

Biology and the Public

Participation and Exclusion from the Renaissance to the Present Day

[XII Summer School on the History of the Life Sciences](#)

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Ischia Summer School

This week-long summer school provides advanced training in history of the life sciences, a lively international field that offers a long-term perspective on some of the most significant ideas, practices and institutions in the world today. The event attracts expert faculty and well-qualified students for a combination of lectures, seminar discussion and student presentations in a historically rich and naturally beautiful setting. We aim to encourage exchange of ideas across disciplinary boundaries, national cultures and historical periods. English is the working language and readings are circulated in advance. We can accommodate up to 26 graduate students and postdoctoral fellows, and also accept established researchers seeking to enter a new field. The biennial school, which looks back on a distinguished tradition of association with the Stazione Zoologica, was revived in 2005 after a break of some two decades and again ran successfully in 2007 and [2009](#). It is held in Villa Dohrn, the current Laboratory of Functional and Evolutionary Ecology and former summer house of the founder Anton Dohrn, situated above the port of the gorgeous island of Ischia and overlooking the Gulf of Naples.

Introduction to the theme

Biology has become the most public of sciences and the one that promises to intervene most deeply in our private lives. It is no coincidence that since the 1980s funding agencies have spent increasing amounts of time and money on 'public understanding', or 'public engagement' as it was later reframed. Innovative forms of participation seek to enroll citizens in preparing for the scientific, medical and ethical challenges especially of genetic and reproductive technologies. Yet if some features of the present situation are new, others have longer histories. This summer school will explore how 'biology' and 'the public', their predecessors, successors and alternatives, have been co-configured and reconfigured over the long term. How have meanings of 'public' changed and competed? How have disciplines and professionals, including biology and biologists, shaped and been shaped by publics of various kinds?

A major challenge is to continue the ongoing reassessment of 'popularization' and 'popular science'. In the nineteenth and twentieth centuries these categories expressed the dominant view of communication beyond an increasingly professionalized and specialized science. Because this problematically painted laypeople as passive consumers of diluted knowledge, 'popularization' and 'popular science' have been generally rejected as neutral descriptions: a wealth of research has recovered reader, visitor and user agency, and explored the continual exchange between the esoteric and exoteric circles of science. Yet as actors' categories, 'popular science', 'popularization' and related terms offer rich histories to explore. It is clear that they could mediate participation as well as exclusion, and that meanings varied enormously within countries and between them, but systematic reconstruction and comparison has only just begun.

Recovering these histories will revise our understanding of the making of biology itself. The institutional legitimacy of biology as a unified science of life (not the only meaning the term has had) was constructed, mainly in the decades around 1900, by demarcation from and in relation to other practices and groups, including other medical and life sciences, radical, alternative and 'pseudo'-sciences, and, perhaps most crucially, the public. 'Biology' in part gained a distinct identity through the establishment of separate research institutes and professional societies. It attracted public and state attention by offering scientific tools to improve the health of populations as well as individuals. Yet the laypeople who now bought Darwinist books and attended hygiene exhibitions in their millions may have played a more important role. Biology gained a clearer identity in some school curricula than as a topic of research. As newspapers reported breakthroughs from the tuberculosis bacillus to artificial parthenogenesis ('virgin birth'), publicity was crucial to enrolling donors and educating potential patients, but needed careful management to protect specialist reputations. To understand the authority of biology, historians of the life sciences must take the public into account.

Early-modern publics were different, and the life sciences did not exist in our sense. Distinctions between science and common knowledge, legitimate practitioners and others, nevertheless go back before 1750, as do various forms of inclusion and exclusion. The school will consider how we might best analyse these issues for medicine, natural philosophy and natural history: the role and status of natural knowledge in public anatomies, courtly performances and other events; the changing boundaries of secrecy; encounters with indigenous knowledge as new plants and animals were collected from America after 1550; how civic pride put natural history museums on travellers' itineraries; translations into vernacular languages of classical texts; the knowledge that learned physicians reckoned it necessary for surgeons, apothecaries and midwives to acquire. For the eighteenth century, with its lecture-demonstrations, projects to appropriate and communicate useful knowledge, writing in the vernacular and salon culture, we will explore the established historical category of 'public science' and follow it through the major transformations of the Age of Revolutions.

We can now recognize 'popular science' as distinctly modern in part because, in the most politically exposed parts of the biological and biomedical sciences, things have changed so much in the last two decades. Expert opinions now more obviously compete, and with patient groups and environmental activists independently promoting not just information but also research, expertise is also more distributed. Stakeholders may now expect to participate actively, for example, through public hearings and citizen juries, in making decisions about the uses and direction of research. We need not overestimate the prospects for participation to recognize that the dominant norms are in flux. It is timely to rethink 'biology and the public'.

Faculty and programme

The organizers will introduce the theme and lead discussions. Each faculty member will give a talk of up to 30 minutes, with equal time for discussion, and organize a one-hour seminar discussion. This will provide the lecture experience that some students particularly value plus plenty of opportunities for interaction and participation, which will be enhanced by student presentations and general discussions. English is the working language and readings will be circulated in advance.

Antonio Barrera (Colgate University, Hamilton, NY, USA) Lecture: Indian knowledge, European experience and the emergence of empiricism in early modern natural history Seminar: Participation and exclusion: Indians and Europeans in the making of early modern natural history

Mary Terrall (University of California, Los Angeles, USA) Lecture: Naturalists in the public eye: audiences for natural history in the French Enlightenment Seminar: Recruiting observers: Reaumur's textual strategies

Anne Secord (University of Cambridge, UK) Lecture: Private collections and the public good: British botany in the early nineteenth century Seminar: Seeing the field: observational perspectives and practices, 1789-1830

Jim Secord (University of Cambridge, UK) Seminar: Evolution for the people: audience and genre in the nineteenth century Lecture: Global communication and the making of Darwinism

Christina Wessely (University of Vienna, Austria) Lecture: Artificial animals: natural history as mass entertainment Seminar: Scientific knowledge and middle-class life in German zoos

Philipp Sarasin (University of Zürich, Switzerland) Lecture: What to do with 'popular science'? The case of bacteriology Seminar: Living with the bomb: the MAD culture of the Cold War

Tim Boon (Science Museum, London, UK) Lecture: 'Secrets of life': who made biology films in interwar Britain, and for whom? Seminar: History of biology in museums today: how should we build lay agency in?

Ilana Löwy (CERMES, Paris, France) Lecture: Cancer, precancer and their publics Seminar: Cancer organizations and cancer screening

Carlos López Beltrán (UNAM, Mexico City) Lecture: From political icon to scientific object: the Mexican mestizo and genomic research Seminar: Genomics and identity politics in Latin America

Massimiano Bucchi (University of Trento, Italy) Lecture: Public participation in the biomedical sciences Seminar: Decision-making about biomedical science

Staffan Müller-Wille (University of Exeter, UK) Commentary: The role of the public in making 'biology'

In addition, there will be a welcoming reception and other social events, and we will take one day for a trip to Naples to visit the main Zoological Station, a major international institution of biology since 1872, to see its historical collections (a great specialist library for history of biology and important archive), laboratories and famous aquarium. All participants should be present for the full week in order to facilitate discussions. 26 June and 3 July are travelling days, with no lectures or seminars scheduled.

Cost There is a charge for students of 300 Euros each. This will cover hotel accommodation and all meals, but students will need to pay for their own travel to Ischia.

The directors will consider requests to waive the fee from qualified students, especially from developing countries, who are unable to raise the money themselves and whose institutions cannot provide it. These must be supported by a detailed financial statement and a letter from the applicant's head of institution.

Timetable 31 January 2011 Deadline for applications

March 2011 Students to be notified of outcome

31 May 2011 Registration fees and/or registration forms due

Procedure Applications are to be sent by e-mail to the following address bvmallinckrodt@mpiwg-berlin.mpg.de

or by mail to: Birgitta v. Mallinckrodt Max Planck Institute for the History of Science Boltzmannstr. 22 D-14195 Berlin Germany. Applications should include: 1. a brief cv, 2. a statement specifying academic experience and interest in the course topic (max. 300 words), 3. a letter of recommendation.

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