

THE ART AND SPACE OF ANATOMY: ORIGINS, HISTORY AND FUNCTIONS OF ANATOMICAL THEATRES

ABSTRACTS

November 17th

Session I: The Architecture of Anatomy Theatres (Part I)

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A study in the History of Medicine aiming to identify the ancient anatomical theatre of the city of Verona focuses on certain documentary traces that harken back to the past of anatomical science. Direct references, recalling the existence of the structure and others evoking the activities it hosted, have led to the discovery of anatomical plates of historical significance. This valuable collection of illustrations, a heritage of the Integrated Hospital Company of Verona, not only illuminates the cultural and social backdrop of Verona's medical history, but also aids in pinpointing specific fragments of the urban trail where the theatre was situated.

Elena Corradini (University of Modena and Reggio Emilia, Enzo Ferrari Department of Engineering): “Anatomical Theatre of the University of Modena and Reggio Emilia 350 years: from construction to valorisation”.

The long life of the Anatomical Theatre of the University of Modena and Reggio Emilia began with the reform of the University in 1772 when Antonio Scarpa (1752-1832), called to Modena to teach Surgery and Anatomy, coordinated the project, which was realised, at his explicit request and with the approval of Duke Francesco III d'Este, not in the University Palace, which was under construction, but in the Sant'Agostino Hospital built a few years

earlier, between 1753 and 1758. Designed and built by Lorenzo Toschi, the Modenese Theatre had a similar structure to the Theatre built in Padua in 1595 by Girolamo Fabrici d'Acquapendente: a complete amphitheatre with an elongated ellipse perpendicular to the atrium.

Scarpa inaugurated it with a speech in Latin on 23 January 1775, and on 11 December of the same year he opened the academic year by formalizing the creation of the New School of Obstetrics in Modena, and the construction of the Obstetrical Cabinet in a room adjoining the theatre itself. After the Restoration, for the construction of a staircase connecting the Theatre to the Anatomical Museum realized on the upper floor, the Theatre took on the cavea shape that it still has today.

Its use as a lecture hall for medical lectures until the 1980s has kept its structure intact. The recent restoration between 2016 and 2017 made it possible to open it to the public in February 2018 also with numerous guided tours and educational activities until early 2020 when it was necessarily closed due to the pandemic. The restored Theatre has also been the venue for exhibitions, including those of two contemporary artists, still living, that have been very well attended, both opened on the occasion of Festival Filosofia: in 2018 "Gare de Moi. The folly of truth" by Carlo Benvenuto and in 2019 "Prosopon Persona and Aktion in Hermann Nitsch". The closure due to the epidemic, however, coincided with the inclusion of the theatre in the restoration project of the entire St. Agostino's block, which also includes a rearrangement of the University Museums within the scope of which the Anatomical Theatre, the Obstetric Museum and the Anatomical Museums above it will be included.

Nicoletta Piazza (Independent Researcher): "The Surgical Theater of the new Surgical Clinic, built in 1913: structure and preparation of the first modern operating theater in Parma".

In 1913 the new headquarters of the Surgical Clinic was inaugurated in Parma, located nearby distance from the main hospital of the city. The project of the building, in style neo-Renaissance, was entrusted to the engineer Enrico Bovio who had already dealt with the Polyclinic of Rome. The premises were distributed according to a "U" layout on two floors around a monumental staircase; in addition to the patients' rooms there were clinics and radiology and electrical care cabinets. On the first floor, opposite the grand staircase, was built the Surgical Theater, on the reduced-scale model of that of the hospital Pirogov of Moscow - the amphitheater structure could accommodate up to 200 people, it was featuring three large windows and an extensive skylight that allowed in sunlight to illuminate the

operating bed. On either side of the Theater there were, on one side the room of preparation of the sick and the paraphernalia room, on the other the room of disinfection and sterilization. The structure complied with the modern indications that surgery required, introducing, following the discoveries of the late 19th century, asepsis and anesthesia. With the new Theater, Parma surgery he gained an autonomous space for the exercise of the discipline, by not sharing plus, as was the case in the past, the operating theater with the cadaver dissection room, used for diagnostics and student exercise. In this study we analyze the structure of the Surgical Theatre, seeking above all the aspects of modernity in the construction and staging, which reflect the first progress of a discipline of medicine which, during the 20th century, developed techniques and technologies to which the hospital architecture adapted from the outset. The Surgical Clinic building is still existing and has recently been renovated with an intended use different.

Gianfranco Natale (Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa; Museum of Human Anatomy "Filippo Civinini", University of Pisa): "The Anatomical Theatres of Pisa".

This historical research was developed within the THesa (Theatre Science Anatomy) project, which aims at discovering, cataloging and re-evaluating anatomical theatres that arose between the Middle Ages and the first half of the 20th century. In accordance with the spirit of the project, this study was dedicated to the identification of the ancient anatomical theatres of the University of Pisa. The long tradition of anatomical studies began with the presence in Pisa, upon invitation of Cosimo I de' Medici (1519-1574), the second Duke of Florence, of the famous anatomist Andreas Vesalius (1514-1564), considered the father of modern anatomy and author of the masterpiece *De Humani corporis fabrica*, published in 1543, a work that revolutionized the approach to the study of the human body and corrected many mistakes of the previous Galen's tradition. It is precisely with the presence of Vesalius that we have the first documentation of a university anatomical theatre, realized aside the Palazzo della Sapienza. The presence of this theatre was confirmed in *De Re Anatomica* of the anatomists Realdo Colombo (1516-1559). Later, in his work *De anatome corporis humani*, Guido Guidi (1509-1569) described in Pisa an octagonal woody structure. With the development of surgery and the increased number of students, at the end of the 18th century the theatre was moved to the Santa Chiara hospital, undergoing many changes and restorations over time. Later inadequate, a new one was finally set up in the Medical School, built in 1874. Unfortunately, no anatomical theatre has survived in Pisa to this day.

Davide Orsini (University Museum System of Siena, History of Medicine, University of Siena), Mariano Martini (Department of Health Sciences, University of Genoa): “The anatomy theatres in Siena, used by the school of medicine for over six centuries ‘to educate the young and ensure that they acquire the most perfect knowledge of the structure of the human body’”.

The teaching of anatomy in Siena is intertwined with the first evidence of the existence of the Studium at the beginning of the 13th century. In 1240, Frederick II of Swabia contributed to the important role of the teaching of anatomy in medical studies by making the practice of dissecting corpses obligatory. In the same period, his chief physician, the doctor and philosopher Pietro Ispano, taught in Siena.

The presence of Pietro Ispano in the young Sienese University certainly contributed to raising the quality of its medical school, directing it towards the art of dissection.

It was, however, in the following centuries that dissection took on even greater importance in anatomical studies, and there is evidence that specific places were devoted to the practice. Between the 18th century and the first half of the 19th century, Pietro Tabarrani, a pupil of Giovan Battista Morgagni, and Paolo Mascagni used the Anatomy Theatre in the ancient Hospital of Santa Maria della Scala.

While Tabarrani also used dissection as a means of searching for alterations of organs, thereby paving the way to the study of pathological anatomy, Paolo Mascagni enriched the teaching of anatomy through innovative methods of dissection.

Towards the end of the 19th century, the University of Siena inaugurated its new Anatomical Institutes in a separate location from the polyclinic.

The Institutes were equipped with a new anatomy theatre and dissection rooms, and in 1938 a room was dedicated to the teaching of surgical medicine on cadavers.

Through places and characters, the proposed presentation traces the history of a fundamental aspect of medical training.

Davide Orsini (University of Siena), Mariano Martini (University of Genoa), Carla Garbarino (University of Pavia, Museum for the History of Pavia University), Paolo Mazzarello (University of Pavia, Museum for the History of Pavia University): “The ‘Regio Teatro Anatomico di Genova’ and the project by Celestino Foppiani”.

Genoa's "Regio Teatro Anatomico" (Royal Anatomy Theatre) stands on the Acquasola esplanade in the centre of the city, near Villa Serra and the church of the Holy Annunciation in the Portoria district.

Built from 1488 onwards by the Franciscans, together with the adjoining convent, the church had a close link with the Pammatone city hospital, which no longer exists.

Located in an elegant neoclassical style building, now used as a Juvenile Court, the "Royal Anatomy Theatre" was designed by the well-known architect Celestino Foppiani, who was appointed by the Royal Deputation for studies and by the Hospital Council, which included the marquises Serra, Giustianiani and Durazzo.

Erected between 1843 and 1846, the building stands 18 metres high on a rectangular base 28 metres long and approximately 16 metres wide. The façade features seven large windows flanked by 8 Ionic columns, and is surmounted by a serrated cornice on which rests a wide gable with a large oculus in the centre.

On the ground floor of the building there are 6 tondos depicting the profiles of famous anatomists and physiologists, including Vesalius, Eustachi and Morgagni, which clearly testify to the intended purpose of this building, where the corpses from the nearby Pammatone Hospital were brought to be washed and dissected.

Given its link with Pammatone Hospital, the anatomy theatre also served as a training centre for doctors, hospital workers and students of the Royal University; the practicality of transporting corpses from the nearby hospital was the main reason why the "Theatrum Mortuorum" was built in that area.

Flavio Stocco (History of Medicine Researcher, IRCCS San Gallicano Institute, Rome):
"Syncretism between art and medicine: the example of the anatomical theater at the San Gallicano Hospital in Rome".

In 1825 the anatomical theater of San Gallicano Hospital in Rome was inaugurated by Pope Leo XII during his pastoral visit. The construction of the theater takes place between 1820 and 1825. There were various reasons that led to its creation: providing San Gallicano Hospital with a place used for anatomy lessons, the monumentalization policy of Roman hospitals by Pope Della Genga, the revival of anatomical theaters in hospitals at the beginning of the XIX century.

The study presented will focus on the description of the former anatomical theater of San Gallicano Hospital, whose premises have changed use over the centuries, first becoming the hospital's scientific management and then offices of the NIHMP (National Institute of Health,

Migrations and Poverty). The original architectural plans and the economic reports from San Gallicano archival fund testify to the progressive building process of the factory. The anatomical theater has an elliptical shape and is surmounted by a frescoed dome. The side walls are decorated with eighteen medallions with portraits of the most famous doctors and surgeons in the history of medicine, and there is also a bas-relief depicting the legend of the landing in Rome of the snake of Aesculapius. The bibliographic sources complete the history of this anatomical theater testifying the presence of cases in which anatomical preparations -now lost- were exhibited.

Andrea Antonucci (Campus Bio-Medico, University of Rome), Flavio Stocco (IRCCS San Gallicano Institute): “Anatomical knowledge in the San Giacomo in Augusta hospital in Rome: the role of the anatomical theater between the healthcare and academic world”.

The San Giacomo in Augusta hospital was founded in 1339 by will of Pope Benedict XII and it is one of the historic hospitals of Rome. San Giacomo in Augusta is also known by the name of San Giacomo degli Incurabili or in the topographical sense of San Giacomo al Corso. The hospital was born as a place of hospitalization for patients suffering from "incurable" pathologies for the time, i.e. infectious and venereal diseases, and then became a reference center for general surgery. The

study presented will focus on three points: history of the hospital, role of the hospital anatomical theater and its relationship with the Roman academic world.

Over the centuries, San Giacomo in Augusta underwent various architectural interventions, which are inextricably linked to its historical role as a welfare institution intended for the hospitalization of venereal patients. The creation of the anatomical theater in 1780 inside the hospital consolidated the union with the Archiginnasio Romano, today "La Sapienza" University, allowing university students to attend anatomy lessons also in this hospital.

Archive documents have made it possible to analyze the organization of the anatomical dissections carried out within the theater of the San Giacomo hospital in Augusta. These contemporary testimonies allow us to historically contextualize and understand the important role that the anatomical theater had within the Roman hospital and academic world

Francesco Maria Galassi (Department of Anthropology, Faculty of Biology and Environmental Protection, University of Lodz; Department of Anthropology, Faculty of Biology and Environmental Protection, University of Łódź), Elena Varotto Archaeology, College of Humanities, Arts and Social Sciences, Flinders University, Adelaide; FAPAB Research Center, Avola); Francesca Arena, Emanuele Torrisi (FAPAB Research Center, Avola), Antonello Ciccarelli, Samanta Taurone (Department of Movement, Human and Health Sciences-Division of Health Sciences, University of Rome “Foro Italico”), Marco Artico (Department of Sensory Organs, Policlinico Umberto I, Sapienza University of Rome): “The Modica Anatomical Theatre”.

This communication examines the case of the Anatomical Theatre in Modica (Ragusa, Sicily), which is located on the ground floor of the building that houses the famous “Tommaso Campailla” Museum of Medicine, dedicated to the therapeutic innovations in the fight against syphilis introduced by the physician Tommaso Campailla (1668-1740), including special barrels (mercurial stoves) based on a mechanism of inhaling mercury fumes. The Anatomical Theatre was built during the 17th century as a consequence of the construction of other more famous theatres in Padua, Ferrara and Bologna. Thanks to Guccione’s previous studies on the Modican medical school, it was possible to rediscover this anatomical theatre. The present study aims to offer a review of this didactic context, setting it in the broader context of studies on the teaching and evolution of the anatomical art.

Arturo Armone Caruso (Director of Health AIAS of Afragola. Head of the ENT Diagnostics and Nasal Cytology Unit at AIAS of Afragola): “A disappeared anatomical theater and its collection”.

Like all cities, Naples had several anatomical theaters, which unfortunately disappeared. To make matters worse, it was the events of the Second World War that almost destroyed many areas of the city. One of these was the Borgo Loreto, and the adjoining hospital. The hospital in the ancient village, first an orphanage and then a Conservatory of the same name, was founded in 1834. In addition to collecting the sick of the Real Albergo dei Poveri and other hospices, he received the sick of the Civica Milizia dei Pompieri in separate and distinct places. It could accommodate 400 patients, which in extraordinary cases could increase to 600. In addition to the hospital there was an Anatomical theater, whose windows opened into a garden. The anatomical table, preserved there, came from the Teatro dell'Annunziata. Tradition has it that Marco Aurelio Severino (1580-1656) and Domenico

Cotugno (1736-1822) had performed some of their anatomical dissections. Of this anatomical theatre remains only a very small description of Salvatore De Renzi, but what allows us to establish its importance are the evidence of the anatomical collections that were preserved in the museum.

Recently I had the opportunity to trace, in the National Library "Vittorio Emanuele III and in the Library of the Neapolitan Society of Homeland History of Naples, two volumes from which we deduce not only the consistency of the anatomical finds, but also their origin and type. From what can be seen a very high number of "pieces" produced in wax. This last aspect, in my opinion, presents a crucial point in the teaching of anatomy that through scientific ceroplasty, in the "Study" of Naples has contributed in a decisive way in the diffusion of "anatomical" knowledge.

Raffaele De Caro (Full Professor of Human Anatomy, University of Padua, Director of the Reference Center for the Veneto Region for the Preservation and Use of Donated Bodies): "The anatomical theatre in Padua: from Acquapendente to today".

Anatomical Theaters have been, since the dawn of the discipline, the central place for the transmission of morphological knowledge and skills. Originally, the quodlibet model of Anatomy involved the role of the Lector, responsible for presenting Galenic texts, the Sector, who dissected the body, and the Obstensor, tasked with indicating and presenting anatomical structures to the public. Dissections took place in temporary anatomical theaters, erected during the winter months to allow medical students to observe sectoral activities. However, during the Golden Age of Medicine in Padua, the teaching of anatomy underwent a profound revision, resulting in changes to the structure and functions of anatomical theaters. The first revolution was introduced by Andrea Vesalio, who unified the three figures of the quodlibet model and critically reviewed the almost dogmatic teachings of Galenic texts. The second revolution was introduced by Girolamo Fabrici ab Acquapendente, who built in Padua the world's first permanent anatomical theater. The revolutions of Acquapendente and Vesalio still have an impact on the teaching of morphological disciplines, as well as on the organization of spaces and places where anatomical sciences are conveyed to students. Finally, with the advent of modern Body Donation programs and innovative teaching methods, the anatomical theater has evolved from the typical vertical structure with spectators to a shared horizontal space with active students working in synergy with the instructor at multiple sector tables.

In this presentation, we will trace the history of the architecture of anatomical theaters, starting from the wooden anatomical theaters of the 16th century and leading up to the present theaters and virtual dissections.

SESSION II: History and evolution of anatomical dissection.

Stefano Ratti (Department of Biomedical and Neuromotor Sciences, University of Bologna): “Dissecting space and art in anatomy: analyses of the interdisciplinarity and of the ninth art in the anatomical field”.

Anatomical studies generate multiple spaces of research and education characterized by a profound interdisciplinarity. First, anatomy is a grounding space of medical training, and the study of cadavers still represents the gold standard for anatomical education. The ongoing development of medical techniques and biomedical technologies necessitates continuous training, testing and development to increase medical safety and precision medicine. Besides being a space to produce medical knowledge, anatomy generates a site of complex interaction with art, advancing a stable and alluring relationship between scientists and illustrators. The dialectic between anatomy and artistic works aims to communicate the human body, and its potentialities (cadaver dissection), through a vast production of scientific illustration. While artists over time have learned anatomy to capture the shape, proportion, and structure of the human body in their art works, to date a new artistic space, the so-called ninth art, is becoming the medium to scientifically illustrate contemporary body art: comics. An increasing number of projects are using comics to focus on the many nuances of the human body also for the purpose of raising public awareness of certain issues, such as the subjective experience of illness. Similarly, the intrinsic interdisciplinary nature of anatomy connects morphology to the worlds of art and also social sciences, which can help convey important and complex messages regarding the significance of whole-body donation for proper medical education and effective scientific research. The new spaces of human anatomy become the intersection of different disciplines and pop arts like comics might help to reduce communicative barriers also in the anatomical field.

Luigi Papi (Aggregate Professor in Forensic Medicine at the University of Pisa, Department of Surgical Pathology – Forensic Medicine Unit): “The Origins of Anatomical Dissection: From Antiquity to the Middle Ages”.

Not too much information is available about the practice of dissecting human bodies in ancient times, except for Ancient Egyptians who did not forbid the dissection of human bodies, as demonstrated by the Edwin Smith Papyrus, which contains some detailed anatomical descriptions, especially of the brain. In Alexandria, in the 3rd century BC, Herophilus and Erasistratus systematically performed scientific dissection of human corpses, albeit suspected of having performed human vivisection. Human cadaveric dissection was almost completely abandoned for many centuries after that period; it is unclear if human dissections were performed during the domination of the Roman Empire, whereas there is enough evidence that autopsies were performed in Byzantine time. The first written reference to autopsies appeared in 1111 AD and it was that of some soldiers of Norwegian King Sigmurd I Magnusson died on return from Jerusalem. Around the same time, there is an English manuscript (Ashmole 399) containing an image depicting the autopsy of a female cadaver. Even earlier, at least two judicial autopsies were ordered by Pope Innocent III in connection with cases of violence involving men of the church. As far as we know, the first recorded case in Italy of a human body dissection was reported in the Chronicle of Friar Salimbene of Parma in 1286, performed in Cremona for the purposes of investigating the origin of a mysterious epidemic spread between humans and birds. The systematic development of cadaveric dissections took place in the city of Bologna, where, starting from the late 13th century, these were performed for both judicial and scientific-educational purposes, thanks primarily to the work of Mondino de' Liuzzi, author of the first anatomical treatise dating back to 1316. Also Boccaccio mentions in the Decameron the autopsy of a certain Gabriotto who died due to a ruptured aorta. It is wrongly believed that human dissections were strongly prohibited by the Church in the Middle Ages, probably because of the bull *Detestande feritatis* issued by Pope Boniface VIII but the aim of the bull was not the anatomical dissection for medical purpose, but the practice of disembowelling and severing cadavers in order to send or carry their remains to the place reserved for interment. The systematic development of cadaveric dissections took place in the city of Bologna, where, starting from the late 13th century, these were performed for both judicial and scientific-educational purposes, thanks primarily to the work of Mondino de' Liuzzi, author of the first anatomical treatise dating back to 1316. One of the first judicial autopsy was performed in Bologna in 1302 on the cadaver of Azzolino degli Onesti, who was believed to be poisoned but the autopsy revealed a natural (but unclear) cause of death. In the second half of the 15th century, we find the figure of the Florentine physician, Antonio

Benivieni, whose treatise “De abditis nonnullis ac mirandis morborum et sanationum causis”; illustrates 111 clinical cases, including the description of 14 autopsies performed to clarify the causes of death.

Gaspare Baggieri (MelAMi, Art Science and European Culture, Rome), Luigi Galieti (Academy of the History of Health Art, Rome), Santa Lamattina (Campus Bio-Medico University of Rome): “On the ‘open and public’ anatomies of the ancient Consolation Hospital-Rome”.

"Atrium of the Hospital of Consolation (where) Guglielmo Riva famous anatomical of the century / XVII instituted The Academy of anatomy adorned with preparations and emblems as apparatuses / in public receptions precious memory that restored in October 1873 by the deputy / Pietro Pericoli is preserved for example to the scholars of the Pious Institute". He begins with this statement, the only visual testimony of what could have been the place of the "anatomies" (dissections), at the ancient hospital of Santa Maria della Consolazione, today command of the first group of urban policemen of Rome. This inscription, in capital letters, painted and placed at the bottom of the painting by an unknown author, oil on canvas with a golden frame (cm. 67x73), of the seventeenth century entitled "Anatomical Amphitheater of the Hospital of Consolation", is exhibited at the Museum of the History of Health Art and appears to be the only visual documentary evidence of an ancient, even if outdoors, anatomical theater present in the city of Rome. The painting describes the courtyard, where dissections of the corpse took place. There are three characters, two in period costume, another with a surgeon's red cape, who are commenting on the show offered to them by the singular exhibition; the most striking probably could be Guglielmo Riva; A fourth individual, also in a red surgeon's cape, is in the process of leaving the porch. On the façade of the courtyard hang the paintings that reproduce the organs that Riva had painted, pathological preparations dry of parts of the human body. The wall is therefore adorned with paintings of various shapes and sizes. The cross-section of the human body that can be glimpsed to the left of the portico is a reference to the anatomical demonstration on a corpse that took place in 1653 (this news is being verified). The body hanging with the legs dangling, according to some is stuffed, but, probably should not be excluded the draining of blood, (medieval ritual in use in some places of Italy for the purpose of burial). The putrefaction, given the emanation of unpleasant and unbearable odors especially in summer, was contained through the drainage of liquids (blood, bile, urine) which

accelerated, due to reduced dehydration, the start of the mummification process, which could justify and therefore allow a better exploration and preparation of the organs.

Veronica Papa (Department of Economic, Legal, Informatics and Motor Sciences, University of Naples Parthenope, Forensic Anthropology, Paleopathology and Bioarchaeology (FAPAB) Research Center, Avola)), Mauro Vaccarezza (Curtin Medical School, Faculty of Health Sciences, Curtin University, Bentley, Perth; Curtin Health Innovation Research Institute (CHIRI); Faculty of Health Sciences, Curtin University, Bentley, Perth), Elena Varotto (Forensic Anthropology, Paleopathology and Bioarchaeology (FAPAB) Research Center, Avola, Italy, Archaeology, College of Humanities, Arts and Social Sciences, Flinders University, Adelaide), Michele Papa (Laboratory of Neuronal Networks Morphology and System Biology, Department of Mental and Physical Health and Preventive Medicine, University of Campania “Luigi Vanvitelli”), Francesco M. Galassi (Department of Anthropology, Faculty of Biology and Environmental Protection, University of Lodz, Lodz, Poland): “Museums, Ceroplasty, and Anatomical Theaters in modern Naples”.

Over the centuries, the approach to teaching Human Anatomy has undergone evolutions and changes, and even today, determining the best educational approach to this discipline, which has always been at the center of medical studies and related fields, remains a controversial and thorny question. The advent of anatomical dissection for educational purposes dates back to the Middle Ages when the absence of fixing methods made dissection an unrepeatable and irreproducible event. In fact, as early as 1231, in the Constitutions of Melfi, Frederick II of Swabia (1194-1250), the Holy Roman Emperor, decreed that medical schools were required to dissect at least one human body every five years, and attendance was mandatory for all those practicing medicine or surgery. During the Renaissance, the study of organ morphology, topographic relationships, and contiguity began to be seen as an artistic and spiritual exploration of life, suffering, and death. In this perspective, anatomical theaters represent the ideal place to celebrate life through the analysis of death, and ceroplastics is the artistic transposition of anatomy. In Naples, sectoral practice is associated with the names of Domenico Cotugno (1736-1822) and Antonio Nanula (1780-1846). Nanula was responsible for founding the anatomical theater first at the Hospital of the Annunciation and later at the Hospital of San Francesco di Paola. Nanula taught anatomy at the Academy of Fine Arts and expanded his collection of anatomical wax models, highly regarded by the most important physicians of the time for the accuracy of the preparations. These models were displayed in the Anatomical Cabinet of the

Royal University of Naples, of which Nanula was the director until his death. The aim of this study is to trace a historical overview of the art of anatomy in modern Naples, following the contributions of Antonio Nanula, Giuseppe Salerno (1728 – 1792), and Efisio Marini (1835-1900), known as "the petrifier" and a precursor of modern plastination.

Veronica Papa (Forensic Anthropology, Paleopathology and Bioarchaeology (FAPAB) Research Center, Avola; School of Science, Engineering and Health, University of Naples Parthenope), Francesco M. Galassi (Department of Anthropology, Faculty of Biology and Environmental Protection, University of Lodz, Lodz, Poland), Mauro Vaccarezza (Curtin Medical School, Faculty of Health Sciences, Curtin University, Bentley, Perth; Curtin Health Innovation Research Institute (CHIRI); Faculty of Health Sciences, Curtin University, Bentley, Perth), Valeria Bertagnolo (Department of Translational Medicine and for Romagna, University of Ferrara): "From The Anatomy Theatre of University of Ferrara to the Modern Digital Anatomy "Theatres" of Today: Evolution of Anatomy Teaching and Learning".

The construction of the Anatomical Theater of Ferrara (located in Palazzo Paradiso, University headquarters since 1567) dates back to the years 1731-1732 and is the result of the collaboration between Giacinto Agnelli, doctor and anatomist, and the architect Francesco Muzzarelli. Recently restored, it represents the past method of practice of anatomical teaching and learning, together with other anatomical theaters preserved in Italy and abroad. Modern anatomical pedagogy is no longer possible in historic places, human anatomy and dissection are increasingly reproduced in video, digital and images. The "theater" has been supplanted by computers or digital devices, including the Anatomage table or augmented virtual reality tools that are increasingly used in anatomical pedagogy. We have witnessed and we are witnessing the evolution and change regarding procedures, teaching and learning of human anatomy. What is the best teaching approach to this discipline remains a controversial question. The use of anatomical dissection is much more than a simple pedagogical tool for the study of the morphology of organs and tissues: experimental evidence has shown that the environment in which anatomical knowledge is acquired could help improve humanistic skills and the development of the doctor-patient relationship. The present study examines modern anatomical pedagogies trying to give a "recipe" in step with the times, however keeping dissection and its most recent developments as a starting point.

R. Allen Shotwell (Ivy Tech Community College): “‘Teste sensu’ Berengario da Carpi and the role of dissection in studying anatomy”.

In 1521, the Bolognese anatomist, Berengario da Carpi, published his commentary on a medieval anatomical text where he described a method of studying anatomy through the combination of texts and dissection. As I will describe in this talk, Berengario saw dissection as a way to establish the truth among conflicting accounts found in a wide range of sources. He exhorted his readers to first digest everything written about anatomy, by moderns as well as the ancients, and then to employ dissection to “distinguish” the truth when they disagreed. Berengario generally used a standard phrase, “teste sensu” (roughly, “according to the senses”) in his comments, to signal his use of dissection. Sometimes, he combined books and bodies into one phrase (e.g. “teste sensu et teste Avicenna”). Despite the simplicity of the phrasing, Berengario understood that the senses, like the texts, involved complex forms of knowledge that required expert interpretation to understand. We can see Berengario employ his method throughout the commentary, but I will focus on the specific example of the abdominal muscles, a subject that Berengario devoted more than fifty folio pages and six of his twenty-one illustrations to explaining. His text explained the complications caused by centuries of discussion of the muscles in multiple languages, and the illustrations helped the reader to work through how observations needed to be mediated by an understanding of the subject, emphasizing the difference between images that reflected what could actually be seen by the senses and those that were contrived to display how the reader should understand the conflicting accounts found in the literature.

Tricia Close-Koenig (Université de Strasbourg): “From anatomy to pathological anatomy. Mobilizing bodies and materials in the anatomy theatre, Strasbourg, 16th to 21st century”.

The Pathological Anatomy Institute in Strasbourg has an anatomy theatre. It was built in 1877 and was used for teaching until about 2000. But it is one piece of a longer history of anatomy in Strasbourg, where the first human anatomy demonstration took place in 1517, one of the first in Germanic territory, under the direction of W.H. van Brackenaw, who had studied medicine in Bologna. Thereafter public and practical dissections were somewhat regular events in Strasbourg. In 1670, J.A. Sebiz, the first chair of anatomy, had an anatomy theatre installed in the abandoned chapel adjoining the hospital. This was a place of dissection, but also of teaching and of medical collection preparation, over the 17th to 19th

centuries, with the medical school, previously located with the other university faculties in another part of the city, moving into a building adjacent to the theatre and the hospital in 1857. After the German annexation, new pathology and anatomy institutes – a temple to science in size and architectural style – were built in 1877, the old anatomy theatre fell into disuse and was dismantled. The new Anatomisches Institut did not have an anatomy theatre. However, an anatomy theatre was built in the Pathologisches Institut, which still stands and was used for teaching pathological anatomy until 2000. This presentation will highlight how pathological anatomy developed within the anatomical theatre in Strasbourg and how practices shifted until the theatre was located in pathological anatomy and not anatomy. The story will weave together the architecture, location, personnel, teaching and research practices, and especially the materiality of anatomy. And a final note will recount the current use of the theatre and the shift of the gaze from the dissection table to an exhibit of photographs depicting changing hospital spaces.

SESSION III: Anatomy between Social and Cultural Aspects

Leslie Malland (Southern University A&M): “Cultural Intersections in the Spaces of Anatomy Theatres”.

Malland’s work centers upon the human body, its place in time and space, and its significant cultural impacts not just as biomaterial, but also as cultural signifiers. The Spaces of Renaissance Anatomy Theatre locates cultural intersections from within the spaces of anatomical research, looking outward to spaces beyond the theatre to identify the cultural impacts of anatomical research in Europe throughout the sixteenth century. Her research continues to argue that the space of anatomical influence is not solely in the physical theatre. Rather, it encompasses every aspect of early modern culture, from its education systems, art, and writing to its concepts of identity, citizenship, and the natural world. She examines not just the power that anatomy itself swayed over society, but the power of the anatomist to codify terminology and establish societal norms, thus, disciplining spaces beyond the anatomy theatre, beyond the public sphere, and into the private lives of citizens. Her current project reveals anatomical research’s impact on midwifery practices and education. In particular, she explores how patriarchal dominance made its way into one of the only spaces where women held power – reproductive health care — as evidenced by anatomy manuals and physicians’ guides.

Chiara Mascardi (Independent researcher) “Anatomical theatres and Theatre: an interdisciplinary history”.

Anatomical theatres shared not only nomenclature but also a confluence of origins, architectural configurations, sociocultural values and urban integration with their theatrical counterparts. Both the early spaces used for dissection and the ones for performances drew inspiration from Greek and Latin texts and vestiges of antiquity. Over successive epochs, a commensurate trajectory was observed in their evolutionary paradigms, transitioning from provisional edifices to permanent buildings representing royal courts, academic citadels, or erudite enclaves. The public dissemination of anatomical knowledge coalesced with the revelry of Carnival, thereby converging didactic exposition with festal conviviality. The eighteenth and nineteenth centuries delineates a divergence in theatre's trajectory, marked by increasingly ostentatious *mise en scène*, nevertheless, an undercurrent of cross-pollination persisted, witnessed in the reciprocal exchange of skilled artisans, architects, and artists. It is imperative to note the transmutation of anatomical pedagogy from the festive sphere to an enclave of didactic sequestration, confined exclusively to erudite acolytes and conducted within a milieu of antiseptic precision. In the modern context, anatomical theatres assume a mantle of inspiration for theatrical narratives and scenographic tableaux, marshalled to accentuate the corporeal centrality within performative praxis or to instantiate innovative modalities of experimentation. My intervention offers an exploration of the historical interweave binding anatomical theatres and the dramatic arts, affording particular attention to their developmental convergences within the urban context of Bologna.

Roberto Cuppone (University of Genoa, Theatral Academy Carlo Goldoni): “Thou, map of woe”.

“Speechlesse complayner, I will learne thy thought: / In thy dumb action, will I be as perfect / As begging hermits in their holy prayers”: thus Shakespeare’s *Titus Andronicus*, an elderly father in front of his daughter’s slaughtered body, calls himself to the interpretation of his silent representations, to the point of consulting her as a “map of woe”, an authentic cartography of pains. *Dramatic theatres* are *anatomical theatres*, as much as these ones are *de facto* dramatic - it is not a metaphor: an overview of theatrical exempla, subjected to the gaze of anthropology, can testify to this reciprocity; that is, how in the body the search for an ‘anatomy’ takes the form of dramaturgy because basically both derive from the same ritual,

from the need to verify a whole is not the simple sum of the parts - a “body without organs”, as Antonin Artaud would say: “the theatrical act aims at the true organic and physical transformation of the human body [...] the theatre is not [...] a stage parade in which someone develops virtually and physically a myth, but [...] a crucible of fire and real flesh in which anatomically, by trampling bones, limbs and syllables, bodies are remade, and the mythical act of making a body is physically and naturally presented” (*The theatre and science*).

Jens Kraushaar (PhD candidate at the research training group media anthropology, Bauhaus University Weimar): “The Discussion of the One-sex Model by the Fabrica of Andreas Vesalius”.

The subject of the investigation is found in the anatomical publications of Andreas Vesalius. Numerous illustrations of human body (parts) visualize it and thus transfer it as a pictorial medium into the realm of medical-scientific teaching. The anatomical atlas of the Fabrica of Andreas Vesalius is, roughly speaking, a conglomerate of medical updates of existing knowledge, detailed descriptions of the individual body parts and their functions as well as several illustrations of the human body, muscle parts and the bone structure of the skeleton. From the rich body of knowledge in the literature on the history of anatomical development, my project is limited to visualizations of the sexual body. In doing so, art-historical and cultural-scientific findings are brought together, whereby as an interdisciplinary bundling of different theoretical aspects the discussion about the gender model of Thomas Laqueur is to be pursued. Laqueur's theorem of the one- or two-gender model is established in the publication "Making Sex". He uses illustrations from various anatomy books to objectify his model. Ultimately, he detaches the images from their actual text-image relationship and instrumentalizes them for his body-historical treatise. His investigation is a study conceived as a cultural-historical analysis, devoted to a large period of time, from antiquity to Freud. According to him, the polarization of the sexes before the 17th century did not yet exist. He describes the relationship of male to female bodies in the pre-modern period in that the standard of human bodies and its representation was the male body. Accordingly, the model of one sex dominated thinking about sexual difference from classical antiquity to the end of the 17th century. My project takes Laqueur's model under the microscope and examines how the relationship between body and image was actually determined in the anatomical theater of the 16th century. For Vesalius sought to aestheticize the body through common

conventions of representation. The project attempts to direct attention to possible alternative perspectives that lead to an understanding of the body beyond Laqueur's modeledness.

Giovan Battista Ivan Polichetti (Department of Mental Health and Pathological Addictions of AUSL Romagna): “The location of the soul (enthusiasm and disillusionment in the research of the anatomical mind)”.

Even before the word “brain” was used in the Medicine of the Egyptian papyri and until the second half of the twentieth century (when the Neurosciences were born) there is an impressive amount of attempts for the localization of the mind in the body (also searched as soul, spirit, conscience, etc.). At a certain moment René Descartes literally imposed his own, undoubtedly dualistic, model: mind and body are two separate “things”, and between them only a point of contact is possible, so he even thought he had identified it with extreme precision. In the same period someone believed, however, that only God knew (Henricus Regius). And someone else had also hypothesized, shortly before, that soul and body weren't simply separated, but even soul and mind were two distinct things, and even too that there were two distinct minds, one “in se subsistens, alia in corpore” (Nicola from Cusa). Yet no attempt, before or since, has truly unveiled the mystery. This intervention aims to shed some light on the subject by systematizing the most significant of those attempts, certainly through the finest dissections practiced in anatomical theaters, but also, and often, outside these places.

Paolo Gerbaldo (University of Turin): “Looking at anatomical theaters in Italy and Germany a tool for disseminating knowledge in the travel observations of two Piedmontese doctors: Giovanni Battista Balbis and Bernardino Bertini”.

Travel is undoubtedly a valuable tool for expanding one's knowledge, as exemplified by the practice of medical journeys. This contribution aims to examine two of these journeys, undertaken in different periods and contexts, to explore the role of anatomical theaters within these itineraries of medical study and training in the visited territories. The first of the medical journeys under examination is the one carried out in Italy between 1792 and 1793 by the Piedmontese doctor Giovanni Battista Balbis (1765-1831). The second journey pertains to Bernardino Bertini (1786-1857), a doctor who, in the summer of 1837, traveled in

German-speaking countries and then published his observations in the book "Viaggio in Germania" in 1838. Drawing from the writings of these two doctors, this contribution aims to address various aspects related to the presence of anatomical theaters in the context of medical journeys. It explores the space dedicated to anatomical theaters within the reports, their relationship with the urban environments that host them, universities, hospitals, and museums. During his extensive journey through German-speaking countries, Bernardino Bertini, more so than Balbis, delves into the multifaceted reality of the Germanic world, utilizing the interpretive prism offered by emerging health statistics. Data collection is at the core of his visits, aiming to provide quantitative information about the number of healthcare professionals active in different cities relative to the population, the presence of hospitals, the number of hospital beds, prevalent diseases, and not forgetting anatomical theaters, universities, medical curriculum catalogs, and the count of professors and students. In this way, the focus on anatomical theaters fits into a comprehensive framework that certifies the advanced organization of a healthcare model, identified by Bertini as an important reference point.

Massimo Aliverti (University of Insubria): "On Niels Stensen's Speech in 1673 on the Occasion of the Reopening of the Anatomical Theater in Copenhagen".

The report focuses on the speech delivered by the Danish physician Niels Stensen in 1673 in Copenhagen, just before commencing his anatomical demonstrations in the anatomical theater, which had recently reopened after several years of closure.

Niels Stensen, also known by his Latin name Nicolaus Steno, was a significant Danish scientist who dedicated himself with equal commitment and passion to both anatomy and geology. Born in Copenhagen in 1638 to a Protestant family, he earned his medical degree at the University of Leiden in the Netherlands. After a brief stay in Paris, he relocated to Tuscany, where he spent several years in the Medici court. During this period, he converted to Catholicism and later became an ordained priest, quickly rising to the rank of bishop. After permanently abandoning his scientific pursuits, he was sent by the Pope to northern Germany to proselytize among a predominantly Protestant population. He passed away during this mission in Schwerin in 1686. Shortly after his death, his remains were brought back to his adopted homeland, and he was buried in the Church of San Lorenzo in Florence. Between 1672 and 1674, Stensen returned briefly to Denmark, having received an appointment from King Christian V to oversee the local university's anatomical institute and

conduct public dissections of humans and animals. As a prelude to this course, which was to take place in the anatomical theater established by Simone Paulli in 1645 and made famous for the dissection activities carried out by Thomas Bartholin between 1649 and 1656, the anatomist delivered the speech discussed in this work. This prelude clearly highlights Stensen's gradual shift away from the medical-scientific domain towards an increasingly religious-pastoral sphere.

NOVEMBER 18th

SESSION IV: Theatre as a museum space, perspectives and case studies.

Lucas Evers (Waag's Open Wetlab and Maker programme): "The dissecting dissected".

In 1632 Rembrandt van Rijn painted The Anatomy lesson of Dr. Nicolaes Tulp. In 1691 the surgeons' guild of which Tulp had been a member, received approval to build the Theatrum Anatomicum in the Waag building, that would function as dissection theatre for medical-scientific observation, experimentation and education, a practice that would remain in the building for about 200 years. In the beginning an academic activity, later a more general audience was admitted to the than public dissection performances.

What effort was needed to establish such a space; what power permitted it to be?

Nowadays Waag Futurelab, an organization researching public values of quotidian and emerging technologies within society uses the Theatrum Anatomicum for events. Many of those can be understood as the metaphorical dissection of technology to create a value oriented public understanding of these technologies. Events reflecting on gene editing techniques such as CRISPR Cas9 and iPSC, but also AI, blockchain and the internet of things, to the excluding effects of the digital transition of society at large.

If technology can be perceived as culture, what then is it that is dissected in the contemporary use of the Theatrum Anatomicum? And, in the light of that question, but also in the historical context of this performative space, who is dissecting and who is dissected?

Chiara Ianeselli (Independent Researcher): “Past, present and future of Anatomy Theatres”.

What activities presently define the life and functions of anatomical theatres, and how might their forthcoming prospects unfold, through their governing bodies? This preliminary inquiry delves into the potential evolutionary trajectories of anatomical theatres beyond their conventional roles, raising the fundamental question of whether these spaces are destined to be relegated to museum status or if they can be revitalized through interdisciplinary engagements.

Anatomical theatres, renowned for their historical prominence as pedagogical venues for medical instruction, have undergone transformations over time. This study delves into the intersections of social, cultural, educational shifts that have shaped these theatre's present status and potential futures. What are the current uses and functions attributed to anatomy theatres? Is their role in society only of a vestige of the past? As repositories and safe harbours for the crossing of disciplines, what kind of subjects can contribute to enhancing their history? By scrutinizing the past and present functions of anatomical theatres, this abstract seeks to provoke discussions about their evolving role, ensuring that their significance is contextualized and optimized for the demands of the current society. A selection of exhibitions projects, performative actions and lectures will be presented as examples of contemporary re-inventions of the theatres. This preliminary investigation underscores the transformative potential of anatomical theatres, casting aside conventional notions of their destiny as static museum artifacts. By envisioning these spaces as dynamic hubs of cross-disciplinary exploration, this study sets the stage for an examination of the multifaceted roles that anatomical theatres can assume in shaping the future of education and knowledge dissemination.

Tanja Kilzer (University of Trier): “The theatrum anatomicum of the University of Bonn (Germany) - History, Architecture and its Conversion into an Academic Art Museum”.

When the University of Bonn was reestablished in 1815, a neoclassical building was created for the Anatomical Institute (finished 1825) in the immediate vicinity of the main building, the Electoral Palace. Characteristic is a striking rotunda, which was designed as a theatrum anatomicum. The building, which was created by the famous German architect Karl Friedrich Schinkel, who achieved great fame in Berlin for his museum buildings, can be described as remarkable. Schinkel decided to create a balance of height and diameter that would give the

theatrum anatomicum a special atmosphere. Extensive fenestration provided sufficient light, while rising wooden spectator benches bore resemblance to theater seating. It was planned in the style of the Berlin veterinary school, whose theatrum anatomicum was based on the structure of the anatomical theater of the University of Padua (1594). They are also architectural similarities to Palladio's Villa Rotonda. Through the architectural reference, the Bonn building can be placed in an architectural-historical line that can be traced back through Prussia to Italy. As early as 1872, a new building was constructed due to growing student numbers, which meant that the old anatomy as well as the theatrum anatomicum were soon converted into a university museum. The university used the building as an exhibition space for its collection of antiquities and plaster casts, which was staged to great effect.

For the perfect staging, the rooms were redesigned but retained their former formal language. This resulted in the theatrum anatomicum becoming a magnificent presentation space for ancient sculptures as well as a teaching space for students of archaeology and art history. The lecture will look at the architecture of the original building and the lines of inspiration for its architectural language. In addition, the further use of the building will be discussed, which is of interest due to its early museum conversion.

Marion Maria Ruisinger (Deutsches Medizinhistorisches Museum): “The Anatomical Theatre of the University of Bavaria in Ingolstadt. A story of rise, decline and re-invention (1723 – 2023)”.

In 1723, the foundation-stone was laid for a gracious new building at the precincts of the town of Ingolstadt. From 1735 to 1800, it served as an “Exercitien Gebäude” for the Medical Faculty of the University of Bavaria, i.e., as an edifice for the practical aspects of medical teaching – first and foremost the teaching of anatomy. The most spacious (and most beautifully decorated) room in the very heart of the building was used as anatomical theatre. Its structure was inspired by the model of Padua, where some of the Ingolstadt professors had been trained. This was the very first time in the German speaking countries that a new building was erected for the study of anatomy. In 1800, the university was moved from Ingolstadt to Landshut and later on to Munich. The building (which today is known as “Old Anatomy”) lost its academic function, was turned into private property and used for different purposes. According to the needs of its new owners, baroque elements were removed and diverse annexes erected. In the 1960ies, the original structure of the building was hardly recognisable any more. In spite of these substantial alterations, the city council decided to

restore the building to its old splendour. Thus, in 1972, the freshly renovated building housed an exhibition celebrating the 500th anniversary of the foundation of the University of Bavaria. In the following year the "German Museum for the History of Medicine" was opened in the Old Anatomy. In the first part of my presentation, I want to outline the rise, decline and re-invention of the Ingolstadt anatomical building and its adjacent "hortus medicus". The second part deals with the origin of the corpses which were used for dissections in this very building; this part of my speech is based on research performed in the archives of the diocese of Eichstätt.

Andrea Pacini (Independent Researcher): "The Anatomical Theatre La Vida in Venice: Between Touristification and Preservation of Scientific Memory".

The history of the Anatomical Theatre, known as "La Vida" in Campo San Giacomo dall'Orto in Venice dates back to 1671 when, thanks to a donation from Lorenzo Loredan, it was inaugurated, fulfilling the desire expressed as early as 1480 by the physician Alessandro Benedetti to provide the city with a facility for the study of cadavers. The epidemics of the 17th century had necessitated new spaces for science, and for the first time, a private individual showed interest in creating a "common good." For over 150 years, La Vida served as archives, library and faculty of medicine, as well as a school of midwifery, the first to admit women. In 1980, after a series of transformations, the Theatre came under the management of the Province and, recently, it was sold to private individuals. The news of its potential transformation into a restaurant, despite urban planning constraints, led some of the local population to occupy, or in their own words, "re-open" the Palace to the public, organizing events, performances, and workshops, to keep alive the idea of a "common good" that had animated it for centuries. Despite the eviction, the initiative continued in the space in front of the Palace, under a gazebo, to maintain attention on a building that is part of Venice's history and culture. Campo San Giacomo is one of the few places in Venice still densely populated by residents, where inhabitants have managed to maintain spaces for social interaction in the form of a shared community. Preserving the Theatre and its history means preserving the scientific and humanistic "soul" of Venice itself. The Covid-19 pandemic has abruptly halted the social movements that were the cornerstone of community gatherings. In a city undergoing rapid touristification and gentrification, the medical and civic history that the Palace represents must be preserved and repurposed to avoid losing its memory.

SESSION V: Artists and Theaters of Anatomy

Thomas Schnalke (Berlin Museum of Medical History at the Charité): “Directing Views. The anatomical theatre and the depiction of the human body”.

When the anatomical theatre was conceptualized in northern Italy as an eminent medical space to study anatomy in the late 15th century, it opened new perspectives into the human body. Moreover, it directed the views of the viewers explicitly and implicitly onto certain structures, organs, and functional units of the human organism. Mainly for the purpose of teaching anatomy, the studies in the anatomical theatre resulted in anatomical images which gained iconic status, beginning most prominently with the illustrated textbook of Andreas Vesalius. In my talk I want to follow the approaches of directing the anatomical view in the anatomical theatre by delving into a selection of anatomical theatres in different settings. I will question core motifs of anatomical imagery derived from them and consider how, in the 18th century, public medical displays in northern Italy adapted the spatial concept of the anatomical theatre to create a fully integrated representation of the human anatomy in the heyday of enlightened medicine.

Frank IJpma (University Medical Center Groningen): “Attending an anatomy lesson of the Amsterdam Guild of Surgeons”.

In 1632, Rembrandt painted his masterpiece known as ‘The Anatomy Lesson of Nicolaes Tulp’. The painting should be placed in the series of nine ‘anatomy lessons’, paintings created for the Guild in the 17th and 18th centuries. The purpose of the paintings was to commemorate the lecturers and board members of the Surgeons’ Guild. At that time, all anatomy lessons were on display on the walls of the Surgeons’ Guild room in the Weigh house (Waag) at the Nieuwmarkt in Amsterdam, and should be considered the unique art collection of the Guild. It was no coincidence that the painters and the surgeons chose to use the theme ‘anatomy lesson’ in the group portraits. The anatomical demonstrations, annually organized by the guild, were of course major events for the surgeons. Yet, to what extent are these paintings true representations of the anatomical dissections that were actually performed in the Theatrum Anatomicum of the surgeons? The original guild records of the surgeons have been preserved for centuries and provide firsthand accounts of what really happened at the dissection table. By revisiting the original

guild regulations, dissection reports, and examination books, we can get a glimpse of what it was like 'to attend a Dutch anatomy lesson' during the Golden Age.

Sabernig Katharina (University of Applied Arts Vienna): “Performing Knitted Anatomy”.

One of the biggest challenges in three-dimensional anatomical presentation is the material used for display. This applies to ethical issues of production and the psychological effect of viewing, as well as properties such as flexibility and durability. After studying historical anatomical representations in both Europe and Asia for some time, the present author was looking for ways to visualize the inside of the body without causing disgust on the part of the viewer. In 2015, she began producing knitted objects that are claimed to be as accurate and medically correct as traditional wax or papier-mâché replicas or even the plastinates of Gunther von Hagens, presenting original human material to the public. Several exhibitions and numerous lectures have shown that anatomical content in knitted representation is perceived as surprisingly pleasant and familiar. It seems that the wool awakens a need to look attentively at or even touch anatomical structures. Rather than invoking a natural feeling of disgust, it fosters a positive attitude towards the internal structures of the body. Following these encouraging initial steps, it was just another to create a performance with knitted objects. I am currently developing this performance for the Johannes Kepler University Linz in Upper Austria. It attempts to find contemporary solutions to a range of critical issues to engage different audiences, including children as well as medical professionals, vulnerable people, or simply art lovers. One problem with historical theaters was that the objects could not be seen too clearly from about the second or third row. Today, in an era of livestreaming, video walls, and computer animation, it's likely that this problem has been resolved. The theater is part of my current project 'Knitted Body Materiality' (AR 705 G) which is supported by the Austrian Science Fund and realized at the University of Applied Arts Vienna.

Di Fan (University of Strasbourg): “From Anatomists to Artists, from Dissections to Engravings: Unraveling the Impact of Andreas Vesalius’s Fabrica on Odoardo Fialetti Muscle-Men Drawings”.

In the history of early modern anatomy, Odoardo Fialetti (1573-1638) held a significant place as a draftsman of anatomical engravings. His depictions of muscular figures demonstrated a clear continuity with the fourteen muscle-men featured in Andreas Vesalius's

Fabrica, likely rendered by Jan van Calcar and executed by Domenico Campagnola. Fialetti's

work also reveals his innovative concepts and aesthetic contributions. He appeared to have enjoyed greater artistic freedom on his copper plates, while Vesalius seemed to have exerted

dominance over the creation of woodcuts for the *Fabrica*. This study aims to explore the influence of the *Fabrica* on Fialetti's visualization of his muscle-men, delving into the artistic and scientific exchange between Fialetti, the artist, and Vesalius, the anatomist, spanning across time. The study also sheds light on how Fialetti potentially distinguished himself from his predecessors in early modern anatomical drawings. Fialetti's muscle-men feature a composition generally similar to that of the *Fabrica*, portraying the figures against naturalistic landscapes, on the outskirts of a city, or amidst plants. In line with the *Fabrica*, Fialetti drew inspiration from recently discovered Hellenistic sculptures, which were disseminated through printed engravings, thereby influencing artists and scholars of the period. However, noteworthy differences emerge in Fialetti's work. One divergence is the less pronounced depth of field compared to the *Fabrica*, resulting in enlarged figures that emphasize the subject but reduce the surrounding landscape. Furthermore, unlike Vesalius's engravings of muscle-men that primarily focus on the dissection of the musculature, Fialetti's engravings concentrate on the dissection of the torso, even though the entire body is depicted. Additionally, while the *Fabrica* exclusively portrays complete body figures against a landscape backdrop, Fialetti includes dissections of the lower limbs alone, which appear disproportionately enormous. Consequently, although the two sets of engravings can be considered related, they also present notable distinctions.

Mariana de Figueiredo Sousa, Alice Nogueira Alves, Lia Lucas Neto (University of Lisbon): "The students of Medicine and Fine Arts at Lisbon's Anatomical Theatres and the two anatomical drawing collections of the University of Lisbon".

Anatomy in Portugal has always been one of the essential disciplines in medical education. During the beginning of the 19th century, anatomical knowledge was more theoretical, the teacher spoke, and the student listened and repeated. That began to change with the teaching reform of 1836, with dissection sessions open to students and the public and the appearance of the Anatomical Theater, a space in an amphitheater format. The cadavers

used belonged to the not claimed deceased in hospitals or nursing homes. In 1836, the Medical-Surgical School and the Academy of Fine Arts of Lisbon were founded, and formed a partnership in 1865 for the qualified teaching of Anatomy to students from both schools. These classes allowed scientific and accurate knowledge from observation and representation of natural models. From this meeting point between Medicine and Arts students arise two anatomical drawing collections belonging to the current Faculties of Medicine and Fine Arts of Lisbon, dating from the first half of the 20th century, with more than 2800 drawings. These exceptional collections include works by some of the main Portuguese artists from the 20th century donated to the schools due to their quality and scientific rigor. Anatomy professors, like António Serrano and Henrique Vilhena, were extremely demanding with medical students but lenient with art students, allowing representations with complete plastic freedom. These classes are represented in two national paintings, in both Professor Henrique Vilhena is observing a corpse with Medicine and Arts students in the Anatomical Theatre. This professor was responsible for starting one of the anatomical drawings collections and founded the Anatomy Institute and its archive, where we find publications illustrated with drawings from the collection we are studying. The cultural interest in these heritage led to a doctoral grant (2021.08408.BD) for their study, preservation, and dissemination.

Dora Reglodi, Karina Horgas, Emese Uzelman, Inez Bosnyak, Liliana Lucas, Marta Nyilas (University of Pecs): “Modern aspects of an old tradition: connection between anatomy and art”.

The connection between art and anatomy has a long tradition, as artists have always helped anatomists in depicting structures and editing books and atlases. Also, anatomy is important for artists, arts students learn surface and skeletal anatomy in detail. The aim of this presentation is to show our programs between the Department of Anatomy and Faculty of Arts. We have a common course where medical students and art students make together histology pictures. Art students come to the dissecting rooms to study dissected human bodies. Anatomy experts take part in the training of sculptor students. We are organizing several exhibitions with different topics. An elective course, “Borderline anatomy” discusses arts and anatomy on numerous occasions. Medical students have to submit their own presentations at the end of the course, which can also be a piece of art, or a report of a museum visit with anatomical relations. And as far as “anatomical theaters” are concerned, artists often come and use the anatomical preparations and dissected bodies as their models, which results in beautiful paintings and other pieces of art. In summary, artists keep

using anatomy and anatomy keeps using art, in spite of all the modern digital techniques available.

Charlotte Dewarumez-Minot (University of Toulouse Jean Jaurès): “Debates around the Artistic Dimension of Anatomical Illustrations in the Nineteenth Century”.

« Even in the first invention of our best anatomical figures, we see a continual struggle between the anatomist and the painter ; one striving for elegance of form, the other insisting upon accuracy of representation. ». Images have always been a subject of concern for scientists : what is the purpose of these illustrations ? What deserves to be represented and how ? In the early modern period, studying nature was a way to understand God's creation. Because of that, medical illustrations often contained symbols, metaphors and philosophical thoughts. Cadavers were represented as "alive", in theatrical positioning, because, as the human body is a central theme in art, illustrators took conventions, forms and gestures that already existed. The ideas of truth and beauty were also deeply linked. At the end of the eighteenth century and beginning of the nineteenth century, there is a turning point in the paradigm of medicine. Anatomists and physicians begin to value clinical experience and dissection, and search into dead bodies for answers about the living world. In this context, there is a new need for images that are faithful to reality. As the idea of objectivity slowly appears, scientists became aware of the biases that existed in their work and their relationship with illustrators, and tried to produce plates that are deprived of artistic elements. Our research aims to demonstrate that these attempts to separate art and science in anatomical drawings are part of a complex problem that spans the nineteenth century. Through three emblematic examples – John Bell, Engravings (1794) ; Jules Cloquet, Anatomie de l'homme (1821-1831) ; and Francis Sibson, Medical Anatomy (1869) – our presentation will illustrate the difficulties that anatomists and physicians have in removing the aesthetic dimension from their plates, despite a representation of specific cases and an apparently objective speech.

Maximilian Geiger (Bergische Universität Wuppertal): “The contribution of nature in the 16th century to the genesis of anatomical knowledge and its representation”.

This paper deals with the epistemological impact of landscape painting in the 16th century on the representation and knowledge of the human body. Depictions of the human body and of its morphology in treatises like Johann Dryander's “Anatomiae” depend on their localization in natural surroundings. In Dryander's book, the standing of the body is underlined by botanical elements in the foreground. The strategies for visualizing the figures will be traced to Andreas Vesalius' “De fabrica”, where the horizon is used as a background for the figures and their physical structures. With a third treatise, Charles Estienne's “De dissectione”, it becomes apparent that the bodies' morphology relates to the morphology of the natural surroundings, which is emphasized at the lower and vertical boundaries of the pictorial space. Besides antique sculptures used as examples for the anatomical models, the depiction of nature shows the artistic dimension of the representation of anatomical knowledge, and its relevance is underlined by the integration of the “fall of man in paradise” in the print of the anatomical theatre at Leiden (1610). Further, Vesalius explicitly wanted his treatise to be used by artists, which brings up the supposition that he considered certain pictorial qualities within the illustrations of his text. The illustrations meant a great deal in transferring anatomical knowledge of the human body, and the natural surroundings shaped the pictorial space and the bodies depicted in it. These will be regarded in the context of the aesthetic and epistemological structures that resulted from the development of landscape painting. With the “Weltlandschaft” in the early 16th century, e.g., the “cogitatio” – a structure of human perception in early modern sources on the human mind – was activated. Thus, my paper will reveal the interrelationship between perceptual structures and the visualization of anatomical knowledge.

Paola Saccheri, Luciana Travan (University of Udine): “Donatello and the anatomy”.

The use of lifecasts by Donatello (1386-1466) has been hypothesized several times especially in relation to the practice of bronze fusion performed by him before and after the time he spent in Padua (1443-1454). After all “imprementare”, namely casting face and other parts of body, was a fundamental part of Renaissance artist expertise, as highlighted by Cennino Cennini in his Libro dell'arte. In addition, Donatello might have possibly improved his knowledge of the structure of human body attending some anatomical dissections during the time he spent in Padua.

In 2013, two of the four still surviving monumental wooden works performed by the Florentine artist were simultaneously restored: the big wooden Crucifix of the Servi's church in Padua and the penitent Maddalena. The Crucifix, probably carved between 1440 and 1445, possibly during the same time of the fusion of the bronze Christ located in the church of Santo in Padua, was restored by the Laboratory of the Soprintendenza per i beni storici, artistici ed etnoantropologici del Friuli Venezia Giulia. It was "rediscovered" in 2008, after a long career as a relic after its bleeding during the Holy Week in 1512. The penitent Maddalena, carved between 1440 and 1442 and now preserved in the Opera del Duomo museum in Florence, has been restored again, forty years after the recovery intervention which followed the flooding of the Arno river, at the Opificio delle Pietre Dure in Florence. This anatomical and anthropometric study has been done at the time of restoration of the two great wooden works. At the same time, the *de visu* comparative study has been done of the other two monumental Crucifixes: the one situated in the church of Santa Croce in Florence (1408-09 approximately), the oldest Donatello's surviving work cited by ancient literary sources, and the bronze Christ in the church of Santo in Padua.

Michele Amedei (Art Historian, University of Pisa): “Artistic training and scientific knowledge: the primacy of Rome in the study of the ‘fabrica umana’ for French and Italian artists in the second half of the 18th century”.

The paper opens up a new research perspective on the little-known relations between the Roman artistic and scientific worlds at the end of the 18th century. In particular, it focuses on the participation of Italian and French artists in dissections organised by anatomical theatres such as the one in Santo Spirito in Sassia and the one once next to the church of San Luigi dei Francesi. At this time, Rome joined cities such as Florence and Padua in the study of the ‘fabrica umana’, becoming an important centre for European debate in this field. The presence in the city of anatomists such as the unknown Segulier, a French physician with whom the sculptor Jean-Antoine Houdon (1741-1828) attended anatomy lessons in the anatomical theatre of the Hospital of San Luigi dei Francesi, creating the well-known *Écorché* (1766), strengthened the exchange between the artistic and medical worlds that had already matured since 1691. That year, *Anatomia per uso et intelligenza del disegno* was published at the behest of Charles Errard (1606-1689), director of the Académie de France in Rome. Although it remained a point of reference in the 18th century, the contents of that manual were overtaken over the decades. The rise of Neoclassicism required the artist to record, in addition to the flayed corpse placed in various positions on the dissecting

table, muscles and bones according to criteria that favoured essentiality, smoothness and chromatic harmony. By showing unpublished comparisons between anatomical studies signed by the major Italian and French artists of the time active in Rome in the same years, the paper thus aims to emphasise the liveliness of an environment in which the fertile confrontation between the medical and artistic worlds had produced reports from the anatomical room on which generations of artists were trained in the 19th century. Particular prominence will be given to the anatomical tables by the painter Pietro Benvenuti (1769-1844), which have never been the subject of in-depth study, executed on a par with the better-known ones by Antonio Canova (1757-1822), Vincenzo Camuccini (1771-1844) and Giuseppe Bossi (1777-1815), at the Ospedale di Santo Spirito in Sassia between 1792 and 1803.

Ilaria Bianchi (PhD History of Art): “In the service of science: Anna Morandi Manzolini and the eighteenth-century wax modellers of Bologna”.

The undertaking of the anatomy chamber at the Institute of Sciences, entrusted in 1742 to Ercole Lelli (1706-1766) by Pope Benedict XIV, became, in 18th-century Bologna, an opportunity to reinvent an artistic genre, but above all a testing ground for many wax modellers, who became active collaborators of the multifaceted artist: among them were Giovanni Manzolini (1700-1755), Filippo Scandellari (1717-1801) Luigi Dardani (1723-1787) and Nicola Toselli (1705-1792). Alongside them emerges the extraordinary figure of Anna Morandi Manzolini (1714-1774), artist, and anatomical «pubblica dimostratrice» at the Studium of Bologna. On the basis of an itinerary built on unpublished documents, this talk illustrates some little-known aspects of the wax work of Anna Morandi and the others modellers in Bologna, who placed their art at the service of science. The undertaking of the anatomy chamber at the Institute of Sciences, entrusted in 1742 to Ercole Lelli (1706-1766) by Pope Benedict XIV, became, in 18th-century Bologna, an opportunity to reinvent an artistic genre, but above all a testing ground for many wax modellers, who became active collaborators of the multifaceted artist: among them were Giovanni Manzolini (1700-1755), Filippo Scandellari (1717-1801) Luigi Dardani (1723-1787) and Nicola Toselli (1705-1792). Alongside them emerges the extraordinary figure of Anna Morandi Manzolini (1714-1774), artist, and anatomical «pubblica dimostratrice» at the Studium of Bologna. On the basis of an itinerary built on unpublished documents, this talk illustrates some little-known aspects of the wax work of Anna Morandi and the others modelers in Bologna, who placed their art at the service of science. In the service of science: Anna Morandi Manzolini and the

eighteenth-century wax modellers of Bologna. The undertaking of the anatomy chamber at the Institute of Sciences, entrusted in 1742 to Ercole Lelli (1706-1766) by Pope Benedict XIV, became, in 18th-century Bologna, an opportunity to reinvent an artistic genre, but above all a testing ground for many wax modellers, who became active collaborators of the multifaceted artist: among them were Giovanni Manzolini (1700-1755), Filippo Scandellari (1717-1801) Luigi Dardani (1723-1787) and Nicola Toselli (1705-1792). Alongside them emerges the extraordinary figure of Anna Morandi Manzolini (1714-1774), artist, and anatomical «pubblica dimostratrice» at the Studium of Bologna. On the basis of an itinerary built on unpublished documents, this talk illustrates some little-known aspects of the wax work of Anna Morandi and the others modellers in Bologna, who placed their art at the service of science.

SESSION VI: The Architecture of Anatomy Theatres (Part II)

Andrea Carlino (University of Geneva): “Andrea Vesalio, Daniele Barbaro and the Architects”.

At the core of my presentation is Vesalius' *De humani corporis fabrica*. I will look into the broad cultural context and the thick network of personal and professional relationships in which Vesalius conceived and produced his work, precisely in Padua between 1537 and 1543. This hopefully allows to think at the anatomy/architecture dyad, no longer as a two-ways relationship between the two disciplines, but rather as a wider triangulation that also includes rhetoric, a pivotal knowledge of the *studia humanitatis* that studies the organization of discourse and its parts. This triangulation could provide the opportunity to go beyond the material and formal aspects of the anatomy-architecture relationship in the Cinquecento and shows how, in the intellectual circles in which Vesalius operated, this relationship was considerably more profound and possibly more substantial.

Jens-Oliver Kempf (Independent Researcher): “Built to learn about life”.

The Amphitheatres of Enlightenment in Paris, Berlin, and Copenhagen symbolizes the power and dissemination of concepts in European architecture and the emergence of a

European building culture. The term "amphitheater" initially had negative associations with the cruel games of ancient Rome. The Inscription above the entrance of the Académie Royale de Chirurgie, a latin couplet by french author Santeuil, changed its perception by juxtaposing antiquity and modernity, death and life: the new amphitheaters are not built for homicide but to learn about life. The couplet celebrated the pursuit of knowledge and life, reinterpreting the word positively and aligning it with the values of the Enlightenment. Anatomy theaters originated in Italy during the 16th century but flourished in 18th century France. Paris, with its competing surgical and craft-trained brotherhoods, saw the establishment of significant lecture halls, including the amphitheaters designed by Joubert and Gondoin. These amphitheaters became architectural expressions of the Enlightenment's self-confidence and understanding. The French Amphithéâtre influenced anatomy theaters throughout Europe, leaving a lasting impact. Buildings in Copenhagen, Berlin, Salamanca, and even in Italy were shaped by the architectural and narrative ideas born in Paris. The intertwining of literature and architecture led to the development of a cross-border European building tradition, which should be cherished as a shared cultural heritage.

Christine Beese (Professor at the Art History Institute, Ruhr Universität Bochum): "On Swedish Nature. Olaus Rudbeck and the Uppsala Anatomical Theatre of 1662".

In contrast to the earlier anatomical theatres in Padua and Bologna, the Anatomical Theatre at the University of Uppsala was not built directly adjacent to the auditorium of the Faculty of Medicine, but centrally on the roof of the Gustavianum. It thus dominated the university not only physically but also symbolically. In fact, the room served less for public anatomy - only four dissections are known - than for teaching mathematical subjects (geography, mechanics, architecture) and for receiving foreign guests. In my lecture, I would like to show how the Anatomical Theatre served its builder, Olaus Rudbeck, to establish empirical observation as the guiding principle of scientific knowledge production at the University of Uppsala. Secondly, I would like to show how the Anatomical Theatre embodied and conveyed Rudbeck's idea of a superior Swedish nature, which he published in his work *Atlantica*. In this work, Rudbeck tried to prove that the Swedes of the 17th century were direct descendants of the technologically advanced Atlantians and in this way legitimised Sweden's claim to leadership in Europe. The medium of architecture in particular offered Rudbeck the opportunity to demonstrate and bring forth the technological as well as scientific skills attributed to the Swedes.

Letizia Capriotti, Pasquale Siciliano, Luca Borghi (Campus Bio-Medico University of Rome): “Invisible presences: the anatomical theatres of Palazzo della Sapienza in Roma, between uses and abuses”.

The monumental Palazzo della Sapienza was the unique seat of the University of Rome between the 16th and 19th centuries. The University's anatomical theatre, the oldest of Rome, was officially inaugurated during the papacy of Innocent XI (1676-1689), although historical sources suggest the presence of a “wooden anatomical theatre”, only temporary, realized by Giacomo de Pomis in 1577. This first Sapienza theatre was located “in the school on the ground floor, where in carnival time the corpses were already dissected, and the parts and functions of the marvelous structure of the human body were displayed and explained”.

Its construction was promoted by Giovanni Maria Lancisi, Professor of Anatomy and Surgery and Pope's personal physician at the time. Similarly to other Roman theatres, nowadays no longer existent, the Sapienza anatomical theatre had a complex and multifaceted history, which offers a wide glimpse into the several roles assumed by the theatre in its evolution. The “artifizioso Teatro della Sapienza” (Petriolo, 1742) hosted not only illustrious figures of the history of medicine such as the previously mentioned Lancisi or the equally illustrious Giorgio Baglivi, but also cycles of anatomical lessons based on both basic anatomical teaching and innovative experiments such as those on the spleen and duodenal circular folds. Initially, the theatre mainly hosted anatomical and surgical lectures, but later opened up to physics and chemistry, exploring new teaching methods. The theatre underwent several renovations and relocations over the years inside the Palace, and it was also the stage for student protests and political movements during the Unification of Italy, reflecting the astonishing potential and multiformity of such a place.

Anne Sophie Refskou (Research Assistant, Comp.Lit), Edward Payne (Assistant Professor, Art History) and Karen-Margrethe Simonsen (Associate Professor, Comp.Lit), Aarhus University: “The Anatomical Theater as an Affective, Investigative and Inter-relational Space. On The Anatomical Theater in Copenhagen, 1644, a possible Reconstruction and Comparative Perspectives”.

How did the early modern anatomical theater work as a social, affective and multisensorial space? How did the bodily aspects interrelate with epistemological and ontological aspects of life and death? And how can we re-interpret and recreate that space in a modern context, in order to explore both historical and modern understandings of the body? These are some of the questions that will guide our presentation. It has often been pointed out that the anatomical theater served as an important institution in the development of Renaissance culture. It provided a stage for the development of modern science (and a stage for the scientist) and modern understandings of the (interiority of) subjectivity (Raphael Cuir 2009, Enrique Fernández 2018, etc). But in this paper the focus is on the anatomical theater as an inter-relational, baroque, and affective space. Drawing on contemporary paintings, theatrical stagings of the body, descriptions and images of theaters, anatomical books and dissective narrations, we will discuss how the anatomical theater functioned as a performative space for the exploration of the body. Methodologically we are inspired by investigative aesthetics, as it has been defined by Matthew Fuller and Eyal Weizman (2021). On the basis of this theoretical discussion, we will introduce the main outline of a current project, which aims to make a digital reconstruction of the anatomical theater in Copenhagen that was built in 1644 but destroyed in the beginning of the 18th century. The theater was inspired by the theater in Leiden and was described in detail by one of its main anatomists, Thomas Bartholin. The aim of the digital reconstruction is to invite contemporary audiences to explore the space of the theater and bodily aspects of dissection, but also related artistic, dramatic and literary representations of dissection.

Giovanni Cipriani (Department of Historical, Archaeological, Geographical, Artistic, and Spectacle Studies, University of Florence): “The anatomical theatre of Ceppo Hospital in Pistoia”.

The Granduke Peter Leopold in order to improve the education of physicians and surgeons able to carry on their activity in tuscan state, ordered a definite teaching: Surgery Operations on Corpse. Ceppo Hospital, where it was active a good school, needed, in a short time, an

anatomical theatre. So, on project by Francesco Maria Beneforti, outside hospital walls, in an open space, in 1785-1787, a true architectonic jewel was built. The building, very well conserved, has two rooms. In the first, simple and unadorned, the corpses, on a marble table with drain, were prepared. In the second, elegant and rich of paintings by Giuseppe Vannacci, with brick work round seats, were held the lessons on a refined marble table, under the eyes of Morgagni and von Haller portraits.

Beatrice Messeri (Ministry of Culture): “Nil tam difficile quin quaerendo investigari possit”. The Marvellous Experience About the Study of Human Body and the Anatomical Theatre After Its Rediscovery in XV Century and the Diffusion During the Following Centuries. The Example of “Teatro anatomico del Ceppo”.

The anatomical theatre becomes the symbol of a new approach about the study of human being, where direct experience becomes fundamental for the scholars, who are no longer satisfied with the study only about ancient and fundamental books. The revolution in the study of human being started in the Fifteenth century in the Humanistic Era, where anatomy was founded in the study of cadavers such as a direct experience and a philosophical experience. Although the space of dissection was already in use in the past, only with the doctor and humanist Alessandro Benedetti, who worked in Venice, that there were a change with the identification of this space as theatre, as can be seen in the book *Historia corporis humani siue anatomice*, the place to enjoy of a “marvellous performance”. The building method and the context were very detailed: the people involved, the description of the place, the lighting and the tools. With Andrea Vesalio, doctor and anatomist originating from Bruxelles, author of *De humani corporis fabrica*, another important innovation and revolution occurred. The graphic representations of the anatomical theatre in the frontespieces of the various editions are also emblematic and a reason for study. Starting from this period, the approach of the anatomical studies changed and a lot of important anatomical theatres were built, among them: Padua, Bologna, Pavia, Lucca, Naples etc. Leonardo and other artists realized important studies in the sector, located in the hospitals such as in Florence. Close to Florence there were Pistoia with the Spedale del Ceppo, that depended on Ospedale di Santa Maria Nuova (Florence) from 1501 to 1778, when Gran Duke Pietro Leopoldo granted its autonomy. Following the approval of Pietro Leopoldo's rescript of 1767, in Pistoia, it was decided to build a real anatomical theatre for the surgery students, in line with other large hospitals and universities. Between 1770 and 1780 an amphitheater was built inside a small rural annex near the hospital. The details of the structure was studied with great accuracy

about the spatial layout and the pictorial decorations, following the current canons and needs. This writing is an emblematic testimony: “Nil tam difficile quin quaerendo investigari possit”. Today the Anatomical Theater has fortunately remained in good condition and is part of a valorization project within the museum itinerary in the Spedale del Ceppo Museum. It is located in this magnificent historic hospital structure and includes the historical collection of surgical instruments, documentation of the historical and construction events of the building and the Pistoia Medical School.

Giancarla Malerba, Cristina Cilli, Giacomo Giacobini (University of Turin): “The Anatomical Institutes Building of the University of Turin: the anatomical Theatre and the museum”.

The Anatomical Institutes Building was inaugurated in 1898 by the University of Turin as part of the project of the "City of Science at Valentino". This lecture will take into consideration the birth of the building with the distribution of the spaces dedicated to the Turin anatomical school, and in addition, the Anatomical Theatre and the Anatomy Museum (transferred from their previous location). Until 1975, the hemicycle Anatomical Theatre with larch wood benches still had a table in the centre for displaying the cadaver. The Theatre communicates with a sector room, set up with marble dissection tables, where the space is marked by granite columns that recall the architecture of the Anatomical Museum. Since 2007, a restoration project, which has involved spaces and collections, has made the Museum accessible in his spaces characterized by monumental architecture that underlines the importance of the discipline. The public has the opportunity to visit a nineteenth-century scientific museum that has remained almost unchanged over time. The collections dialogue with video stations and in-depth media for an inclusive visit that ranges from objects to the history of the discipline. Conferences, book presentations, theatrical and musical performances have been organized in the Anatomical Theatre to retain the museum audience; this space, with its wooden bleachers, is well suited to hosting this kind of events.

Gaspare Baggieri (MelAMi, Arte Scienza e Cultura Europea, Rome), Luca Borghi, Santa Lamattina (Campus Bio-Medico University of Rome): “Anatomical theatre of the Santo Spirito in Saxia”.

The Arcispedale di Santo Spirito in Saxia is the oldest hospital in Europe, located between the Tevere and the Gianicolo on the edge of the papal city, between San Pietro and Castel Sant'Angelo in a particularly strategic point, established where the “Schola dei Sassoni” resided in the eighth century. With Innocent III, the hospital takes on a mainly welfare connotation that will reach for the most part until the end of the sixteenth century. A qualitative leap of the hospital, on the promotion of anatomical knowledge, comes to us around 1600 where Giovanni Castellani taught anatomy. His lessons were innovative, accompanied by anatomical tables (later credited to Pietro da Cortona) and on the exploration inside the bodies of corpses. A testimony of 1664 is by Gaspare Alveri who states that not only were these lessons held twice a week but there were also lessons on dead bodies on which they practiced to do operations for the ultimate purpose of combining study with practice. Also important were the demonstrations of Bernardino Genga who held a series of lectures and demonstrations that would take place in 1677 from 8 March to 8 April. A promoter and patron who distinguished himself in the history of Santo Spirito was Giovanni Maria Lancisi (1654-1720), his love for Roman medicine led him to establish in 1715, an academy of Medicine, surgery and anatomy, (today Lancisian academy) giving his well-stocked library to the Santo Spirito (today Lancisian library). In return, young doctors were allowed not only to consult and study but also to practice the various professions that were carried out in the atrium of the same library at a specific time. But, it will be after 1744 at the end of the new Benedictine lane (Benedetto XIV), called “Braccio Nuovo”; designed by Ferdinando Fuga whose work began in 1742, that a real anatomical theater was built whose direction was entrusted by Clement XIV to Giuseppe Flaiani in 1772. What remains of this institution, which ceased to exist in 1870 and demolished in 1910 is the anatomical museum that transferred to the current Flaiani room at the Museum of the History of Health Art, still allows you to admire the original and reproduced preparations.

Ester Maria Bernardi, Lucio Fregonese (Museum for the History of the University, Department of Physics, University of Pavia), (University of Pavia, Department of Nervous System and Behavior Sciences, and University Museum System), Maria Carla Garbarino (University of Pavia, Museum for the History of the University), Mariano Martini (University of Genoa, Department of Health Sciences), Paolo Mazzarello

(University of Pavia, Department of Nervous System and Behavior Sciences, and University Museum System), Marcello Trucas (University of Cagliari, Department of Biomedical Sciences): "The Pavia University anatomical theatre, between surgery and medicine".

The ancient anatomical theatre of the Pavia University - now Scarpa Hall - was inaugurated in 1785. The design phase, entrusted to architect Leopold Pollack, had been carefully followed by Antonio Scarpa, who had come to Pavia from Padua two years earlier to hold the chair of Anatomy and Surgical Institutions. Scarpa's call was supported by Emperor Joseph II's personal surgeon, Giovanni Alessandro Brambilla. To the latter, Scarpa dedicated the inaugural lesson of his teaching, the *Oratio de promovendis anatomicarum administrationum rationibus ad tyrones*, in which he underlined the close link between anatomy and surgery. The current decorative apparatus of the hall, realized around 1819, following the renovation of the ceiling that we owe to Giuseppe Marchesi, allegorically celebrates the renewed eighteenth-century alliance between medicine - represented as an older woman, who leans on a staff of Asclepius - and surgery – a young woman holding a scalpel in her hands. On the umbrella vault, some of the most significant pieces of the surgical instruments designed by Brambilla for the education of military surgeons are also depicted. A copy of this collection, consisting of approximately thirty boxes representing the most common operations practiced at the time, was donated to Antonio Scarpa by the Emperor around 1786 and is today preserved in the Pavia University History Museum.

Stefano Zaggia, Andrea Giordano, Rachele Bernardello (ICEA Department, University of Padua): "The Ancient Anatomical Theatre of the University of Padua: Constructive Reasons, Architecture, and Restitution of Geometric Conception".

The idea of a permanent place for the performance of anatomical dissections, as is well known, developed in the early Sixteenth century in several parts of Europe. This idea was based on theoretical proposals that had suggested the adoption of a structure derived from the examples of ancient-style theaters, which were then the subject of studies and in-depth investigations by architects and architectural scholars. It was in this temperament that even at the University of Padua the idea of creating a fixed space to be used for anatomical lectures began to emerge. The proposed talk intends to present the phases of the construction that led to the realization of the stable anatomical theater that is still preserved today, starting from the first documentary traces, which signal the intention to set up a

suitable space for the structure as early as 1559. The construction of the first stable anatomical theater — «publicum et perpetuum» — began in the 1580s as part of the constructions that completed the Studio di Padova building. This, however, was not yet the structure that is preserved today, which would begin to be built in 1594. A wooden cavea made of overlapping orders of elliptical tiers, arranged in an inverted cone shape, was inserted in a double-height space in the northwest corner of the Studio building. This construction layout called for several interpretations and a number of attributive hypotheses about the author of the design. The paper therefore, aims to highlight and verify the geometric hypothesis of the design process that guided the choices for the structure of the wooden artifact in connection with the functional and visual reasons that presided over the formal choice. Starting with a digital point cloud survey, we developed a schematic reconstruction to highlight the geometric characteristics of the realization. Geometry, then, becomes the most suitable tool for defining the structure of architectural spaces as they are configured from specific material requirements.

Alberto Zanatta (Dipartimento di Scienze Cardio-Toraco-Vascolari e Sanità Pubblica, Università degli Studi di Padova), Giovanni Magno (CAM - Centro di Ateneo per i Musei, Università degli Studi di Padova), Fabio Zampieri (Dipartimento di Scienze Cardio-Toraco-Vascolari e Sanità Pubblica, Università degli Studi di Padova): “L’eredità padovana del Teatro anatomico di Fabrici”.

Giovanni Magno (Morgagni Museum of Human Anatomy, University Museums Centre CAM, University of Padua), Cat Irving (Surgeons’ Hall Museums, Royal College of Surgeons of Edinburgh), Fabio Zampieri, Alberto Zanatta (Department of Cardiac, Thoracic, Vascular Sciences and Public Health, University of Padua): “Anatomical Theatres of Edinburgh: a connection between Italy and Scotland”.

The Medical School of the University of Padua (Italy) was always considered one of the most important of the past centuries, attracting many foreign students, some of whom played a fundamental role in the history of medicine and anatomy. Among them, there were also some distinguished members of the Royal College of Surgeons of Edinburgh (Scotland), such as Archibald Pitcairne (1653-1713), who promoted the creation of the Surgeons' Anatomical Theatre in 1697, the first stable anatomical theatre in Edinburgh where was

performed the first public demonstrations of anatomical dissection in 1702, now digitally recreated at Surgeons' Hall Museum. John Monro (1670-1740), also studied in Padua and returned to Edinburgh desiring to create a medical school comparable to those of Padua. He shared his ideas with his son Alexander Monro Primus (1697-1767), who managed to build an anatomical theatre at the University of Edinburgh in the 1720s. Later his son Monro Secundus (1733-1817) built a new theatre in the garden of the University in 1764, comparable to the one built in Padua in 1595, although it has not survived. Finally, a new Anatomy Lecture Theatre was promoted in 1877 by Sir William Turner (1832-1916), professor of Anatomy, and designed by the architect Robert Rowand Anderson (1834-1921), and is still used by medical students at the University of Edinburgh. The shape of the theatre and the steeply raked benches rising above the central dissecting table also resembled the anatomical theatre of Padua. The study of the evolution of the first anatomical theaters in Edinburgh testifies the connection with the Paduan medical school, as well as the rising need to create stable places for didactic autopsies following the Italian example.

Pier Luigi Longhin (UO Internal Medicine Piove di Sacco Hospital - PD): "Historical notes on the anatomical theatre of Venice".

The study of anatomy has a centuries-old tradition in Venice. Since 1368 it had been required to physicians, physicists and to surgeons to attend a dissection at least one time a year. These medical practices were held in churches and convents. A lot of times there were representatives of the experts of health (especially when there was a suspected risk of contagion). Later, there were designed "anatomical canteens" to be moved. Only in the mid-17th century, a permanent anatomical theater was built and it was inaugurated in 1671, next to the San Giacomo dell'Orio's Church. It remained active until 1800 when a fire destroyed it almost completely. The entire palace included the anatomical theater and the headquarters of the College of Physicians, Physicists and the College of Surgeons with attached archives, library and obstetrics' school. Some years before the fire of 1800, the College of Surgeons changed locations in consideration to a lot of disruptive conflicts with the College of Physicians, Physicists. By the way they brought with them part of the library and the archives. The theater was rebuilt so quickly but it was closed only a few years later because the autopsy examinations were transferred to the new building hospital. Analysing the reconstruction plans, we can see that the anatomical room was ellipsoidal, with three tiers of boxes with seats. It held about one hundred people. The building can still be seen in

San Giacomo dell'Orio's square, in Venice. In the last two-hundred years, it has undergone repeated changes by construction of private house, shops and warehouses.

Luca Ventura, Carlo Alicandri-Ciufelli, Guido Macchiarelli, Ferdinando di Orio (Centro Abruzzese dell'Accademia di Storia dell'Arte Sanitaria): ““Anatomical theaters that did not exist. the challenging educational path of doctors in areas lacking adequate facilities: Abruzzo”.

Throughout its long history, Abruzzo was unable to establish university structures on a permanent basis until the mid-20th century. For extended periods, the training of Abruzzese doctors took place far from their native soil, where some of them would return to work in local hospitals. In the 18th century, anatomical research elevated the level of medical practice, encouraging the enhancement of local education, at least until the Unification of Italy. In L'Aquila, the anatomical theater coincided with the one intended for performances. In 1616, construction began on the first theater in Abruzzo at the Ospedale Maggiore, which was inaugurated in 1642. After the earthquake of 1703, the Teatro San Salvatore was renovated in 1779 by the architect Giovan Francesco Leomporri. Here, in 1788, the first public anatomical dissection took place, performed by Giuseppe Liberatore (1756-1842), a Neapolitan school graduate and a student of Cotugno. Due to significant safety concerns about the structure, a new theater, the Sala Olimpica, was promoted. Inspired by Palladio's homonymous theatre in Vicenza, it was designed by Lieutenant Colonel of the Engineering Corps Gennaro Lojacono and built of wood. Inaugurated on May 30, 1820, it was demolished in 1857. In Sulmona, an anatomical theater was built in 1792 at the Nosocomio of Casa Santa dell'Annunziata, where the surgeon Panfilo Pecci, a student of Giuseppe Flajani and previously active in Rome and Bologna, worked. In Chieti, where medical teachings were previously conducted in private residences, a theater was established in 1818 by the surgeon Giustino Quadrini, along with a theoretical anatomy school and anatomical museum. Around 1840, an anatomical hall was established at the Teramo hospital, with related teaching led by Ignazio Rozzi, a former lecturer in L'Aquila and the head of a private medical school in Teramo. After the abolition of the Bourbon Royal Lyceums, it would be more than a century before medical education would see a revival with the construction of universities in Abruzzo.

Valeria Bertagnolo, Federica Brugnoli, Silvia Grassilli (Department of Translational Medicine, University of Ferrara), Mauro Vaccarezza (Curtin Medical School, Faculty of Health Sciences, Curtin University; Curtin Health Innovation Research Institute (CHIRI), Faculty of Health Sciences, Curtin University), Marco Bresadola (Department of Humanities, University of Ferrara), Veronica Papa (Department of Economic, Legal, Informatics and Motor Sciences, University of Naples Parthenope, Forensic Anthropology, Paleopathology and Bioarchaeology (FAPAB) Research Center, Avola): “The Anatomical Theater of Ferrara: from the "hospital" turning point to the recent restoration, the history of one of the great symbols of the Ferrara university tradition”.

During the 16th to 18th century, the teaching of human anatomy through dissection was reintroduced in permanent "anatomical theatres" located in the main universities across Europe. These theatres were named after the tradition of allowing the public to observe dissections that were originally performed in outdoor "theatres."

The anatomical theater in Ferrara was built on the ground floor of Palazzo Paradiso in 1731 by architect Francesco Mazzarelli. This newly constructed building replaced a temporary and narrower room used for public dissections since 1588 and was attended by the general public and practitioners for a three-month-long anatomy course. In 1771, the University of Ferrara underwent significant organizational changes, inevitably impacting anatomical theatre. Access to the dissection was restricted to university students only. The teaching of anatomy gradually shifted to the local hospital, which was authorized to procure cadavers, making the process less challenging. The connection between the anatomical theater and the hospital had significant practical and financial implications which led to the integration of the latter into the university structure in Ferrara. Public anatomy was conducted at the prestigious anatomical theater of Palazzo Paradiso as a noteworthy event for the university, while private anatomical sections were conducted at the Sant'Anna hospital. By the end of the 18th century, the anatomical theater and city hospital allowed women to attend anatomy lessons, ending their exclusion from medical field reforms.

Anatomy lessons were held in the Anatomical Theater until 1831, when the School of Medicine was transferred to the Sant'Anna hospital. The theater was then repurposed as a classroom for chemistry lessons until 1963. After being closed to visitors for several years, it was restored in 1986 and underwent maintenance interventions in 2021. Today, the Anatomical Theater of Ferrara boasts its original eighteenth-century appearance and stands as one of the most significant symbols of the Ferrara university tradition.