults in many cases continued in older ancient traditions. The presented case studies will be Ejn Tsur spring and Hammat Gader baths in Palesine and the sites of pilgrimage in Menouthis and Luxor (the terrace of the mortuary temple of ancient Egyptian Queen Hatshepsut).

**Anagnostis P. Agelarakis** (Adelphi University, Garden City, NY): Shanidar Cave in Iraqi Kurdistan: A Sanctuary for Medical Treatment and Healing for the Injured and Ailing Members of its Neanderthal and Proto-Neolithic Homo Sapiens Occupants (online)

Involved in the rather evading quest, searching for “echoes” of old that could unveil clues on the tracing of prehistoric locations of healing places, Shanidar cave emerged as a site of fundamental importance; the largest cave in the western uplands of the Baradost Mountains at the Zagros region of northern Iraqi region of Kurdistan in Iraq, a monumental archaeological site in the region of SW Asia. There Ralph Solecki discovered in the 1950s a significant Neanderthal occupation in the cave site during the Musterian Middle Palaeolithic. Not only did the cave site offer a select as venerated place for the interment of their dead, it was apparently offering shelter and protection for the living as well, strategically imposing in the surrounding milieu from a formidable elevation with a spacious inside, well aerated and capturing the warming and disinfecting rays of the sun, access to an ever flowing water spring in its adjacency and the availability of plentiful floral and faunal resources within the optimal ecological zone of important cereals such as wild barley, emmer and einkorn wheat and the natural habitat of sheep; with the earliest evidence in the archaeofaunal record of their incipient domestication. It is not improbable therefore to suggest based on the unique attributes of the cave site and the behaviors of the Proto-Neolithic H. sapiens, traced through the tangible components and appertaining symbolic meanings derived from the archaeological record, of their intergenerational perception of the site as an ancestral, emblematic as venerated cave-dwelling within their ideational world and perceived environments. It is therefore that in such a place of refuge, of safety and protection, permeated as it were by ancestral legends and memories emitted by the ceaseless powers of the ageless cave that both Neanderthals and H. sapiens alike would have selected a preferred healing place in order to provide needed intervention, treatment, and soothing care to their injured, their ailing ones of old age and their impaired.

**Jonathan M. Flood** (Klondike Gold Rush National Historical Park)– **Rachel Dewan** (University of Toronto): The Curative Chemistry of Healing Water from Asclepeion in Sicily and Greece (online)

This paper presents new aqueous geochemical data from groundwater samples collected from twenty-three Temples of Asclepius, and links their elemental composition to analeptic qualities purported in ancient texts. Asclepeion were, in effect, the hospitals, spas, and rehabilitation centers of the ancient Greek & Roman world, and were inseparably linked to specific water sources such as springs, streams, or wells. Though the healing ritual included the oft-cited incubation protocol (resting and dreaming), imbibing and/or bathing in a discrete water source was fundamental to the ameliorative process. We know from Hippocrates, Xenophon, Strabo, and later from Pliny the Elder and Plutarch, that water sourced from Asclepeion had therapeutic, sometimes even miraculous properties, able to cure a range of ailments from leprosy to nearsightedness. Using an analytical geochemistry toolkit comprised of an inductively coupled plasma mass spectroscopy (ICP-MS) and gas chromatography (GC), we sought to explore what, if anything, is unique about groundwater from Temples of Asclepius in the Aegean, the Greek mainland, and Sicily. Our results reveal a strong correlation between salubrious (sometimes psychotrophic) concentrations of rock-borne elements in spring- and well-water and the location of Asclepeion sanctuaries. Our methodological approach to this new and exciting line of geoarchaeological research is far from simple scientific “myth-busting.” Rather, we prefer to emphasize and celebrate humanity’s sensitivity to even the most infinitesimal elements of a landscape, and to explore the adaptive/utilitarian responses employed by ancient Greeks to harness unique and potent natural geochemistry for positive ends.

**KEYNOTE LECTURES:**

Keynote lecture 1 (Day One, 21st September):

**Václav Smrčka** (Charles University, Prague): Palaeopathological profile of Neolithic Lengyel Culture

The wave of the Neolithic Lengyel culture (LgC) spread at the end of the Neolithic from Tolna and the Baranya County of modern-day Hungary, through Moravia to today’s Poland. Through the paleopathological analysis of the LgC settlements of Zengővárkony and Villánykövesd in Hungary, and other locations in Moravia, it emerged that these were migrant populations. Proof of this are congenital skull defects, mainly craniosynostoses, which affected this population and followed its westward spread. In Moravia, on comparison with previous the Neolithic Linear Pottery culture, it was found that congenital spinal malformations were more likely to occur.

Keynote lecture 2 (Day Two, 22nd September):

**Claire Burridge** (The University of Sheffield): Books and Bodies: Interdisciplinary Approaches to Studying Early Medieval Medicine

The study of early medieval medicine in the Latin west has traditionally been restricted to analysing the surviving written record. The textual evidence ranges from collections of pharmaceutical prescriptions to hagiographical accounts of health and healing, and research based on these writings has produced a rich body of scholarship and continues to play a vital role in the field. The sole reliance on written sources, however, is inherently problematic: researchers are limited by both the nature of the texts and their biases (e.g., a focus on the literate elite), making certain topics challenging, if not impossible, to explore. For example, the analysis of textual sources alone can only touch the surface of the complex relationship between medical knowledge (as recorded in extant manuscripts) and medical practices (as experienced by individuals during this period). The integration of multiple types of evidence, however, makes possible deeper investigations into this topic. Research that brings together both written and archaeological evidence offers a variety of perspectives, providing insights into this relationship by presenting information recorded in manuscripts alongside evidence for the health and healing practices experienced by early medieval individuals. This lecture will showcase a range of different approaches to demonstrate how the textual record can be productively re-evaluated in the light of archaeological evidence, addressing both established subfields within archaeology, such as palaeopathology, as well as emerging subfields in the archaeological sciences, including dental calculus analysis and biocodicology. Ultimately, the lecture highlights promising directions for future interdisciplinary research and the potential for this work to cast fresh light on early medieval medicine, its evolution, and the relationship between texts and practice.

Keynote lecture 3 (Day Three, 23rd September):

**Milena Melfi** (University of Oxford): Cure and Cult in the Asklepieion of Lebena (Crete)

The Sanctuary of Asklepios at Lebena is situated on a hill which dominates one of the few good harbours of the southern coast of Crete. The site came to light during the 19th/early 20th century Italian excavations and is mostly known for its architectural remains and the impressive corpus of inscriptions it produced. The absence of any other type of surviving archaeological material leaves many aspects of the Hellenistic and Roman cult practice still unknown, but the fact that most of the healing inscriptions found on site were inscribed on the walls of the rooms of the sanctuary used for the incubation (the sacred sleep) makes it one of the most relevant places for the study of this ritual healing practice. The aim of this paper is that of reconstructing the cult and healing practices taking place at the sanctuary from the 2nd century BC to the 2nd century AD on the basis of the surviving evidence and try to explain the popularity reached by the Asklepios of Lebena among worshippers from Greece and north Africa.