

LOT-EK, Ada Tolla & Giuseppe Lignano & Thomas de Monchaux

“When Your house contains such a complex of piping, flues, ducts, wires, inlets, outlets, ovens, sinks, refuse disposers, hi-fi reverberators, antennae, conduits, freezers, heaters—when it contains so many services that the hardware could stand up by itself without any assistance from the house, why have a house to hold it up? When the cost of all this tackle is half of the total outlay (or more, as it often is), what is the house doing except concealing your mechanical pudenda from the stares of folks on the sidewalk?” Reyner Banham, *A Home is not a House*, 1965

**The local problem of the next quarter century is garbage.** In April of this year, New York City mayor Bill de Blasio introduced the Zero Waste plan as part of the city’s One New York long-term blueprint for urban infrastructure and environmental planning. The Zero Waste plan requires the city to reduce its solid waste output by 90% by the year 2030, to enforce landfill diversion, and to eliminate transfer management—that is, no more burying garbage locally and no more shipping garbage to Delaware. The program sets new recycling requirements for city-owned housing, and implements single-stream cycling for the year 2020. Current city waste management has a disproportionate impact on the Bronx, where since the 2001 closing of Staten Island’s Fresh Kills Landfill, an estimated quarter to a third of all city garbage is currently transferred from garbage trucks to long-distance shipping trucks—with predictable effects on local quality of life.

**The global problem of the next half-century is food.** The two industrial agricultural innovations that have historically fed our radically increasing human population—the Haber-Bosch nitrogen fixation process of the 1920s and the high-yield-grain-hybrid-and-pesticide technology transfer of the 1960s— have reached their practical limits. Compounded by the ongoing man-made climate catastrophe and informed by new research on post-grain nutrition, a worldwide crisis in food security is visibly on the horizon. Interestingly, the New Fulton Fish Market, a major local food industry center, is located in the same Hunts Point, South Bronx area where the borough’s garbage transfer stations are concentrated. A so-called “food desert”, the South Bronx has the highest national rate of food insecurity (inability to locally access affordable and nutritious sustenance): 37 percent, compared with about 15 percent for New York City as a whole.

**These local and global challenges converge acutely at the idea of the city, and in the program of high-density urban housing.** With the radical urbanization of our human population (two-thirds of humanity in cities by 2050), local garbage and global food become the same problem. While these conditions allow for fancifully utopian and dystopian proposals, this Fall we are especially interested in creative, rigorous, grounded, quantitatively-supported, real-world solutions: more Detroit than Tomorrowland. We are interested in radically open-loop cycling in which interdependent architectures exchange resources, analogously to natural ecosystems. But we are also interested in radically closed loop cycling in which buildings achieve gross-zero organics footprints, along with net-zero carbon and wattage/ampereage footprints.

**LOT-EK** is interested in technology and ecology: in both natural and artificial natures. We are involved in the radically adaptive reuse of natural and artificial materials. We transcend the false distinction between architecture and infrastructure. We believe in high-tech decay. We like rust, fungus, compost, bacteria, and other unspeakables. We love industrial plants and actual plants. In recent cycles of GSAPP Housing Studio we have focused on garbage, food, and resource cycles.

**A historical justification** for the cultural banality and social brutality of high-density urban housing developments has been their undeniable economy of scale and their efficient concentration of infrastructural building systems. We will question this justification and establish alternatives by identifying even more radical economies in which technological and ecological cycles sustain the urban values of community, culture, equity, and dignity.