

A NEW LIFE FOR A MUSEUM.
THE PAVIA UNIVERSITY HISTORY MUSEUM BEYOND ITS OWN COLLECTION

Valentina Cani², Francesca Cattaneo², Maria Carla Garbarino¹, Lidia Falomo¹⁻³,
Alberto Ferrari¹, Paolo Mazzarello²⁻⁴

¹University History Museum, University of Pavia, Pavia, Italy

²University Museums System, University of Pavia, Pavia, Italy

³Department of Physics, University of Pavia, Pavia, Italy

⁴Department of Brain and Behavioral Sciences, University of Pavia, Pavia, Italy

Pavia hosts an ancient University, founded in 1361, which, starting from the late fifteenth century, was situated in the same area where today the central university building still exists. The Museum for the History of the University is located in this area, overlooking what was once the so-called medical courtyard. A few steps away, until the thirties of the twentieth century, there was the ancient San Matteo hospital, founded in the fifteenth century (1).

The original nucleus of the two main sections of the Museum, medicine and physics, is linked to the educational and scientific reform of the University commissioned by Maria Theresa of Austria in the last quarter of the eighteenth century and carried out by her son and successor, the emperor Joseph II. Famous teachers were called to Pavia. Numerous scientific collections rose, such as the museum of natural history, directed by the prominent Lazzaro Spallanzani or the physics cabinet entrusted to Alessandro Volta, professor of experimental physics for almost 40 years since his appointment in 1778. The anatomical museum, directed by Antonio Scarpa since 1783, was located in the area that now houses the Museum. The collections grew during more than two centuries; they suffered losses and changed their seat. In 1936, the Museum for the

History of the University of Pavia was inaugurated in the premises of the old anatomical museum.

The medical section currently consists of three rooms (2). In the first one, named after Antonio Scarpa, instruments and preparations refer to the activity of the anatomical school and to the development of surgery in 18th- and 19th centuries. Next room showed the activity of surgeon Luigi Porta, and the third one is dedicated to Camillo Golgi, first Italian who won the Nobel Prize for medicine in 1906, and to other scientists and clinicians who worked in Pavia at the turn of the century (3).

Rooms are set up using antique cupboards, and the Museum preserves, at least in part, the atmosphere of an ancient anatomical cabinet. When the Museum was opened, showcases were organized showing biological and medical preparations, documents, and instruments related to the activities of different scientists. To preserve the original feeling and atmosphere of the past, no explanatory apparatus was present. There were just some very thin tags. The combination of heterogeneous materials was often almost self-explanatory. So, images from books could be useful in order to understand the use of an instrument; documents witnessed events related to the purchase of an object or the circumstances in which it had been used. As the physical proximity of different materials within the same showcase can be critical for their conservation, it is not possible to maintain this layout today. Ancient documents require special exhibiting conditions. Under long periods of direct light, paper runs the risk of being attacked by mould or parasites that sometimes infect biological medical preparations. We recover most of the books in the Museum's library and documents in the archive. It is a very precious material and it allows us to recreate, comparing all the clues from the different material testimonies, some moments of the life that took place at the University or in the nearby San Matteo hospital. Sometimes we are also able to reconstruct touching stories involving professors, famous doctors or unknown patients entrusted to their care. Telling these stories is important to engage a part of our audience.

Sometimes visitors approach the collections with some fear. On one hand, this is because of the strong emotional impact of the topics treated. And, on the other, they can feel uncomfortable in a very specialized museum. We think that an approach based on *storytelling* -the art of telling stories as a communication strategy- could break down, in some way, this barrier and our public can appreciate it.

For some years we have been working trying to shorten the distance between the public and the exhibited objects, closed in the windows, enriching the collection with some models that can also be touched by the public itself. For example, we enhanced the rich collection of wax models collaborating with a young artist, expert in ceroplastics, who created a tridimensional replica of one of the drawings made by Antonio Scarpa in his surgical and anatomical treatise *Sull'aneurisma*, owned by the Museum. The wax model represents the shoulder with a part of the arm in which bones, muscles and arterial vessels are visible. Starting from this model some high school students of Pavia have realized, under the guide of the artist, some high-reliefs that are now available to the public, and placed outside the windows so that they can also be touched by visitors. The artist also realized 3D replicas starting from four drawings of a hand made by Leonardo da Vinci and now preserved in Windsor, in the library of the Royal Academy (ms. 19009r e 19012v). These drawings, which represent bones, muscles and tendons of the hand, seem to be the result of the anatomical studies conducted by Leonardo in Pavia in 1510, in collaboration with Marcantonio Della Torre, who taught medicine at the University and worked in the Hospital of the town. All these waxes, which can be useful also for tactile experiences, are now on show in the Museum, next to the drawings from which they were modeled.

A short film will be also available soon to visitors in order to see an artist at work. So that they can approach the complex and ancient technique of ceroplastics, which for centuries has been fundamental for the study and teaching of anatomy. The film will be inserted into an App for smartphone (Android e IOS), already experimented in the Physics section and soon available in the medical section too. By framing the code connected to a particular object, the App allows to display on your smartphone a brief explanation of the object itself, accompanied by images and movies useful to have a deepen view of the topic (5). Through the App, visitors can admire documents and books that are not exhibited or have access to movies that show, for example, an instrument ‘in action’, or interact ‘virtually’ with exposed objects that due to their fragility cannot be touched.

Two beautiful life-size wax statues (a man and a woman) are exhibited in one of the Museum halls. They were made in Florence at the end of the 18th century by the famous artist Clemente Susini to illustrate the superficial and deep lymphatic system and purchased by Antonio Scarpa for his anatomical cabinet. The female statue, which shows the organs of the abdominal cavity, was built so that it could be partially disassembled in front of the students.

Under the intestine, it is therefore possible to see the kidneys and a pregnant uterus in the fourth month. Recently we made a movie by filming the delicate operation of disassembling the statue. The movie has been inserted into the App, accompanied by short captions. A similar work has been done to illustrate the individual components of a large model of the ear, built in the first half of the nineteenth century by Bartolomeo Panizza, Scarpa's successor on the chair of anatomy.

As visitors of the museum, students of Digital and Multimedia Communication in the University of Pavia have been very active in the App contents. They used various techniques, such as stop motion animations, movies, or montages of still and moving images. In some cases the creativity of the students allowed the invention of interesting products that we saw with a real pleasure. We can recall a video dedicated to a rather well-known story by Italian people: that of the wounding in one leg of Giuseppe Garibaldi, perhaps the most famous hero of the events that led to the independence and unification of Italy. An old popular song that everyone knows in Italy just talks about this episode. Garibaldi was wounded in battle in 1862; doctors who fought at his side immediately rescued him but could not understand if the bullet was still inside the wound. Later, many doctors were consulted at the bedside of the Hero, and, among them, Luigi Porta, professor of surgical clinic in the Pavia University. There were clashes and controversies and only after a few months the presence and the exact position of the bullet could be established, thanks to an ingenious instrument devised by the French surgeon Auguste Nélaton. The bullet was finally extracted and Garibaldi healed (6). This episode, interesting for the history of surgery of the 19th century, has been transposed by a student into a 'cartoon', with drawings of her own hand, accompanied by background music in order to obtain a fun animation in which the irony does not contrast with the accuracy of the historical data.

In conclusion we have tried, with small changes in the exhibition path and integrating the traditional informative tools (audio guides, mobile boards, explanatory signs), to make the medicine section of the museum more modern and appealing, trying to reach new audiences, through more personal and interactive ways of fruition.

REFERENCES

1. Mantovani, Dario, ed. (2012-2018), *Almum Studium papiense. Storia dell'Università di Pavia*, 3 vols., Milano, Cisalpino.

2. Bevilacqua, Fabio, Falomo, Lidia, Garbarino, Maria Carla, eds. (2003), Musei e collezioni dell'Università di Pavia, Milano, Hoepli.
3. Mazzarello, Paolo (2010), Golgi: a biography of the founder of modern neuroscience, New York, Oxford University press.
4. Scarpa, Antonio (1804), Sull'aneurisma, Pavia, Bolzani.
5. Falomo Bernarduzzi, Lidia, Garbarino Maria Carla, Cani, Valentina (in print), Nuove forme di coinvolgimento al Museo: studenti universitari e digital story telling. In Museologia Scientifica. Memorie.
6. Gazzaniga, Valentina, ed. (2011). A un piede fu ferito. Medicina e chirurgia risorgimentale, Bologna, Clueb.