table 8

Anatomage

Anatomage

Table 8

1:1 life-size experience with the utmost accuracy

The Anatomage Table is an advanced, highly technological virtual dissection and visualisation tool. It was designed to innovate medical curricula by providing students an engaging experience laying strong groundwork for their future medical careers.

The technology is composed of a high-performance system equipped with a large touchscreen that enables users to interact with real body data in 3D. The variety of its contents is combined with the flexibility of its application: any data can be easily accessed on-site or from home using one single system. The Anatomage Table is suitable for any level of education, from high schools to post-graduate courses.

The frozen bodies' anatomy can be cut or peeled away, zoomed into, or isolated in 3D to improve the understanding of spatial relationships among body structures. Clinical images allow experts to explain surgical approaches and how certain conditions can affect the patient.
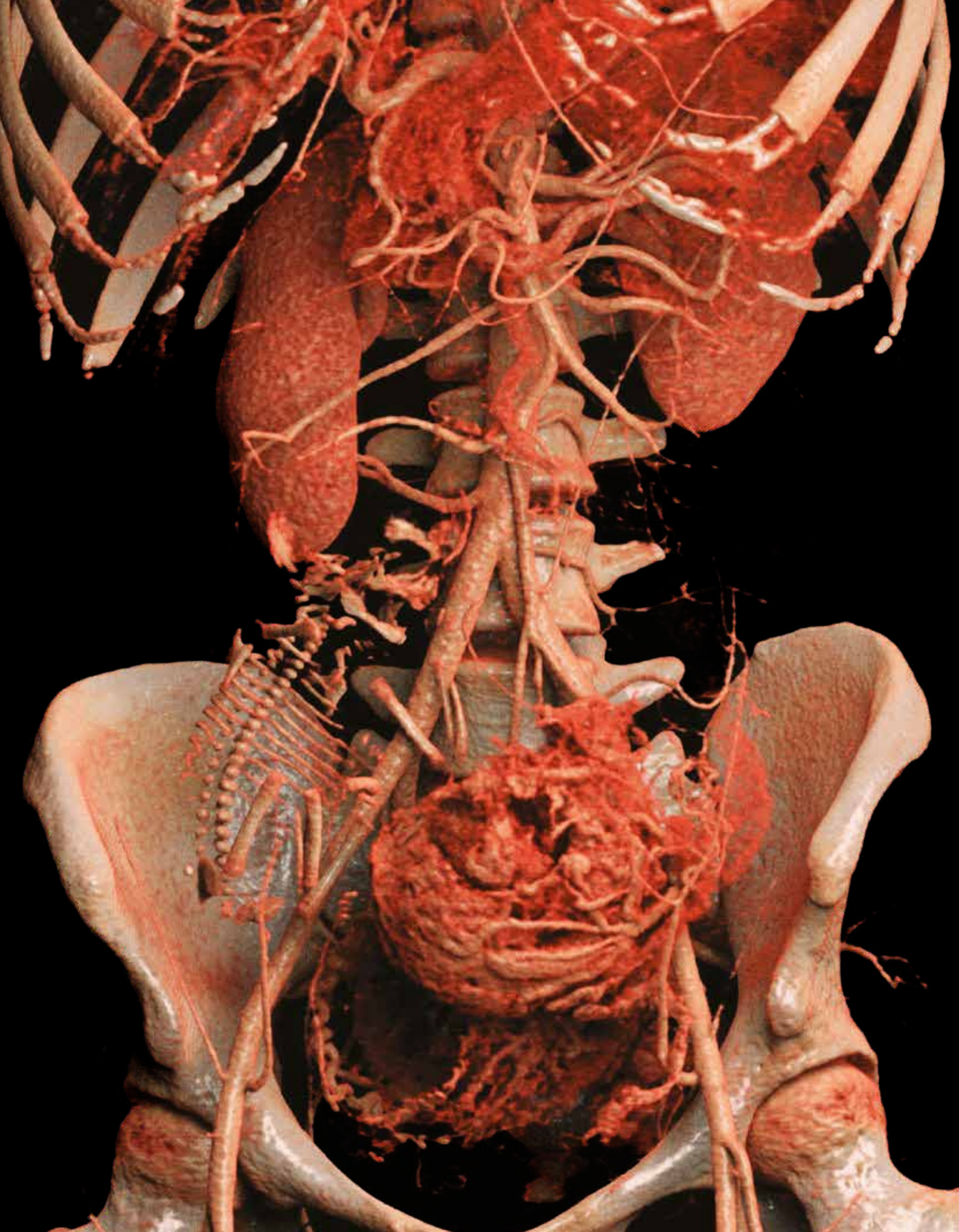
One device.
Countless
applications.

Quintessential quality

Vivid and interactive visualisations of real data

Exceptional quality renderings give the students a limitless view into the systems of the body and offer a comprehensive clinical-level understanding of cases. The new 3D UHQ visualisation filters bring medical scans to life by vividly representing human systems and structures.
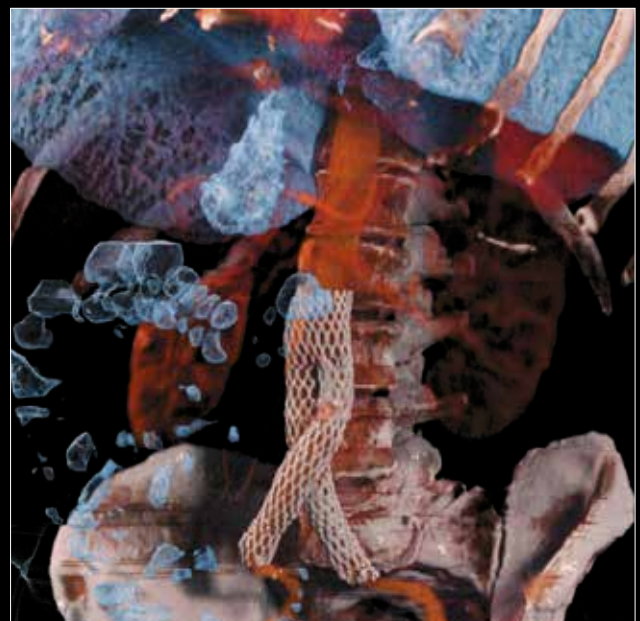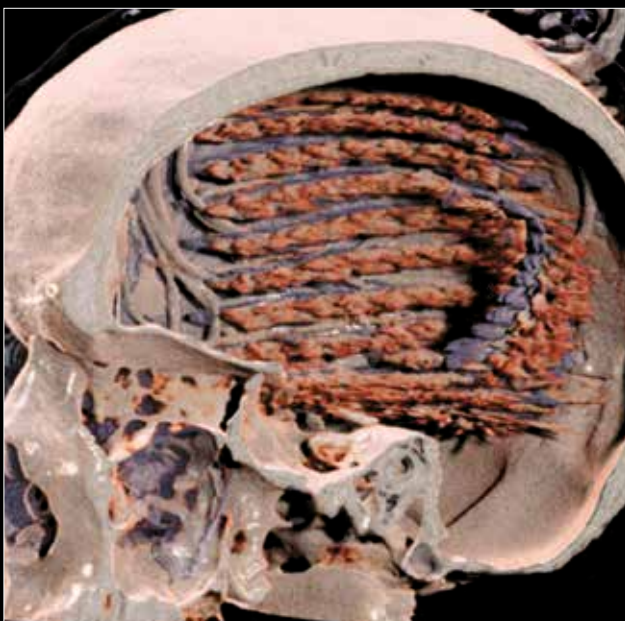
"Students enjoy building a structure or region as they feel they gain understanding by adding complexity rather than dissecting away"

- Dr S. Moyes, Lead in Anatomy, Plymouth University (UK)

A captivating experience

Limitless possibilities for diverse needs

LECTURE THEATRE

Create lessons by configuring multiple screens or by connecting the Table to external projectors.

COLLABORATIVE SESSIONS

Let students learn anatomy together, compare their knowledge, and set up multiple lab activities from reviews to case studies.

SINGLE STUDENT USE

Help students review contents on their own, on-site or online, with the Anatomage Table powerful learning tools.

DISSECTION COURSES

Virtually dissect, rebuild, and start over as many times as needed.
Improve real body dissection with the Table and reinforce what has been learned.

CLINICAL CASE REVIEWS

Patients' data can easily be imported and examined. Medical devices can be superimposed and precisely positioned. Speed up clinical evaluations and surgery plannings.*

PATIENT CARE

Educate patients and get their approval for procedures with comprehensible 3D views of their anatomy.

ANATOMAGE LAB

Multiple Tables, additional screens, and other Anatomage devices allow you to create the perfect virtual anatomy lab for all your students' needs.

SIMULATION

Use the Table to clearly brief your trainees. Import 3D models of virtual medical devices on frozen bodies or DICOMs to simulate real cases.

FORENSICS

Perform virtual autopsies by loading your DICOMs, and take advantage of the 3D vivid forensic cases in the Table library to captivate the class.
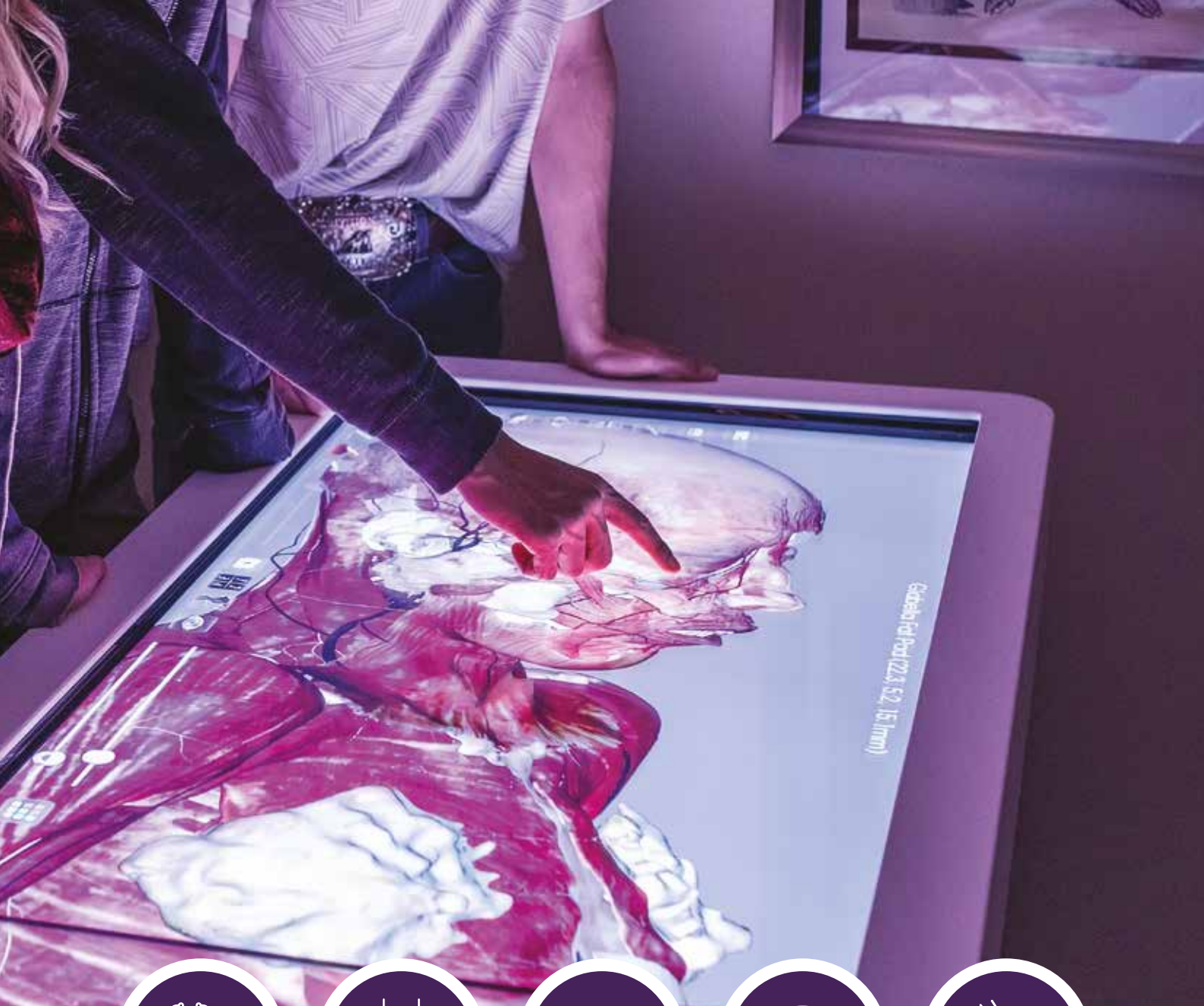
VET APPLICATIONS

Digitalise any animal science curriculum with the Anatomage animal frozen cadavers and the rich veterinary imaging library.

* FDA and Medical CE approved Table application free upon request.

MED
SCHOOLS

NURSING
SCHOOLS

COLLEGES

OSTEOPATHY
SCHOOLS

PHYSIOTHERAPY
SCHOOLS

TEACHING
HOSPITALS

MUSEUMS

SIMULATION
CENTRES

LIBRARIES

MED
COMPANIES

Anatomage anytime, anywhere

TABLE 8 | ON-SITE

The impactful dimensions of the Anatomage Table make it a fascinating device to be used in class. The interaction with the life-sized bodies through the touchscreen stimulates the students and better engages them through the whole learning process.

TABLE 8 | REMOTE

Any blended curriculum can be effortlessly developed with Anatomage. Users can connect the Table to the internet and perform lessons by controlling the Table remotely. Table contents can be streamed or captured through videos or screenshots for presentations and more.
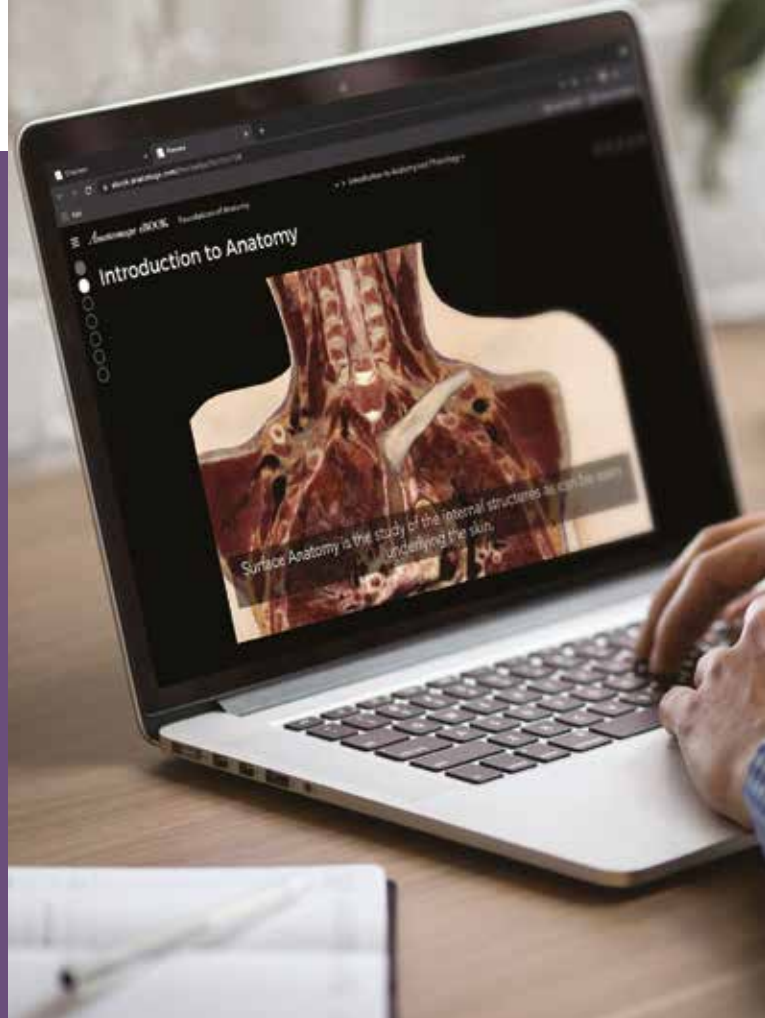
Table + eBook

eBOOK | SINGLE LICENSES

The Anatomage eBook is a web-based platform that provides visually stimulating anatomy and physiology study guides. Intuitive descriptions are dynamically linked to 3D images rebuilt from real data to visually walk users through a revolutionary self-study experience.

Interactive activities and quizzes are provided to reinforce memorisation after the exploration of each chapter. Instructors can create virtual classes, track students' interactions with the platform, and assign tasks.

Working on a browser, the Anatomage eBook is compatible with any device, including PCs or tablets, making the organization of online lectures effortless and the self-study process easily accessible.

The Anatomage singularity

The highest interactivity and realistic experience with unparalleled usefulness

HOW WE CREATE OUR DATA

The Anatomage Table digital anatomy is created starting from six real specimens: three males and three females.

The bodies were frozen without embalming chemicals, preserving the true colours and life-sized proportions of the anatomical structures, and then cut into slices as thin as 50 μm.

Anatomical structures, including blood vessels and nerves, are then traced on each 2D slice. Finally, the slices are stacked to recreate segmented and annotated 3D anatomy. Over 10 years in the making, the number of segmented structures and their accuracy is unrivalled and lets the user customise the view of the real anatomy to suit every possible need.
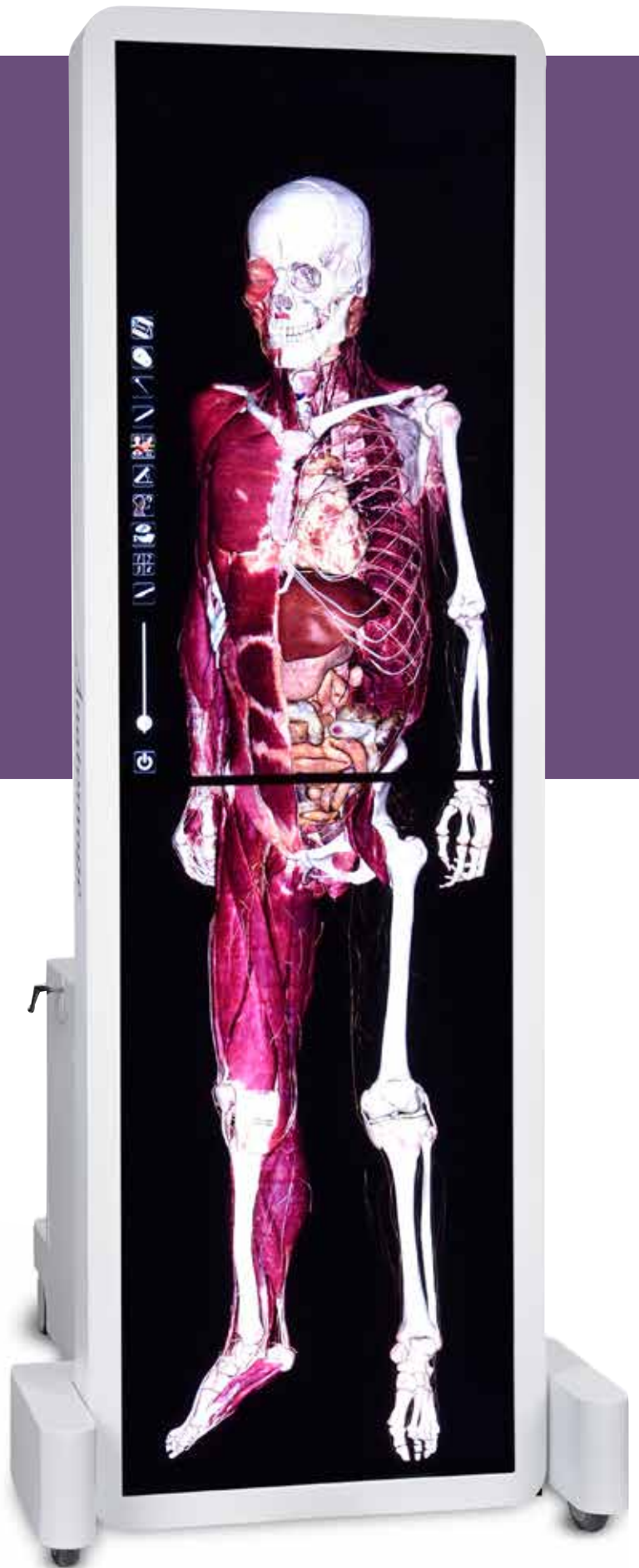
The digitalisation of frozen cadavers

Be out of the ordinary

1 4 digital bodies

2 50 μm resolution

3 Kinesiology

4 Heart beating and blood flow

5 Eye motion

6 Macro and microanatomy correlation

7 Segmented histology

8 UHQ renderings

9 Step-by-step prosections

Unique features

The Anatomage Table is the only all-in-one device in the world able to show the anatomy and physiology of four frozen human bodies in 1:1 life-size.

The data of the real full-body sliced frozen cadavers, derived from two South Korean and two American bodies, offers the possibility to analyse the digital reconstruction of both male and female anatomy.

Regional data can be explored with a resolution up to 50 µm and now one new additional female specimen is offered.

Premium interactive contents, such as heart beating, nerve pathways, kinesiology, optom-etry, and catheterisation are also simulated, for the first time ever, on real digitalised bodies.

Users can boost students' learning experience also thanks to the link between macroanatomy and segmented histology, 3D annotated step-by-step prosections and exceptional 3D renderings.
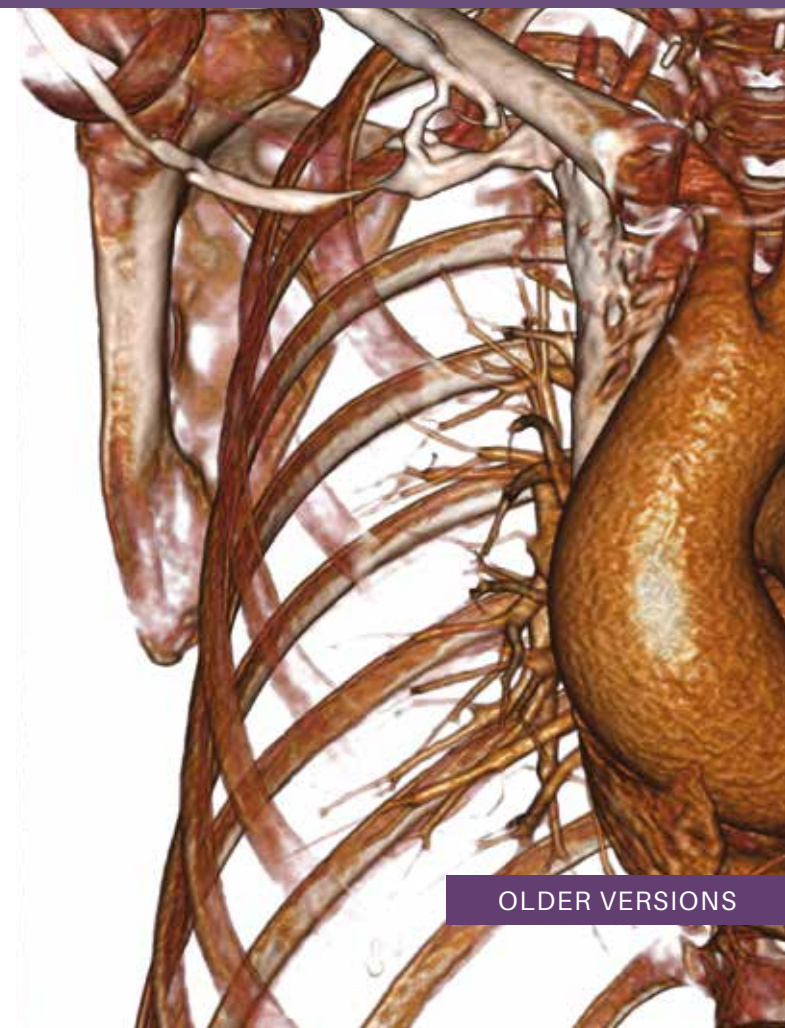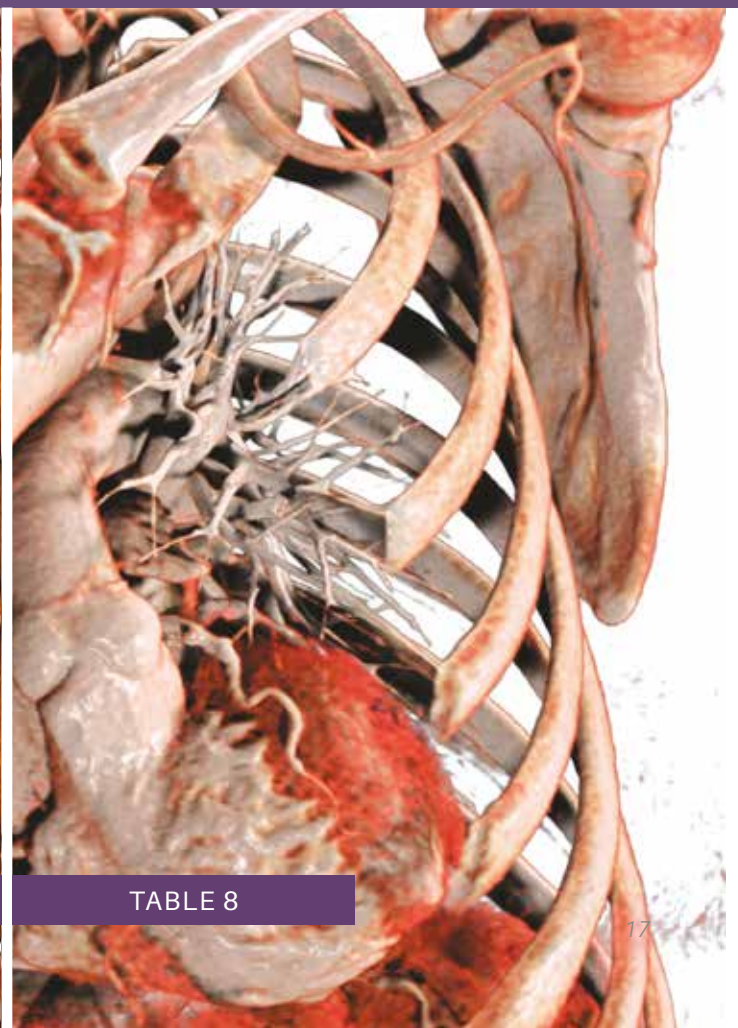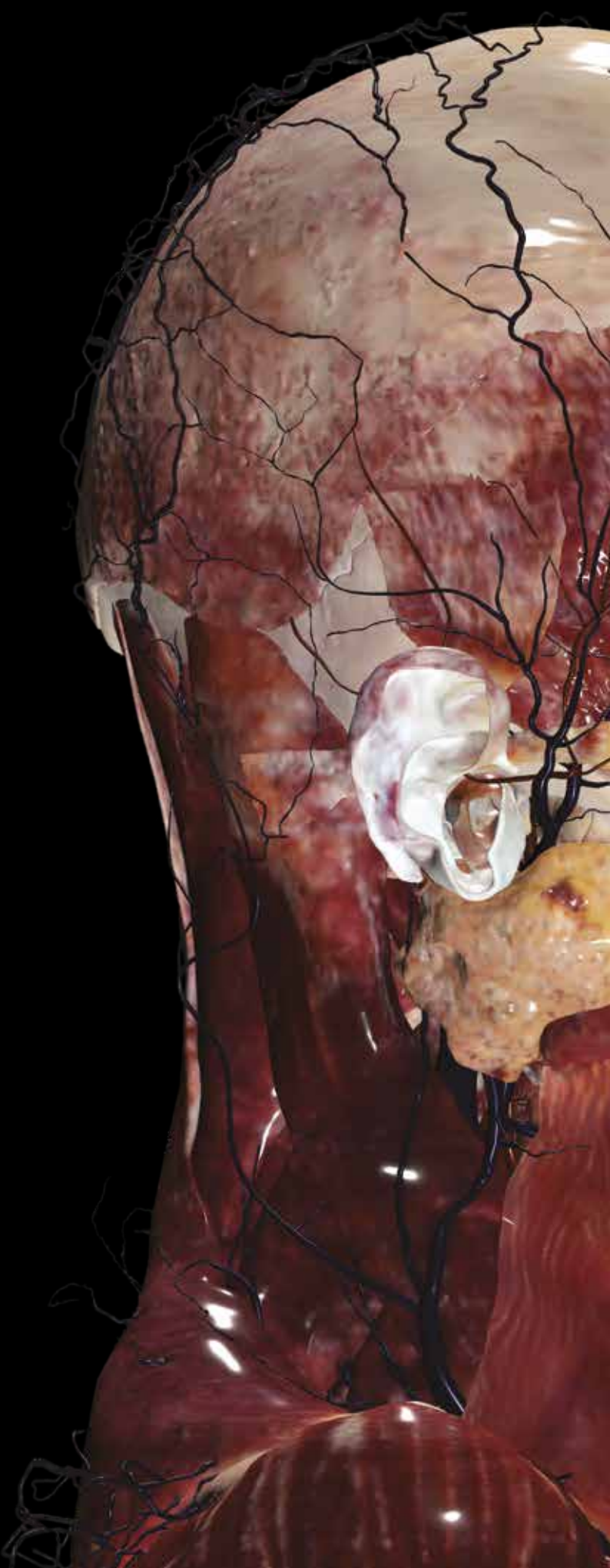
OLDER VERSIONS

TABLE 8

Virtual education experience

Real, life-size anatomy
Flexible and effective educational tool
Easy to use
Enhance your institution standards

Real, life-size anatomy

The Anatomage Table delivers segmented human anatomy and physiology. With the 1:1 life-size bodies and large touchscreen, users can interact with the anatomy easily and instantly. Individual structures are carefully reconstructed in three dimensions, resulting in an unprecedented level of accuracy. Bodies have been digitally restored to simulate physiological processes and pathways, resulting in a unique interactive learning experience.

Institutions can access a library of over 1,300 DICOMs, and load their own imaging datasets either for educational purposes or diagnosis and surgical planning.

Flexible and effective educational tool

The Table provides a learning-by-doing experience to everyone, erasing the difficulty of traditional teaching methods many students face. Impacted research proves the interactive experience with the Table to be more engaging than the ones based on traditional learning tools. The ability to use the Anatomage data from anywhere makes any online or on-site lesson more accessible. Instructors can explain complex topics, save, and share contents in a few steps. Students can revise the contents using the Table, alone or in a group, before or after the lesson.

ADAPTABLE

Contents and features of the Table easily adapt to any medical curriculum, on-site or online.

VIRTUAL

Always improving, cutting-edge technology to better engage and amaze your students.

FUN

The Anatomage Table, with its interactive tools and quizzes, makes your students' learning fun, thus faster and better.

ENDURING

No subscriptions and no recurring costs. Own the Table and you receive all future application updates for free.

Easy to use

"I have to admit that the interface is extremely user-friendly and I am sure students could use the Table even without an explanation!"

- Prof. F. Boccafoschi, Anatomy Professor, Università del Piemonte Orientale (Italy)

Enhance your institution standards

The Anatomage Table is a premier advanced technology solution available for your institution. Students, parents, alumni, and visitors will be impressed with the presence and visual impact of the Table.

Accurate reconstructions, multiple data sources and unique physiological processes revive the cadavers through extraordinary and useful visuals. This system will set your institution as the technological leader in your field.

Outstanding digital data

Frozen bodies
Regional anatomy
Imaging library
Histology library
Prosections

Gross Anatomy
| FROZEN BODIES

The Table comes with four life-sized gross anatomy bodies.

The full gross anatomy is volumetrically displayed from head to toe and includes thousands of segmented and annotated structures. The vivid colours and shape of the bodies are preserved to accurately depict real anatomy.

The digital real body can be explored layer by layer, revealing the details of internal structures. To get a deep understanding of anatomical relationships, structures can be removed, isolated or made transparent. All systems can be activated concurrently or added consecutively.
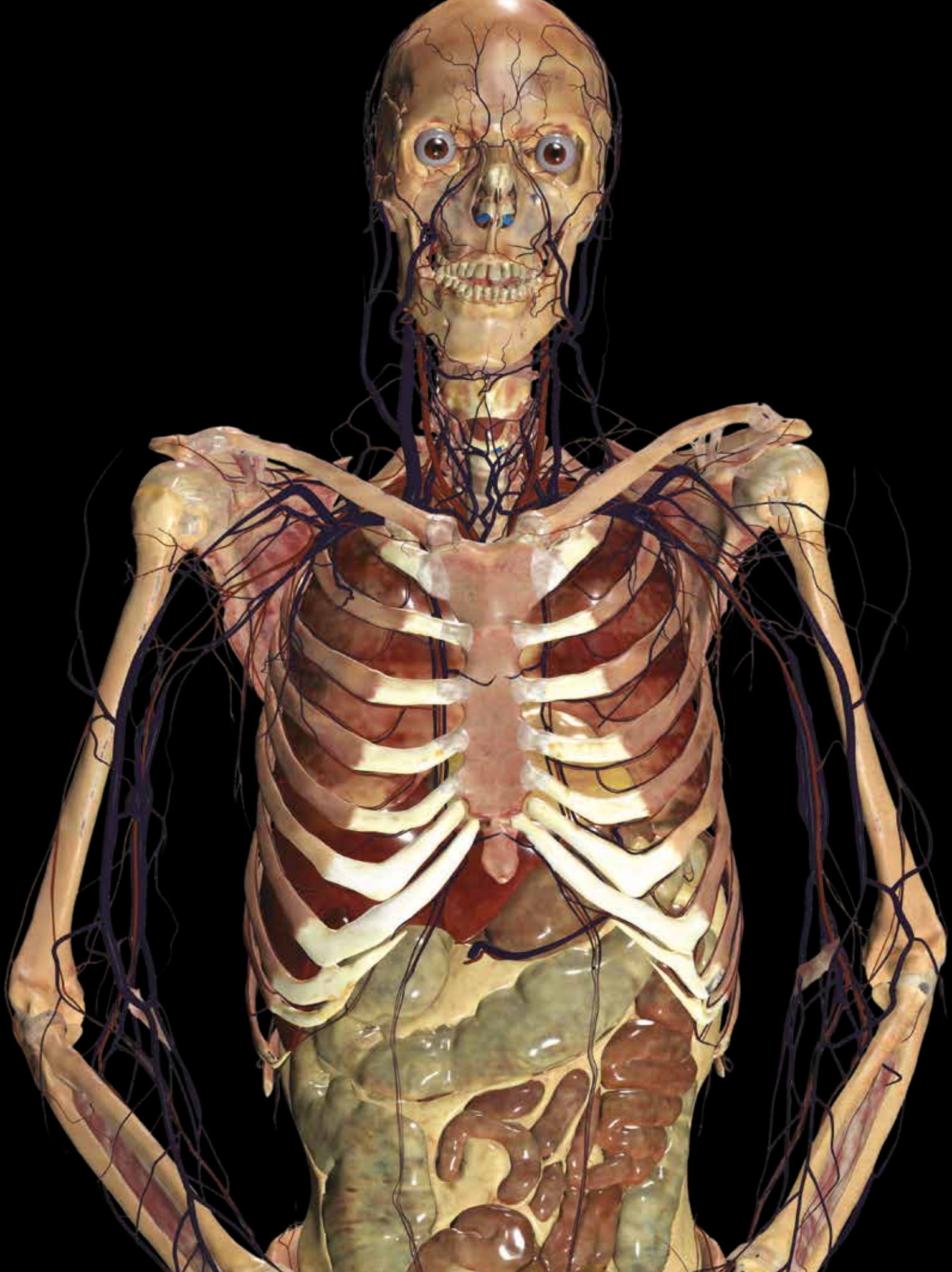
Ultimate
vascular tracing
| FROZEN BODIES

The cardiovascular system can now be explored with an unprecedented level of accuracy. A new algorithm has been implemented to identify even the smallest vessels of the pre-existing bodies. Users can toggle structures on and off, identify names and functions of the structures, and better comprehend it all through the kinematic visualisation of heart beating and blood flow in all the different tracts of the cardiovascular system.

Unprecedented resolution
| REGIONAL ANATOMY

The Table includes over 30 high-resolution 3D anatomical regions up to 50 μm.

The regional scans cover the entire body from the head and neck to the pelvis, joints, legs, and feet.

This allows for students to visualise detailed structures such as nerves or blood vessels usually difficult to understand by any other means.

Structures can be toggled on and off, rotated and zoomed into for a detailed 3D visualisation.

Regional contents can be readily integrated into class-room material by creating and saving presets to be recalled when needed and eventually exported.
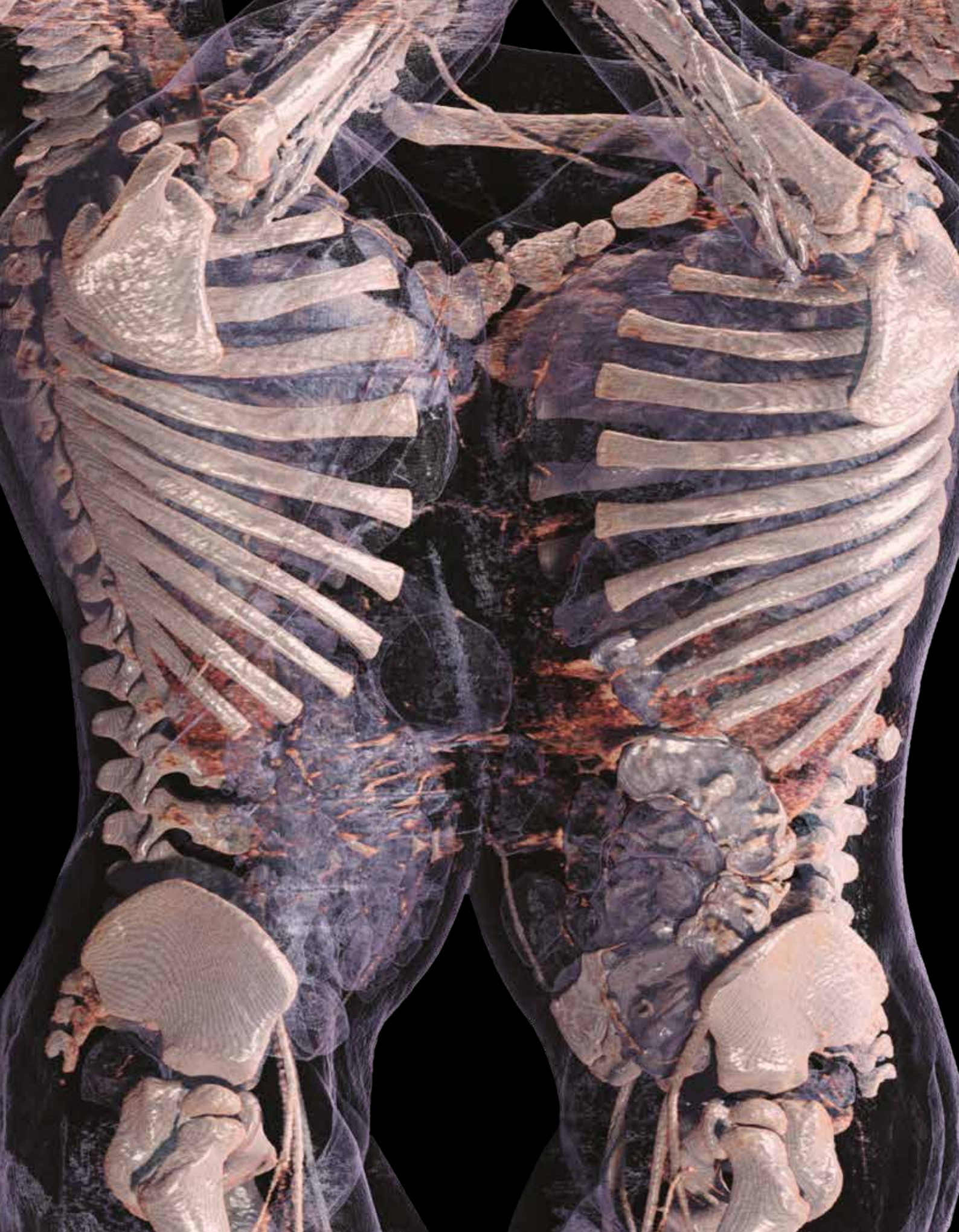
Vivid cinematic renderings

| IMAGING LIBRARY

The Digital Anatomy Library offers over 1,300 clinical cases. Users can access the original 2D scan data, medical case notes, and the resulting 3D image with multiple cinematic renderings. The variety of cases ensures that students gain exposure to physiological conditions, common pathologies and traumas, along with extremely rare pathologies. Imaging cases can be compared with other DICOMs and frozen cadaver data. In addition, the possibility to create connections between 2D cross-sectional scan data and 3D anatomy can shorten the time spent on diagnosis and surgery planning.
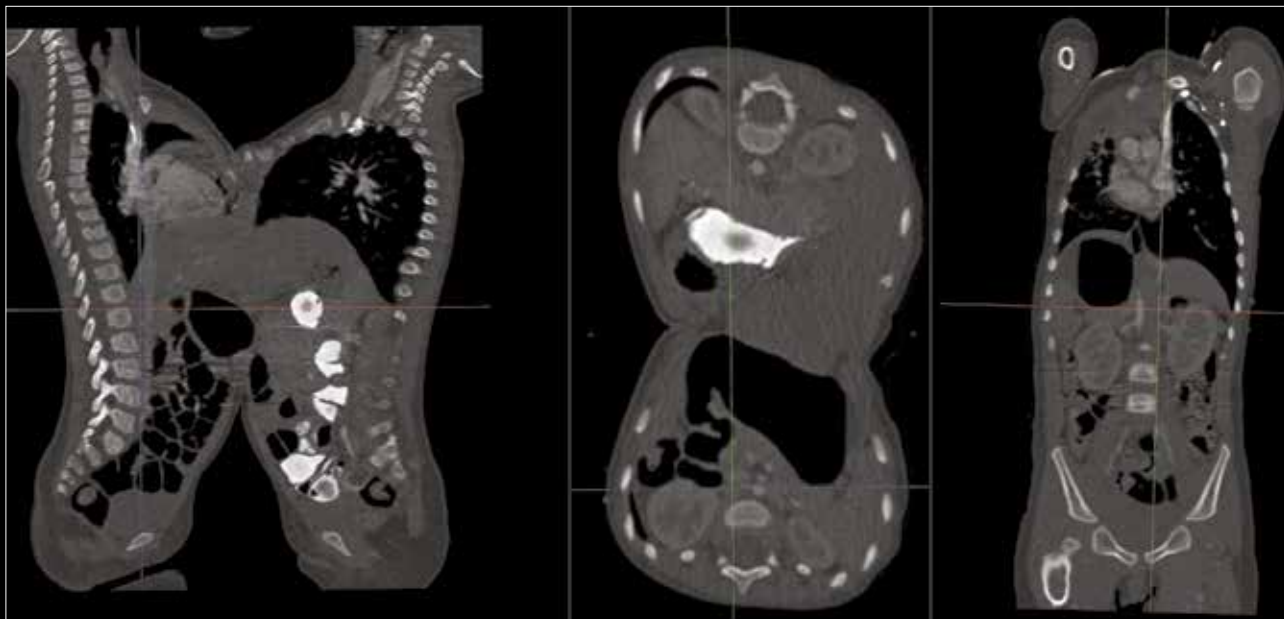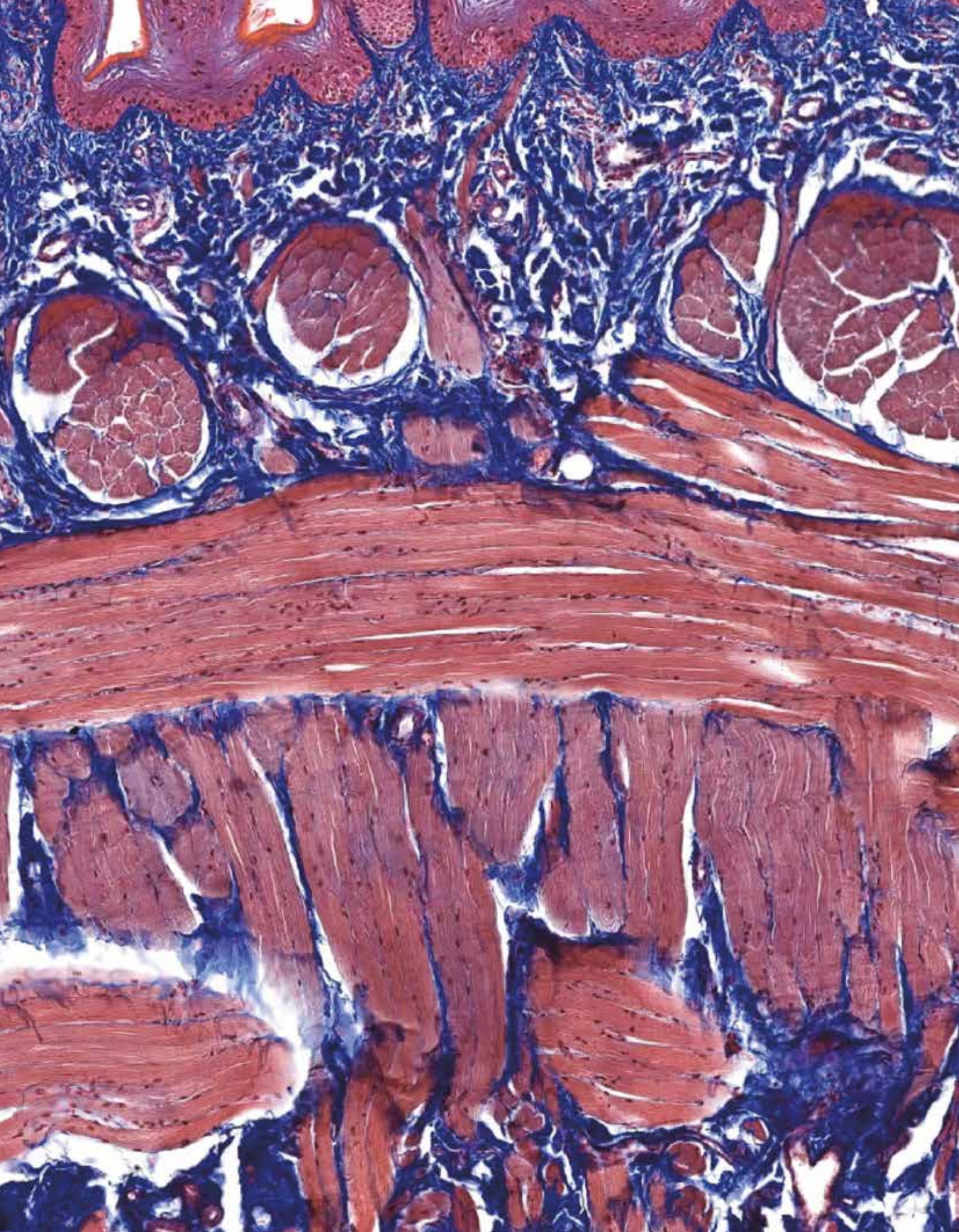
Segmented microanatomy
| HISTOLOGY LIBRARY

The image library includes over 900 histology scans. Users are provided with the possibility to activate annotations and highlight to better comprehend each microscopic detail. Tissue scans include healthy cases from across the body and can be opened together with corresponding anatomical structures. The correlation between macroscopic and microscopic anatomy offers students better and immediate comprehension of the anatomy.

ENDOMYSIUM

TYPE I FIBER (RED)

TYPE II FIBER (WHITE)

CAPILLARY

MUSCLE FIBER

ALVEOLAR SPACE
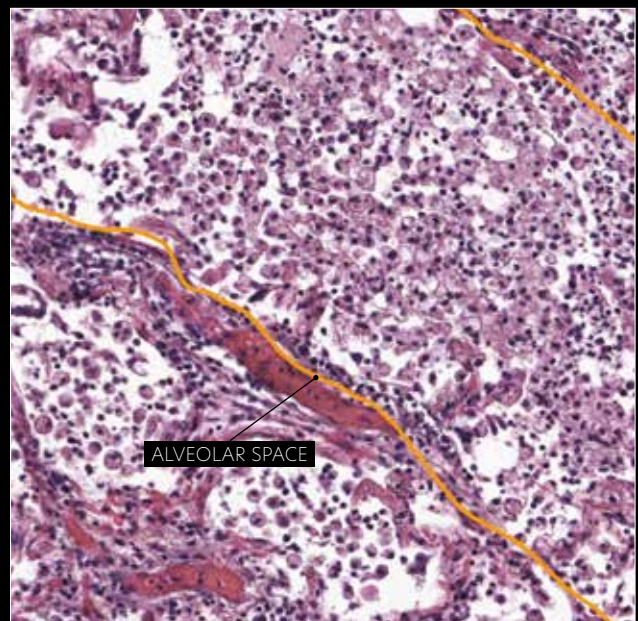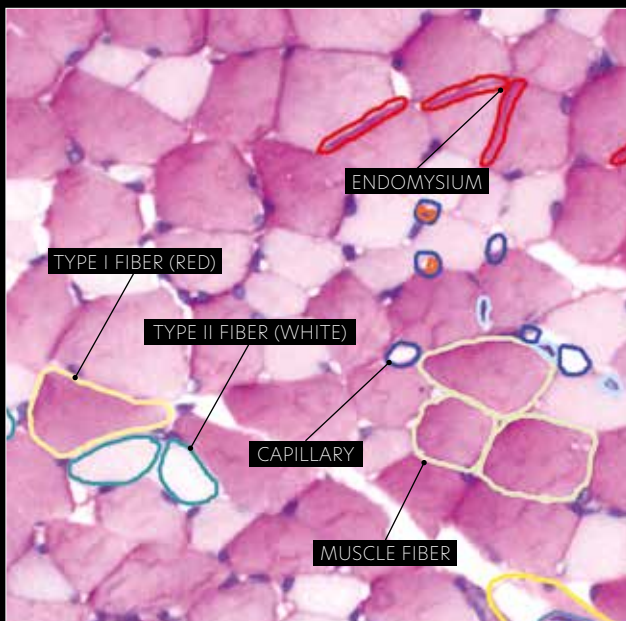
Impressive 3D reconstructions
| PROSECTIONS

Anatomy learning reaches an unprecedented level of understanding when students can compare digital datasets of prosections with frozen bodies datasets. The Table contains 66 high-quality surface scans of prosections. The latest additions provide users with 3D data showing different dissection stages. The surface has been mapped during each stage to highlight and identify structures.
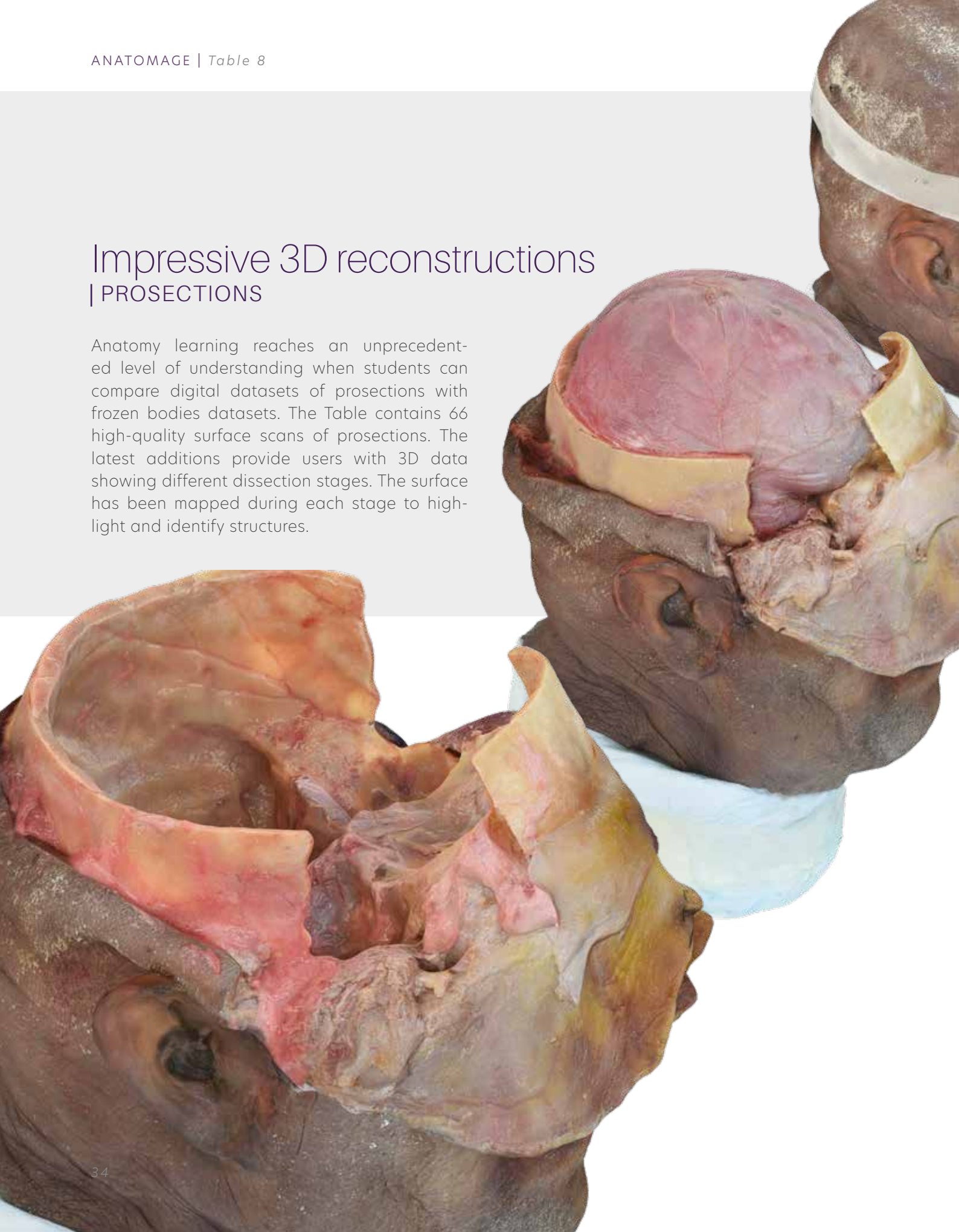
COLOURS/ANNOTATIONS

To simplify the identification of anatomical structures, even during self-study sessions, the main structures in each prosection are highlighted with colours and annotations. Complex regions, hard to understand during a traditional dissection course, can be easily explored to improve the learning process.

FRONTAL BONE

R PARIETAL BONE

SPHENOID BONE

ETHMOID BONE

R TEMPORAL BONE

OCCIPITAL BONE

L TEMPORAL BONE

L PARIETAL BONE
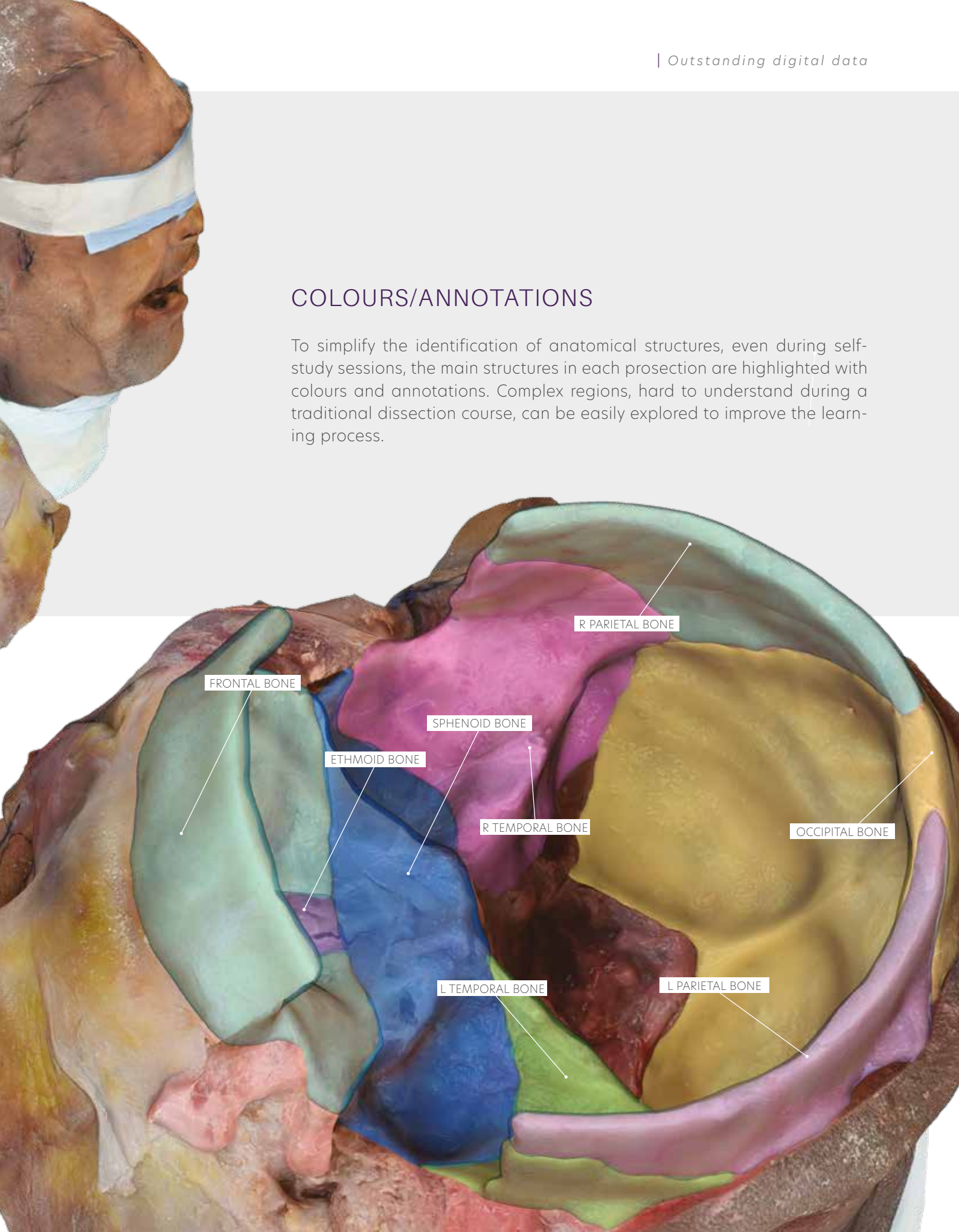
Anatomy

Interactive dissection

The Table offers unique interactive dissection and reference tools. Users can rotate the body, cut on any plane and visualise the name of each displayed structure. A dynamic view of internal anatomy is runtime reconstructed with vivid life-like colours to get a realistic feeling of each structure and the surrounding ones. Different scalpels are available to perform linear cuts on the anatomical planes, or free-hand cuts to remove skin, subcutaneous fat, and deeper structures in a specific region. Cuts can be used as an educational tool to mimic dissection, or to simulate a surgical procedure with the eventual insertion of a medical device. The possibility to undo at any time makes the bodies dissectible for an endless number of times.
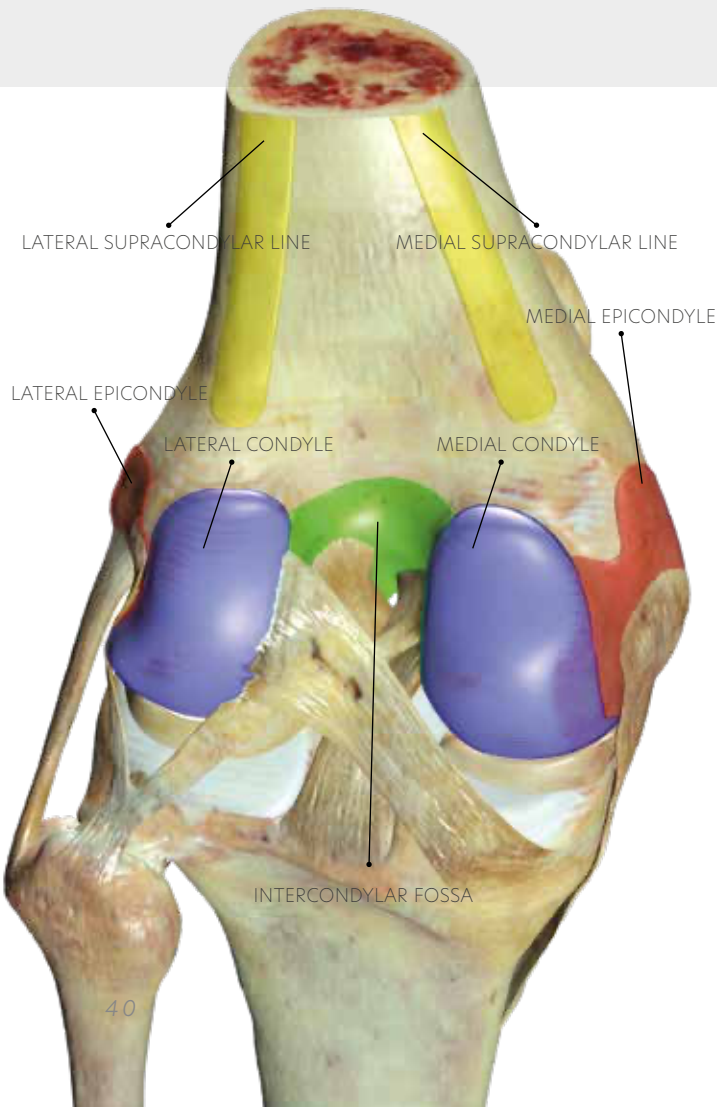
L Tibialis Anterior Muscle

System: Muscular
Category: Lower Limb
Origin:
Insertion:
Blood Supply:
Innervation:
Action:

L POPLITEAL VEIN

L ANTERIOR TIBIAL RECURRENT ARTERY

L TIBIALIS ANTERIOR MUSCLE

L ANTERIOR TIBIAL ARTERY

L ANTERIOR TIBIAL VEINS

L ANTERIOR MEDIAL MALLEOLAR ARTERY

L DORSALIS PEDIS ARTERY

L MEDIAL TARSAL ARTERY

Learning tool

With the learning tool, the Table becomes ideal also for individual student use. Students can access the Table in a lab or from home and start exploring the anatomy on their own. Per every single structure, they can visualise information about origins and insertions, function, innervation, blood supply, spatial relationships and more while highlighting in real-time the interested structures or areas.

LATERAL SUPRACONDYLAR LINE

MEDIAL SUPRACONDYLAR LINE

MEDIAL EPICONDYLE

LATERAL EPICONDYLE

LATERAL CONDYLE

MEDIAL CONDYLE

INTERCONDYLAR FOSSA

Annotations & Quizzes

There are thousands of annotated structures for each cadaver. Users can explore the body by selecting different 3D models or by selecting specific structures from the full list of segmented models. All anatomical structures can also be selected to create customised quizzes. The Anatomage quizzes have become popular for paving the way to several virtual anatomy tournaments worldwide.

Kinesiology

The Table is the only device in the global market able to show movements of a real digital cadaver.

The latest update allows the visualisation of shoulder, hip and knee movements. Structures involved in each joint's movement can be easily identified and muscles' contraction and tendons' behavior analysed for a deeper understanding.

This feature makes the Table the perfect digital integration to any Sports and Science curriculum or Rehabilitation course.
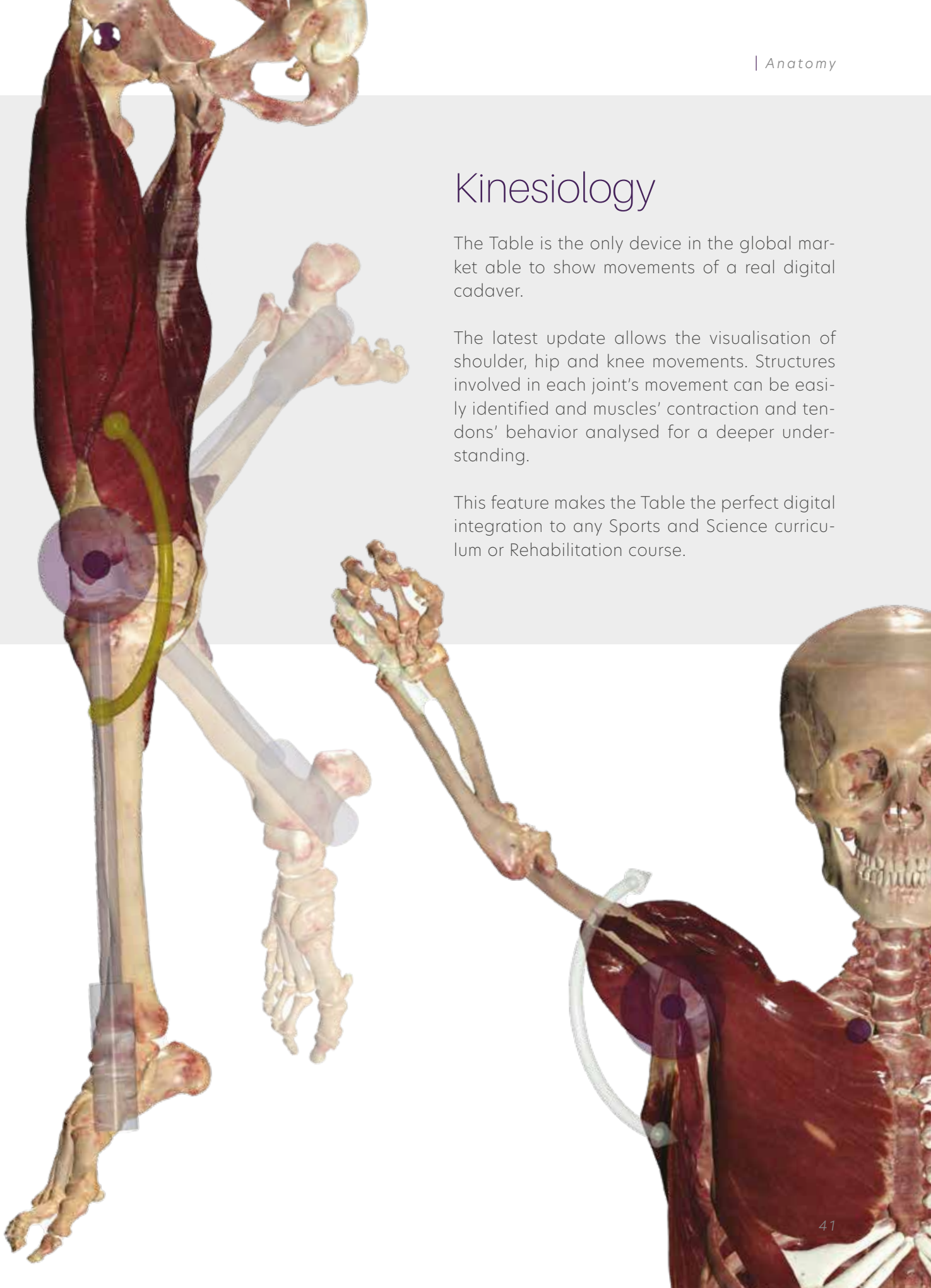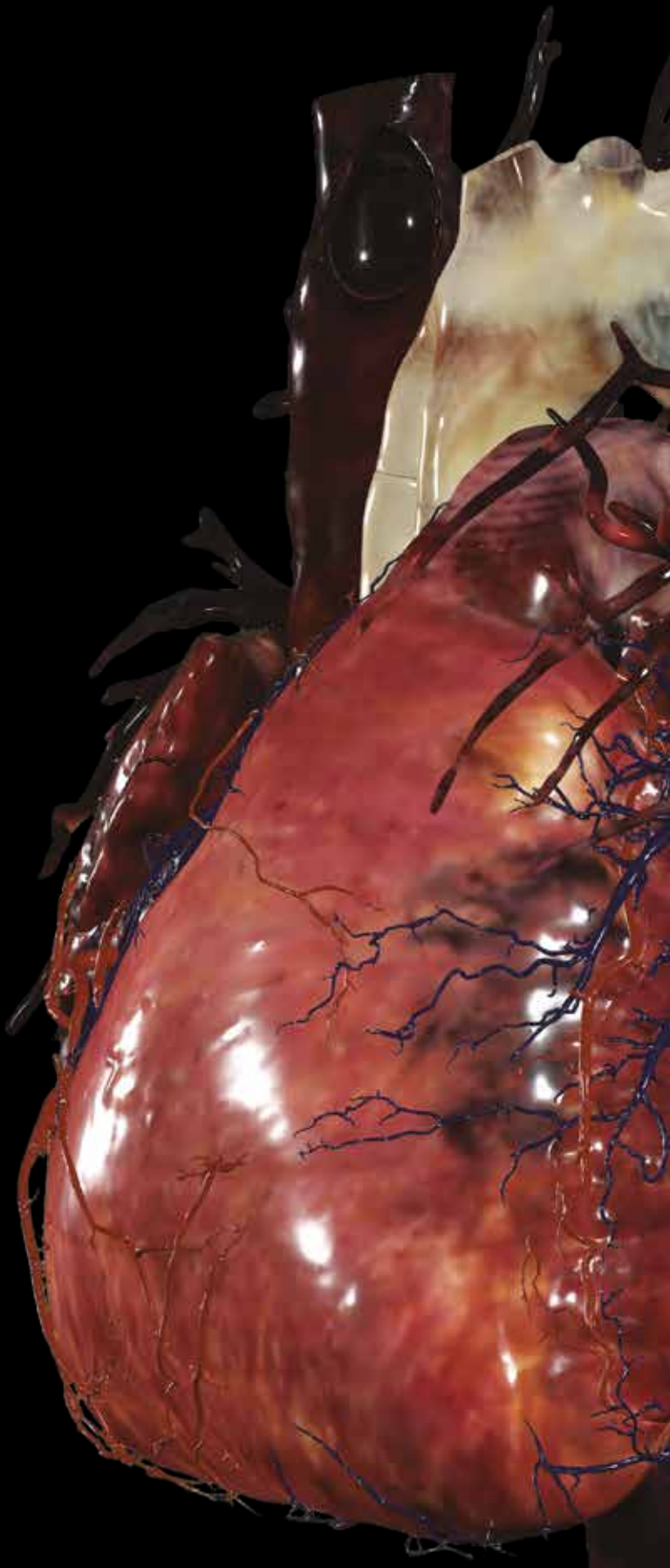
Disciplines

Heart motion
| PHYSIOLOGY

Making students understand how and, most importantly, why the heart is shaped as it is, can often be impossible through static images, textbooks, and oversimplified online models.

In the Anatomage Table, the Heart Motion and Blood Flow tools provide an accurate kinematic representation of heart function using real cadaver data.

Being able to conceptualise the cardiac conduction system is critical to understand cardiac pathophysiology. Anatomage Table simulation allows for a comprehensive understanding of topics like valves motion, and systemic and pulmonary circulations.

Nerve Pathways
| NEUROLOGY

Students can save the time spent in creating brain maps with the Nerve Pathway tool.

The identification of direct and indirect nerve pathways can be easily activated with one click starting from a muscle, organ, or dermatome.

The area of the cortex linked to the activated nerve pathway is also highlighted, and useful information on selected structure pathways is given.
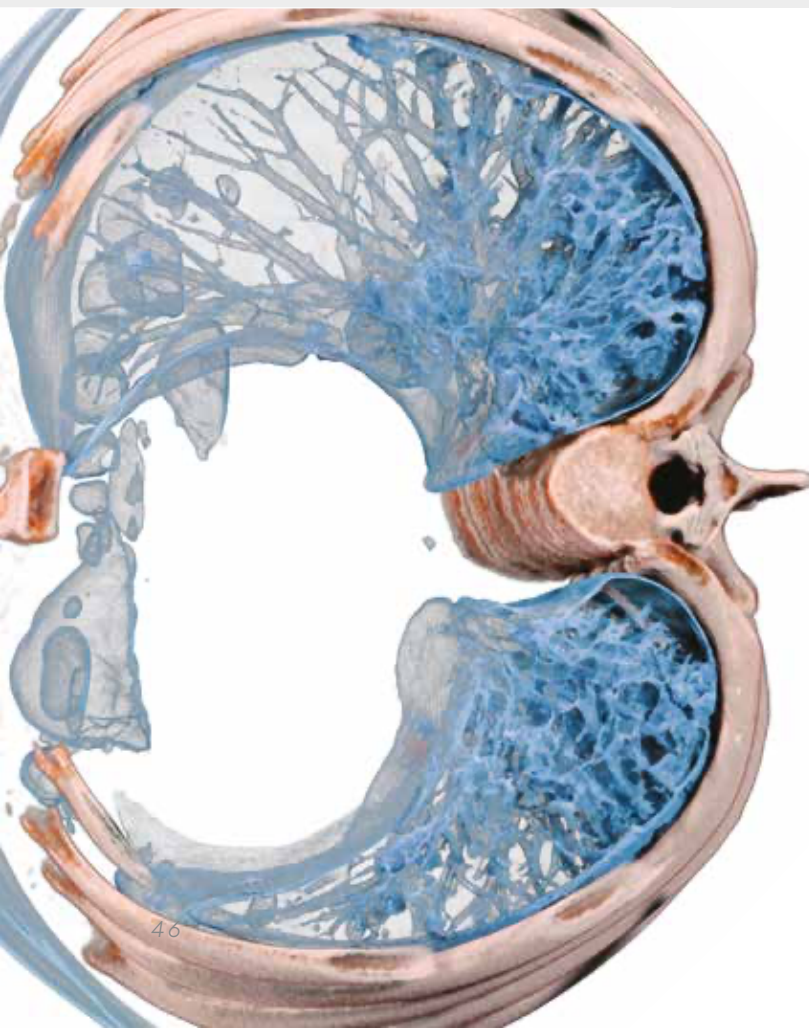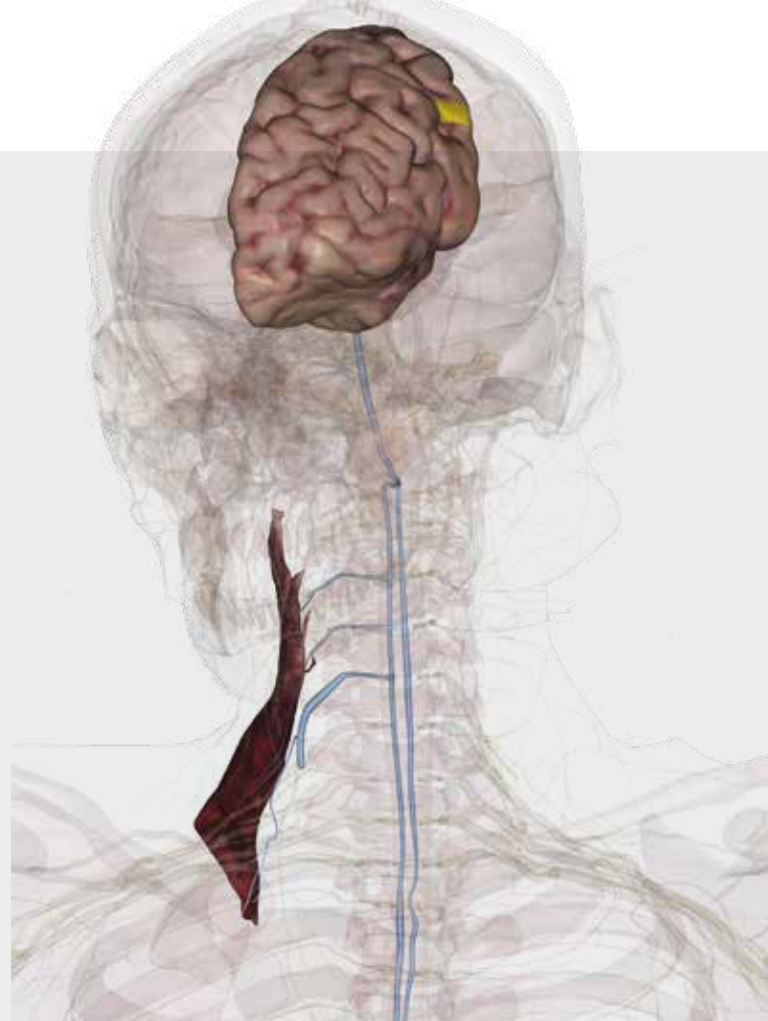
Research & Diagnosis
| PATHOLOGY & RADIOLOGY

Clinicians can load their data and eventually compare it to the library cases to speed up the diagnosis identification.

Pre and post-surgical briefings with clear 3D visualisations have proven to simplify the patient journey.

The analysis of own data with the Table supports the development of critical clinical and research projects in which the Table helps to explore complex regions or pathologies difficult to comprehend otherwise.
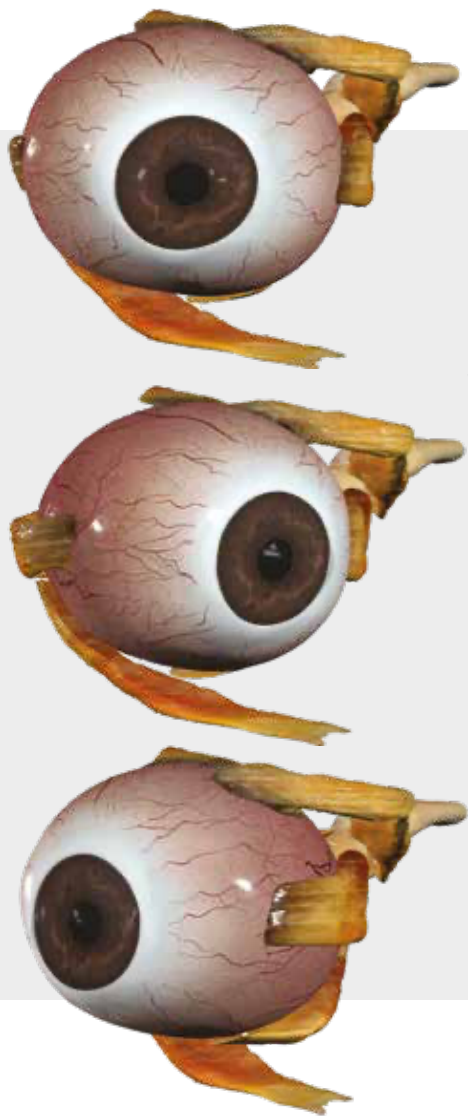
Eye motion & Simulation
| OPHTHALMOLOGY

The Optometry tool lets the eyes move and adapt while the user explores and modifies many different parameters controlling vision.

Eye motion exhibits abduction-adduction, depression-elevation, and intorsion-extorsion of the eye of the real cadaver.

Users can create compelling lesson plans by simulating an eye examination changing values of the accomodation process, pupil dilation, lens, focal point, age of the subject and other parameters.

Other tools & Features
| IMMERSIVE SIMULATIONS

The Table links 3D gross anatomy to laparoscopic internal views within cavities of the body. With the Fly-through tool, users can explore the respiratory and gastrointestinal tracts and the chambers of the heart.

Five new dynamic catheterisation procedures can also be used to improve the understanding of the practical stages before performing on a real patient.

| ANIMAL SCIENCE

Included in the Digital Library there are cat, dog, mouse and frog frozen bodies as well as over 250 other CT scans from various animal species, including farm, companion and wild animals.

The full-body dog has been fully segmented based on real tissue data so users can toggle individual structures on and off.

Fetal Development
| PEDIATRICS

The different stages of embryonic development are included in the Anatomage Table Image Library. Students can view 3D embryo scans to visualize the stages of human development with an extraordinary level of accuracy thanks to new cinematic renderings which are able to emphasise soft and hard tissue. Students can also interact with a segmented and annotated digital fetus, reconstructed from MRI data, that can be explored to get a comprehensive overview of the 31 week old fetal anatomy.
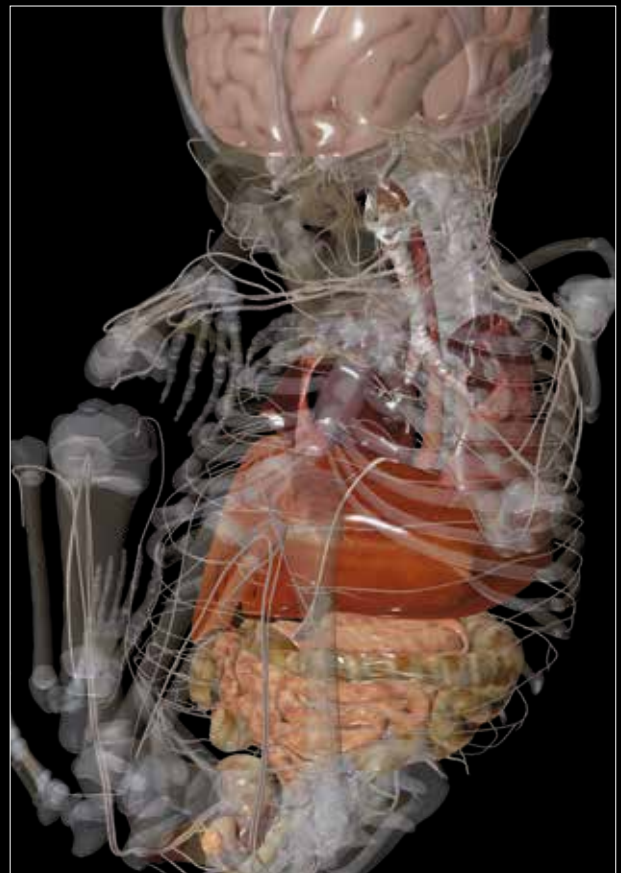
Hardware specs & support

Anatomage cares about its community and offers continuous support to customers. More than 2,500 tables have been sold worldwide, and every member of our global community of educators and researchers has been assisted in devolving their own contents and ideas on how to best incorporate the Table into a wide range of curricula and disciplines. The customer is supported through online and on-site trainings. An additional series of complimentary webinars, the Anatomage Academy, is also offered to keep customers' interaction with the Table at the highest level.

The Table arrives ready for use and no installation is required.

User instructions are embedded on the table desktop in PDF format with step-by-step descriptions in English. How-To videos can be found on Anatomage's YouTube channel.

Classic

PRODUCT DIMENSIONS
| Length: 218 cm (86")
| Height: 89 cm (34,9")
| Width: 71 cm (28")

WEIGHT
| 111 kg (245 lbs)

DISPLAY SIZE
| 84"

POWER SUPPLY
| 110-240V AC, 50/60Hz, 10A

I/O
| RJ45
| HDMI (X2)
| USB (X3)

Convertible

PRODUCT DIMENSIONS
| Length: 215/137 cm (84.8"/54")
| Height: 90/215 cm (35.6"/84.5")
| Width: 85 cm (33.5")

WEIGHT
| 150kg (330 lbs)

DISPLAY SIZE
| 84"

POWER SUPPLY
| 110-240V AC, 50/60Hz, 10A

I/O
| RJ45
| HDMI (X2)
| USB (X3)

Clinical

PRODUCT DIMENSIONS
| Length: 127 cm (50")
| Height: 81/185 cm (32"/73")
| Width: 76/71 cm (30"/28")

WEIGHT
| 125 kg (275 lbs)
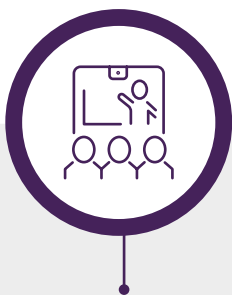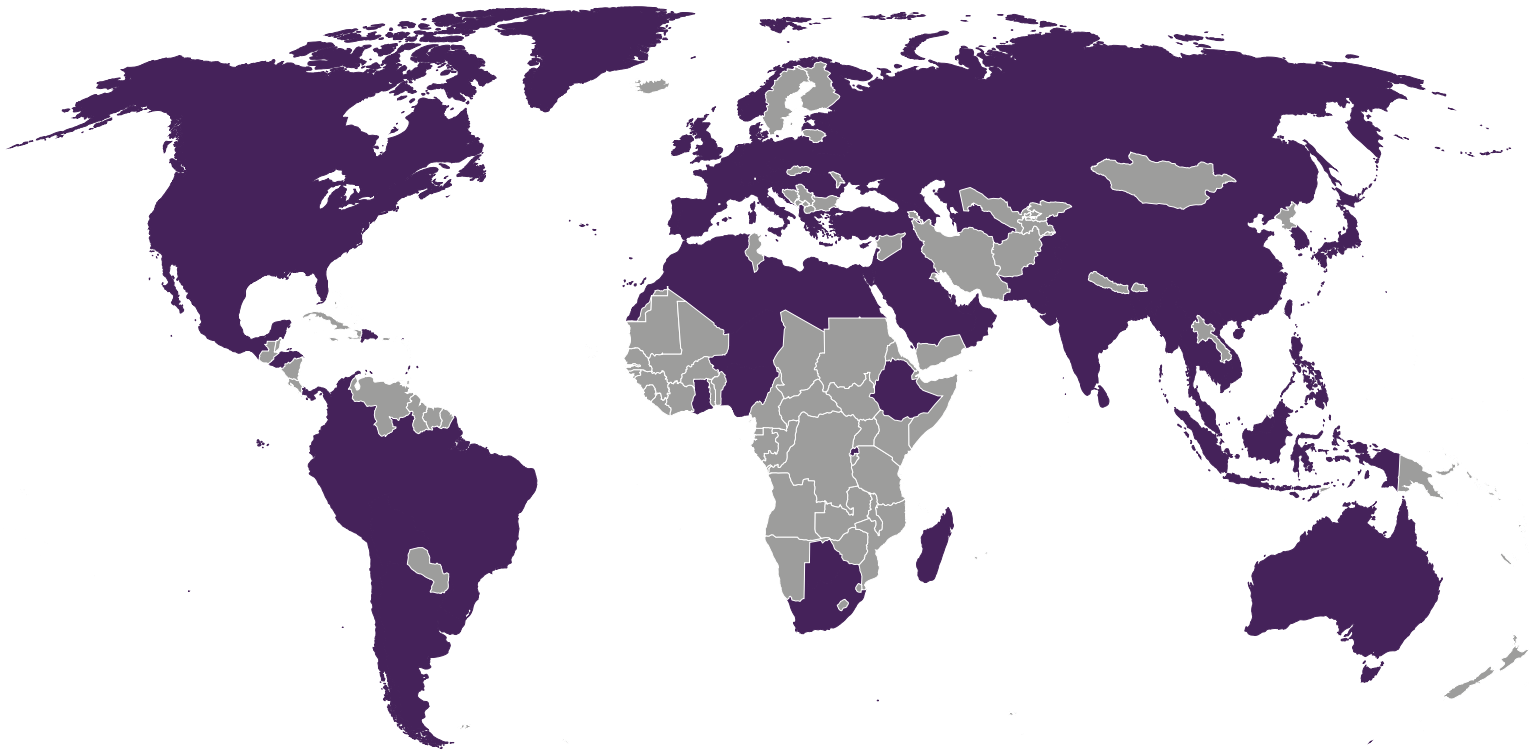
DISPLAY SIZE
| 55"

POWER SUPPLY
| 110-240V AC, 50/60Hz, 10A

I/O
| RJ45
| HDMI
| USB (X2)

2,500+ Tables

Growing community

USERS GROUP MEETING
Annual meeting of the community

ANATOMAGE ACADEMY
Series of free webinars for users

CONTINUOUS SUPPORT
Dedicated team to support and train customers

ANATOMAGE TOURNAMENT
Exciting virtual anatomy tournaments for students

User experiences

PLYMOUTH UNIVERSITY, UK
The Anatomage Tables are used by students in small-group teaching, formative assessments, student-led clinical anatomy talks and outside of teaching sessions. During virtual dissections, subgroups of 5-6 students take turns in roles such as 'the reader', 'the dissector', and 'the questioners' to help them make the most of the system. "Also, as it is possible to compare the 3D models to 2D flat images, and have the same structure highlighted in both, it really facilitates students with their cross-sectional imaging".
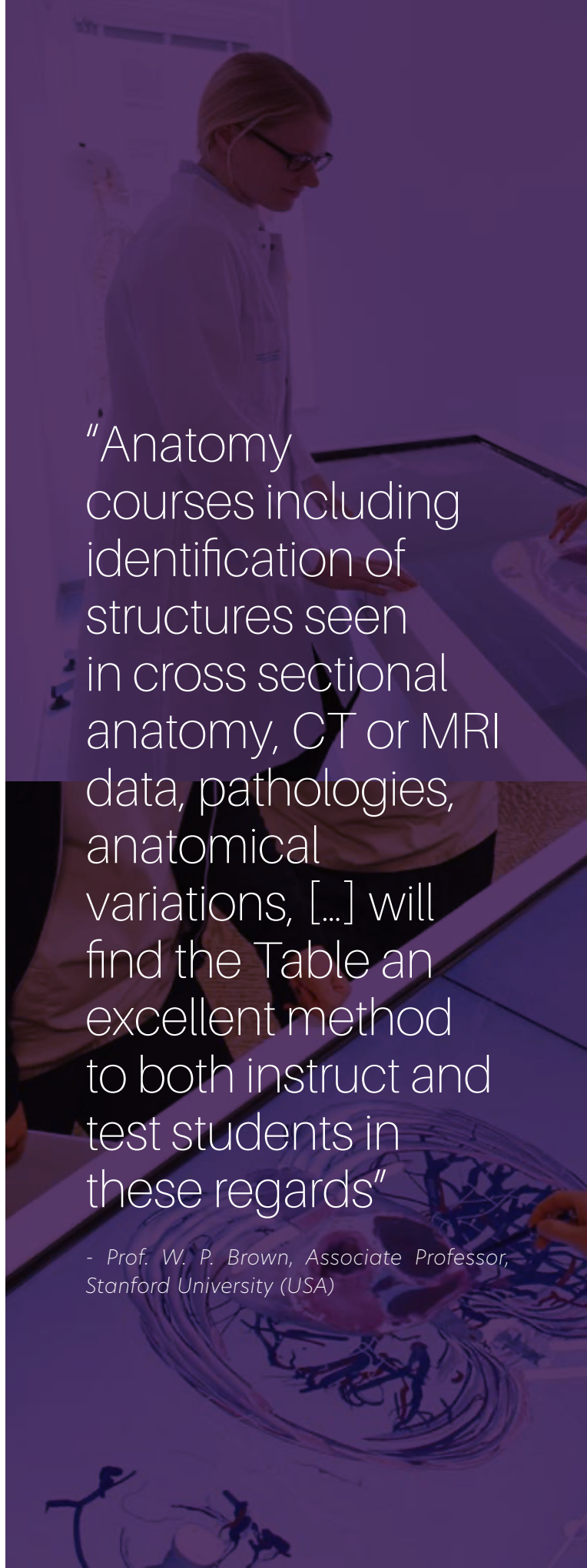- *Dr S. Moyes, Lead in Anatomy*

MANCHESTER METROPOLITAN UNIVERSITY, UK
Small groups of students run various practical sessions using the Anatomage Tables aimed to explore the structure of organs, to practice before real tissue dissection, or to undertake a virtual operation. The Table contents are also useful for lecture material preparation. "Screenshots and videos of organs and histological sections are excellent".
- *Dr G. Evans, Principal Lecturer In Healthcare Science*

UNIVERSITÄTSMEDIZIN GÖTTINGEN, GERMANY
Göttingen University has two Tables and 500 Students every year. A professor performs a training to 25 groups of 10 students each using a Table placed near the Dissection room. After these trainings, they have supervised open access to the Table to refresh the anatomical structures they are going to dissect. The other Table is stationed in the library and supports students by providing a deeper understanding of anatomy.

"Anatomy courses including identification of structures seen in cross sectional anatomy, CT or MRI data, pathologies, anatomical variations, [...] will find the Table an excellent method to both instruct and test students in these regards"

- *Prof. W. P. Brown, Associate Professor, Stanford University (USA)*

MEDICAL SCHOOL HAMBURG, GERMANY

The private university association, including the Medical School Hamburg (MSH), MSB Medical School Berlin and HMU Health and Medical University Potsdam, created a complex virtual educational environment in all their headquarters: the University started 2021 with the acquisition of four more Anatomage Tables for medical studies, in addition to the four Tables already in use. Anatomage Tables have also been used remotely for "problem-check" sessions via online meetings in which students revise complex topics.

UNIVERSITÀ DEGLI STUDI DI PAVIA, ITALY

In the Departments of Anatomy, Neurosurgery, and Dentistry, the Table takes over the real dissection, which is not practiced in this institution. Instead of using models, the students can identify all organs and structures of the body that are generally difficult to both recognize and memorise. The post-grad students can face hundreds of real clinical cases to plan surgeries in a more conscious way.

UNIVERSITÀ DEGLI STUDI DEL PIEMONTE ORIENTALE, ITALY

"The advantage in using the Gross Anatomy Cadaver, the connection between histology and macroanatomy, and the possibility to compare cadaver with DICOM cases, enrich the creation of lectures' contents and improve the learning process. An example of contents created with the Anatomage Table is the paper The Anatomage Table and the placement of titanium mesh for the management of orbital floor fractures[1]".
- *Prof. F. Boccafoschi, Anatomy Professor*

[1] M. Brucoli, F. Boccafoschi et al. "The Anatomage Table and the placement of titanium mesh for the management of orbital floor fractures." Oral Surg Oral Med Oral Pathol Oral Radiol. 2018 Oct; 126 (4):317-321, doi: 10.1016/j.oooo.2018.04.006. Epub 2018 May 2.

DEREE-AMERICAN COLLEGE OF GREECE

"The Anatomage Table has been placed in the biology lab and it will be used in the introductory biology courses, the Human Anatomy and Physiology course, in Cell and Molecular Neurobiology course and for covering Histology. Students majoring in Biology, Biomedical Sciences, Psychology and the Environmental Studies will benefit as it offers highly interactive visual and textual explanations to anatomy, histology and physiology concepts in the most condensed, yet accurate, manner. Student learning can be assessed for each anatomy and physiology concept and can be effectively monitored and evaluated with well-developed questions and quizzes".
- *Prof. P. Papadopoulou, Biology Professor, Head of Department of Science and Mathematics*

About Anatomage

Since 2004 Anatomage has been a leading medical device company driving innovation in the healthcare and education industries. Anatomage's advanced solutions are being used in tens of thousands of universities, clinics, hospitals, and other institutions worldwide.

Our products include virtual dissection tables, online anatomy and physiology web-based platform, radiology software, and imaging equipment. Having the medical CE mark, our virtual dissection tables and imaging equipment can be used for applications in medical diagnosis as well as clinical use.

Anatomage continues to establish exclusive partnerships with renowned educational institutions and medical equipment companies. Our cutting-edge and unique products have been featured numerous times in journals, publications, and the media, including TED Talks, BBC, CBC, Japanese Fuji TV, PBS, and other notable outlets.

Located in the heart of the Silicon Valley, Anatomage is a fast-growing company that continues to thrive in a place where technology is ingrained in the culture. The company encourages the building of diverse and positive culture and recruits top talents. Anatomage's work environment is defined by our highly talented anatomists, biologists, medical specialists, and engineers who strive to create high-tech products that set new industry standards. With our revolutionary family of products, we aspire to advance medical education and improve patient care throughout the healthcare industry.

The Anatomage branch office in Milan leads the development of R&D projects in Europe. A dedicated European team trains and services European customers fast and reliably.

Anatomage Europe

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