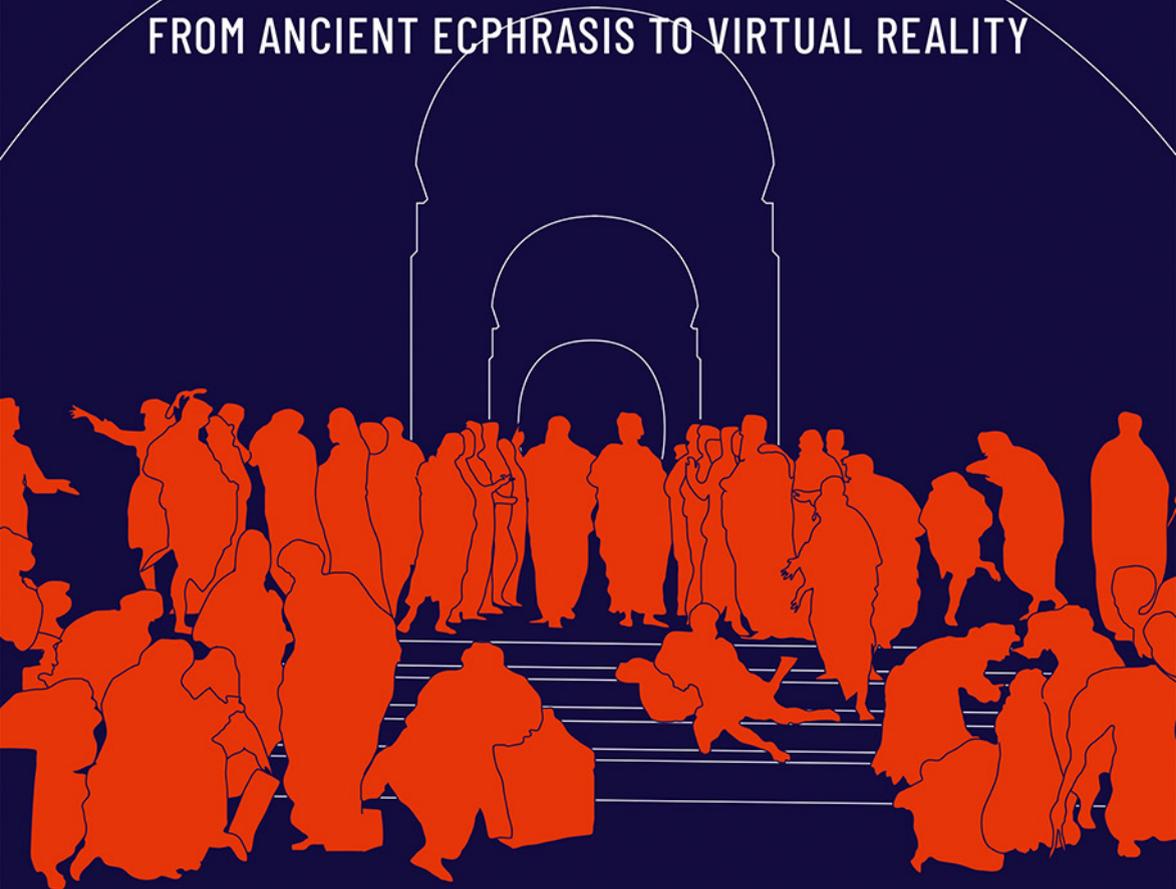


JESÚS MUÑOZ MORCILLO,  
CAROLINE Y. ROBERTSON-VON TROTHA (EDS.)

# GENEALOGY OF POPULAR SCIENCE

FROM ANCIENT ECPHRASIS TO VIRTUAL REALITY



[transcript] HISTORY OF SCIENCE AND TECHNOLOGY

## From:

Jesús Muñoz Morcillo, Caroline Y. Robertson-von Trotha (eds.)

# Genealogy of Popular Science From Ancient Ecphrasis to Virtual Reality

November 2020, 586 p., pb., 17 B&W-ill., 47 col.-ill.

49,00 € (DE), 978-3-8376-4835-5

E-Book:

PDF: 48,99 € (DE), ISBN 978-3-8394-4835-9

Despite the efforts of modern scholars to explain the origins of science communication as a social, rhetorical, and aesthetic phenomenon, most researchers approach the popularization of science from the perspective of present issues, thus ignoring its historical roots in classical culture along with its continuities, disruptions, and transformations.

This volume fills this research gap with a genealogically reflected introduction into the popularization of science as a recurrent cultural technique. The category »popular science« is elucidated in interdisciplinary and diachronic dialogue, discussing case studies from all historical periods.

Classicists, archaeologists, medievalists, art historians, sociologists, and historians of science provide the first diachronic and multi-layered approach to the rhetoric techniques, aesthetics, and societal conditions that have shaped the dissemination and reception of scientific knowledge.

**Jesús Muñoz Morcillo**, classicist (PhD) and art historian (PhD), is research fellow at the ZAK | Centre for Cultural and General Studies and the Institute of Art and Architecture History (IKB) at the Karlsruhe Institute of Technology (KIT).

**Caroline Y. Robertson-von Trotha**, sociologist (PhD), is founding director of the ZAK | Centre for Cultural and General Studies at Karlsruhe Institute of Technology (KIT), coordinator of the German network of the Anna Lindh Foundation, member of the Culture Committee of the German UNESCO Commission, and chairlady of the Academic Council for Culture and Foreign Policy (WIKa) at the Institute for Foreign Cultural Relations (ifa).

For further information:

[www.transcript-verlag.de/en/978-3-8376-4835-5](http://www.transcript-verlag.de/en/978-3-8376-4835-5)

# Contents

---

**Preface** | 13

## INTRODUCTORY ARTICLES

**The Origins of Popular Science as a Rhetorical and Protreptical Practice**

Jesús Muñoz Morcillo | 23

**From Rational Recreation to Fun with Science. Continuities in the History of Science Popularization since the Enlightenment**

Oliver Hochadel | 65

## ON THE TRAIL OF POPULAR SCIENCE IN ANTIQUITY

**Mythology and Rhetoric Exercises at the Greek School**

José Antonio Fernández Delgado | 95

**The Panathenaic Prize-Amphorae as Communication Media**

Martin Streicher | 115

**Popular Knowledge and its Rhetorical Use in Aristotle**

María J. Martín-Velasco | 131

**Ékphrasis as a Device for Knowledge Dissemination in Euripides**

Sara Matías Pérez | 151

**Argument Schemes Related to Popular Science in the Second Sophistic**

Maurice Parussel | 165

**Knowledge about the Sea and its Creatures in the Roman Empire**

Dorit Engster | 179

**The Celestial Axis in Manilius' *Astronomica*:  
Making the Invisible Visible**

Matteo Rossetti | 215

**BETWEEN PRE-MODERNITY  
AND THE AGE OF ENLIGHTENMENT**

**Popular Mechanics: Hero of Alexandria  
from Antiquity to the Renaissance**

Courtney Ann Roby | 231

**Knowledge Order and Knowledge Popularization  
in Pre-Modern Encyclopaedism**

Mathias Herweg | 255

***Was Cometen Eygentlich Seyen.* Ways of Imparting Knowledge  
about the Nature of Comets in Early Modern Ephemeral Literature**

Marion Gindhart | 285

**More Publicity through Very Short Books.  
Epitomes in Late Antiquity and the Renaissance**

Markus Sehlmeier | 315

**Pictorial Science and Enlightenment Art: Joseph Wright,  
William Pether, and the Cognitive Effect of Grayscales**

Oliver Jehle | 345

**MODERN TIMES: ARTS AND SCIENCES AND MEDIA**

**Popularity Despite Anti-Popularization.  
Thinking of Optical Drawing Devices in the Early 19th Century**

Erna Fiorentini | 367

**Wilhelm Lübke. Art History for Feuilletons**

Alexandra Axtmann | 391

**Popular Aesthetics of the 19th Century. Ornamental Prints  
and Pattern Sheets as Actors for Popularization During the 1870s**

Elin Manker | 407

**Wassily Kandinsky's Conception of a Vibration of the Soul:  
Art Theory at the Crossroads of Esoteric Literature,  
Popular Science, and Aesthetics**

Beatrice Immelmann | 425

**Visual Nature Metaphors of Cybernetics  
in Popular Science and the Arts**

Lena Trüper | 441

**From "The Destroyer of Worlds" to "Atoms for Peace" (and Back?).  
The Discourse on Nuclear Power in US Popular  
Science Magazines during the Early Cold War Era**

Lars F. Köppen | 461

**Iconophilia of the Brain, Stage 3: An Epistemic Regime,  
the Popular Science Magazine *Gehirn & Geist*, and Visual Culture**

Dirk Hommrich | 477

**Watch and Learn! Image-Based Popularization of Academic  
Reasoning and Scientific Action in Fictional Movies and Comics**

Kathrin Klohs | 497

**Innovative Popular Science Communication?  
Materiality, Aesthetics, and Gender in Science Slams**

Miira Hill | 517

## **EPILOGUE**

**On Honey, VR Goggles, and Real Medicine | 547**

**About the Authors | 555**

**Index of Names and Terms | 559**

# List of Figures

---

## INTRODUCTORY ARTICLES

### **The Origins of Popular Science as a Rhetorical and Protreptical Practice**

Fig. 1: Frontispiece of Pope Sixtus IV's *De rerum natura Manuscript*. Detail | 32

Fig. 2: Aesop, with a Fox, from the Central Medallion of a *Kýlix* | 46

Fig. 3: Physician Treating the Shoulder of a Young Man, Votive Relief | 46

Fig. 4: Historiated Letter with Galen's Vivisection Scene,  
*De humanis corporis fabrica* (1543), Andreas Vesalius | 52

Fig. 5: Emblem on the Natural Marriage of the Vine and the Elm,  
*Emblematum libellus*, Andrea Alciati (1534) | 52

## ON THE TRAIL OF POPULAR SCIENCE IN ANTIQUITY

### **Mythology and Rhetoric Exercises at the Greek School**

Fig. 1: Encomium to Antinous, P. Oxy. L 3537 | 103

Fig. 2: Sulpicius Maximus' Gravestone | 103

### **The Panathenaic Prize-Amphorae as Communication Media**

Fig. 1: Panathenaic Amphora, Ny Carlsberg Glyptotek 3606 (Side A) | 116

Fig. 2: Panathenaic Amphora, Ny Carlsberg Glyptotek 3606 (Side B) | 116

Fig. 3: *Kýlix* with Depiction of Athena and Panathenaic Amphora | 124

Fig. 4: Mosaic with Panathenaic Amphora, Delos, House of the Masks | 124

Fig. 5: Lucanian Amphora, San Simeon 529.9.614 | 125

Fig. 6: Lucanian Amphora, Paris, Louvre CA 308 | 125

### **Ékphrasis as a Device for Knowledge Dissemination in Euripides**

Fig. 1: Achilles Receiving His Weapons on a Black-Figure *Hýdria* | 154

### **Argument Schemes Related to Popular Science in the Second Sophistic**

Fig. 1: Contorniate Medallion with a Portrait of Apuleius | 168

### **Knowledge about the Sea and its Creatures in the Roman Empire**

Fig. 1: Roman Mosaic from House VIII.2.16, Pompeii | 190

Fig. 2: Roman Mosaic with Fishes and Ducks from the House  
of the Grand Duke of Tuscany, IX, 2, 27, Pompeii | 204

## **BETWEEN PRE-MODERNITY AND THE AGE OF ENLIGHTENMENT**

### **Popular Mechanics: Hero of Alexandria from Antiquity to the Renaissance**

Fig. 1: Venesection and Cupping Glasses on the Peytel Aryballos | 239

Fig. 2: Frontispiece of Salomon de Caus' *Les Raisons des Forces Mouvantes* | 248

Fig. 3: Aleotti's "Hercules" Theorem, *Gli Artifitiosi*

*Et Cvriosi Moti Spiritali Di Herrone* (1589), detail | 250

### **Knowledge Order and Knowledge Popularization in Pre-Modern Encyclopaedism**

Fig. 1: Illuminated Description of the Monstrous Beings of the Far East | 265

Fig. 2: Geometric Diagrams Added to Book III of Isidore's *Etymologiae* | 270

Fig. 3: Gregor Reisch, *Margarita philosophica* (1517), *Typus logic[a]e* | 274

### **Was Cometen eygentlich seyen. Ways of Imparting Knowledge about the Nature of Comets in Early Modern Ephemeral Literature**

Fig. 1: Elias Ehinger: *Judicium Astrologicum* (Title Page) | 288

Fig. 2: Johannes Schöner: *Coniectur* (Title Page) | 295

Fig. 3: Peter Apian: *Practica* (Title Page) | 300

Fig. 4: Peter Apian: *Practica* (F3v, Detail) | 302

Fig. 5: Peter Crüger: *Kurtzer Bericht* (Title Page) | 305

Fig. 6: Peter Crüger: *Uranodromus* (Title Page) | 307

### **Pictorial Science and Enlightenment Art: Joseph Wright, William Pether, and the Cognitive Effect of Grayscale**

Fig. 1: *Portrait of Richard Earlom* by Thomas Goff Lupton | 346

Fig. 2: *Portrait of Valentine Green* by Lemuel Francis Abbot | 346

Fig. 3: Valentine Green, *A Philosopher Shewing an Experiment  
on an Air Pump*—After Joseph Wright of Derby | 347

Fig. 4: Joseph Wright, *Three Persons Viewing the Gladiator  
by Candlelight* | 348

Fig. 5: William Pether's Mezzotint Version of *Three Persons Viewing the Gladiator by Candlelight* | 348

Fig. 6: Borghese Gladiator | 354

Fig. 7: Valentine Green, *Portrait of Sir Joshua Reynolds* | 356

## MODERN TIMES: ARTS AND SCIENCES AND MEDIA

### Popularity Despite Anti-Popularization Thinking of Optical Drawing Devices in the Early 19th Century

Fig. 1: Carl Jakob Lindström, "Den engelske konstnären" (1830) | 368

Fig. 2: Christoph Nathe's "Optische Tafel" | 373

Fig. 3 (a,b): Frontispieces of Charles Chevalier, *Conseils aux artistes et aux amateurs, sur l'application de la chambre claire à l'art du dessin* | 375

Fig. 4: Illustration of the *Camera Lucida* | 379

### Popular Aesthetics of the 19th Century. Ornamental Prints and Pattern Sheets as Actors for Popularization During the 1870s

Fig. 1: Illustrerad Teknisk Tidning 1871: 2 | 414

Fig. 2: Illustrerad Teknisk Tidning 1871: 50 | 414

Fig. 3: Pattern Sheet, Appendix for *Tidskrift för hemmet*, 1873:1 | 419

### Visual Nature Metaphors of Cybernetics in Popular Science and the Arts

Fig. 1: Cover Illustration of the *Google Arts & Culture Project* | 442

Fig. 2, 3, 4, 5: Film Stills from *A Communications Primer* | 446

Fig. 6: Vertigo Systems, Product Video for "Living Floor" | 450

Fig. 7: *The Tree of Knowledge* (1984), Overview Page | 452

Fig. 8: *The Tree of Knowledge* (1984), Illustration from Chapter 3 | 452

Fig. 9: *The Tree of Knowledge* (1984), Illustration from Chapter 7 | 452

Fig. 10: *The Tree of Knowledge* (1984), Illustration from Chapter 8 | 452

Fig. 11: Cloud Sculpture by Fujiko Nakaya | 454

Fig. 12: Film Still from *Tomorrowland: A World Beyond* | 456

Fig. 13: Film Still from *Ex Machina* | 456

### From "The Destroyer of Worlds" to "Atoms for Peace" (and Back?). The Discourse on Nuclear Power in US Popular Science Magazines during the Cold War

Fig. 1: Film Stills from *A is for Atom* (1953) | 468

**Iconophilia of the Brain, Stage 3? An Epistemic Regime, the Popular Science Magazine *Gehirn & Geist*, and Visual Culture**

Fig. 1: “Neuronal Puppet Master” | 490

**Watch and Learn! Image-Based Popularization of Academic Reasoning and Scientific Action in Fictional Movies and Comics**

Fig. 1: Jim Ottaviani’s Graphic Novel *Feynman* (2011: 20), Detail | 503

Fig. 2: Jim Ottaviani’s Graphic Novel *Feynman* (2011: 21), Detail | 504

Fig. 3: Jim Ottaviani’s Graphic Novel *Feynman* (2011: 21), Detail | 504

Fig. 4: Bruce Banner’s Blood Cells in *The Incredible Hulk* (2008) | 500

Fig. 5 (a,b,c): Film Stills from Opening Credits of *Hulk* (2003) | 507

Fig. 6: Green Fluorescent Protein on the Cover of *Science* | 507

## Preface

---

Popular science is a complex phenomenon with various sociopolitical, economic, and aesthetic dimensions. Because of this multilayered reality, research into popular science cannot be entirely contained within any single scholarly discipline. In interdisciplinary research fields such as Science Studies, the Sociology of Science, or Science and Technology Studies (STS), the approach to the phenomenon of popular science seems to be filtered through issues of the present day. Here, historical approaches are missing. The History of Science, on the other hand, lacks aesthetic criteria to explain the poly-medial dimension of popular science. And philological and iconographic disciplines, such as Classical Philology or Art History, seldom bring into focus the dissemination of scientific and technological knowledge as a cultural practice.

This book aims to initiate an interdisciplinary, genealogically reflected debate about popular science as a recurrent cultural technique. In this volume, the authors elucidate the polyvalent category of popular science in a multidisciplinary and diachronic way. The focus lies on both its cultural construction and the formal and functional techniques which characterize the dissemination of cultural and scientific knowledge in its contexts of production and reception.

Understanding the production of popular science is crucial because experts rely on much more than just scientific facts. Indeed, science often builds on societal values, rhetorical means, or popular traditions. Understanding the reception contexts of popular science is likewise relevant since previous knowledge, moral peculiarities, and concerns of a specific target group constitute the agency that indirectly coins what kind of (scientific) knowledge becomes popular. Furthermore, the modern awareness of a societal dimension of science doesn't imply the nonexistence of similar practices in previous periods. Even non-programmatic, random, or unconscious actions that popularize knowledge are part of the same family tree.

The genealogical approach proposed in this volume requires a loosening up of very specific contemporary terms such as 'science communication' or 'public understanding of science' in favor of more general ones. The terms 'science popular-

izer' and 'popular science' already appear in specialized literature for phenomena related to the period from the 19th century onwards (cf. e.g., Marsak 1959; Daum 2002, 2009).<sup>1</sup> Oliver Hochadel uses the similar German term "öffentliche Wissenschaft" (i.e., "public [therefore also popular] science") for the German Enlightenment (2003). Robertson-von Trotha (2007, 2012) coined that term ("Öffentliche Wissenschaft") in the 1990s, and used it to denote the contemporary practice of dialog- and process-based science communication in a broader sense with significant societal implications. In the present essay, we build on these experiences and theoretical approaches, opting for the versatile term 'popular science,' which unifies the notions of 'science communication' and 'public science' in a more general, diachronic sense. Thanks to its lack of terminological specificity, the term 'popular science' can indeed mark both new and past phenomena of science popularization as forms of agency and as cultural products at the same time.

As in the case of changing cultural techniques, there is no linear history of the phenomenon of 'popular science' that would begin at a certain point, e.g., with the ancient, moralizing didactic poem, and end at another point, e.g., with the use of Virtual Reality (VR) apps representing the ultimate embodiment of science and society in a unique immersive experience. This idea of continuity belongs to the realm of metaphysics and teleological thinking. But there is a way to understand contextual and historical similarities in popular science not as an unbroken continuity but as a series of accidents, each with their own unique manifestations. On the one hand, the historical contingency of the applicable terms for public science events leads to a dissociation of likely related phenomena. But, on the other hand, if we can get to the bottom of each action, then we can unveil specific relationships of forces inherent to popular science experiences. For example, the question about the intention behind the popularization of science is as legitimate today as it was in previous eras.

At the beginning of his well-known article entitled "Nietzsche, Genealogy, History" Foucault (1977: 139) puts it in a nutshell: "Genealogy is gray," i.e., it has no easily definable contours; it is "meticulous," because one needs a lot of clues and erudition to construct its "cyclopean monuments"; it is "patiently documentary," since patience is the only way to obtain the evidence you are striving for; it deals with documents that can be reused several times—namely, with "parchments" in a figurative sense: that precious paper made from processed animal skin heavily used for copying manuscripts during the middle ages. Indeed, parchment was suitable for writing and overwriting several times by repeatedly scratching the

---

1 All bibliographical references quoted in the preface are listed at the end of the first introductory chapter by Jesús Muñoz Morcillo.

surface. And we can also add that genealogy has ramifications or offshoots of different lengths.

This volume follows the genealogical idea in both general and mimetic terms, offering a great variety of research topics from different periods, diverse methodological approaches, and even different degrees of ‘growth’ and ‘blossoming’ if the reader allows us the comparison with a living (genealogical) tree and its crown.

Despite all imagery, this definition applies to the fact that forgotten or even unconscious action models often precede those cultural techniques and programmatic agencies that we, otherwise, would only identify with modern contexts. We would like to put forward the claim that this cultural and historical amnesia probably concerns the phenomenon of popular science as well.

A genealogical approach requires interdisciplinary methods, humility, and also the patience needed to develop those methods. In the present volume, we are taking the first step in juxtaposing and bringing together the relevant disciplines in language that is comprehensible and accessible. Philological and aesthetic analyses unfold alongside specific disciplines such as the Sociology or History of Science. We offer a multilayered examination of the cultural technique of popular science; this should throw some light on a research field that has hardly been investigated so far, even if it does not cover every important aspect related to it.

Indeed, this book does not pretend to be a perfect handbook that conveys all possible manifestations of popular science. It does not even come close to Alfred Korzybski’s idea of the map of a territory as the model of reality necessary for understanding what would otherwise remain inaccessible (Korzybski 1933). Our attempt only represents some minimal geographical details on the surface of Korzybski’s ideal abstraction. It has a valuable self-reflexiveness, indeed, but in an almost living way, like the branches of a tree that still has to flourish. Therefore, even if this is a useful approach to the history and aesthetics of popular science and a starting point for more accurate contextualizing and conceptualizing attempts, we cannot specify any clear boundaries yet—perhaps because there are no real boundaries between nature, science, and culture. Indeed, we might even ask ourselves if those defining boundaries exist at all, those limits that ‘kill’ the object, releasing the magic force that transforms the map into the territory itself. The reader will judge if our abstraction of the map as a growing tree which might never render all variables of this phenomenon is a useful one.

One of the most important contributions of this book is to consider the popularization of the humanities as an essential part of these processes, as important as the natural sciences—or as even more relevant than them—since the key of communication also relies on cultural techniques related to the humanities. In times of ecocritical positions, there is no point in perpetuating any artificial divide between culture, na-

ture, and science. In this sense, and even if not all authors in this book directly quote him, the genealogy of popular science also relies on Bruno Latour's ideas on modernity as the production of hybrids (Latour 1993). Science, nature, art, language, and mathematical models belong together. In this very sense, we attach importance to art, as a dissemination technique for science and culture, and to art history, as the subject of popular science, at the same time. Together with classical studies, art history is the best-represented discipline in this volume, and for good reason: Rhetoric and visuality are the pillars of popular science, even if today's discourses on science communication tend to disregard both the contributions and the misleading dangers of rhetorical means. Coded in words and images, the intention behind popular science, therefore, becomes a key for understanding societies and their moral values.

The book opens with an introductory chapter on the origins of popular science (Muñoz Morcillo). This text informs new and ancient notions and practices of science communication, re-contextualizing ancient and pre-modern rhetorical and societal practices that lead to the question of the adequacy of speaking about a genealogy of science popularization. Oliver Hochadel's chapter offers a *longue durée* approach with a contribution on the continuities in the history of science popularization from the Enlightenment to our days. These two texts are crucial for a proper orientation and a fruitful reading of the book, which comprises twenty-one different case studies connected, above all, by societal implications and the persistence of verbal and visual rhetoric. Each contribution resembles a bough, or a section of a bough, capable of growing further and bearing many more fruits.

Case studies are essential since this book makes an evidence-based claim about the intrinsic connections between popular science and society, regardless of historical time and geographical region. Still, this thesis is formulated as an invitation to look for further ramifications and entanglements in the vast research field of what we could call 'popular science studies.' We rely, therefore, on the curiosity of the readers, who may be very varied in their interests: from philologists, archaeologists, and art historians to sociologists, philosophers, and historians of science.

Each one of these readers should be able to find something valuable here, from the relevance of rhetorical devices and material culture to the specific logic structure of doxographical texts;<sup>2</sup> from the societal uses of general knowledge in antiquity to the creation of knowledge-spreading proto-encyclopedias and epitomes in pre-modern times; from the popular interactions of art and science during the Enlightenment to modern media coverage on topics ranging from atomic energy to

---

2 Doxography is a term coined by the German classicist Hermann A. Diels and refers to the works of ancient historians collecting popular opinions (*dóxai*) attributed to past philosophers and scientists.

neuroscience, not to mention the sociological analysis of science communication in popular new media such as the web video or the science slam.

The reader will find a huge selection of case studies that prove the diachronic, polyhedral, and multilayered nature of popular science: worthy reflexions about the use of amphorae for disseminating central elements of Greek culture in the Mediterranean area (Streicher); the relevance of preliminary exercises in ancient Greek schools for the popularization of Greek mythology and literature as a living practice (Fernández Delgado); new insights into the role of Aristotelian rhetoric for doxographers—the ancient knowledge popularizers (Martín-Velasco)—or into the importance of description (*ékphrasis*) as a knowledge device for a broad audience in Greek dramas (Matías Pérez); the analysis of argument schemes including simplified scientific explanations and shortened quotations in authors from the Second Sophistic (Parussel); reflections on ancient zoological descriptions and representations that shed light on specific societal practices in Rome (Engster); rhetorical means for making invisible natural phenomena understandable (Rossetti); Hero of Alexandria's rhetorical techniques for bringing the mechanics of his artefacts alive for a broader audience and their impact in the Renaissance (Roby); the order of knowledge in pre-modern encyclopedias, their popularity, and similarities to contemporary internet-based practices (Herweg); a revealing case study about pre-modern ephemeral literature on comets and related public scientific discussions (Gindhart); the relevance of short versions (epitomes) of larger texts in late antiquity and pre-modern times for condensing and popularizing knowledge (especially history books) among a broad readership (Sehlmeyer); the revaluation of visual perception as part of modern reasoning in Enlightenment art (Jehle); the popularity (despite anti-popularizations attempts) of optical devices thanks to their use by artists in the first half of the 19th century (Fiorentini); the emergence of popular writings on art history (Axtmann); the agency of ornamental prints and pattern sheets in the popularization of aesthetic ideas in the second half of the 19th century (Manker); the relationship between popular science and esoteric literature in the avant-garde (Immelmann); the visual metaphors of cybernetics that disseminated a new understanding of nature as an ecosystem (Trüper); the controversial public discussion on nuclear power in US popular journals of the Cold War era (Kloppen); the use of everyday images and stereotypes for directing public attention to neuroscience in the German magazine *Gerhirn & Geist*, which planted the seeds for new visual preferences (Homrich); the role of fiction in popular media such as movies and graphic novels or comics for translating and visualizing scientific agency (Klohs); or the perpetuation of gender issues in innovative formats of science communication such as the science slam (Hill).

Considering such a variety of approaches from different disciplines, the editors have tried to foster accessible language across the book, which has chiefly entailed the use of translations for all quotations from classical texts and the use of punctual explanations for specialized terminology. However, interdisciplinarity also means finding compromise solutions, and as such the reader will at times be compelled to make some efforts, which will hopefully be compensated with fruitful insights and new inspiration.

This volume is the result of the conference “Genealogy of Popular Science. From Ancient Ecphrasis to Virtual Reality”<sup>3</sup> held on June 15-16, 2018 at the Karlsruhe Institute of Technology (KIT), Germany.<sup>4</sup> The event was organized by the ZAK | Centre for Cultural and General Studies in cooperation with the Institut für Kunst- und Baugeschichte/Fachgebiet Kunstgeschichte. The ZAK’s research addresses, among many things, topics within the fields of globalization, identity, cultural and technological change, intercultural communication, and the mediation of interdisciplinary competencies and their relevance in an international context. Thus, the ZAK contributes to the scientific reflection and shaping of social and cultural practice. One of the main research areas of the ZAK concerns Public Science and New Media, which not only includes studies on current practices of science communication, such as the production of online videos or the use of VR technologies in museums, but also research about the origins of popular science and its development through the ages.

The conference and the publication of this book were made possible thanks to a generous grant by the Schleicher Foundation in cooperation with the KIT Foundation to promote Dr. Muñoz Morcillo’s postdoctoral research. The editors of this volume want to again thank the Schleicher Foundation, the Commerzbank, and the KIT Foundation for their great support, which made this project possible. Since its foundation in 2013, the KIT Foundation has been promoting research, teaching, innovation, and academic life at KIT. We thank the team of the KIT Foundation, especially foundation manager director Kathrin Krause and manager Dagmar Seelig, for their supportive, kind, and close cooperation. A special thank goes to Prof. Dr. Thomas Hirth, Vice-President for Innovation and International Affairs at KIT for taking the time to introduce the KIT to our international guests with a welcome speech. We highly appreciate this recognition of how advance studies in the humanities shape the KIT research landscape.

---

3 To differentiate the ancient mode of ecphrasis from the modern one, we use the transliteration of the Greek term ἐκφρασις (that is, *ékphrasis*) throughout the book.

4 The conference took place at the Karlsruhe Institute of Technology (KIT), Fritz-Haller-Hörsaal, Building 20.40, Englerstr. 7, KIT Campus South Karlsruhe.

We also owe our thanks to our project partners Prof. Dr. Oliver Jehle, Dr. Alexandra Axtmann, and Prof. Dr. Mathias Herweg, who contributed suggestions, ideas, and their own scholarly writings that enrich this volume in significant ways. For the selection of the papers and the peer review process, we want to thank all members of the Selection Committee, who spent their precious time reading and evaluating all submitted abstracts. These are, by name: Dr. Joachim Allgaier, Prof. Dr. José Antonio Fernández Delgado, PhD candidate Andrea Geipel, Prof. Dr. Mathias Herweg, Dr. Oliver Hochadel, Prof. Dr. Oliver Jehle, Dr. Christine Mielke, Dr. Laura Miguélez Cavero, Dr. Eva Noller, Prof. Dr. Courtney Ann Roby, and Dr. Ralf Schneider. We also thank all contributing authors for their insightful texts. And last but not least, we also want to thank the ZAK team and all helpers that made the conference and this book possible, especially Stephanie Rothe and Klemens Czurda for assuming great responsibility during the conference, Jens Görisch for all financial aspects and many helpful tips, and Dr. Kareem James Abu-Zeid for his meticulous proofreading of the entire volume.

Jesús Muñoz Morcillo

Caroline Y. Robertson-von Trotha