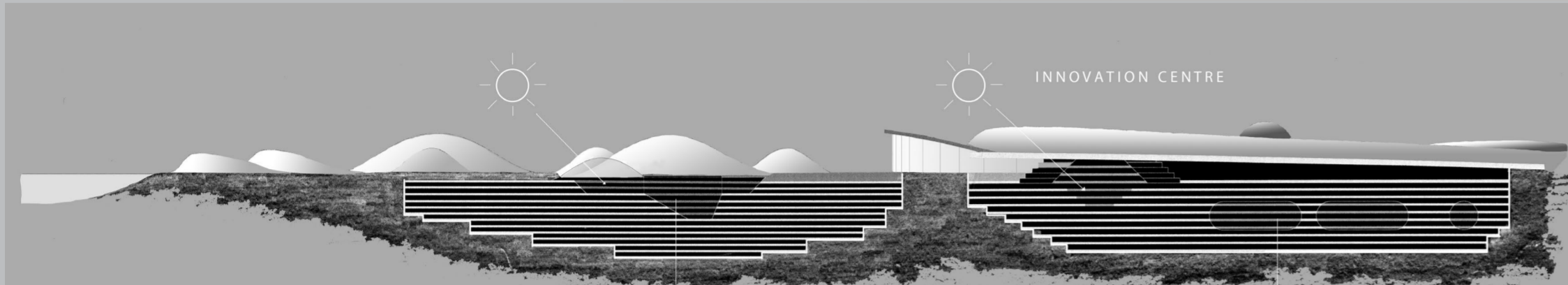




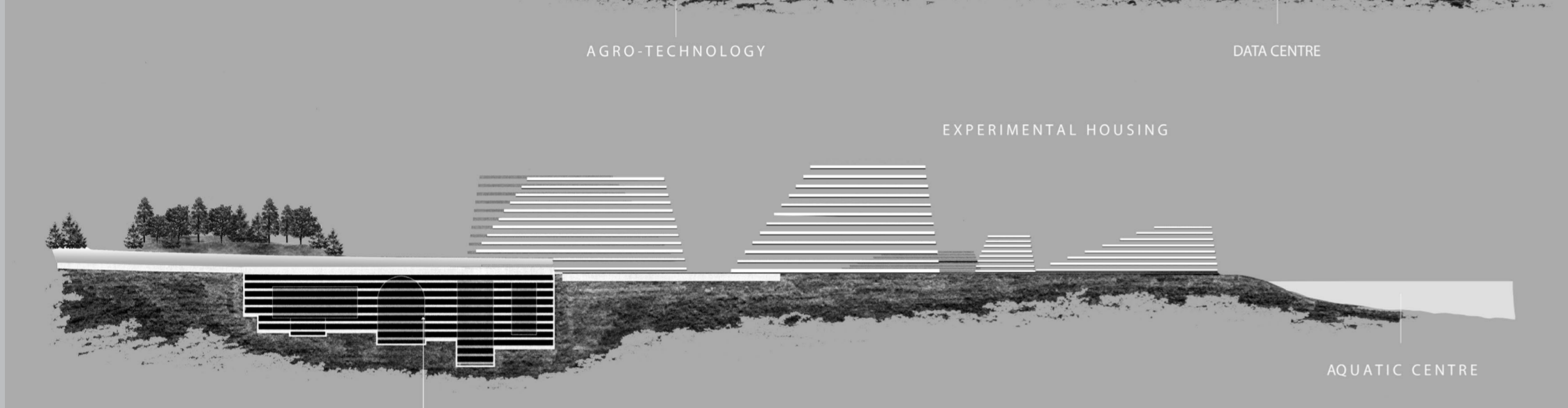
SUBDUCTIVE CITY: INNOVATION CENTER FOR APPLIED RESEARCH

Innovation Center: A crossroads for researchers, students, and the public. This center showcases the various research activities of the islands, highlighting locally developed technologies.



AGRO-TECHNOLOGY

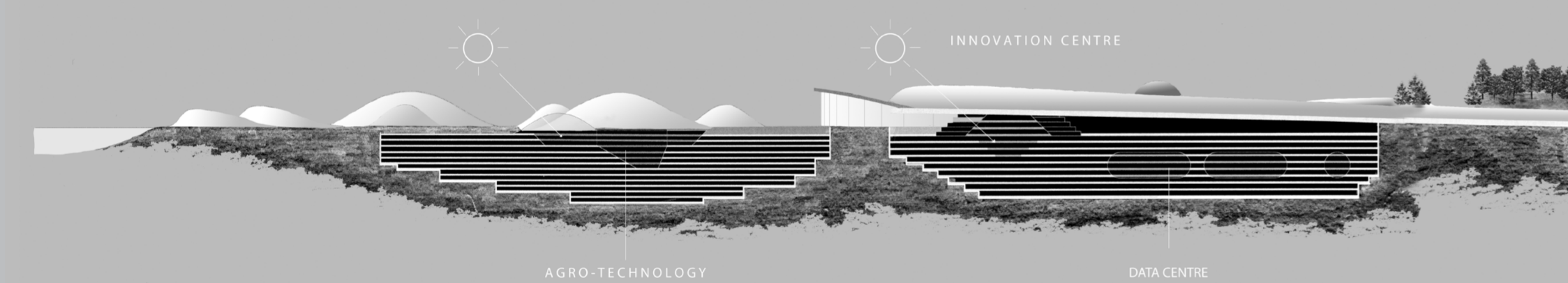
INNOVATION CENTRE



DATA CENTRE

EXPERIMENTAL HOUSING

AQUATIC CENTRE



AGRO-TECHNOLOGY

INNOVATION CENTRE

DATA CENTRE



INNOVATION CENTRE

CENTRAL HUB

ECOLOGICAL RESERVE

ENVIRONMENTAL RESEVOIR



HOUSING RESEARCH CENTRE

EXPERIMENTAL HOUSING

subduct (latin): drawn from below
 orogenesis (from greek): mountain building
 conurbation: an aggregation or continuous network of urban communities
 Ile Ste Helene and Ile Notre Dame are situated at the center of the Montreal metropolitan region, an area destined to become a dense urban conurbation. The design responds to the archipelago's proximity to five university campuses, and proposes a Centre of research. The notion of a subduction zone, whereby one tectonic plate sinks beneath another to create new topographies, inspires this project.

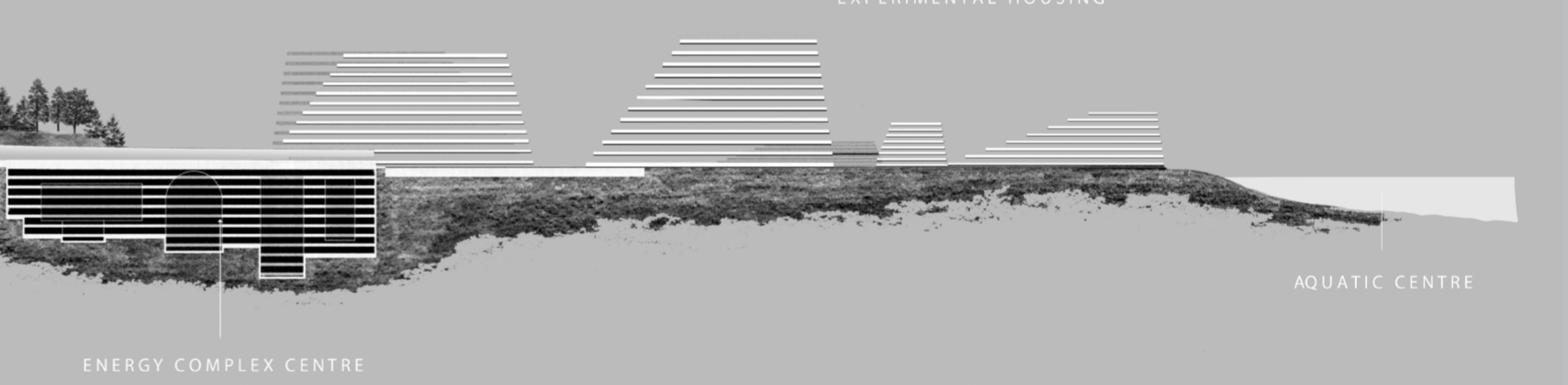
Appealing directly to the site's history and to the innovative and artificial means that are responsible for producing the archipelago's present-day form, this proposal emphasizes invention and innovation.

Referring to Expo 67's inverted pyramid motif, the proposal organizes sub and supra-grade narratives. In order to make the ground plane completely available for healing landscapes such as pedestrian paths and large expanses of agriculture and public spaces of participation, the Centre for Applied Research proper is subterranean or partially subterranean. Subductive City organizes research laboratories below grade while distributing research's fruits above grade. The seams between thematic "plates" buckle and dip, creating a formal language which serves as an initial framework which the programs then articulate further, which is shown best in section.

Data Center: Focused on 'big data' analysis, the data center is a vast repository of information collected from the research facilities, the Montreal region, and abroad.

Ecological Reserve: Evoking the historical outlines of Ile Ste Helene, this reserve provides crucial habitat for native species and hides a reservoir at its core.

EXPERIMENTAL HOUSING



ENERGY COMPLEX CENTRE

AQUATIC CENTRE

Agro-Tech center: Exploring non-traditional agriculture, the goal of this center is to develop methods of year-round food production that allow long-term food security. Research priorities include the eradication of famine and the need to transport food outside of local production areas.

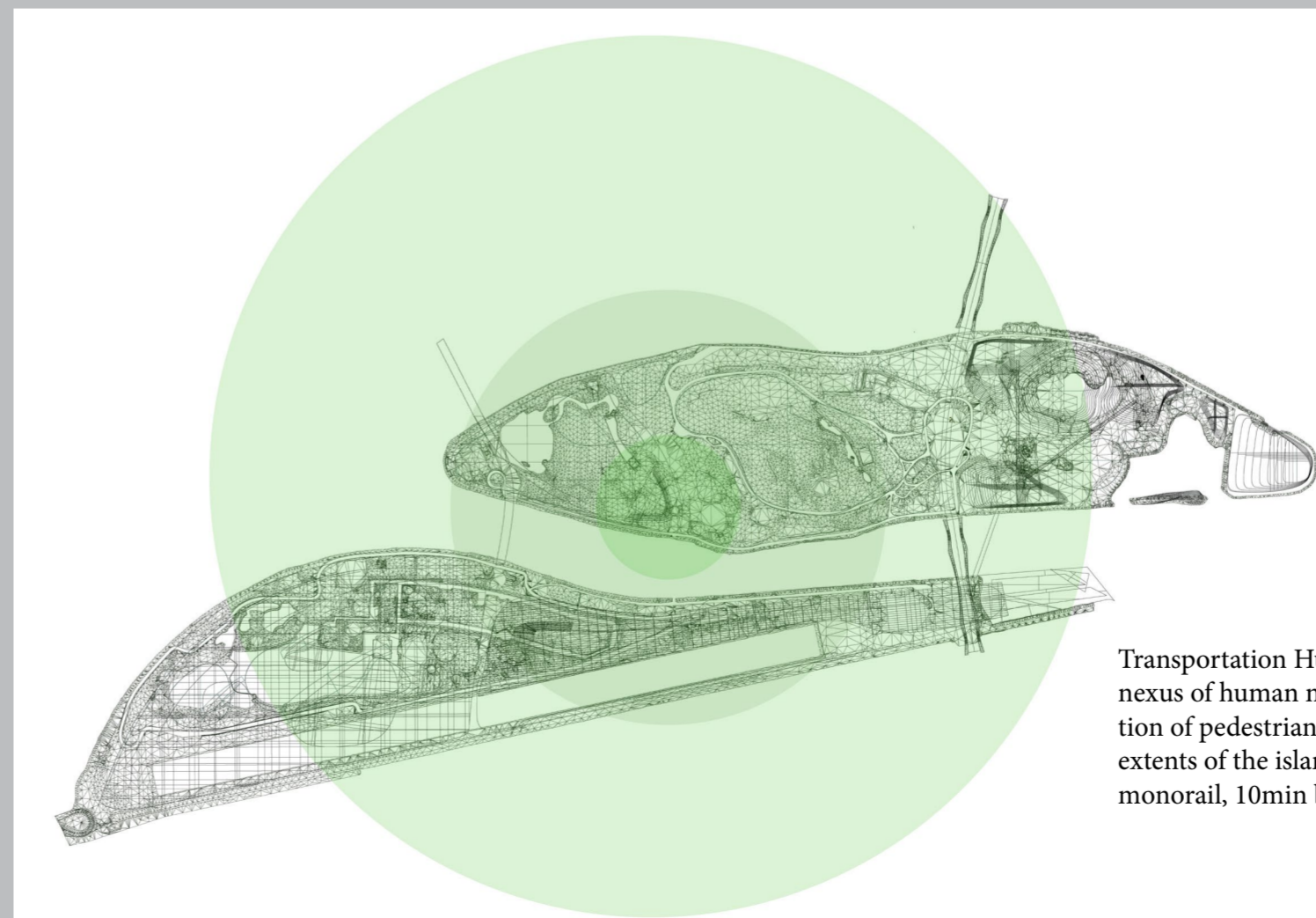
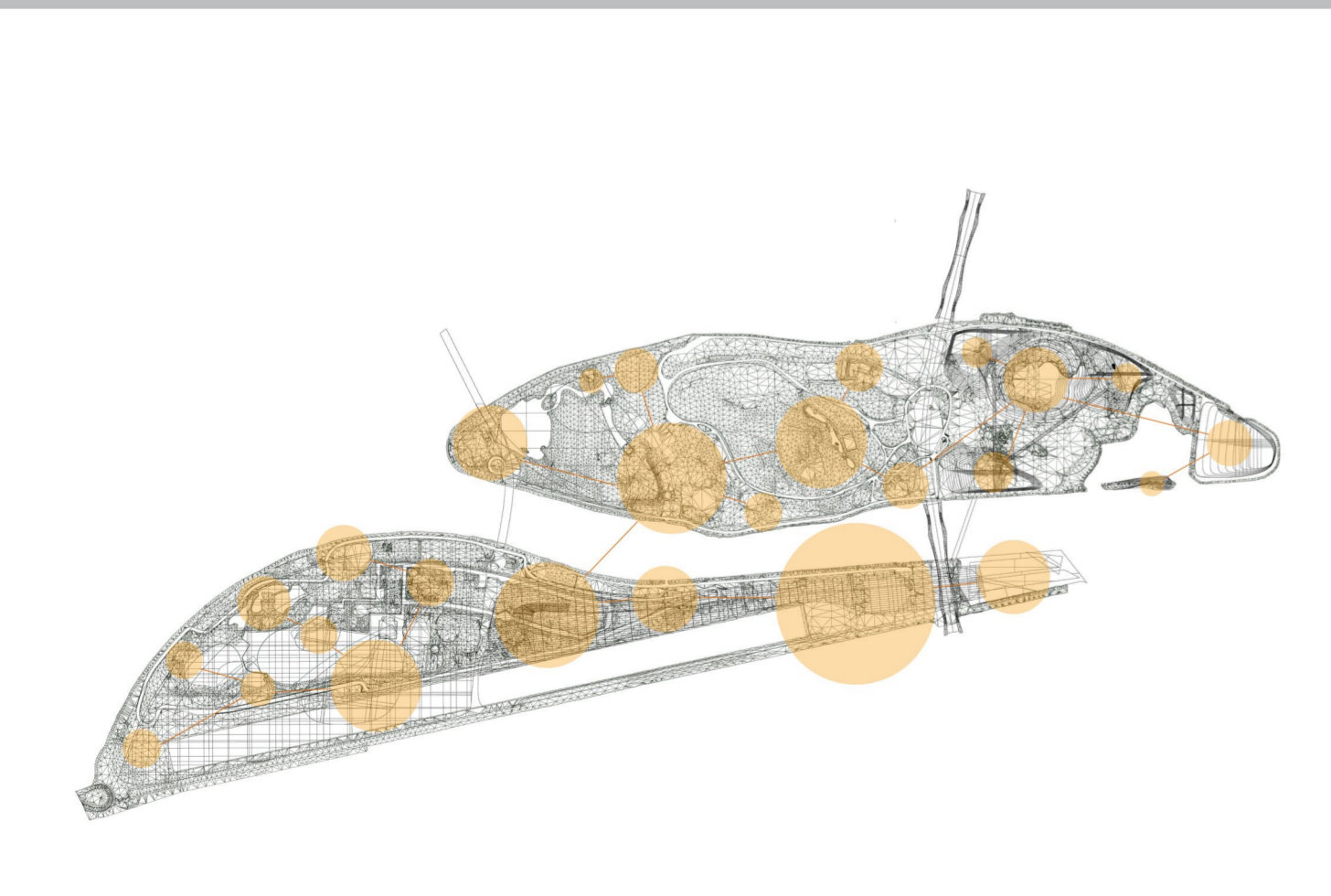
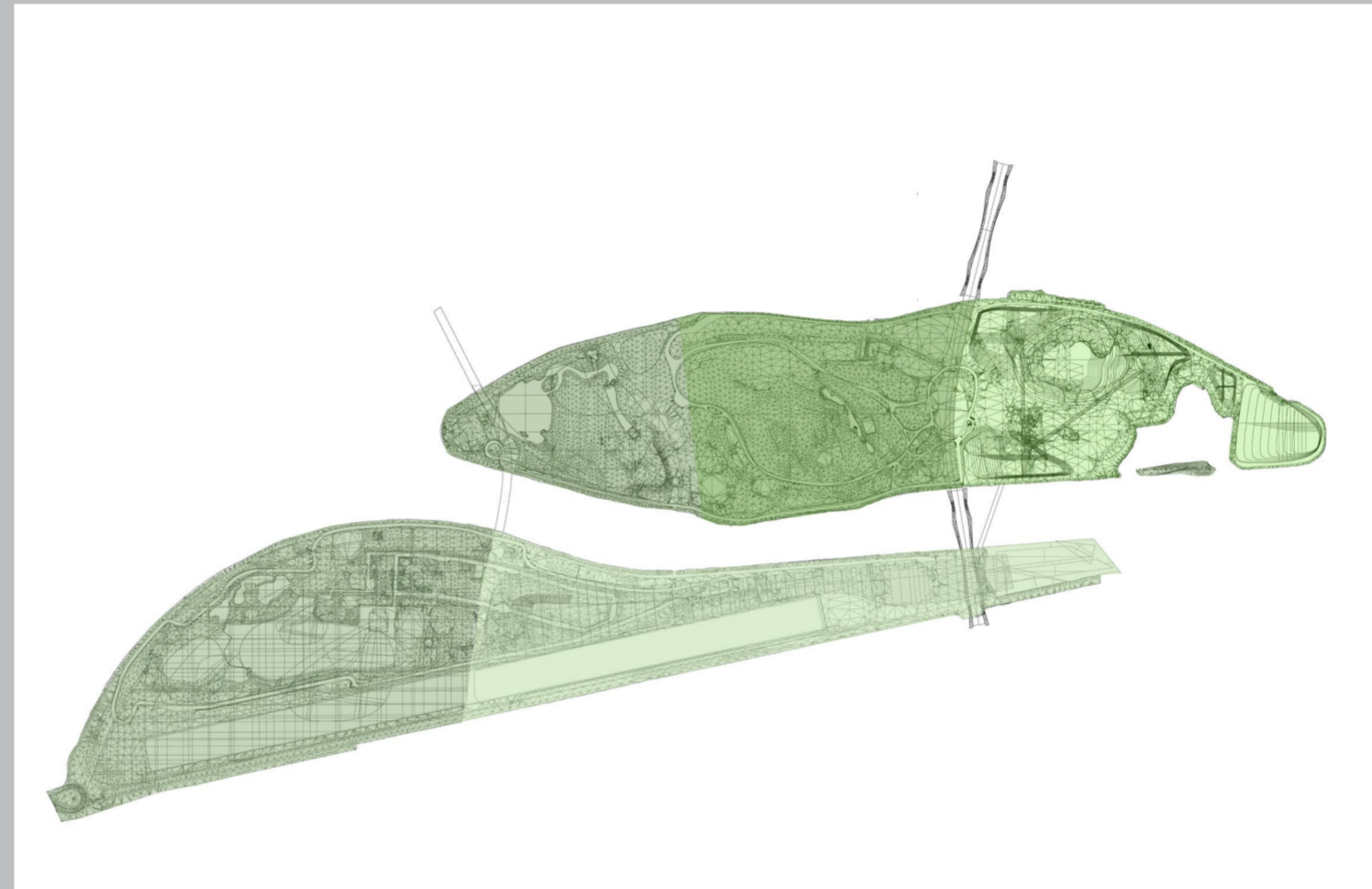
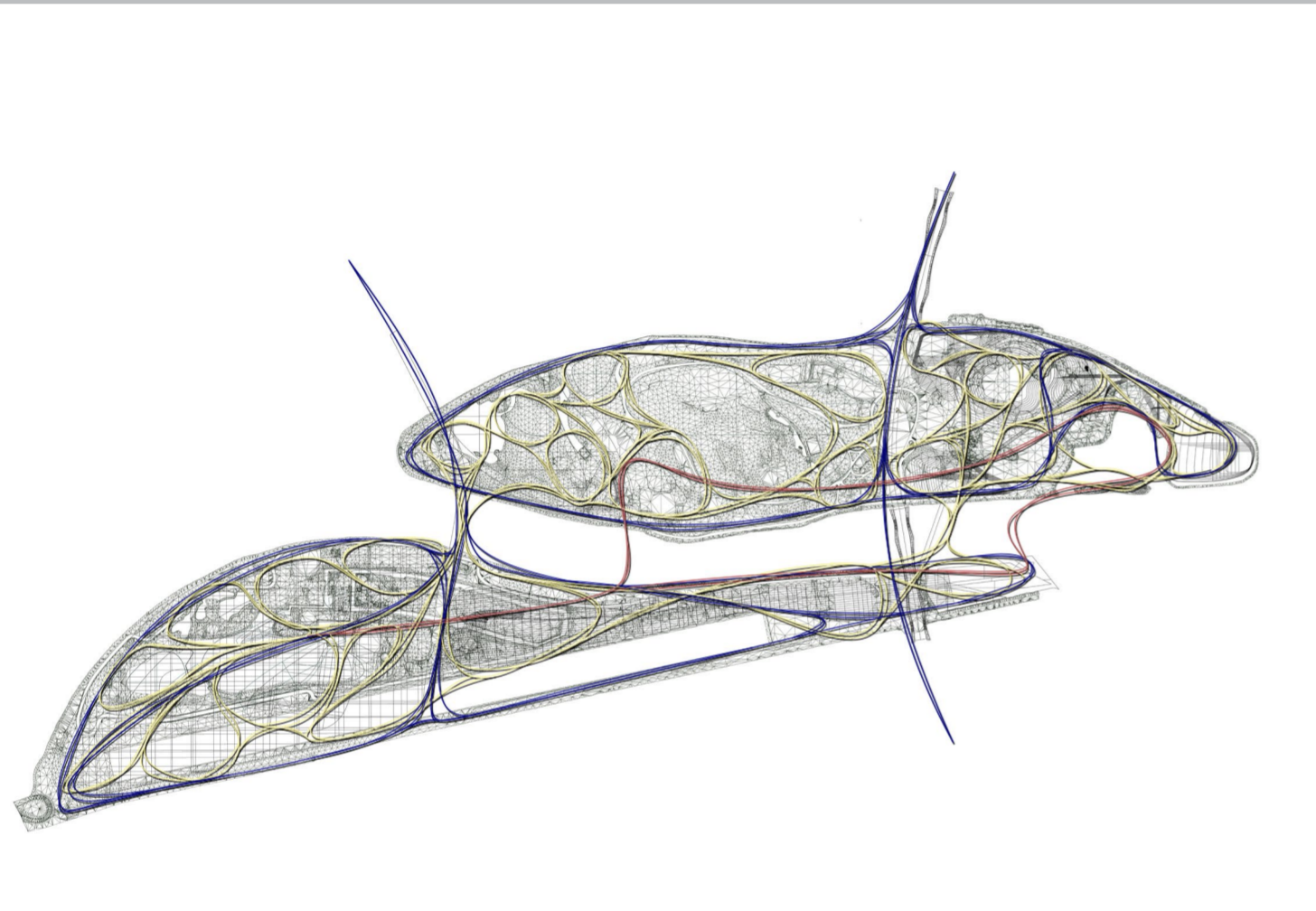
Aquatic center: Water that is channeled through the data and energy centers for cooling re-enters the river at the eastern edge of Ile Notre Dame as hot water. It is then collected in a pool for year-round swimming activities.

Energy Center: The nucleus of the islands' energy network is fueled by a diverse range of experimental technologies, not limited to: heat recovery from servers and sewage; hydroelectric, geothermal, piezoelectric, and genetically modified algae. Surplus energy is redistributed to Montreal and Longueuil.

Experimental Housing center: The buildings are extensions of the landscape and apply the most cutting edge materials, methods of construction, and mechanical systems. This center develops new housing typologies that go beyond net-zero while providing subsidized housing to Montrealers.



- Proximity to universities:
- Universite de Montreal Longueil
 - Universite de Sherbrooke- Longueil
 - Universite de Quebec a Montreal
 - Concordia University
 - McGill University
 - Universite de Montreal
 - Ecole de Technologie Superieure
 - CEGEP(s)



Transportation Hub: The Jean Drapeau metro is a nexus of human movement, located at the intersection of pedestrian, cycling, and rail networks. The extents of the islands can be reached within 5min by monorail, 10min by bike, and 30min on foot.