

## Labs on the Go: Scientific Tools for Collecting Empire: 1600-Present

### Course Description

In this history of science seminar we will read about the overlapping histories of science and empire, including natural history museums, the development and use of scientific instruments and new types of imaging technologies. During the semester participants will create a group exhibit using the Special Collections of the. We will get to work directly with scientific materials from the late 16<sup>th</sup> - 21st centuries at the UCLA Special Collections and the Getty Research Institute. We will also take field trips to the Museum of Jurassic Technology and the Getty. In the readings for the course, we will analyze the history of the development and use of scientific tools in the context of imperial efforts. We will examine how looking at the use of scientific images and objects changes our understanding of who produces knowledge, who has authority and how that authority is reinforced. This course builds on the readings in the History of Modern Thought Cluster from the previous two quarters. With a focus on the politics of artifacts and expertise, some questions for us to explore include: Who paid for scientific discovery and to what political ends were discoveries used? How did science prosper through the enterprise of empire building?

### Requirements and Grading:

Participation (35%); Curating a group exhibit in Special Collections (25%); Two response papers (15%); The writing of a substantial research essay 8-10 pages (25%). The context of the paper should consider the relationship between science and imperial pursuits, utilizing material culture as your primary sources. This paper will build on your research for the exhibit.

### Week 1:: The World in a Box: Natural History Museums

Alpers, Svetlana. "The Museum As A Way of Seeing". In *Exhibiting Cultures* ed. Ivan Karp and Steven D. Lavine: pp 25-32  
 Daston, Lorraine. 'The Factual Sensibility', *ISIS*, 79 (1988): 425-67  
 Ferrante Imperato, *Historia Naturale Combi & La Noù*, Venice, 1672, Frontispiece.

### Week 2:: Microscopes, Telescopes and Navigation. Meet at Biomedical Library Special Collections

Hooke, Robert. *Micrographia* Preface  
 Edgerton Jr., Samuel Y. *The Heritage of Giotto's Geometry: Art and Science on the Eve of the Scientific Revolution*. Ithaca: Cornell University Press, 1994. Ch. 7: "Geometrization of Astronomical Space: Galileo, Florentine Disegno and the 'strange-spottednesse' of the moon."

### Week 3:: Early Modern Colonialism: Maps and Medicine. Meet at YRL Special Collections

Harriot, Thomas, John White, and Theodor Bry. *A Briefe and True Report of the New Found*

*Land of Virginia*. New York: Dover Publications, 1972.

Bleichmar, Daniela. "Books, Bodies, and Fields: Sixteenth-Century Transatlantic Encounters with New World *Materia Medica*" in Schiebinger, Londa L, and Claudia Swan. *Colonial Botany: Science, Commerce, and Politics in the Early Modern World*. Philadelphia: University of Pennsylvania Press, 2005.

Varey, Simon (ed.), *The Mexican treasury: the writings of Dr. Francisco Hernández*. Stanford University Press. 2000. xi-xviii, Introduction, The Instructions and Letters to the King, *Rerum Medicarum* incl. images.

#### **Week 4:: Visual Language and Epistemology**

Humboldt, Alexander, *E C. Otté, B H. Paul, and W S. Dallas. Cosmos: A Sketch of a Physical Description of the Universe. vol 2* (London: H.G. Bohn, 1858), 370-72.

Olesko, Kathryn M. "Geopolitics and Prussian Technical Education in the Late-Eighteenth Century." *Actes d' Història de la Ciència i de la Tècnica* 2.2 (2009): 11-44.

**Due:** 2 minute presentation, with 1-2 powerpoint slides, on your 1-3 selected objects for the exhibit. Sub-theme group formation of 4-5 students.

#### **Week 5::Center and Periphery.**

E. Spary, 'Political, Natural and Bodily Economy' in N. Jardine, E. Spary, J. Secord (eds.) *Cultures of Natural History*, 1996.

Latour, Bruno. "Centers of Calculation" in *Science in Action*. Cambridge, MA: Harvard University Press, 1986.

Schaffer, Simon. "On Seeing me Write : Inscription Devices in the South Seas" *Representations* 97 (2007): 90-122.

GRI Digital Print Collection: the suite of 16 Battles of the Emperor of China commissioned by the Qianlong Emperor from French engravers (1765–1775), and the extraordinarily rare Garden of Perfect Clarity (1783–86), the monumental woodcuts of the so-called Complete Map of the World by Ferdinand Verbiest (Korean edition, ca. 1860).

#### **Week 6::Statistics and Biopolitics - Meet at Getty Research Institute**

Martin, Robert Montgomery. "Statistics of the Colonies of the British Empire ..." *From the Official records of the colonial office*, 1839 p i-21

Foucault, Michel. 'The Subject and the Power', in: Hubert Dreyfus and Paul Rabinow, Michel Foucault. *Beyond Structuralism and Hermeneutics*, Brighton: Harvester, 1983, pp. 208-26.

**Due:** Exhibition labels due for individual items: 1 paragraph per object explaining the object's provenance and the significance of the object to you. Group label due: 1 page explaining the theme of the objects of the group.

At the GRI: Nekes collection of optical devices, prints, and games; Manly Palmer Hall Collection of Alchemical Manuscripts

#### **Week 7::Photography**

in Trachtenberg, Alan. *Classic Essays in Photography* (1981):  
 Daguerre, Louis Jacques Mande *Daguerrotype*  
 Dominique Francois Arago *Report*  
 William Henry Fox Talbot *A Brief Historical Sketch of the Invention of Art*  
 Crary, Jonathon. "Modernity and the Problem of the Observer" in *Techniques of the Observer*.  
 MIT Press, 1992. Ch. 1.

### **Week 8::Technologies of the Body**

Sekula, Allan. "The Body and the Archive" *October* 39 (1986): 3-64.  
 Darwin, Charles. *Expression of the Emotions in Man and the Animals* 1872, selections.  
 Galton, Francis. "Identification offices in India and Egypt." *Nineteenth Century* 48: 118-26  
 Porter, Roy. *The Greatest Benefit to Mankind: A Medical History of Humanity*. New York: W.  
 W. Norton, 1997. Chapter 15: Tropical Diseases.

### **Week 9::Ethnography and Imperialism at the fin-de-siecle**

Edwards, Elizabeth. *Anthropology and Photography 1860-1920*. New Haven: Yale University  
 Press 1992. Introduction.  
 Buschmann, Rainer. "Exploring Tensions in Material Culture: Commercializing Ethnography in  
 German New Guinea, 1870-1904" in Michael O'Hanlon and Robert Welsch *Hunting the  
 Gatherers: Ethnographic Collector, Agents and Agency in Melanesia, 1870s-1930's*. New  
 York: Berghahn Books, 2000.  
 Meyer, A. B. and Richard Parkinson *Papua Album II* Dresden: Stengel, 1900  
**Due:** Short Presentation on Research Paper Topic. 1 page paper proposal, including 3 outside  
 sources.

### **Week 10::Field Trip – Museum of Jurassic Technology**

### **Week 11::Technologies of War - Film**

Benjamin, Walter. *The Work of Art in the Age of Mechanical Reproduction* (1936)  
 Selected Film clips: Étienne-Jules Marey: Cat falling, Analysis of the Flight of a Pigeon by the  
 Chronophotographic Method, La Vague (1891); Regnault, chronophotographs (1895), London  
 1890s, selected WW1 footage, Simba (1927), Leni Riefenstahl, Triumph of the Will (1935),  
 selected WW2 footage.

### **Week 12::Technologies of War - Medicine and Maps**

Baernighausen, Till. "Barbaric Research-Japanese human experiments in occupied China" for  
 Human Life" in *Man, Medicine, and the State: The Human Body As an Object of  
 Government Sponsored Medical Research in the 20th Century*. Stuttgart: Steiner, 2006  
 Cosgrove, Denis E. and Veronica della Dora. "Mapping Global War: Los Angeles, the Pacific,  
 and Charles Owens's Pictorial" *Annals of the Association of American Geographers* 95  
 (2005): 373-390

**Due:** Final drafts of exhibit labels

**Week 13::Decolonization**

Fanon, Frantz (1999). "Excerpt from 'Concerning Violence': The Wretched of the Earth," in Steger, Manfred and Nancy Lind (eds.). *Violence and its Alternatives: An Interdisciplinary Reader*. New York: St. Martin's Press: 157-168.

**Due:** Final Presentations on Research Papers.

**Week 14::Cultural Patrimony. Guest – Professor Debora Silverman**

Siehr, Kurt G. "The Beautiful One has Come—To Return: The Return of the Bust of Nefertiti from Berlin to Cairo" in John Henry Merryman, ed. *Imperialism, Art and Restitution*. Cambridge University Press, 2006: 114-134.

Appiah, Kwame Anthony "Whose Culture Is It?" in James Cuno, ed. *Whose Culture? The promise of Museums and the Debate over Antiquities*. Princeton: Princeton University Press, 2009: 71-86.

Silverman, Debora. "Art Nouveau, Art of Darkness: African Lineages of Belgian Modernism, Part III," *W 86th* (2013): pp. 13-61.

Clifford, James "Quai Branly in Process," *October* 120 (Spring 2007).