One-page summary of the main concepts in the book Waves and Forms

ZIMMERMANN, Basile

Available at:
http://archive-ouverte.unige.ch/unige:79030

Disclaimer: layout of this document may differ from the published version.
One-page summary of the main concepts in the book *Waves and Forms*

Imagine an engraved seal is used to make an imprint on a piece of wax, and then on a piece of soap. On the basis of this example (here I recycle a famous metaphor from Aristotle [*De anima*, 424a, Book II], but this is another story), we consider the following aspects of materiality:

– The matter-atoms structure of the seal, the wax, and the soap. Atoms are located inside each of these physical objects. Each atom is unique, and each of the objects is physically unique. Atoms cannot be destroyed, as Lavoisier once said: "Nothing is lost, nothing is created, everything is transformed";

– The shape of the seal which is transmitted to the wax and the soap. In a similar way that matter is made of atoms, we consider that the shape is made of lower-level elements which we call waves (what is exactly a "wave" is not clearly defined in the book, it is just the idea of the existence of a lowest-level entity of shape).

If human beings observe the shape of the seal on the wax and on the soap, they will recognize it as the same imprint, even if there are differences between each imprint caused by the material structure of the wax versus the soap, or caused by variation of pressure by the hand who stamped them. From this, we can say that human beings have a specific capacity to identify shapes of matter. We call any shape (any “aggregate of waves”) that is identified subjectively by a human being a form.

As illustrated by the transfer of the shape of the seal to the wax and then to the soap, waves can be replicated, and then they are located simultaneously in different physical objects. Waves are not unique but multiple, in the same way that there are multiple instances of the imprint with more or less the same shape. Differently than atoms, "waves can be created, dissipated, or conserved" (here it connects with Lavoisier's "everything is transformed"). For instance, variations creations/disappearances of waves account for small differences between the wax and the soap imprints.

Why is this useful? Consider for instance the issue of "culture".

The main problem with the notion of "culture" is that people attempt to talk about fixed entities while knowing that these entities are multiple and have varying borders and varying contents. For instance, we try to to speak about "Chinese culture" but we don't feel comfortable with this idea because the Chinese also have McDonald's in China and McDonald's are supposed to be part of "American culture". And we also don't feel comfortable with the fact that the "Chinese culture" in Beijing in 2015 is changing, for instance it is different than the one Beijing had in 2010. A consequence of this problem is that scholars constantly refer to these conceptual failures when they discuss such phenomena (e.g. one will write: "I will discuss Chinese culture in Beijing... This said, of course there is no fixed entity of Chinese culture or Chineseness, I will refer to...").

However, if we reformulate culture as the circulation of forms, it becomes perfectly valid to consider that Chinese culture has McDonald's while American culture has also McDonald's –because a shape can be multiple, it can be located at several different places at the same time. And it is possible to describe the changes between 2010 and 2015 in Beijing, because the shapes of matter are constantly being destroyed, created, re-arranged, transmitted etc. From this perspective, we don't need to refer to conceptual failures (e.g. one can write "I will discuss the forms of... and describe how they circulated from... to... ").

In a nutshell, two features of the framework make a difference with the way scholars usually discuss materiality:

– The notion of shape enables us to speak about a same thing being present at several places at the same time;
– The concept of wave allows for things to be created, dissipated or conserved.

And the concept of form enables us to deal with what is specific about human beings when it comes to waves circulation, and with the issue of human subjectivity.

The core idea in the book is the notion that a design is a displacement. It is illustrated with the sand castles on the cover: the same sand can take a different shape by a different hand or culture. For instance, either a dribble/Gaudi-esque castle, or a Great Wall-esque castle.