

Planet Marx Reading Club Meeting #3 Chemical Dirts



On 18th May, Planet Marx rotated its orbit towards the sign of Center for Visual Studies of Peking University, where we read and talked about cultural and social implication of scientific practices. Pioneering in this field is Bruno Latour and Steve Woolgar's groundbreaking research-turn-publication *Laboratory Life: the Process of Constructing Scientific Facts*, putting science and culture on the same plane for observation. The renowned sci-fi writer Wu Ming-Yi instead chose to relocate the teleology of laboratories into the realm of fiction. In it, his recurrent arguments in his ecological theses would transform themselves into various imageries. Jussi Parikka dives into the deep of fiction, and then reemerges with something geological. He proposes that in late Sir Conan Doyle's novel "When the World Screamed" crouches an unprecedented imagery of the Earth's geological consciousness.

The session invited curator Jo Wei and artist Zhangbolong Liu, together with Wen Xinyi of the Center for Visual Studies and Zian Chen of Long March Project to introduce the selected texts, unpacking the connections linking these three articles, attempting to answer many questions that might be raised, starting with, "In what format does chemical dirt live with us?"

Following is a brief summary of the session.

Wei Ying: Anthropology written from the laboratory



Salk Institute in South California

Laboratory Life depicts an anthropologist entering into the opaque “black box”. In this book, Latour extracts the network system and the implicit power relations in a laboratory. I responded to this condition of “laboratory life” with a formula in reverse: while “laboratory life” introduced anthropological and structural understanding into the field of science and laboratories, my ongoing curatorial practice entitled “Lab as the Generator of Surprises”, in which I invite artists and writers to consecutively work in this laboratorial condition. Here follows the brief summary of *Laboratory Life: The Construction of Scientific Facts* to further help us understand such symmetry of “laboratory” and “life”.

Originating from his 21-month field investigation in renowned California’s Salk Institute for Biological Studies, Bruno Latour’s debut thought in his discipline-defining work *Laboratory Life* set its background in a Louis Kahn building, a centre founded by Jonas Salk who contributed to modern life with the invention of polio vaccine.

Among many laboratories, Latour chose neurohormones lab under Roger Guillemin as its object of investigation. It is generally believed that nerve cells act through electrical signals, and research in this field suggests that nerve cells can also act by releasing hormones. The finding also led to a Nobel Prize in Physiology or Medicine in 1977. You will find that the time the scientist won the award was very close to the time Latour published the book, and his co-author Steve Woolgar joined shortly after Latour’s field research was conducted. Soon there were 5 other Nobel Prize winners who also came out of this institute. One may say Latour visited it in the heyday of this laboratory, and the research results were at the forefront of the research community.

The Chinese version was translated from French edition. Latour himself made major adjustments to the original version (published in English) seven years later in 1986,

adding chapters I, V and VI. He also deleted the word “Social” in the subtitle. Latour never seem to hesitate to overthrow his own points of view.

Both the original and the revised version begin from an excerpt from observer’s notes, but the new version added extensive reflection upon the gesture of putting modern science and anthropological objective in a symmetrical fashion. For Latour back in the 70s, the importance to break through a pretended objectivity of scientific studies was such a simple action: the fieldwork was not conducted in a tribe but at the heart of a modern institute, a semi-enclosed community. This part may have only appeared in the revised edition, which Chinese translation follows: Although Latour obtains certain extent of scientific training, he recorded their daily conversation with the least interpretive attempts. Together with the second section, “Comments”, these two sections make up a detailed description of the laboratory. The next few sections, however, gets more focused on specific subjects.

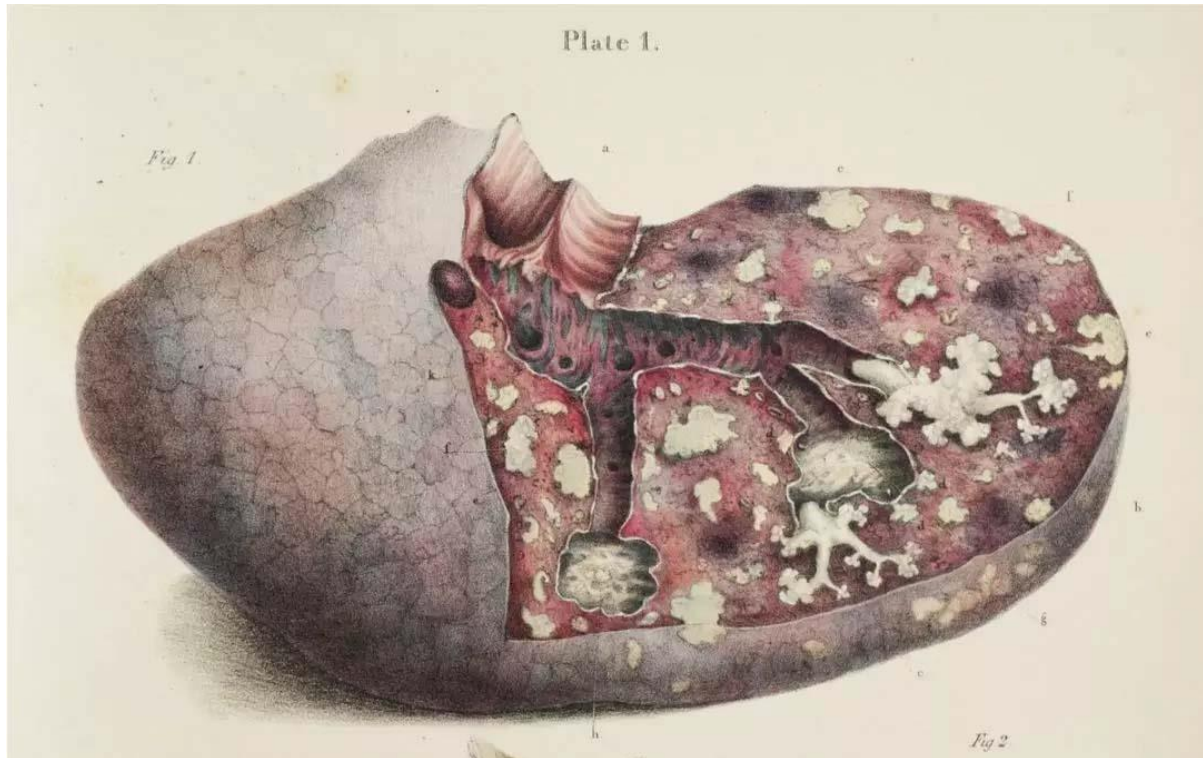
The third section “Story of the Site” is a detailed description of the laboratory staff and space, which corresponds to the traditional anthropological narrative. Latour led us into the institute and greeted Jonas Salk at first glance. He seemed like a tribal chief. Then, Latour took us to Francis Crick and Leslie Orgel. These two people may look similar to elders in a tribe (Francis Crick discovered DNA and thence won a Nobel Prize in 1953). Then, Latour entered further into the tribe. In the next paragraph, there are tribal inhabitants, whose identities are less important to give them proper names; they are thus called Germans, Mexicans, etc.

Later, Latour began to observe the laboratory space. He found a tall girl in the physiology area slaughtering the mouse, so he called her “butcher”. The “chefs” in the chemistry lab were doing very delicate work. However, once they found a new molecule, they would become “hunters”.

Can an observer be objective enough? The fifth section is called “Observer’s Question.” Latour believes that a more appropriate observer needs to use a meta-language instead of an analytical language, independent from what the researcher is doing. He should be familiar with a field but keep a reflective distance from it. We can see that the observer in Chapter 2 is someone completely ignorant to the situation, that is, Latour himself. In Chapter 3, he is a combative historian who initiated a struggle against the scientific epistemology and deconstructed an alleged scientific “fact”. In Chapter 4, he is a researcher equipped with relevant knowledge of what scientists’ social behavior would imply, and who pays attention to the symbolic power such actions. In Chapter 5, he finally becomes a sociologist who is capable of integrating all these research paradigms.

He then begins to reflect on the limitations of laboratory research. For example, there is a huge difference between conventional anthropology and science. Usually, the former is bound by the notion of territory, while in the field of science, the relationship between things has already formed a large network which could apply to many other modern social structures, such as factories and hospitals. However, science tends to be concerned solely with facts instead of theories, and it often neglects the researchers’ individual experiences. Likewise, Latour said in the last paragraph: “Finally, we discuss the essential similarity between the construction of accounts which characterises the work of the laboratory and our own construction of an account which portrays the laboratory in this way.”

Liu Zhangbolong: History of Objectivity



Robert Carswell, *Pathological Anatomy. Illustrations of the Elementary Forms of Disease*. London, 1838. The major treatise of Carswell, an artist and pathologist, contains hundreds of hand-colored lithographs of diseased states based on his watercolors, such as this one depicting a diseased lung with pulmonary tuberculosis.

Objectivity by Peter Galison and Lorraine Daston starts from the etymology of “objectivity”: in Latin, “obiectivus (objective)” was used in pair with the word “subiectivus (subjective)”, inseparable from each other, and their meanings were reverse to their current ones. In other words, “obiectivus” would then sometimes be better translated as “subjective”, and vice versa. According to the book, “obiectivus” was what things looked like in our consciousness or mind; while “subiectivus” was what things looked like in themselves by nature.

The two authors explained the four distinct stages of how people understand objectivity. The first stage is called “truth to nature”, which appeared in the 18th and early 19th centuries. The second stage, “mechanical objectivity”, rose from the middle of the 19th century, and it refers to the way people understood “objectivity” after mechanical reproduction, i.e. photography became the predominant way of image-making. The third stage of objectivity, and probably the way we consider it now, is called “trained judgment”, which means the fact that professional training is required as precondition for scientists and practitioners to interpret images.

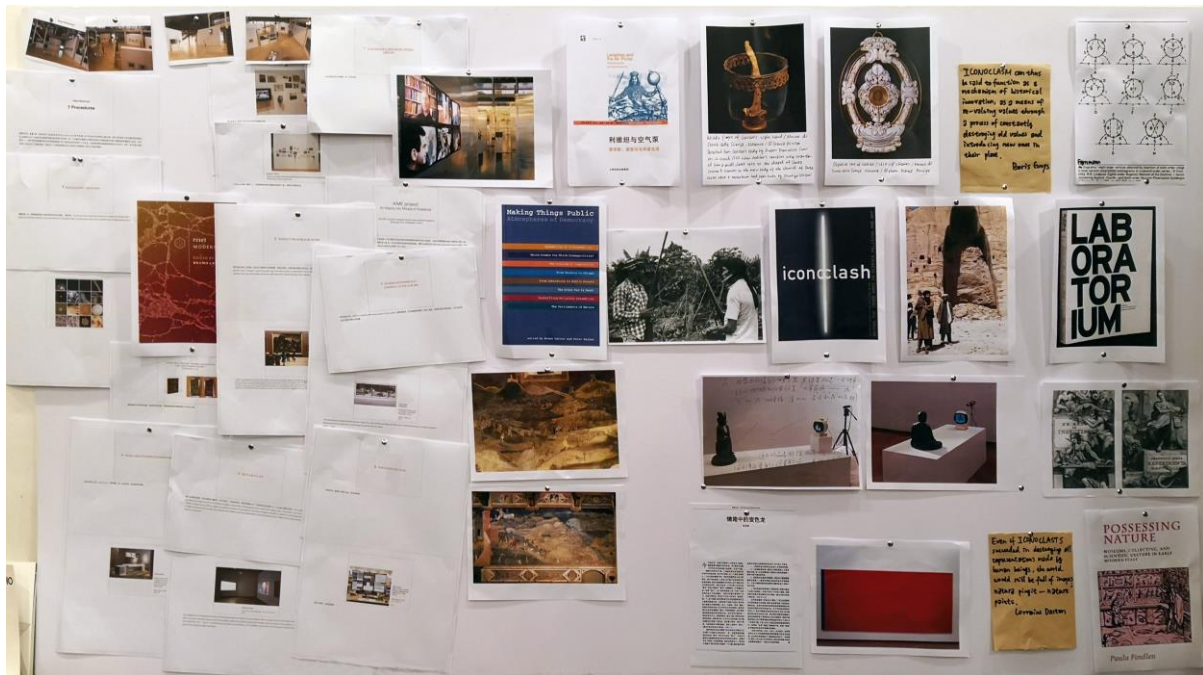
I'll start from “truth to nature”. I think you might have seen a lot of such images as botanical or anatomical illustrations. A surgeon would see a different image each time he makes a surgery, although the disease is of the same kind. When a scientist needs to present a species or a disease, not only would he need a picture, but he also needs to extract and summarize the characteristics of such things, instead of depicting the specific object he sees. That is to say, such illustration represents rather an ideal image than something real.

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The so-called “mechanical objectivity” has a close link to the birth of photography. Photography wasn’t born out of nowhere – there were some pre-photographic equivalents, like camera obscura, the “camera” without photoreceptors. Conceptually, this approach already marked the logic of mechanical objectivity, as the artist thus must portray an individual rather than an ideal prototype. Photography, however, pushes this idea one step further, by producing images in an entirely mechanical way, free of the inaccuracies and emotions of the human hands. More importantly, it helps scientists get rid of the constraints of painters. Certainly, photography might be not as authentic as it is supposed to be, after all, as the technology in the 19th century wasn’t very developed, so the resulting photographs needed to be retouched again to look better. The scientists were well aware of the fact that photographs could be altered. However, some people still believed in the authenticity of photography. Many botanists became fans of this new technique because they needed to record samples of the same species with different looks, and photography suited their needs perfectly. However, as mentioned above, photography could not solve the problem of objectivity once and for all.

And finally, we shall talk about “trained judgement”. “Trained judgment” requires that an experienced person look at the image, and make judgment about it. It is a return to people's subjective capability of objective cognition. The scientific gaze thus turns into an empirical art. For example, when identifying one’s race by his/her facial features, integral and comprehensive consideration is always required, and it cannot be solely based on objective and quantified measurements. Indeed, objectivity and subjectivity are always intertwined like the DNA double helix.

Wen Xinyi: Let Laboratories Become Theatres



A Warburgian Atlas by Wen Xinyi in Peking University for Planet Marx Reading Club Meeting #3 Chemical Dirts

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The text we read, *Theater of Proof*, was a lecture held by Bruno Latour, for the exhibition "Laboratorium" curated by Hans Ulrich Obrist. The idea of this lecture, "theater of proof" also mentioned in the book *We Have Never Been Modern*, and was later adopted in Latour's exhibition "Making Things Public". In collaboration with Wei Ying in the project Lab as the Generator of Surprises, we have been exploring the interaction between science and art in laboratory, a tradition that dates back to Renaissance when the House of Medici funded a public space that serves simultaneously as an alchemy laboratory, a museum and an artist's studio. Latour has been focusing on a laboratory's political aspect. He thinks that laboratory offers a way to reveal social truth and settle political conflicts, although to this end hard work and careful consideration are also required.

Thomas Hobbes (1588) wanted to abolish vacuum in both his philosophy of both politics and nature, and he derived an authoritative order from the physical world; But Robert Boyle (1627) proved the failure of Hobbes' premise by building an apparatus that removed air from within a glass dome. Hobbes wanted to get rid of all transcendental truths. For him, whether they came from God or from nature, authority that governs everything must emerge gradually from speculation and struggle; On the other hand, Boyle's experiments demonstrate that truth exists, and it can be quietly presented to us via effects from natural objects.

Latour repeatedly cites the work of two historians of science. He considers that things themselves have the force of proof; Although Kings, nobles, and scholars held different positions, they were immediately convinced with the knowledge generated from Boyle's scientific experiments in his laboratory. Therefore, he believes that it is necessary to make things public, so things can represent themselves in political life. This is contrary to the logic of representative democracy. The word "Represent" has double meaning here, referring to both the political system and the artistic method of mimicry. The distance between our representative system and direct public opinion is also the distance between representational artworks and the real objects. Just like in the 1980 British TV series *Yes Minister*, the Minister Mr. Hacker's daughter could protest naked to protect otters in a forest, however, she didn't really know whether there actually were otters living in the forest, and she merely relied on media reports.

For example, Phillippe Descola, a French anthropologist, recorded the facts that the western colonists wanted to implement an electoral system in the region in his investigation of the Achuar tribe in the amazon jungle; however, the indigenous people had no desire to participate in such "democratic" processes, and they were doing well with their lives. Where people have real contact with nature, there is no need for representative democracy; they would rather solve the problems directly. As a result, representative (representational) democracy doesn't receive much attention in these groups that are really in direct contact with things. As a result, representative (representational) democracy doesn't receive much attention in these groups that are really in direct contact with things.

Ambrogio Lorenzetti. *The Allegory of Good and Bad Government*, 1338-40. This mural, widely cited in the field of political philosophy, not only depicts the roles of various figures in representative democracy, but also focuses on the peaceful or unpeaceful life of the people in the city and in the rural fields. This reveals that fact that we must judge a government by its real relationship with local life, which is also a connotation of "making things public".