03. Definition

Translating the Concept of Circular Economy into Building Design Practices

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What is circular building? What is circular design? Circularity receives a lot of attention; nonetheless, we are still at the beginning of working on circular principles and their large-scale application in the building sector. There are still many open questions, controversies, and contradictions. For example, *should we choose to de-materialize or re-materialize? Should we opt for durability? Or for constant change? Should we aim for flexibility or for minimizing material input?* There are many Circularity Challenges – typically attention is given to Embodied CO2 or Demolition & construction waste. But there also challenges that receive less attention like: avoiding biodiversity loss, enabling reuse and enabling disassembly. Which of these challenges do we refer to when we discuss circularity?

To date *Circularity remains an integration challenge:* we are still struggling how to translate concepts into practice in a meaningful and impactful way. Drawing on Science and Technology Studies, and Michel Callon's idea of translation specifically, I introduce the *framework of 'translation'* to explain how the concept of circularity is continuously transformed within contingent, complex, and dynamic architectural design practices as buildings materialize.

Through translation, it is possible to understand how circularity is interpreted and enacted. The *10R-ladder* is one important notion used to define and measure CE because it *helps us describe circularity in concrete ways and through specific processes.* Otherwise, circularity remains a *concept* and as a concept, circularity *cannot* be built! In order to proceed towards building materialisation the concept needs to be transformed, displaced and modified in design practice. We must shift our attention to these transformations, displacements and modifications.

This is not a linear process, but rather a process of back and forth characterized by reciprocal adjustments. Understanding the processes of translation in building design practices can be facilitated by asking ourselves a few simple questions:

1. At the outset of the design project, h*ow are circular challenges defined* to inform and guide the design process?
2. How are these challenges then *transformed into particular design targets* and goals?
3. How are these targets subsequently *transformed into design (and technological) strategies?*
4. How are *design strategies expanded and*

materialised? And finally, do they perform as predicted?

I argue that the framework of translation helps to explain how the concept of circularity is continuously transformed within contingent, complex, and dynamic architectural design practices as buildings materialize, between different actors and elements.

This way we can avoid over-simplifications like: Is it *circular* or is it not?

Translation provides a set of valuable principles, mechanisms, and vocabulary to navigate and better understand these messy worlds.

Translation foregrounds the inseparable mechanisms of

1. knowledge production;
2. the construction of heterogeneous relationships;
3. displacements and transformations; and
4. controversies, choices, negotiations and adjustments, which are central in bringing buildings into being

I suggest that it is necessary to step back, to eliminate the adjective ‘circular’ when describing practices and artefacts, and instead think about how to give the concept meaning—about how it is enacted—in design practice.

I see the concept of translation as a useful tool to address particular claims, to make them more accountable, and thereby support the larger project of circularity.