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Descrizione fisica	1 online resource (195 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1392
Disciplina	170 616.0754
Soggetti	Anatomy Medical education Medicine - Research Biology - Research Information visualization Biophysics Education - Data processing Medical Education Biomedical Research Data and Information Visualization Bioanalysis and Bioimaging Computers and Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Part I. The History and Philosophy of Medical Imaging -- Chapter 1. Re: Viewing Observation. The Philosophy of Medical Imaging -- Part II. Innovation in Imaging Technologies -- Chapter 2. Emerging Imaging Techniques in Anatomy: For Teaching, Research and Clinical Practice -- Chapter 3. Mapping of Orthopaedic Fractures for Optimal Surgical Guidance -- Chapter 4. Visualising the Dural Venous Sinuses Using Volume Tracing, a Novel Approach -- Chapter 5. Placental Morphology and Morphometry: Is It a Prerequisite for Future Pathological

Investigations? -- Part III. Art-Based Practice and Body Science -- Chapter 6. Drawing: A Dialogue across Disciplines -- Chapter 7. Visualizing the Human Body Using an Artistic Approach -- Chapter 8. Construction of Facial Composites from Eyewitness Memory.

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#### Sommario/riassunto

This book brings together current advances in high-technology visualisation and the age-old but science-adapted practice of drawing for improved observation in medical education and surgical planning and practice. We begin this book with a chapter reviewing the history of confusion around visualisation, observation and theory, outlining the implications for medical imaging. The authors consider the shifting influence of various schools of philosophy, and the changing agency of technology over time. We then follow with chapters on the practical application of visualisation and observation, including emerging imaging techniques in anatomy for teaching, research and clinical practice - innovation in the mapping of orthopaedic fractures for optimal orthopaedic surgical guidance - placental morphology and morphometry as a prerequisite for future pathological investigations - visualising the dural venous sinuses using volume tracing. Two chapters explore the use and benefit of drawing in medical education and surgical planning. It is worth noting that experienced surgeons and artists employ a common set of techniques as part of their work which involves both close observation and the development of fine motor skills and sensitive tool use. An in-depth look at police identikit construction from memory by eyewitnesses to crimes, outlines how an individual's memory of a suspect's facial features are rendered visible as a composite image. This book offers anatomy educators and clinicians an overview of the history and philosophy of medical observation and imaging, as well as an overview of contemporary imaging technologies for anatomy education and clinical practice. In addition, we offer anatomy educators and clinicians a detailed overview of drawing practices for the improvement of anatomical observation and surgical planning. Forensic psychologists and law enforcement personnel will not only benefit from a chapter dedicated to the construction of facial composites, but also from chapters on drawing and observation. .

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