

Observing Geodesists?: Cultural Anthropology on Geoscience

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Anthropology of science, which appears in 1970s against a background of Kuhn's theory of scientific revolution, extended the targets of anthropology into laboratories, which are highly "modern" field ever since. The mission of this discipline is to understand the unique characteristics and anthropological meanings of scientific activities through describing them "thickly".

The speaker is fieldworking on a geodesy laboratory since June 2010. The central aim of my research is to answer the following question: "why can scientific accomplishment be accumulated, though scientific researches are driven by each scientists's interest?"

In this presentation, the speaker will focus on the practice of inversion analysis, which is one of the most important practices in geodesy. The speaker divide the inversion practice into two phases. The first phase is called "measurement", the practice of collecting semiotic data through operating machines with operating instructions. The second phase is called "operation", the practice to process the data which is collected by "measurement" and to understand the natural phenomena such as earthquake and eruption.

While it seems that "measurement" is a strictly normative activity that is controlled by operating instructions, "operation" seems unrestricted practice though some aspects are routinized. To understand the seemingly disorganized activity, the speaker will prescribe "operation" as semiotic operational sequence which consists of

"calculation of measured value", "correction" and "analysis". And then the speaker will define the practice of "interpretation", which creates a brand new sequence and attach into the existing sequence.

The main focus of this presentation is to examine the characteristics of "interpretation". Is "Interpretation" in geodesy, as the word implies, subjective? Or, as conventionally we thought, do scientists (geodesists) make a "objective" knowledge of the world by the practice of "interpretation"? In this presentation, emphasizing the importance of "drawing" of data, the speaker will explain the process that the "interpretation" of a geodesist takes the validity.

Through these argument, the speaker will suggest the cosmology of measurement science. It is neither the activity that tries to get the objective knowledge about the world, nor the practice that totally depends upon the scientists subjectivity. Such cosmology will contribute to understand what science is for human.

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