Maarten Gielen: Complementary remarks on a discussion

To follow up on Prof. Mark Swilling's enlightened summary and thoughts on the discussion we had at Endicott House, I would like to respond with a limited series of nuances and afterthoughts, hopefully in such a way that these can constitute a basis for further discussion next year in Switzerland.

During the conference we established that material flows encompass energy flows; in other words that we approach the production and consumption of energy through its material component. If these texts are to be published for an audience that goes beyond those who were present at Endicott house, this should form an explicit part of the conversation.

On the subject of metabolic flow analyses, Mark makes a very good case for a thorough (and global) mapping exercise in order to understand and expose the physical limits of material consumption and demand. I think that at the end of the conference we all shared his position. However, I would like to add that a quantitative approach should be accompanied by qualitative appreciations of that same system. Most material flows cannot be understood solely by analyzing their production, trade and consumption patterns.

For instance, how would one deal with the resource requirements of wars? I would like to develop this example a bit further: it was the logistical requirements of the US army fighting in Vietnam that prompted the perfection and widespread adoption of the standard shipping container (before the mid sixties all goods were off loaded piece by piece in most major ports). And it was the massive return of empty war containers to the US that made possible the Japanese electronics industry boom in that same period (the US army paid for the return of the empty containers, allowing transporters to propose rock bottom prices for cargo trips back to the USA). To qualify these transports solely in terms of the quantity of heavy fuel they consume would be a missed opportunity for understanding what else was going on. I'm sure this is the case for several contemporary situations as well, the special economic zones in China to name but one example.

It is therefore my impression that in order to make sense of any figures generated by this exercise, we also need a more punctual, deep understanding of key situations, and that these findings should be produced simultaneously with the estimates.

Mark argues that the figures that will be produced as part of a global metabolistic analysis will have a significant “Shock and Awe” value, and make it very clear to decision makers that “Business As Usual” (BAU) scenarios are not a viable option. This will probably be the case for a number of the decision makers targeted, but it will be hard to convince large groups in society with just naked numbers. Any semi- sophisticated reader will be tempted to question the numbers, with the risk being that the discussion begs questions like: "is it true?" rather than more interesting and important questions like: "what can we do?". In part, this concern could be addressed by creating images that are digestible for a wider audience. Think of the images that sparked the first wave of environmentalism in the sixties and seventies; the impact that the "earth rise" image by Nasa had on environmental awareness is difficult to overestimate. Or the image of the second plane hitting the world trade center and its capacity to bring America to war twice.

What are the images (metaphorical and literal) that can play a similar role for the subject we have at hand? And complementary to this question: what is the medium that can best deliver these images to the audiences that we target? The Habitat III conference is a good place to start, but why limit ourselves to that?

Earthrise is a photograph taken during the Apollo 8 mission, the first manned flight to orbit the Moon. Though not the first photo to be released by NASA, this image of the Earth, contrasted with the barren landscape of the Moon, played a key role in raising environmental awareness. Taking the picture was not part of the astronauts' assignment, making it an act of insubordination.

Project: Apollo 8 Mission, by NASA, 1968 (photo: William Anders).