**What 3D Printing Might Teach Us About Fabricating Truths**

This lightening talk confronts the following question: if we are attempting to revive erased spaces by re-fabricating them, what responsibility do we have to the corpse's social, political, economic, and cultural aura. The basic question: how do we consider, integrate or confront an individual—or collective—emotional affect produced by the revival of the previously erased or inert?

The talk and accompanying paper breaks the discussion into four interrelated sections. The first section deals with the materials used in 3D printing by asking how the reproduction of erased spaces (loosely defined)—demolished buildings, destroyed geographic features, lost / stolen objects—is infiltrated upon by the "plasticity" of their fabrication. By re-producing erased objects using materials sometimes not even present in the original contexts, our fabrication creates a distorted sense of materiality. Even when the materials are the same—the reproduction in the same material as the erased original—the individual or collective reaction to the fabricated materiality suggests a fracture or obtuse connection to the original, erased, object. In short, how do we—or can we—account for the fabrication of materiality as it is manifest through an individual or collective expectation? In other words, is 3D printing reviving, in a tactile format, something that has not been quite erased? That is, while the buildings, streets, and cross-references may no longer exist, the memories, experiences, and cultural signatures do—how do researchers seek to incorporate those things inside the tactile reproduction?

The second section asks questions around scale: how can one possibly "recreate" tactile objects without accounting for scale. For instance, does something produced in miniature possess a resonance congruent with the original, and does this matter? Our experiences with 3D printing suggest that not only does scale affect the interpretation of the fabricated object, sometimes rendering once erased objects in miniature performs a reductive act upon the social, cultural, economic, political offence all over again creating a second erasure that at once acknowledges the lie (or fabrication) of the 3D printed object's resonance, and ends up as a reductive commentary on the nuances of the original erasure.

Moving into the third section, the argument moves into a discussion of practice as it applies to the implications of fabricating erased spaces. Can we accurately account for corrections in fabrication—do we annotate the 3D model, track changes for a 3D object, mark up a 3D fabrication? Here, I suggest that material fabrication needs to account for the "permanence" of the physical object that, once produced, cannot accept changes or show the marginalia / evidence of its transformations, particularly given that most reconstitutions of erased spaces tend to look for sources in the margins of society—those neglected, highly isolated, prototypes—where few methods exist to mark cultural, economic, and aesthetic contexts. The 3D printed object has many layers that cannot be peeled back because they have melted seamlessly into one another, creating the perception of smoothness, refinement, and completion. However, the hardware--and its accessibility--used to scan, render, and finally fabricate erased spaces may represent a re-colonization rather than a renewed existence.

Finally, the argument concludes with a discussion of what happens when the individual or collective reaction to the materiality of once-erased spaces intercedes upon the intended outcomes, rendering any knowledge creation or production inert. That is, while we may be able to fabricate erased objects—in this case using the case study wherein we tried to reproduce sections of the long razed New Westminster, B.C. Chinatown in a miniature—we do not yet have a foundation for understanding and predicting the triggers—cultural, social, economic—the reproduction of those models may elicit. We may be guilty, in our technological zeal for the socialization of knowledge, of "fabricating" connections between materiality and memory, unduly activating difficult emotional reactions that are not accounted for in the value proposition for re-making erased spaces, which is often about re-establishing erased truths and representing lost heritage. What the fabrication of erased spaces, as a form of technologically-based social knowledge creation, might show us is that these spaces are not artifacts in a tactile or material sense, but rather are symbolic of a set of emotional, cultural, and economic realities that individuals and collectives may not be equipped to process. As we fabricate, or re-fabricate, assemblages of once-erased cultural spaces, what exactly are we activating in the social space and how might we account for the “fixed” truth fabricated by the 3D printing machine?