TOWARDS (IM)MEASURABILITY

of ART and LIFE

Published by Archive Books

Written and edited by Miya Yoshida
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Exercises in Measurement
Lemon:

lemon
past lemon
after lemon
cut-out of a lemon
animal's lemon
painting of a lemon
sliced lemon
before or pre-lemon
image of a lemon
memory of a lemon
illusion of a lemon
subject: lemon
hidden lemon
area of a lemon
dream of a lemon
last lemon??
reflection of a lemon
photo of a lemon
almost lemon
moving transitional lemon
impression of a lemon
actual lemon
this is a lemon
model of a lemon
drawing of a lemon
misapprehension of a lemon
still lemon (if possible)
anothe...
Shusaku Arakawa, *Bottomless*, 1963–64, mixed media, acrylic and pencil on canvas, 182 x 121.9 cm © 2017 Estate of Madeline Gins and Reversible Destiny Foundation. Photo: n/k

Shusaku Arakawa, *Diagram with Duchamp's Glass as a Minor Detail*, 1964, (installation view of Arakawa: Diagrams, Dwan Gallery, Los Angeles 1964), mixed media sculpture, 228.6 x 167.7 x 55.9 cm © 2017 Estate of Madeline Gins. Reproduced with permission of the Estate of Madeline Gins and Reversible Destiny Foundation. Photo: n/k
Exercises in Measurement
Miya Yoshida

“A new foundation for all measures.”

Over the last century, metrologists have achieved great progress in their search for precision in the standardisation of units of measurement, and most have long since been updated based on more appropriate definitions. For decades, the International Prototype Metre Bar was a historical unit for measuring length. It was first replaced by the wavelength of radiation, and then by the speed of light. Today a metre is defined as “the length of the path travelled by light in vacuum during a time interval of 1/299 792 458 of a second”. And, this fraction of a second can be derived from the energy structure of a caesium atom, since atomic clocks have set the benchmark for precision for almost fifty years. Following the modern definition of the metre, other units of measurement were replaced as well. Metrologists have striven to apply the same principle of measuring with light to all the other base units, especially to the kilogram, the mole, and others so as to create a common foundation for all kinds of measures, “A new foundation for all measures” – this is a slogan used by The National Metrology Institutes (NMIs) in homologising the units for all kinds of measurements. According to the NMIs, the new light-based definitions of these units will soon be completed and are likely to be legislated by 2018.

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William Blake's pictorial comment was intended as a critique of the scientific thinking that Sir Isaac Newton's theories represented. Blake also questioned his single, fixed point of view in measurement in writing the famous text "Urizen" (your-reason). In contrast to Newton (and the vast majority of today's thinkers), for Blake, mythology was a methodology that he deemed sufficiently sound analytically that it could be entrusted with measuring the world. Based on this thinking, he set out to develop what he called a "visionary physics".

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1 This was the headline of the news section on the website of The National Metrology Institute of Germany on 26 March 2015.
3 https://goo.gl/83rR3Z.
While creating such perfect precision for measurement units is a considerable achievement, the question of who is actually able (or in a position) to measure such accuracy becomes inevitable. Does it still allow an individual to question the correctness of a given measurement with reasonable doubt? The quest for accuracy in measurements is connected to the modernist ideologies of “progress” and requires more complex technological facilities and higher knowledge in order for it to succeed. In 1889, when the metre unit was introduced based on the idea of the globe, that unit was not only divorced from its formerly close connection with the human body and everyday life; it became institutionalised in parallel to the emergence of professionalism and the establishment of bureaucracy. Such exploration has caused the agency and knowledge of measurement to move away from any one person and into the hands of experts — “a body of paid experts, who (a)re licensed, or otherwise recognised as being the guardians of an officially approved and restricted body of knowledge”

Measurement can no longer be autonomous, and is clearly compartmentalised into symbolic and practical levels. What to measure, how to measure, and who measures — these questions have always been influenced by the culture of capitalism, bureaucracies and institutional politics, which require the standardisation and the precision of measurement (Weise, 1997). Thereby, “a new foundation for all measures” actually reflects the achievement not only of science, but also of neoliberal capitalism and bureaucratisation of society, and today these questions are more deeply entangled with them than ever before.

How, then, might it be possible to search for different ways of knowing and to exercise different concepts of measurement? How might one actually obtain a different idea of what a unit is, another way of thinking and knowing, instead of accepting everything as immutable, as things that have no fluctuation in mass, or unexplained drifts? Would it be possible to say that “a new foundation for all measures” is only the starting point for a re-thinking of measurement? Some experts answer questions about the need to replace units by saying that such an action is insignificant, that practically nothing will look different on the level of everyday life, et cetera.

However, such a split is inherently problematic, as it wrongly considers an issue that is actually only the tip of the iceberg. Real changes happen invisibly; their influence may be hard to recognise in everyday life. And this may also accelerate the contemporary tendency towards basing one’s beliefs solely on data, on its “process of processing” — a result provided by independently functioning institutions. This is not a superficial question that can be regarded as distanced from reality; where this shift directs us and how it re-shapes our epistemologies and ontologies is a valid question. When aesthetics come into play, the “game” of measurement changes from science to art. This might suggest other ways of knowing and understanding, and guide us towards different notions and acts of measurement.

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1 Starhawk, Dreaming the Dark: Magic, Sex, and Politics (Boston: Beacon Press, 1997), 199. The quote originally comes from the context of the exclusion of female labour from the economy in the establishment of capitalism in the 16th and the 17th centuries. It refers to the elevation of professionalism, as a result of which witchcraft in particular came to be regarded as unsubstantiated knowledge in society and something evil.
Eames used many different images at once to communicate the idea of "two" in the IBM presentation called *Think*.

Charles and Ray Eames, *Think*, 1964, multiscreen installation © 2017 Eames Office, LLC (eamesoffice.com)

Matt Mullican, *Untitled (Learning from That Person’s Work)* (details), 2005, ink and paper collage on bedsheets, 243.8 x 167.6 cm each, courtesy the artist and Mai 36 Galerie, Zurich
Fig. 30. **AS THE FISH SEES THE ANGLER.** AUTHOR AT END OF TANK PHOTOGRAPHED FROM THE POSITION OF THE FISH UNDER THE WATER