Columbia University, GSAPP/ A4003: Core Studio 3, Fall 2014: **Housing Studio**
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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

Of all of New York's unnatural resources, garbage is the most lucrative and, historically, the most contested—as a subject of public health and private life.

Today, some 12,000 tons of residential waste is produced by the city every day, and—in a city without active landfills or incinerators— shipped to Virginia, and further, to become landfill, of which only an estimated 13% is diverted to recycling, down from historic highs. Our housing section will research, interrogate, apply, and transform the infrastructure of WASTE: at the scale of the city, the building and the apartment unit. We will focus on WASTE as an operational and spatial condition that mediates between radically different scales. Each housing pair will focus on particular wastestreams and associated historical, cultural, social, technological and architectural problematics and possibilities.

We will study both operations and objects. Operationally, we will follow the geographical and spatial path of intake and output of materials, from arrival or delivery, to storage, to leftovers, to storage of leftovers—and back out into the transportation and infrastructural landscape of the city. We will consider upstream and downstream flows, and upcycling and recycling strategies. Objectively, we will consider, among other things: packaging (the materials within which materials are absorbed and expelled from the domestic environment, which make up an estimated 40% of municipal waste production); domestic mechanical devices like in-sink garbage disposals (a common appliance in the American suburban households only legal in New York City since 1997, and which here is still strangely evoked in real estate listings to connote class and comfort); and more exotic technologies like the ambitious Automated Vacuum Collection System (or AVAC, a system of garbage collection via pneumatic tubes, serving 12,000 inhabitants of Roosevelt Island since 1975).

WASTE applies to more than domestic life: building-related construction and demolition accounts for an estimated one quarter of total non-industrial waste generation in the United States: the construction/demolition wastestream combined with the municipal household wastestream accounts for more than a third of American garbage, (outside of specialized industrial byproducts and pollutants).

Large-scale housing projects provide irresistible economies of scale in terms of the relationship between infrastructure and architecture. Repetition and spatial concentration of technology, machinery, circulation and other building elements enables a hyper-efficient relationship between infrastructure and architectural space that is impossible to achieve in multiple smaller domestically-scaled buildings.
We will look at the mass, volume, and relative cost of WASTE-dedicated square footage within the units and within the building.
We will look at individual efficiency, collective efficiency but also collective awareness regarding WASTE. Ultimately, we will look at fully exploring the potential of WASTE:

--to radicalize and instrumentalize the relationship between mechanical and social, between infrastructure and architecture;
--to use the social or operational qualities of architecture to complicate and corrupt seemingly neutral or purely functional infrastructure;
--to deploy the technological artifacts of infrastructure to interrogate and affect architecture.

Reference Sites/Potential Visits:
- AVAC, Automated Vacuum Collection System, Roosevelt Island
- SIM MRF, Municipal Recycling Facility, Sunset Park
- Fresh Kills Park, Staten Island