International Conference

TECHNICAL KNOWLEDGE IN HUMAN HISTORY

TEXT, IMAGE, AND RE-CREATION

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Abstracts

LONG TALKS

Elena Bellini (Humboldt-Universität zu Berlin)

The Sly Invention of a Poreless Lung: Erasistratus and the Limits of Visualization

Erasistratus of Ceos, medical practitioner active in Alexandria during the first half of the third century BC, is known for his heuristically oriented employment of dissection and possibly vivisection not only on animals, but on humans as well (fr. 17A). In questioning the role that the inspection of animal and human interiors might have played in the shaping of Erasistratus' physiology of respiration, one factor stands out: his invention of a poreless lung. Among the main explanatory features in Erasistratus' medical system is in fact the so-called principle of PTKA (πρὸς τὸ κενούμενον ἀκολουθία), according to which, given the impossibility of extended void, what is being emptied is always filled by what is proximate (frr. 94-95). Respiration, too, complies to PTKA: as the thorax expands through muscular movement, it initiates the possibility of a vacuum the lung cannot respond but dilating in turn, thereby drawing in external air (frr. 97-98). Now, such a pump-like mechanism implies the theoretical impossibility of any air filtering through the lung, entailing, as a by-product, a compact, impermeable, non-spongy lung (Garofalo 1988: 34). This would not be as remarkable, were porosity and sponginess not already relatively consolidated anatomical features of the lung since long before (and after) the (albeit brief) advent of human dissection in Ptolemaic Alexandria. Erasistratus' (accidental) postulation of a poreless lung, where theoretical commitment seems to have outweighed visual and experimental findings, offers hence the opportunity to reflect upon the limits of anatomical visualization within the frame of a dogmatic epistemology.

Jean-Christophe Courtil, (University of Toulouse, Institut Universitaire de France)

Anatomical Diagrams of Sexual Anatomy in Latin Medical Texts

In the course of writing a monograph on sexual health in Latin medical texts, I have encountered the challenge of identifying several dozen anatomical parts. For example, what ancient medical texts refer to as *cremaster* is not the modern cremaster muscle but rather the vas deferens; likewise, what they call *dartos* does not correspond to the modern dartos muscle, but rather to the cremaster.

To address these issues and to demonstrate that certain modern translations cannot correspond to anatomically accurate structures, I have developed a series of thirteen anatomical diagrams (based on the works of Celsus, Marcellus, and Vindicianus). These diagrams help determine the precise meaning of each term in light of our current anatomical knowledge, while also highlighting how terminology evolved from one author to another. For instance, the diagrams make it clear that an expression such as *os vulvae* could refer to different parts of the female genital tract depending on the author, sometimes the cervix, sometimes the vaginal opening.

More importantly, the use of anatomical diagrams allows for the visualization of complex descriptive passages, particularly those involving the layered structures observed during dissection. The reader can thus follow the author's description step by step. In the case of Celsus, for example, only an anatomical diagram makes it possible to accurately identify what is meant by *summa tunica*, *media tunica*, and *tunica ima* of testicles, and to avoid the misinterpretations found in many modern translations.

Shahrzad Irannejad (Institute of the History of Pharmacy and Medicine, Marburg)

Visual mouvance of the anatomical diagrams in al-Rāzī's Kitāb al-Manṣūrī

The *Kitāb al-Manṣūrī fi al-Ṭibb* by al-Rāzī (865–925 CE), is a concise yet comprehensive encyclopedia of medicine, influential even beyond the medieval Arabic tradition. Of interest to this paper are the numerous anatomical diagrams seen in several manuscript witnesses of this work: diagrams of the abdomen and chest, trachea, the heart, and the ventricles of the brain. These diagrams were not necessarily meant to copy reality or precise anatomy, and were most probably executed by the scribe/copyist. What is particularly intriguing is the variation in the visual representation of these anatomical structures (see the table below). In other words, these diagrams qua "imagetexts" (drawing on Hamburger 2022) were subject to *mouvance*, i.e. accidental or deliberate changes, just like the text that was hand-copied from one manuscript to the other. In this paper, focusing on the diagrams of brain ventricles, I argue that certain philological questions can be posed to these diagrams, for instance, questions pertaining to the familial relationship of the manuscript witnesses. At the intersection of codicology and philology, I explore the usefulness of family tree metaphor (*stemma codicum*) in establishing the relationship of various manuscripts based on the visual affinities of their respective diagrams. I ask to what extent the establishment of anatomical truth and reconstructing the archetype needs to be the focus versus exploring the dynamism of visual representation as a result of scribal practices across time and space.

Diagrams of the ventricles of the brain in a number of Arabic manuscripts of Al-Rāzī's *al-Manṣūrī*

No.	Diagram	No.	Diagram	No.	Diagram	No.	Diagram
1a		7		13		19	
1b		8		14		20	
2		9		15		21	
3		10a		16a		22	
4		10b		16b		23a	
5		11		17		23b	
6		12		18		24	

Sivan Gottlieb (Koret Center for Jewish Civilization, Tel Aviv University)

The visual anatomical representation in Rhazes's Sefer Almansur - *the Hebrew tradition*

This presentation will focus on depictions of various organs—particularly the brain—as found in different Hebrew translations of the Arabic medical text Kitāb al-Manṣūrī fi al-Ṭibb by Abū Bakr Muḥammad Ibn Zakariyā al-Rāzīi (Rhazes, c. 865–925 CE), both translated directly from Arabic and via the Latin version.

In Hebrew manuscripts, there are eight known examples of visual depictions of the brain in this text, dating from the 14th to 15th centuries. As we will see, these images display notable differences in representation both within and between traditions. Likely drawn by the scribe, these simple images were not intended to depict precise anatomy. So, what was their function? Were they educational aids, abstract representations, or visualizations of the text? Did they serve as practical memory tools?

In this paper, drawing on the methodological tools of art history and adopting an interdisciplinary approach, I examine visual representations in Hebrew manuscripts in comparison with Arabic and Latin examples. I investigate the forms of the Hebrew diagrams, the transmission of visual elements across cultures, and the role of the scribe in this process. These cases demonstrate how written text was transformed into visual representation, with each image becoming a new form of text in its own right.

Diagrams of the ventricles of the brain in the Hebrew manuscripts of Rhazes's *Sefer Almansur*

Taylor McCall (Ackland Museum of Art, University of North Carolina at Chapel Hill)

Picturing the Dissected Female Body: Anatomy and Autopsy in Medieval Medical Images

One of the earliest depictions of anatomical exploration is found in an anonymized cycle of images tucked inside a medical compendium, likely made in England toward the end of the thirteenth century. What is more, the autopsy/dissection pictured is that of a woman's body, shown prone, cut from breast bone to public bone, viscera floating in the spaces around her. The scene follows a narrative image cycle showing her decline in health, treatment, and eventually death. Although it appears in a medical book, and has been interpreted in that light, its connections to contemporary autopsies of female religious women have not yet been fully explored. As Katharine Park has argued, the embracing of human dissection in university medical learning has its roots in the acceptance of the necessity of opening specifically female religious bodies to discover things hidden in the interior. This paper will delve into these connections through exploration of the visual evidence, considering medieval depictions of female bodies undergoing autopsies in medical and nonmedical contexts, seeking to deepen our understanding of the perception of women's bodies in medieval art, medicine, and religion.

Andrea Gondos (Frankel Center for Judaic Studies, University of Michigan)

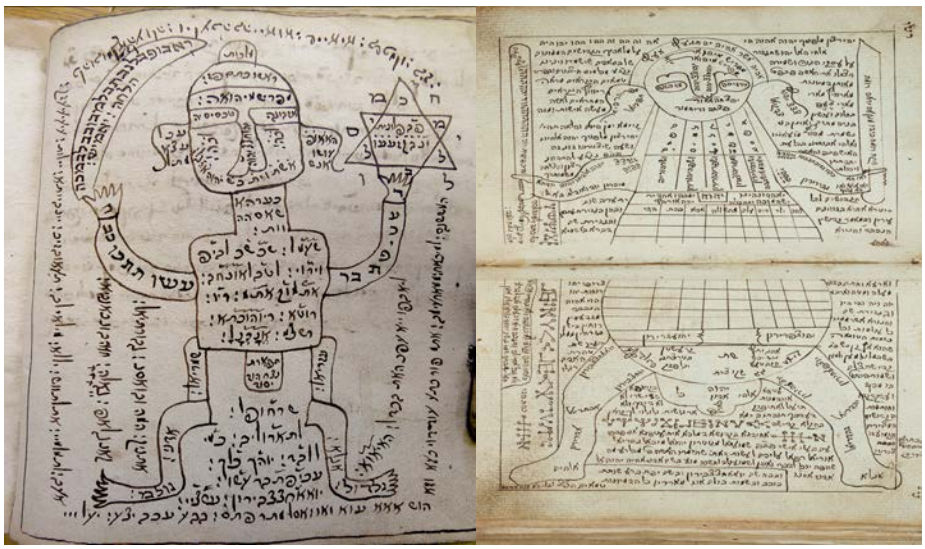
Amuletic Bodies and Inscribed Limbs: Magical Techniques of Healing in East-European Hebrew Recipe Books

The medico-magical handbook is a largely overlooked cultural object of early modern Eastern European Jewish life. These often richly illustrated compendia that range from shorter treatises to volumes comprised of hundreds of folio pages provide a unique window on healthcare and medicine in the daily lives of shtetl communities where Jews lived. Written primarily in Hebrew with occasional Yiddish, these works disclose quotidian concerns about illness and

wellbeing offering diverse curative therapies for the restoration of the human body including improved mental health.

An intriguing characteristic of the more learned, larger and composite medical recipe books is their performative visual dimension expressed through the adaptation of diverse image diagrams, which form the basis of ritual magical operations. While the precise origins of the images cannot, at this point, be ascertained with certainty, these visually intricate schemata are embedded in complex networks of epistemic practices, that intersect between the textual and the ritual, or performative aspects, of the written word.

In my presentation, I will critically analyze for the first time a number of these rare humanoid diagrams to uncover the role they played in premodern healthcare particularly in remote rural areas where university trained physicians rarely ventured. I will further interrogate the technical dimensions of these diagrams to locate the nexus between the visual representation of the human body, the textual elements inscribed on its limbs, and the agency of language in mediating between the micro- and macrocosm, the written word and its ritualized/ performative dimensions. I will argue, that ultimately these humanoid amulets functioned as apotropaic technical devices affecting healing by activating synergistic associations between the human corpus, planetary bodies, and metaphysical forces associated with its diverse parts.

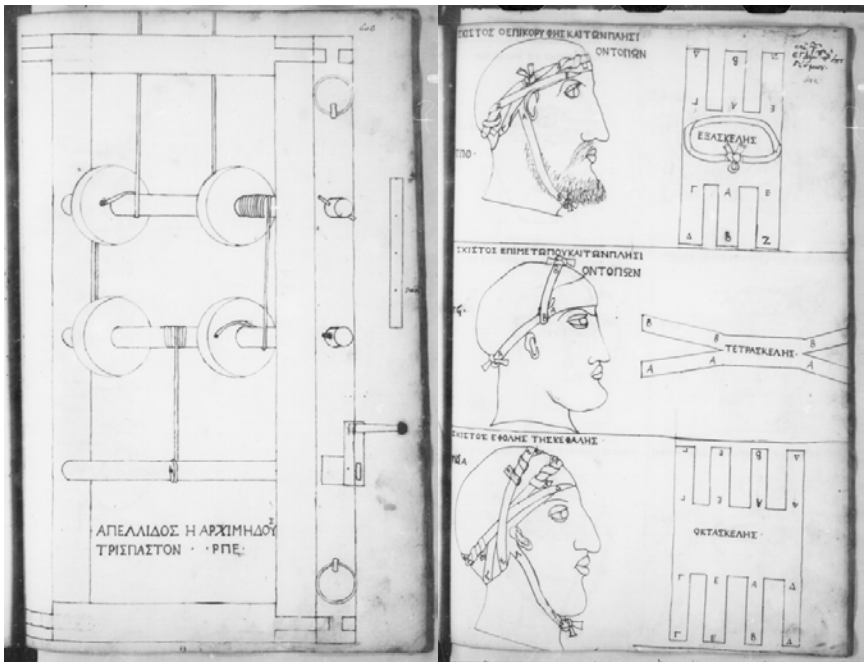


Francesca Marchetti (SOAS, University of London)

The Surgical and Orthopaedic Illustrations of MS. Par. gr. 2248 *(BnF): A Neglected Witness to Late Antique Illustrated Surgical Manuals?*

The Greek manuscript *Par. gr. 2248*, preserved in the Bibliothèque nationale de France, offers unique insight into the transmission and reinterpretation of Byzantine surgical illustration during the Renaissance. Commissioned in 1534 by Pope Clement VII and copied under the supervision of Janus Laskaris, this codex was initially intended as a revised version of the tenth-century *Pluteo 74.7,* Biblioteca Medicea Laurenziana, Firenze, an important surgical compendium. Although the main body of *Par. gr. 2248* was never illustrated, it was bound with

a remarkable set of surgical drawings by the Greek physician John Santorinos of Rhodes. These drawings—executed with metalpoint outlines and black ink—stand out for their crude yet systematic visualisation of treatments for dislocations and fractures, as well as bandaging techniques. Unlike the elegant, framed images of *Pluteo 74.7,* Santorinos's sketches omit architectural settings and reflect a distinct visual idiom, often depicting figures in turbans and simplified poses. More importantly, they include illustrations for texts not visualised in *Pluteo 74.7*, such as works on bandaging by Galen, Heliodorus, and Oribasius, suggesting that Santorinos had access to a now-lost, more extensively illustrated exemplar of the surgical tradition. The numbered captions correspond imperfectly with the original pinax of the Niketas collection, reinforcing their derivation from an independent source. These drawings later served as a visual foundation for the refined illustrations of *Par. gr. 2247* and Guido Guidi's Latin codex, marking *Par. gr. 2248* as a crucial intermediary in the Renaissance revival of Greek medical imagery, and stands at a crucial intersection between textual transmission and visual interpretation in the history of medical *technē.*



Laura Carlevaris (Sapienza Università di Roma)

Representation as a scientific tool. Edmund Halley's map and the work of Cristoforo Borri

In 1701 Edmund Halley published a map that become a point of no return in the representation of landmasses, but which originated as an overlay between the surface of the Pacific Ocean and a new way of graphically describing the magnetic phenomenon. In its radical graphic innovateness, the map ceases to be a mere representation and becomes a true scientific tool to support navigation allowing sailors to check and correct their course in any weather condition. Halley's map describes the variation of the magnetic angle of the ocean between Europe, Africa and America, starting with a "line of no variation" (magnetic angle = 0) and it represents the

distribution of the phenomenon compared to the surface of the water using isogonal curves, i.e., lines of equal magnetic declination. Two text columns surround the image, left and right, describing the purpose of the map and explaining its use and organization, as would occur on the page of a scientific treatise. Analyzing Halley's map means investigating the lost map of Jesuit Father Cristoforo Borri, an astronomer, mathematician and cartographer who is believed to have used these isogonic lines a hundred years earlier. He had in fact discovered a new way of determining longitude using a magnetic needle (*agulha magnetica*) and hoped this would enable him to create a map for navigation based on isogons. Borri's map is lost, but we dispose of a description of several instruments he effectively used. This fact allows us to speculate on the way he must have worked out his map and to make a more grounded comparison between Borri's and Halley's maps.

Edmund Halley, Description and Uses Of a New and Correct Sea-Chart of the Western and Southern Ocean Shewing the Variations of the Compass, 1701.

Sarah Yeomans (St. Mary's College of Maryland)

Tools of Knowing: The Embodied Technē *of Ancient Medicine*

The practice of ancient medicine involved not only intellectual understanding but also specialized manual skill with an array of surgical and pharmaceutical instruments. While ancient medical texts describe these tools in technical terms, material evidence such as funerary reliefs, votive offerings, frescoes, and medical implements can corroborate—or complicate—our understanding of ancient practice. Epigraphic evidence from Ephesus and Smyrna further suggests that physicians not only used existing tools but also competed in *agones* to demonstrate technical skill and inventiveness in designing new instruments.

Today, experimental reconstructions of ancient surgical instruments and other *materia medica* contribute to the ongoing evolution of our understanding of ancient medicine. This presentation begins by examining the roles that object manufacture and performative expertise played in the transmission and innovation of medical knowledge in antiquity, then turns to a similar dynamic in contemporary research, highlighting insights gained through experimental reconstruction.

These modern efforts reveal how tool design responded to functional demands, ergonomic considerations, and the material properties of bronze and iron alloys. Replication has revealed subtle features—such as balance, grip, and edge retention—that elude textual or visual sources.

These subtleties appear to have been recognized by at least some ancient physicians: instruments recovered from sites such as Marcianopolis in present-day Bulgaria and the "Domus del Chirurgo" in Rimini exhibit individualized modifications, suggesting deliberate adaptation in response to perceived deficiencies encountered through hands-on use.
By considering both the performative and innovative aspects of medical instrument design and manufacture in antiquity, alongside new insights gained through the hands-on efforts of modern metalsmiths and experimental archaeologists, this presentation frames medical implements not only as artifacts of past practice but as active objects of inquiry, whose reconstruction reveals the embodied knowledge, performative skill, and technical ingenuity at the heart of ancient technē.

Danuta Raj (Department of Pharmacognosy and Herbal Medicines, Wroclaw Medical University), Jakub Węglorz (Historical Institute, University of Wrocław) & Katarzyna Pękacka-Falkowska (Department of History of Pomerania, Tadeusz Manteuffel Institute of History of Polish Academy of Sciences, / Department of History and Philosophy of Medical Sciences, Poznań University of Medical Sciences)

Distilling Pharmaceutical Minds: The Elixir Proprietatis *as Experiment, Artifact, and Epistemic Tool*

In our paper, we examine the *Elixir Proprietatis* within the Paracelsian medical tradition, tracing its formulation across time. Through comparative analysis of selected recipes, we emphasize significant shifts in composition and therapeutic intent, shaped by regional practices and the interplay of [al/iatro]chemical and apothecary knowledge. A historical reconstruction of two representative formulas reveals changes in function, from purgative to tonic, driven by evolving medical theories and practical constraints. Reconstruction further exposes tacit knowledge embedded in early modern texts, including ambiguous measures and implicit artisanal skills. By combining textual exegesis with hands-on experimentation, our research demonstrates reconstruction's value as a methodological tool, bridging scholarly and material approaches to elucidate the adaptive nature of early modern pharmaceutical practice.
Consequently, in our paper, we argue that the *Elixir Proprietatis* constituted a paradigmatic instantiation of core Paracelsian principles and offered material testimony to the epistemic and operative foundations of spagyric art. As both conceptual model and practical artifact, the elixir served as tangible evidence (ocular proof) of the spagyric method's efficacy: the alchemical separation of a medicinal substance into its three essential principles, or tria prima, each characterized by distinct sensual and functional properties, followed by their purification and reintegration. This iterative process of analysis and synthesis, central to iatrochemical thought, aimed not merely at purification but at the philosophical and pharmacological elevation of materia medica.
In this sense, our historical reenactment of the *Elixir Proprietatis* functions simultaneously as a reconstructive experiment and a didactic embodiment of Paracelsus's vision of nature transformed through art.

Nathalie Rousseau (Sorbonne Université)

From a database project to an open tool: Galenus verbatim *as a means of sharing research data and results in a FAIR Way*

The Dictionary of Medicine according to Galen of Pergamon project aims to uncover the immense lexical knowledge of this physician who exerted such a major influence on the history of medicine, by providing online access to his precise and technical analyses of the form, meaning and use of medical words, which are scattered throughout over one hundred treatises. This paper will present the choices that have been made to best meet the FAIR Data Principles (Findable, Accessible, Interoperable and Reusable) necessary to open science[1] while respecting the principles of philology.
In the context of a constantly evolving text, and given that critical editions are not always openly accessible, Galen's analyses are not encoded as annotations to a specific text, but are instead linked to indexes that refer to the best openly available text according to the Canonical Text Services URN standard.
The Galenus verbatim site brings together these Greek texts, and, soon, translations into Latin and modern languages, whose XML-TEI (P5) mark-up, in accordance with EpiDoc standards, has been checked, corrected and enriched, and for which particular attention has been paid to the accuracy of the metadata[2]. A specific passage can be accessed via a quick search or directly via a URL that uses CTS standards, making it easily quotable. For each consulted passage, the correspondence between its location in the printed edition (volume/page/line), its place in the structure of the text (book/chapter/section) and the URN is given, along with links to authoritative editions and resources

FLASH TALKS

Michele Corti (Università degli Studi di Siena – Museo Galileo – Istituto e Museo di Storia della Scienza)

A new edition of Hero Alexandrinus' Pneumatica*: a work in progress*

In my flash talk I would like to show in advance what results I will achieve at the end of the next two years. Since I have won a scholarship, in this time I will work to a project that will connect ancient texts and science with digital and modern technologies: a renewed critical edition of *Pneumatica* with an original feature for the readers. Indeed, through QR codes

[1] Wilkinson, M., Dumontier, M., Aalbersberg, I. et al. The FAIR Guiding Principles for scientific data management and stewardship. Sci Data 3, 160018 (2016). https://doi.org/10.1038/sdata.2016.18 (with an addendum published in 2019 referring to https://www.go-fair.org/fair-principles/).
[2] Most of these texts come from the Digital Corpus for Graeco-Arabic Studies published in open access in 2016, via the First Thousand Years of Greek project published in open access in 2019. The corpus will be enriched by the Greek Galenic or pseudo-Galenic texts of Kühn's edition that were not taken into account by these projects (22 treatises covering 1,133 half-pages), as well as all the Latin translations of this edition (118 treatises covering 18,170 half-pages), which have been ocerised and then structured in XML-TEI according to the same standards, and are therefore reusable under a Creative Commons Attribution-ShareAlike 4.0 International License.

printed on the pages, they will have the possibility to be directly readdressed to a website, in which they will find the machine's 3D reconstruction. This digital tool will be based on the ancient Greek text and will show in an interactive way how every device worked in the past, following the description and the drawings contained in the manuscripts. Thanks to this double-directed approach, Hero's *Pneumatica* will be studied not only under the philological aspect, but also the mechanical and material side of the work will be highlighted. In my talk I will show the progress of my research, the method used and the expected results, I'm going to focus on the benefits of an edition which blends ancient science and modern knowledge.

Sarah Lang (Max Planck Institute for the History of Science, Berlin)

Computational Approaches to Chemical Knowledge from Early Modern Technical Tracts

The early modern print revolution profoundly transformed the production, communication, and organisation of knowledge, resulting in a vast corpus of sources that challenge traditional analytical methods. Computational humanities—particularly distant reading and distant viewing—offer promising strategies to address these challenges. This project investigates the production, organisation, and dissemination of knowledge in the chemical sciences from 1500 to 1750, focusing on early modern chemistry. It examines how digital and computational methodologies can inform a computational history of science and knowledge, with particular attention to practices of knowledge production and visual representation.
The study applies modern computer vision techniques to historical illustrations of chymical laboratory apparatus found in 16th- and 17th-century printed books, including depictions of distillation, mining, metallurgy, and alchemical equipment. A central aim is to assess the feasibility of transferring object detection methods—such as YOLOv8 and related approaches—from contemporary photographic datasets to early modern printed imagery. Initial findings indicate that such transfers are less effective than expected, due to limitations in visual feature descriptors, pixel segmentation, representation learning, and object detection algorithms. In response, we created manually annotated ground truth data to improve model training. Furthermore, we employ state-of-the-art explainable AI (xAI) methods to analyse why high-performing algorithms underperform on historical data. The project thus not only contributes to our understanding of early modern scientific imagery but also offers critical methodological insights for computational humanities, highlighting the epistemological and technical challenges involved in applying computer vision to historical visual sources.

Francesca Masiero (University of Verona)

Abacus Treatises in Renaissance Verona

My presentation illustrates the content of a little-known Veronese manuscript abacus treatise held in the Fondo Ashburnhamiano in the Biblioteca Mediceo-Laurenziana in Florence (Ashb. 356/III) compiled at Verona in the early sixteenth century in order to understand what notions were included in this type of texts and their practical purpose. This *Zibaldone di matematica* is a miscellaneous collection of ninety-four numbered folios including geometrical problems and *quaesiti* of recreational mathematics in a wide variety of hands, formats and inks. In particular,

the last two folios of the manuscript, folios 132v and 133r, report, respectively, the measuring of the capacity of a barrel and the problem of the two towers that also appeared in Filippo Calandri's abacus treatise *De aritmetica* (c. 1485). The latter textbook is one of the first inexpensive illustrated Florentine treatises of arithmetic later published in Florence in 1491 for students and teachers to use in class. In addition, both the *zibaldone* and Calandri's *De aritmetica* re-elaborated the tower topos presented in Fibonacci's Liber Abaci (1202). Fibonacci's treatise was an important influence on fifteenth- and sixteenth-century Veronese and Florentine mathematical works. This manual provides information about the ideas and methods used in the teaching of mathematics and related subjects such as astronomy, land surveying and currency exchange. The content of this codex has not been analysed previously in detail, especially in relation to the teaching of abacus in fifteenth-century schools.

Katie Burstein (University of Cambridge, HPSM; Harvard College)

Theatrum Anatomicum: *Witnessing the Assembly of the Collective Body*

"A collection of ex-votos from all over the country would give the lives, the thought, the happenings and concerns of each place and of all the people." (Alita Brenner, *Idols Behind Altars*). What did one see when looking at walls strewn with anatomical votives, or dedicatory shelves covered with terracotta limbs? This paper explores narratives of community and identity through Asclepiadic anatomical votives, examining the material representation of bodies and the impact of the collective visibility of body parts upon viewers. Through analysis of anatomical votive production and their display within temple structures, I reconstruct how votives were viewed and engaged with by worshippers and spectators alike. I consider the presentation of votives within temples, utilizing relief representations of anatomical votives, archeological evidence, and literary references to the sight of collected anatomical votives to propose a 'staging' of anatomy through votive dedication. I suggest that these methods of viewing votive offerings, focusing on the massed collection of anatomical votive body parts as opposed to their individual isolation, in turn built a visible language of collective bodies. I define this assembled mass of anatomical votives as a collective body that emerges from cult inventories, particularly that of the Athenian Asclepieion. In so doing, I problematize standard characterizations of the practice of Asclepiadic worship as a primarily individual endeavor, demonstrating its fundamentally communal features. This work, in considering how the suffering human body was rendered as a visible collective construction through practices of votive dedication and display, is further examined through comparison to contemporary biomedical imaging and art which similarly stages a 'collective body' of anatomical assemblage, forming political identity from medical anonymity.

The Inscribed Body: Modalities of Sight in Ritual Healing

In 1994, the National Library of Medicine (NLM) published "The Visible Man" — a dataset of images of the human male body to be publicly accessed for medical research and training. Instantly accessible and shareable between computer screens and medical school classrooms, the Visible Human Project formally constructed the digitized body through the amalgamation

of imaging, scans, and measurements. The Visible Human Project offers a glimpse into modern biotechnological understandings of the body – the body composed of data points and images against which patients can be compared. In doing so, the project fragmented individual bodies while simultaneously recomposing them into a virtual whole, compiling and rewriting a searchable exemplar of bodily health. This paper similarly approaches constructions of exemplary bodies for the purpose of healing, considering the bodies of sick worshippers in Ancient Greek temples as they appear in the visible data set that is dedicatory inscriptions. In this chapter, I focus on healing inscriptions – tracing the narration of healing in monumental stelai across two different Asclepieia. I will first examine the *iamata* at Epidaurus, detailing how bodies and the act of healing bodies, were portrayed as both a fragmentary and sociopolitical endeavor. I then consider a series of new inscriptions relating to sacred manumission from the Asclepieion of Lissos, demonstrating how the practice of emancipation became a healing act, placing both the physical body and the socio-political standing of individuals squarely within the domain of Asclepius. In comparing these inscriptions to the data and imaging of the Visible Human Project, I seek to connect the mechanisms of visibility and publication of isolated body parts with an understanding of 'patienthood' and even 'personhood.'

Gideon Manelis (The Hebrew University of Jerusalem, ERC Atlomy)

Shaping the Voice: Reconstructing Galen's Phonatory System

Galen regarded voice as "the most noble work of the soul" (*UP* 16.3.385–386, 27–2 Helmreich = IV.277 Kühn). Yet his reflections on voice and phonation are scattered throughout his vast corpus, with no prior attempt in scholarship to assemble these fragments into a coherent theory of voice production. For the first time, such an undertaking has been made through a traditional philological approach, collating and closely reading all relevant passages, combined with interdisciplinary collaboration with experts in anatomy. The results of this research have been brought to life through a 3D model of the phonatory system, representing each structure involved in phonation as described by Galen. Today's talk will focus on the presentation of this model.