

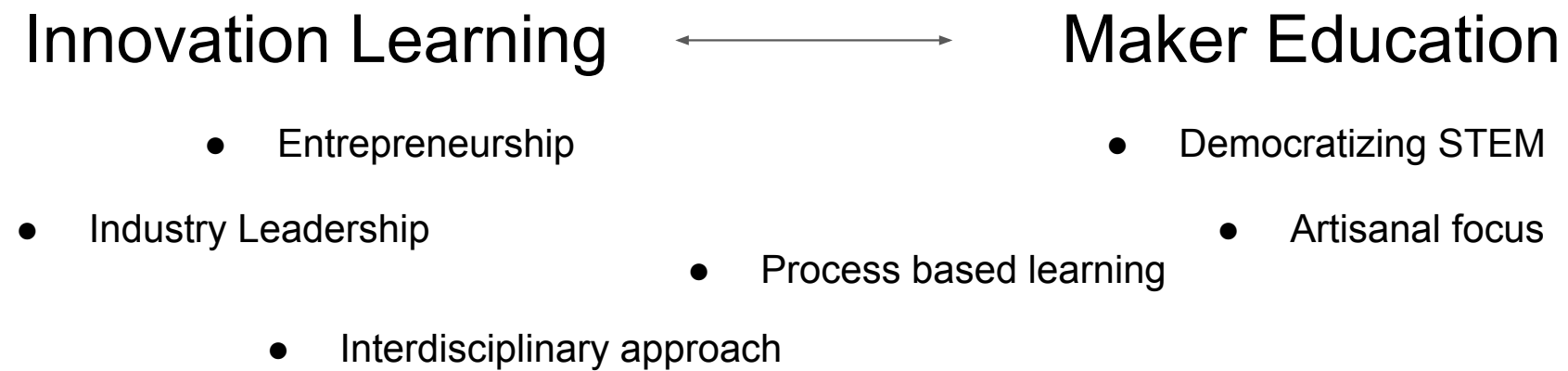


THE DREAMER INSTITUTE

Concept Design

Yale School of Architecture + Center for Engineering, Innovation, and Design

GOALS



THE DREAMER INSTITUTE - GOALS

This concept design for the Dreamer Institute aims to create a hub of innovative learning grounded in maker-based education. The Institute combines a 9-12 grade high-school (education center) with state of the art innovation center at Kabul University. The center integrates classrooms, laboratories, and workshops to create a learning environment for both highschool and university students to prepare them for an increasingly technologically focused world. This design embodies four overall goals:

- To create two separate but symbiotically linked buildings
- To create a secure space for learning while maintaining a sense of openness
- To create an institution that addresses and can adapt to its cultural context
- To create a learning environment that links thinking and making

BACKGROUND RESEARCH - INNOVATION CENTERS



Yale Center for Engineering Innovation and Design



RISD Nature Lab



Olin College of Engineering

BACKGROUND RESEARCH - AFGHAN ARCHITECTURE



Qala Fortified Village

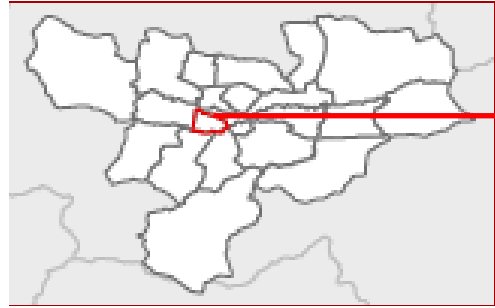


Barbur's Gardens

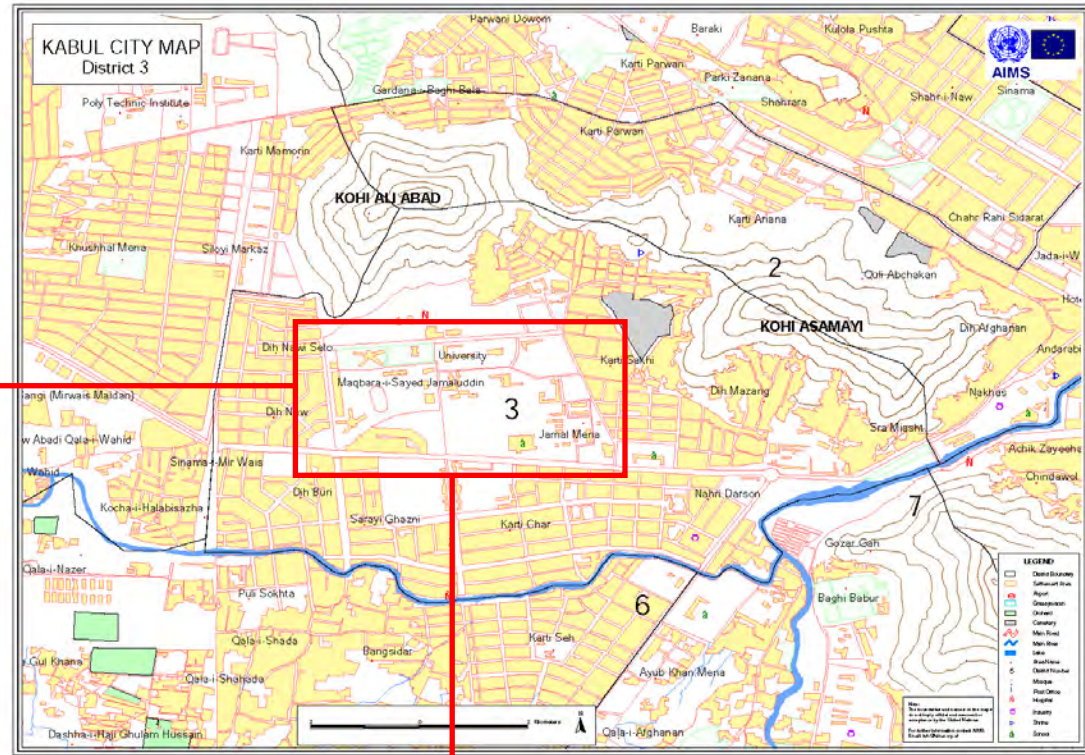
RESEARCH

The research behind the design for the Dreamer Institute looks ahead to innovation and back to tradition. Developments in how classrooms, laboratories, and maker spaces are integrated to form a fluid learning environment were studied in developing the building plan. In addition, the role of gardens, courtyards, and villages in traditional Afghan architecture were examined to formulate ideas about thresholds, boundaries, and the integration of interior and exterior space in forming community.

SITE

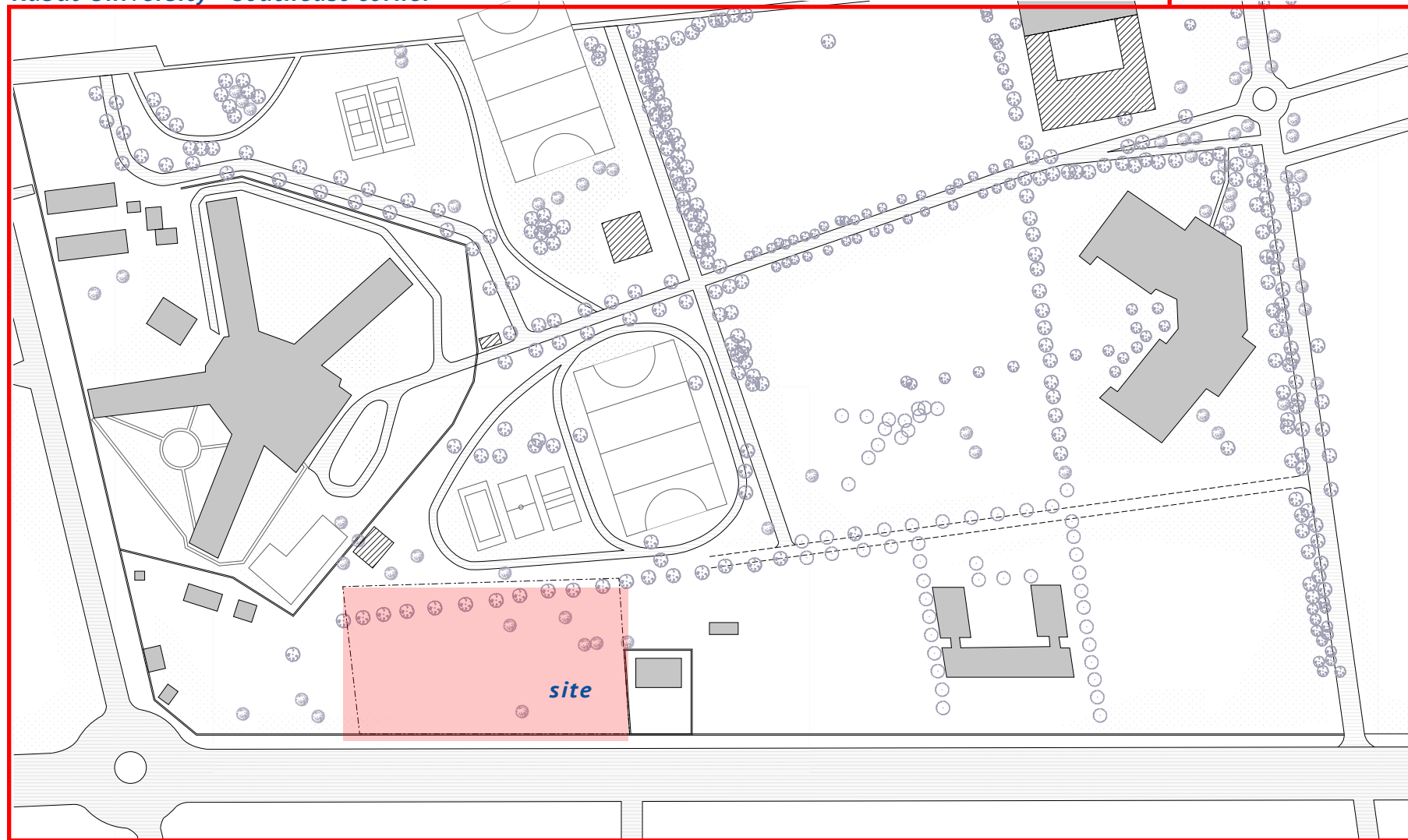


Kabul



Kabul - District 3

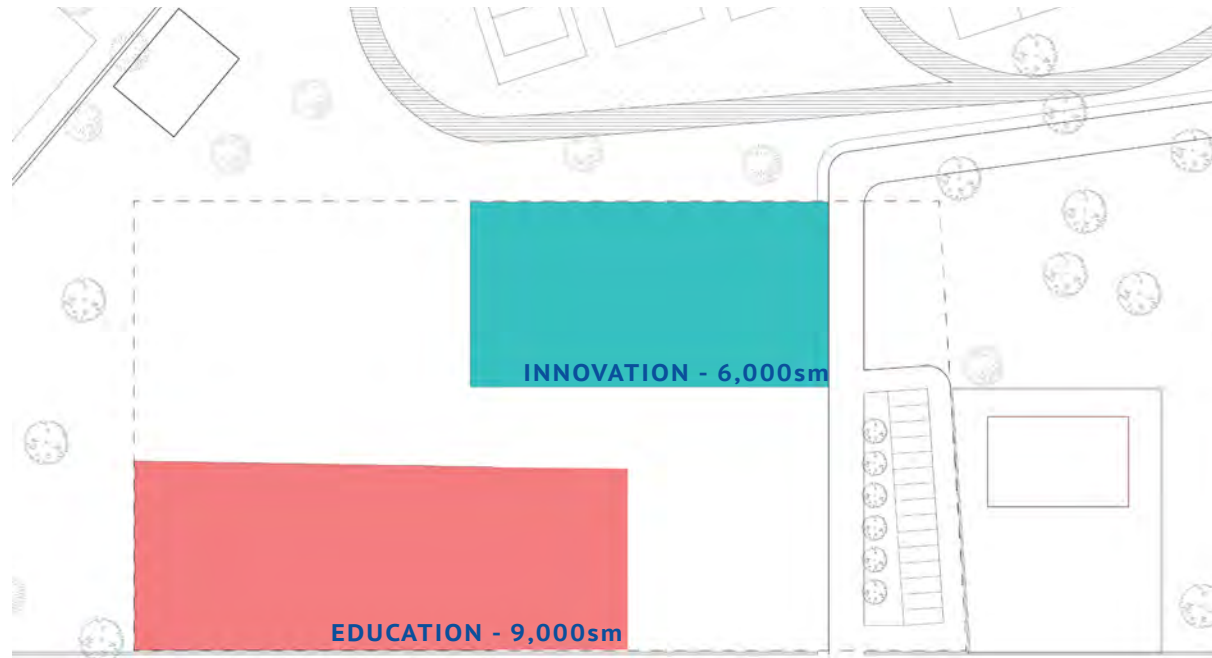
Kabul University - southeast corner



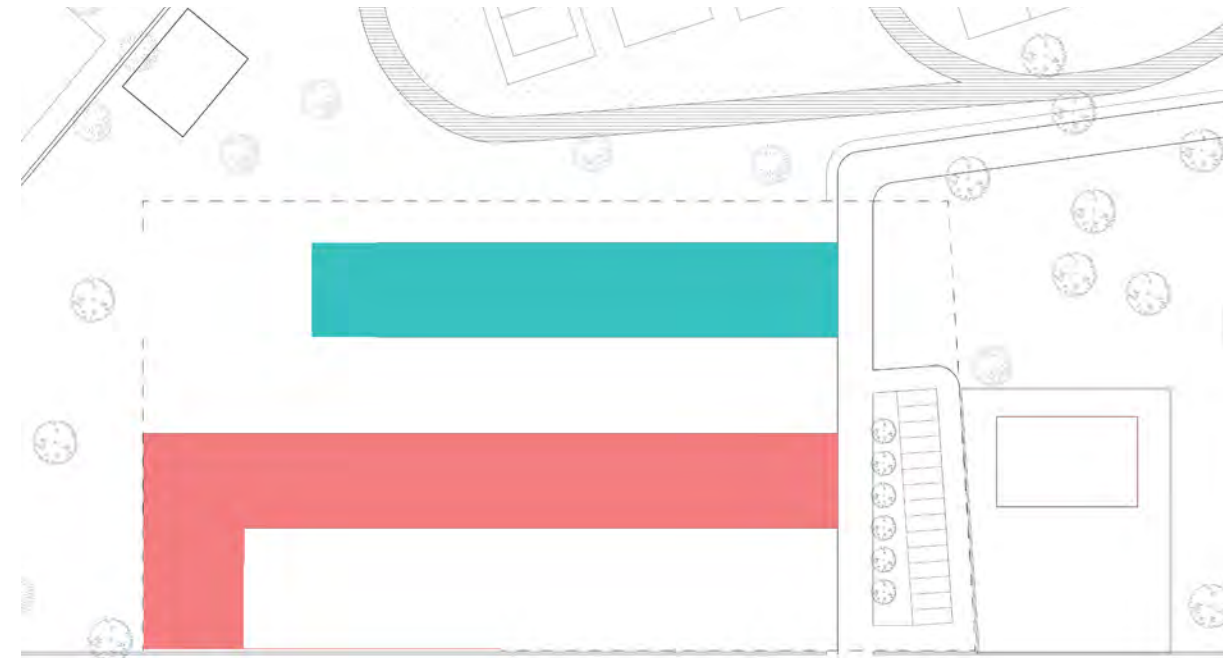
SITE

The Dreamer Institute will be sited within the walls of Kabul University in District 3 of Kabul, one of the fastest growing cities in the world. The site is in the Southwest corner of the campus, adjacent to a dormitory and a planned complex of athletic facilities. It is flanked by the campus wall on its southern border and on axis to a campus artery at its northeast corner. The site is approximately 12,000sm in area, measuring 80m north to south and 150m east to west.

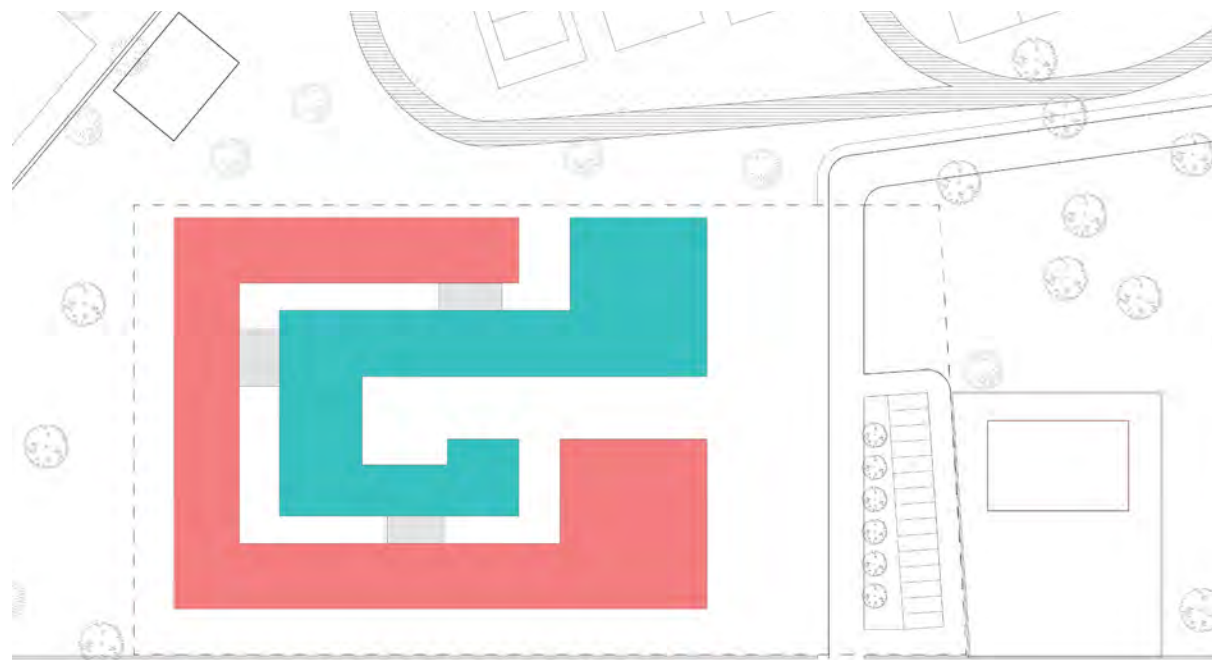
SITING STRATEGY



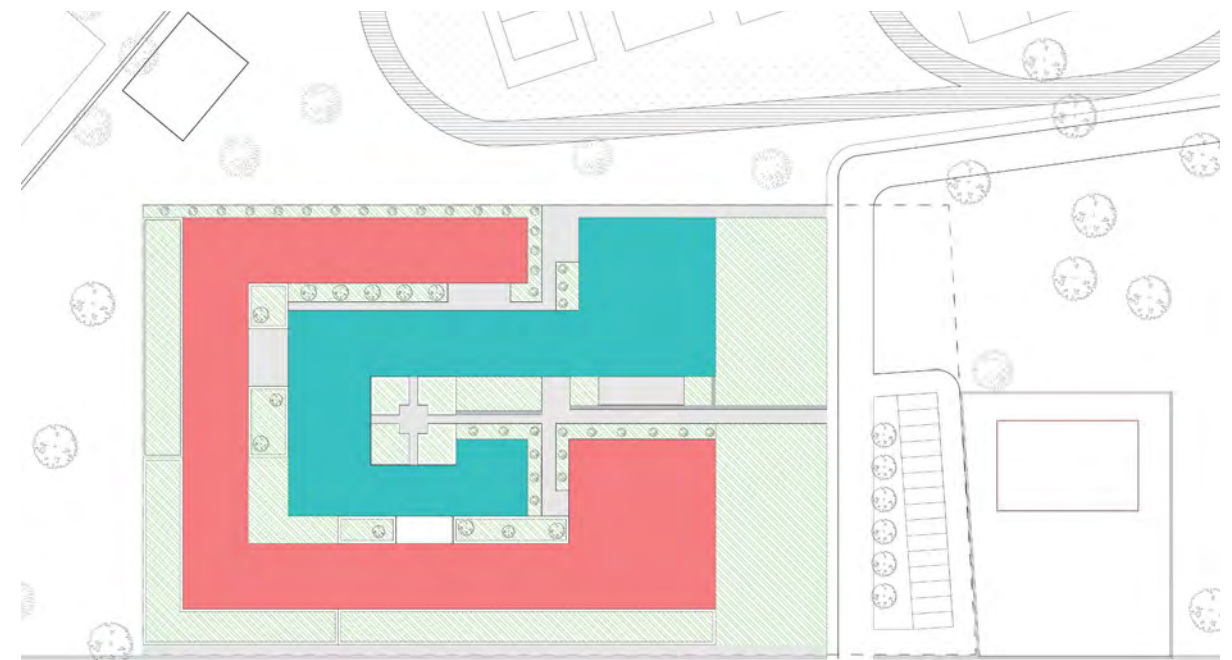
LOCATING -The Education Center (highschool) holds the more secluded south-west corner of the site. The Innovation Center holds the more prominent northeast corner on access with a campus road that will turn south to connect to a new campus gate.



ELONGATING -Both insitutions are organized as single-loaded corridors, allowing all spaces access to light and air. This allows for energy-saving cross-ventilation as well for continued operation in case utility service is interrupted.

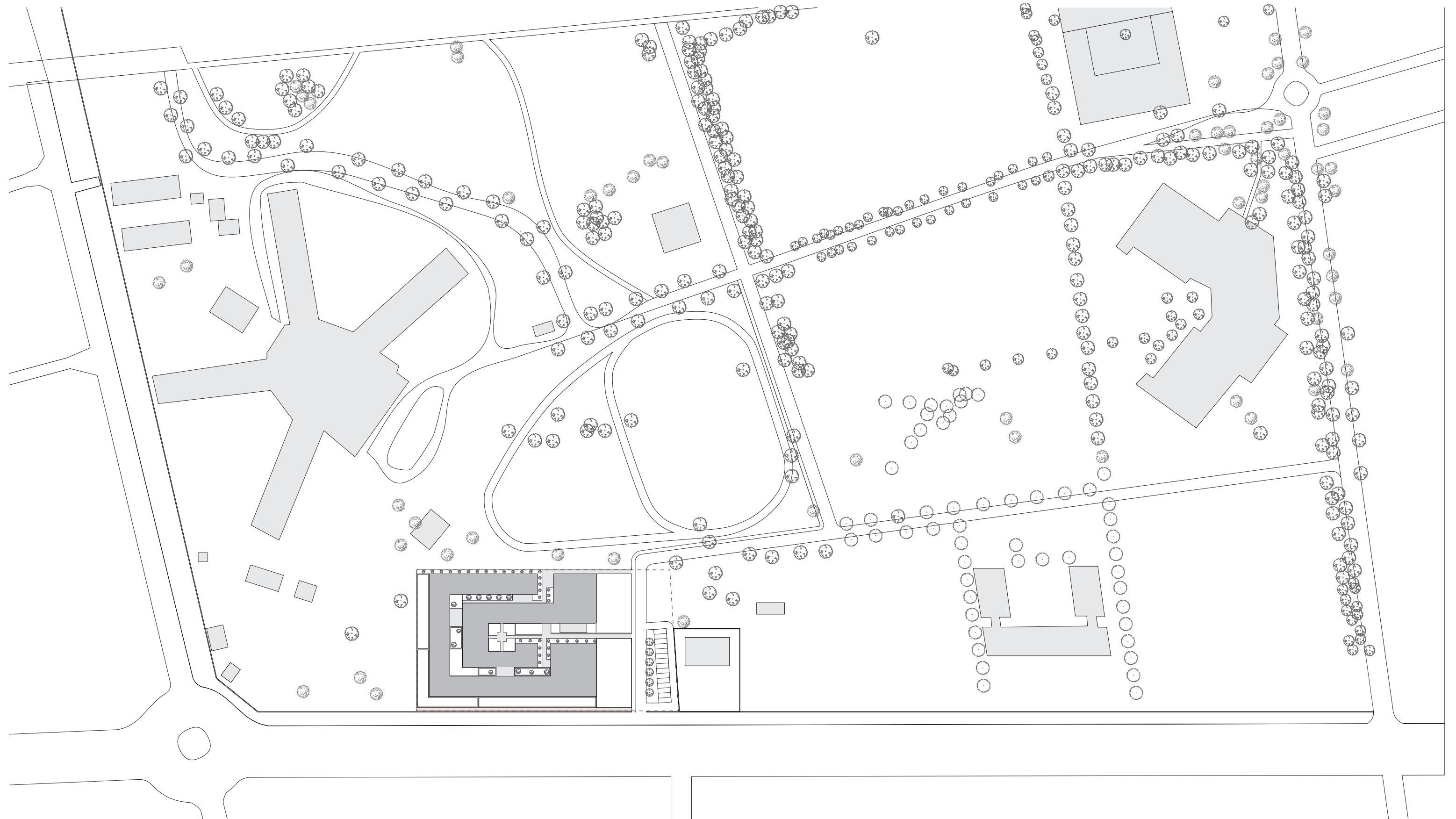


INTERLOCKING -The Education Center encircles the Innovation Center which circles in on itself. The two building forms are connected by three 'study bridges' that are part of either building, but can allow for the two centers to eventually be connected with each other. A wider 'head' of each building holds more public functions.

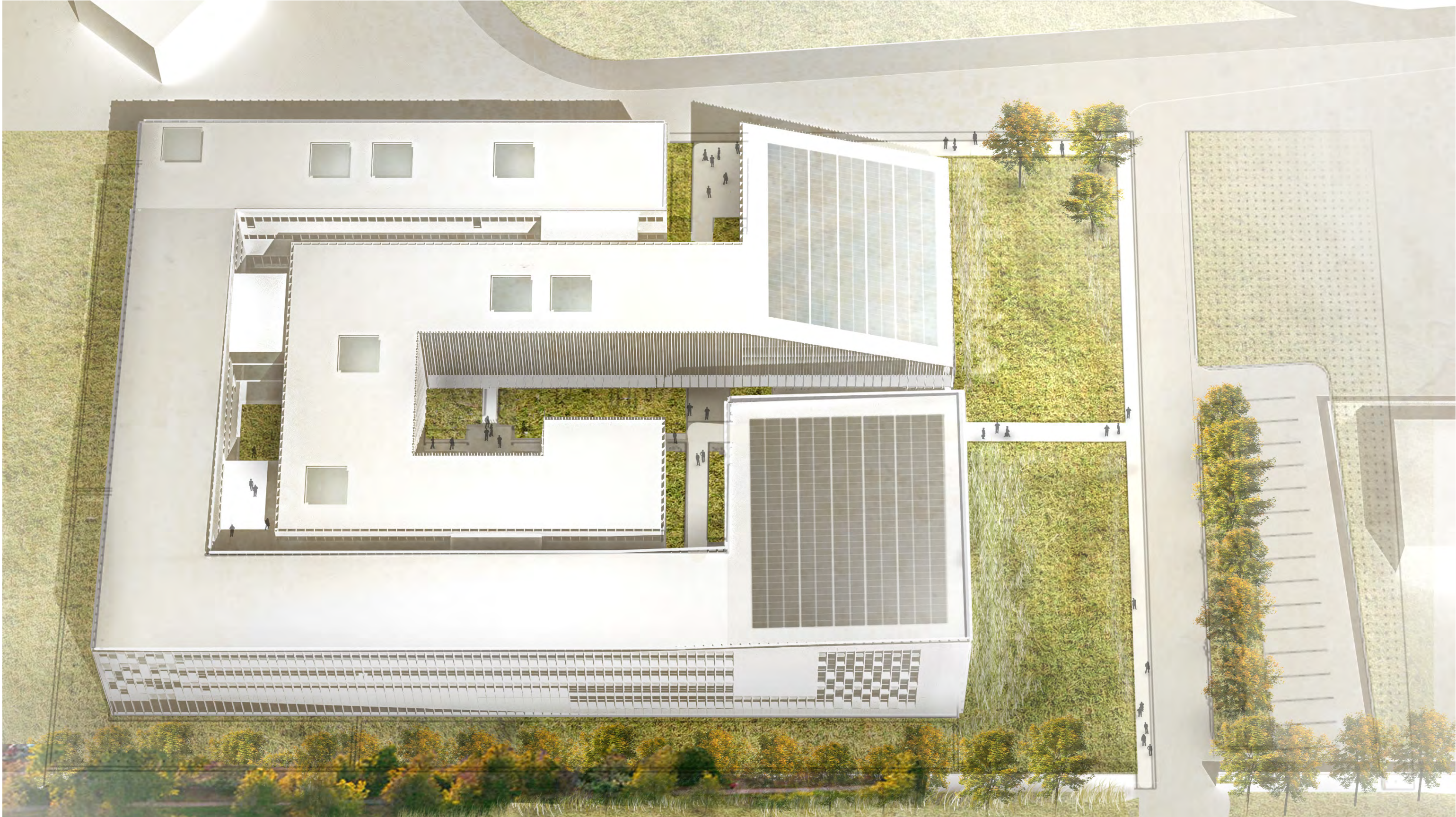


GREENING -The interlocking of the two buildings creates multiple gardens recalling traditional Islamic architecture. A formal garden creates a larger gathering area at the center of the Innovation Center. Smaller pocket gardens where students can meet and relax create separation between the two buildings.

SITE PLAN



AERIAL VIEW FROM SOUTH



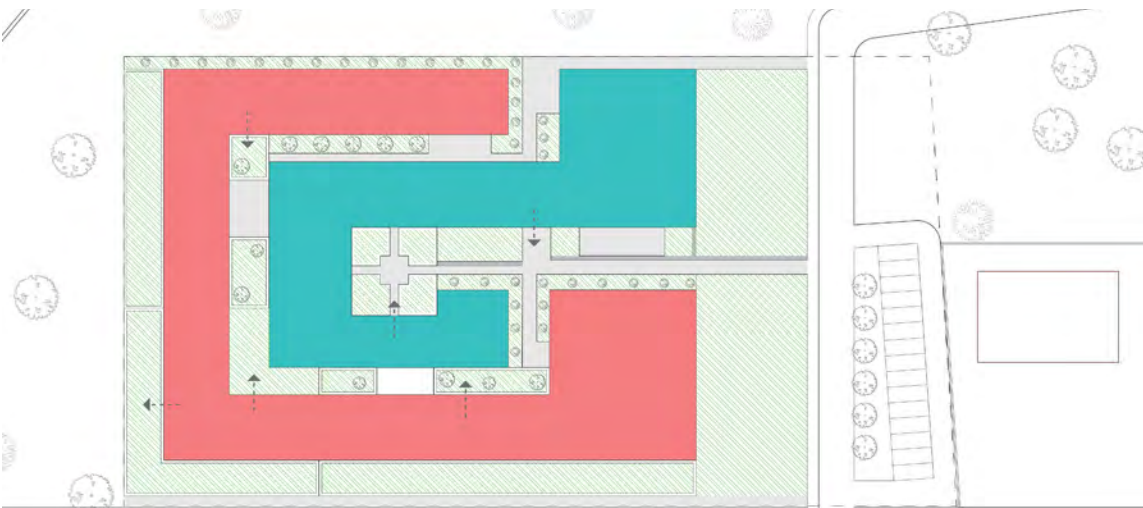
AERIAL VIEW FROM NORTH



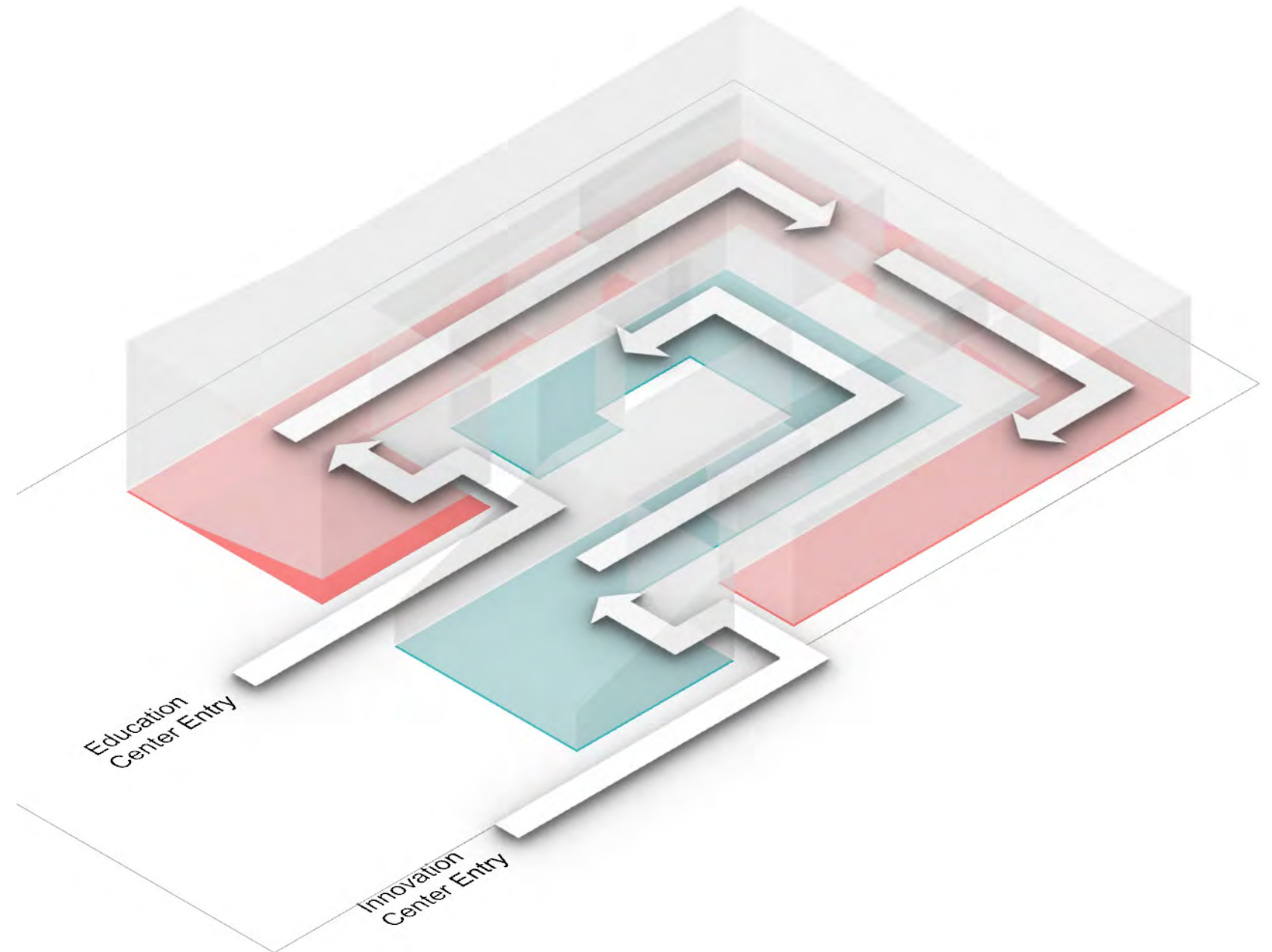
ACCESS AND CIRCULATION



ENTRY -The Education Center and Innovation Center will have primary access from a new campus gate on the southern boundary of the university. Education Center access will be more secluded and controlled in the center of the site. Innovation Center access will be along the more prominent northeast corner of the site.



OUTDOOR ACCESS -The pocket gardens between the buildings will provide multiple points of access to outdoor space for students. This will serve a secondary security role by offering proximity to building exits. The Education Center also has an exit, and entry, at its southeast corner.

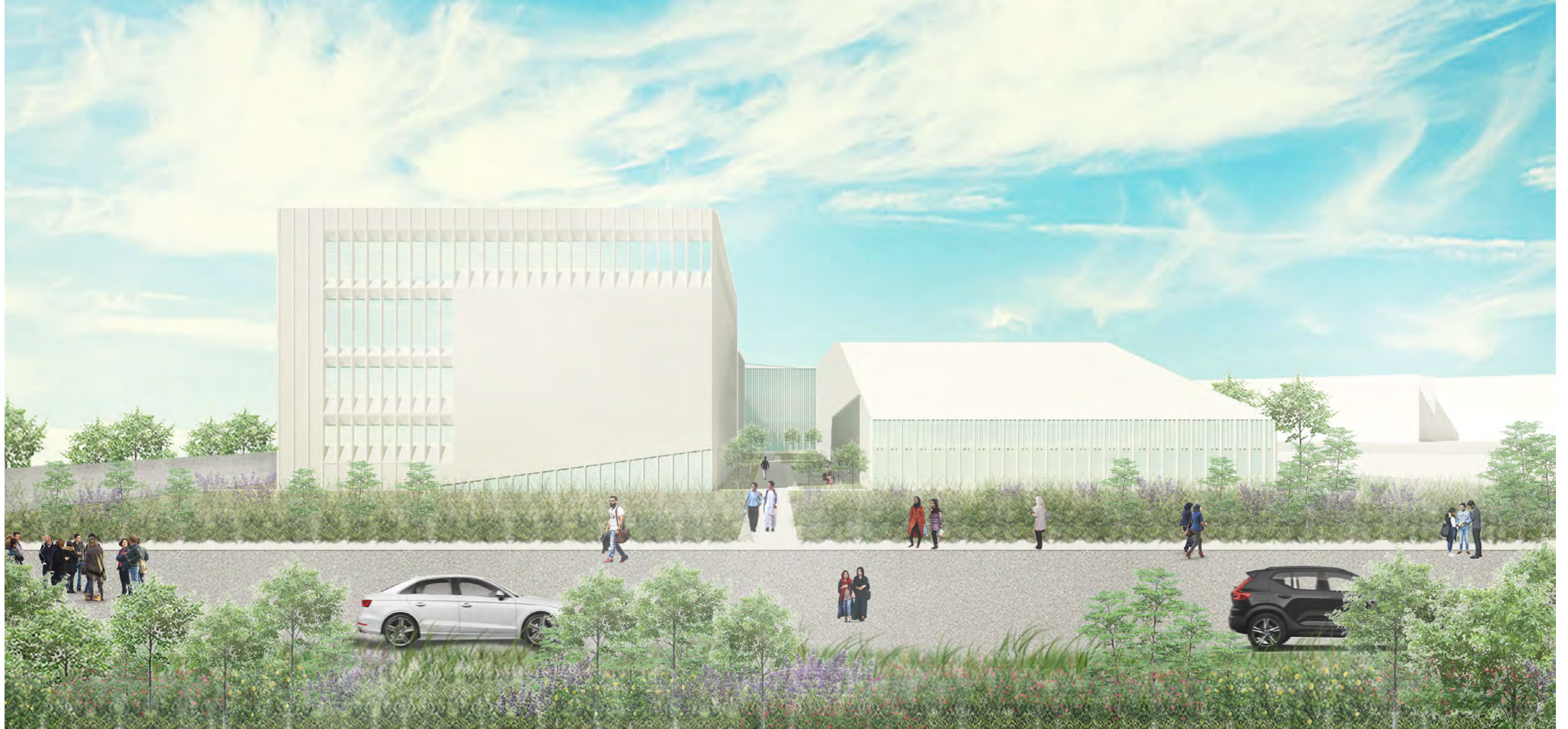


CIRCULATION - Movement within each building remains separate from the other. Main entry is at the building 'heads' where larger more public program - lobby, cafe/cafeteria, exhibition, auditoria - are located. While moving through the buildings, the user has visual access to outdoor space, light, and fresh air.

VIEW FROM SOUTH AT NEW CAMPUS GATE TOWARDS INNOVATION CENTER 'HEAD'



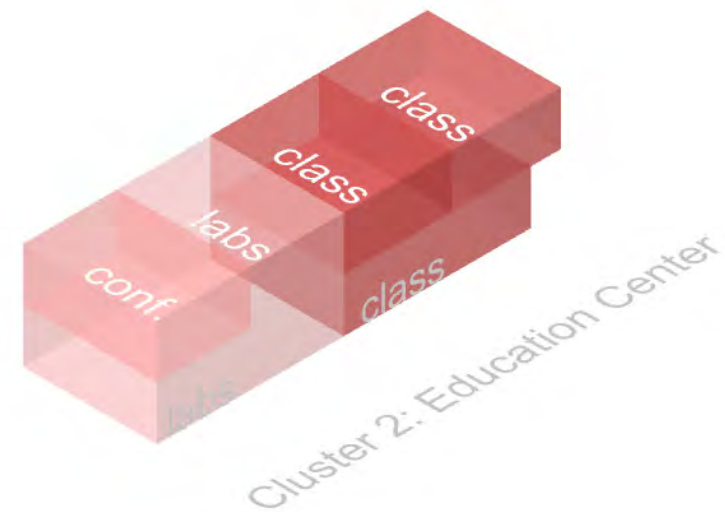
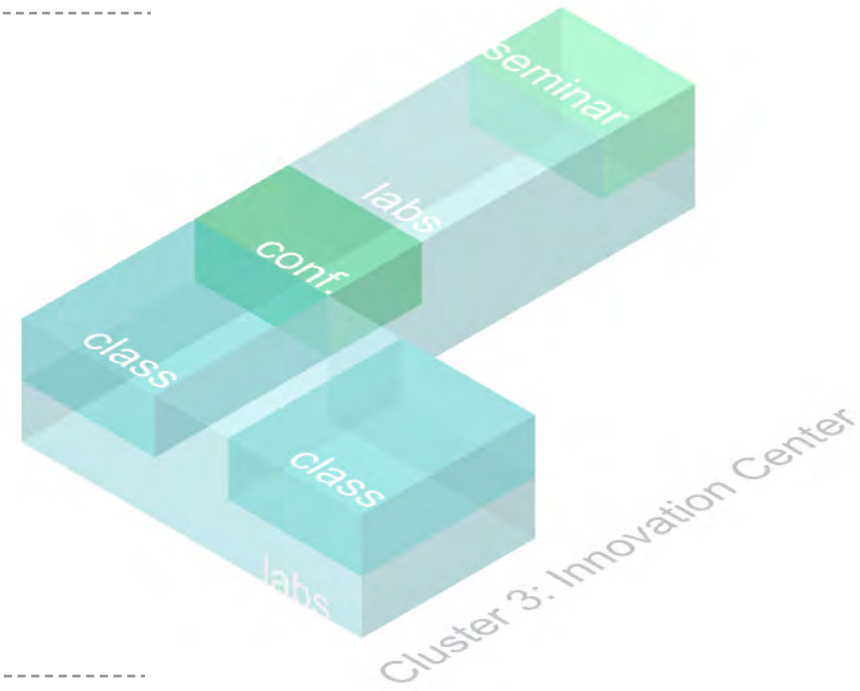
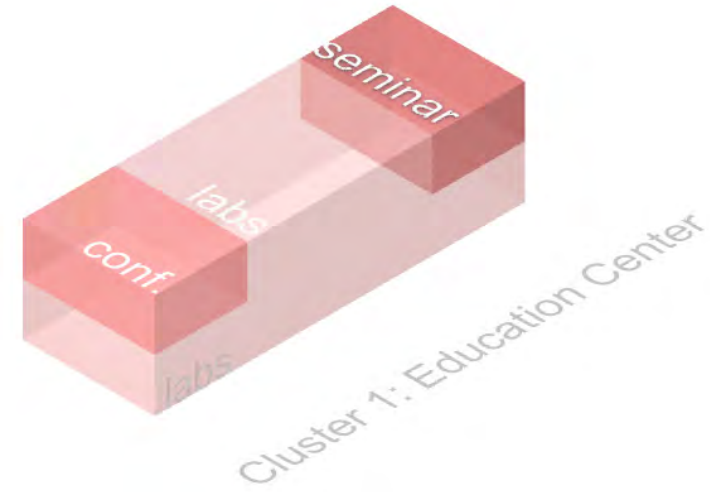
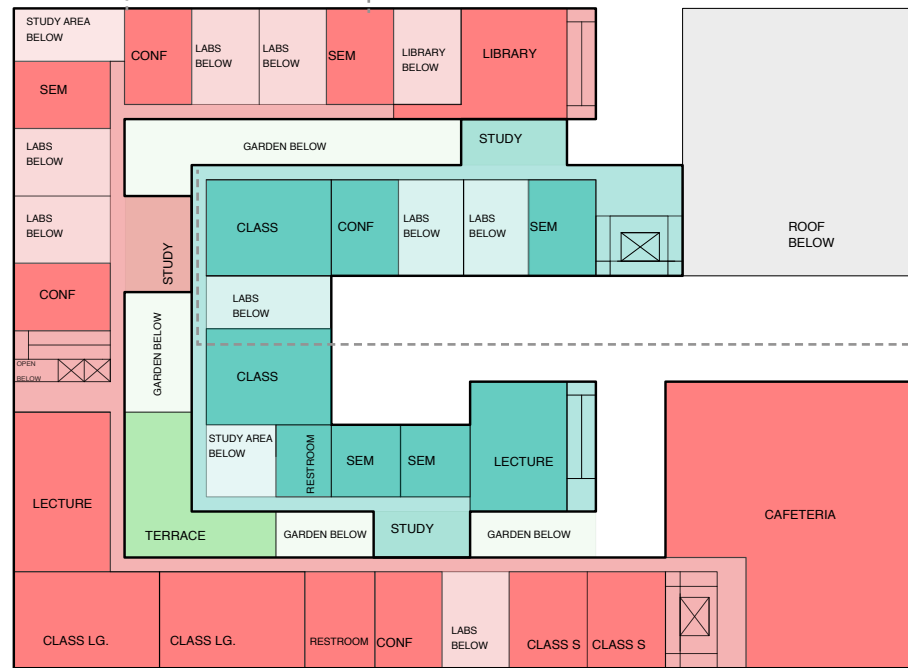
VIEW FROM EAST TOWARDS CENTRAL GARDEN CORRIDOR



VIEW FROM NORTH EAST TOWARDS INNOVATION CENTER 'HEAD'



DREAMER INSTITUTE - LINKING THINKING AND MAKING

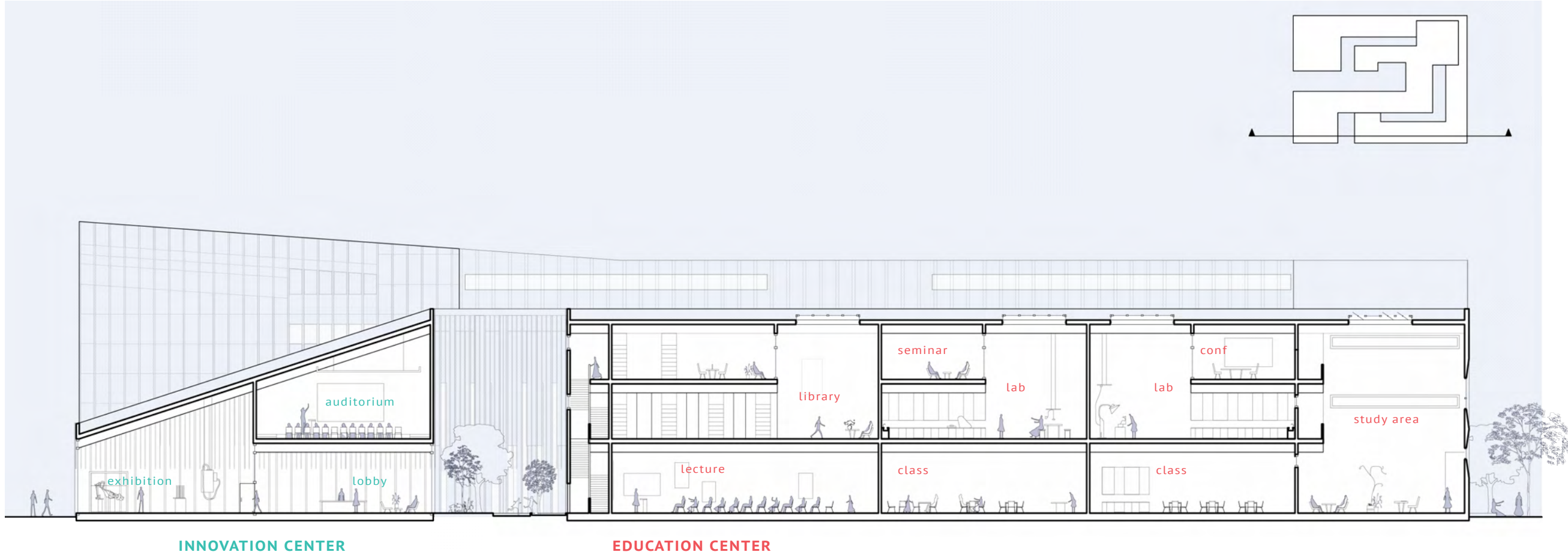
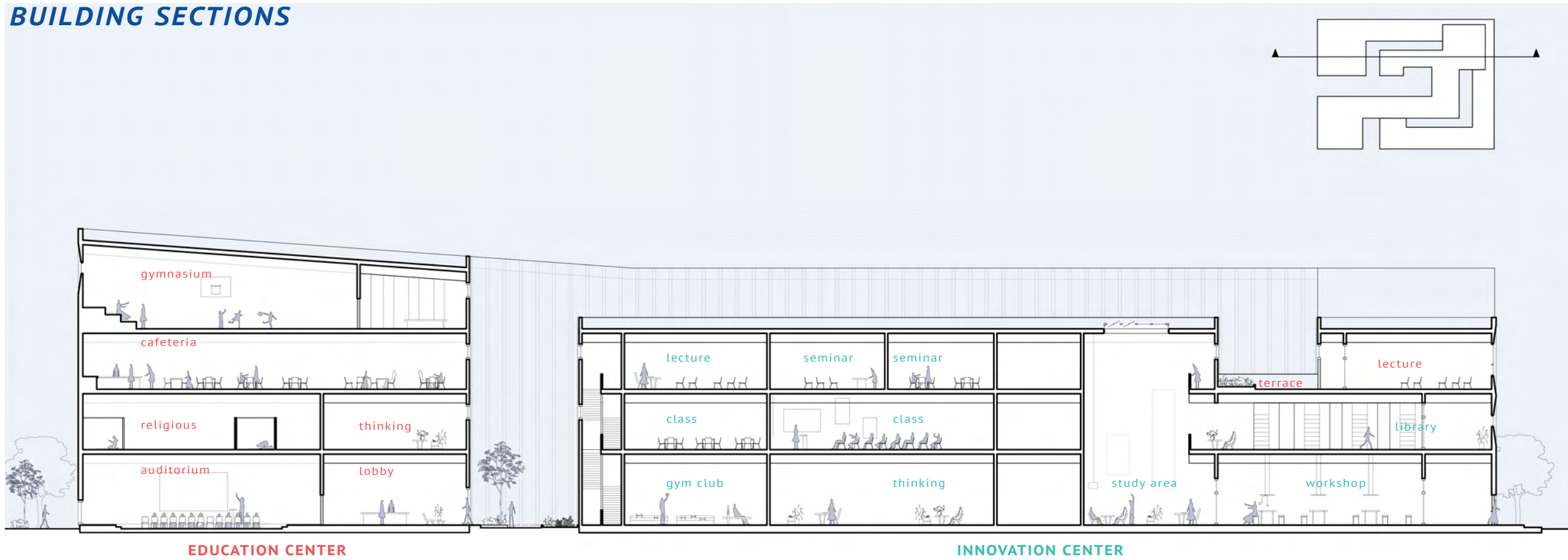


PROGRAM CLUSTERS - Throughout the Dreamer Institute, spaces for making are always connected to spaces for thinking. The project is thought of both horizontally and vertically, so that classrooms overlook laboratories and laboratories are lit from skylights above. The project is conceived of as a collection of learning clusters with rooms and uses that enrich each other.

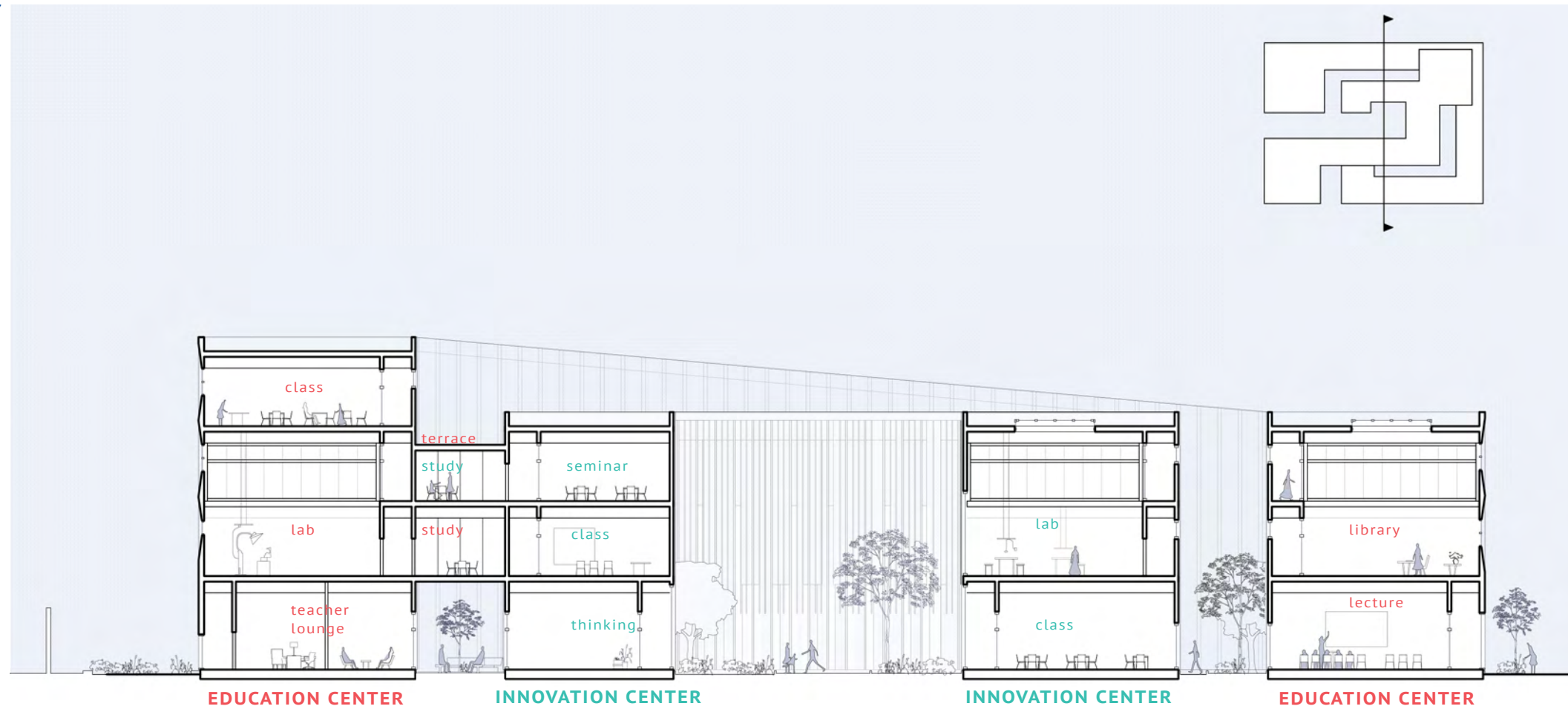
INTERIOR VIEW OF MAKER SPACE AND GARDEN BEYOND



BUILDING SECTIONS



BUILDING SECTIONS



SECTION THRU CENTRAL GARDEN LOOKING WEST



SECTION THRU ENTRY COURTS LOOKING WEST

VIEW OF CENTRAL COURT



VIEW OF EDUCATION CENTER - SOUTHWEST FACADE / ENTRY



THE DREAMER INSTITUTE
Concept Design
August 2019

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Professor (Yale) and Architect (Studio SUMO)

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