Learning Spaces Collaboratory Webinar

A Campus-wide "Space Matters" Culture

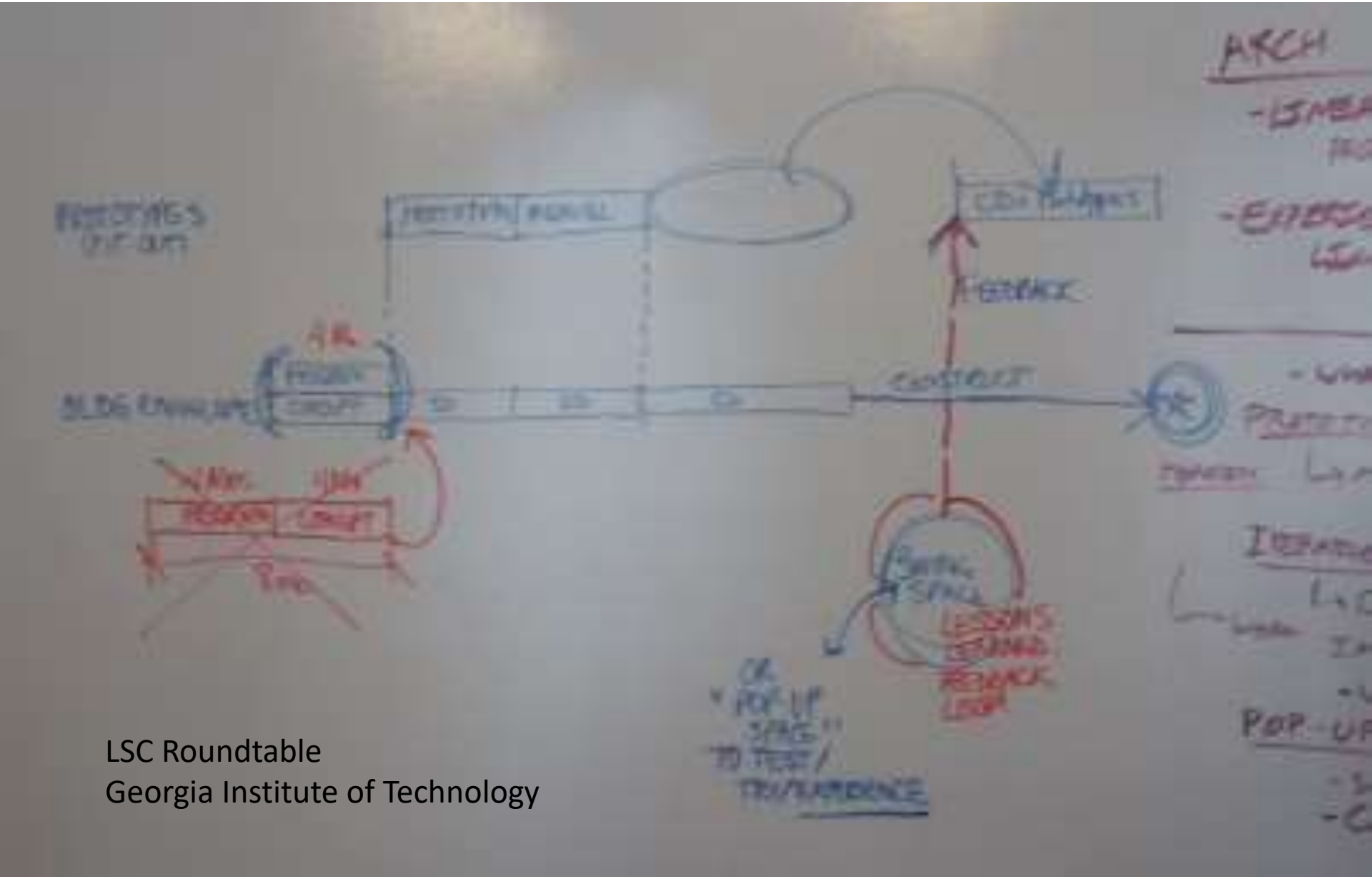
October 5, 2016

Georgia Institute of Technology

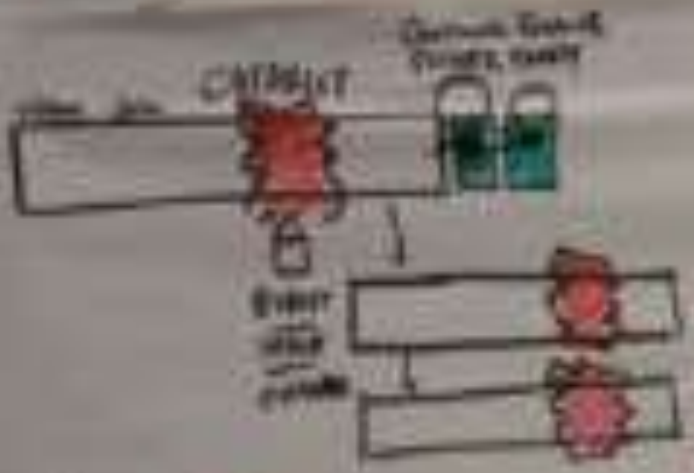
Focusing on the Future of Planning Learning Spaces

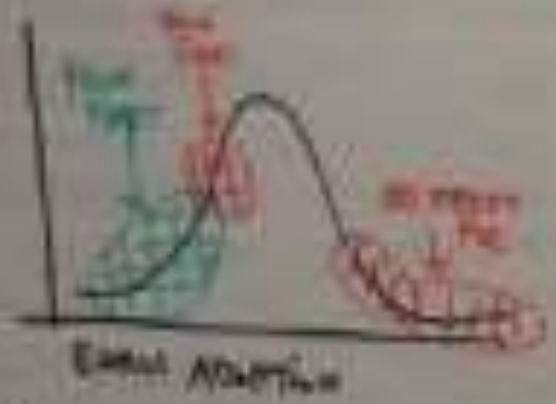
Spring 2016 LSC Regional Roundtables

LSC Roundtable
University of Washington



LSC Roundtable
Georgia Institute of Technology





LSC Roundtable
University of Illinois at Chicago

Learning Outcomes

- How establishing a culture for planning works, how it matters—what difference it makes
- How to understand the experience of the users of the spaces—learners as individuals, as members of the campus community
- How to design and engage a collaborative process for planning that serves the institutional context and culture
- How to anticipate the future.

Facilitators

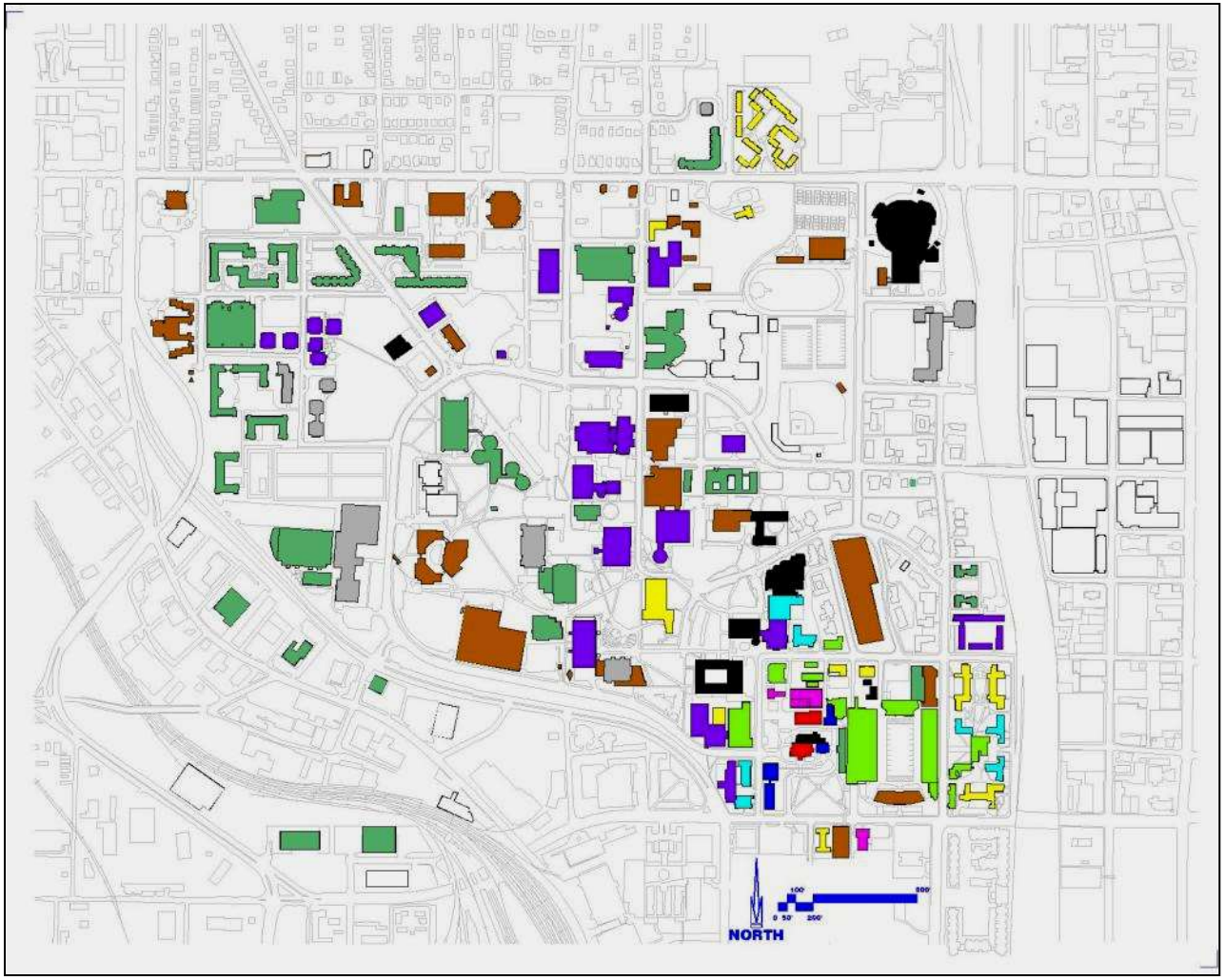
- Howard S. Wertheimer, Director, Capital Planning and Space Management—Georgia Institute of Technology
- Ameet D. Doshi, Director, Service Experience and Program Design, Subject Librarian for Public Policy—Georgia Institute of Technology Library
- Ryan Jones, Associate Partner—Lake|Flato

Georgia Tech circa 1920


2015-Aug-31 05:27:11.986 PM


NORVELL

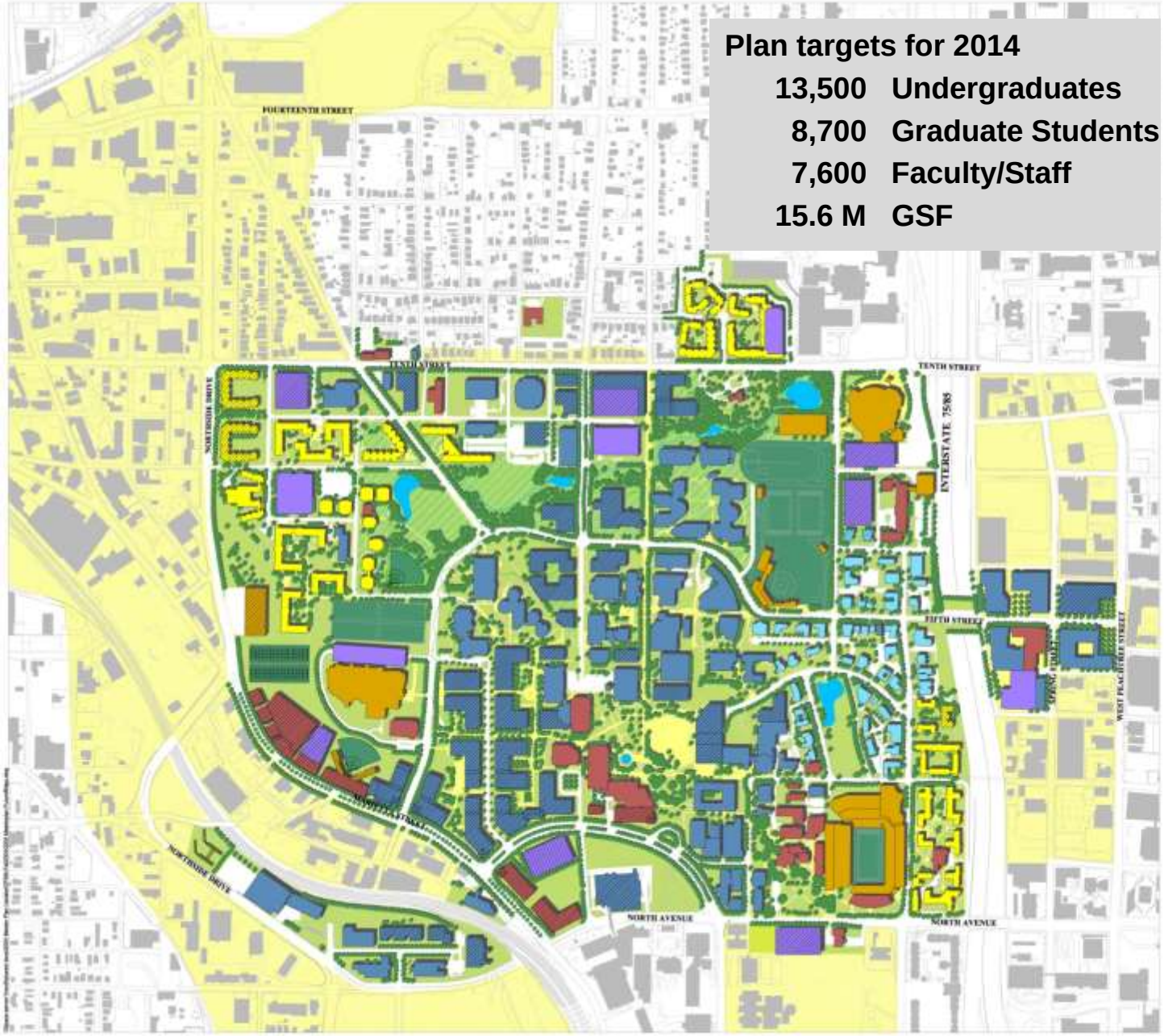
Georgia Tech Campus-circa 1997



9,500	Undergraduates
3,500	Graduate Students
4,000	Faculty/Staff
7,400,000	GSF

- 1800's
- 1900's
- 1910's
- 1920's
- 1930's
- 1940's
- 1950's
- 1960's
- 1970's
- 1980's
- 1990's

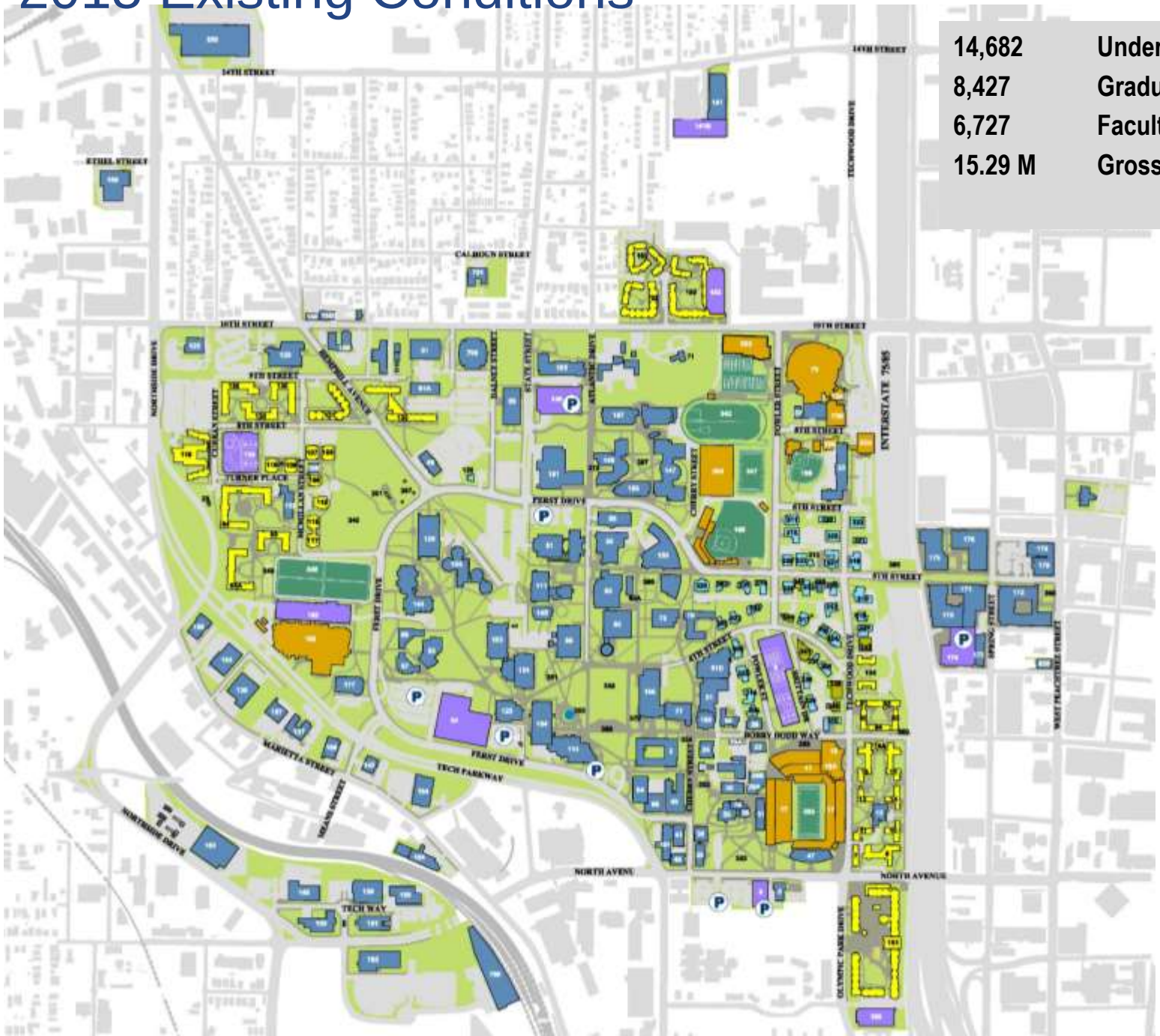
2004 Master Plan



Plan targets for 2014

13,500	Undergraduates
8,700	Graduate Students
7,600	Faculty/Staff
15.6 M	GSF

2015 Existing Conditions

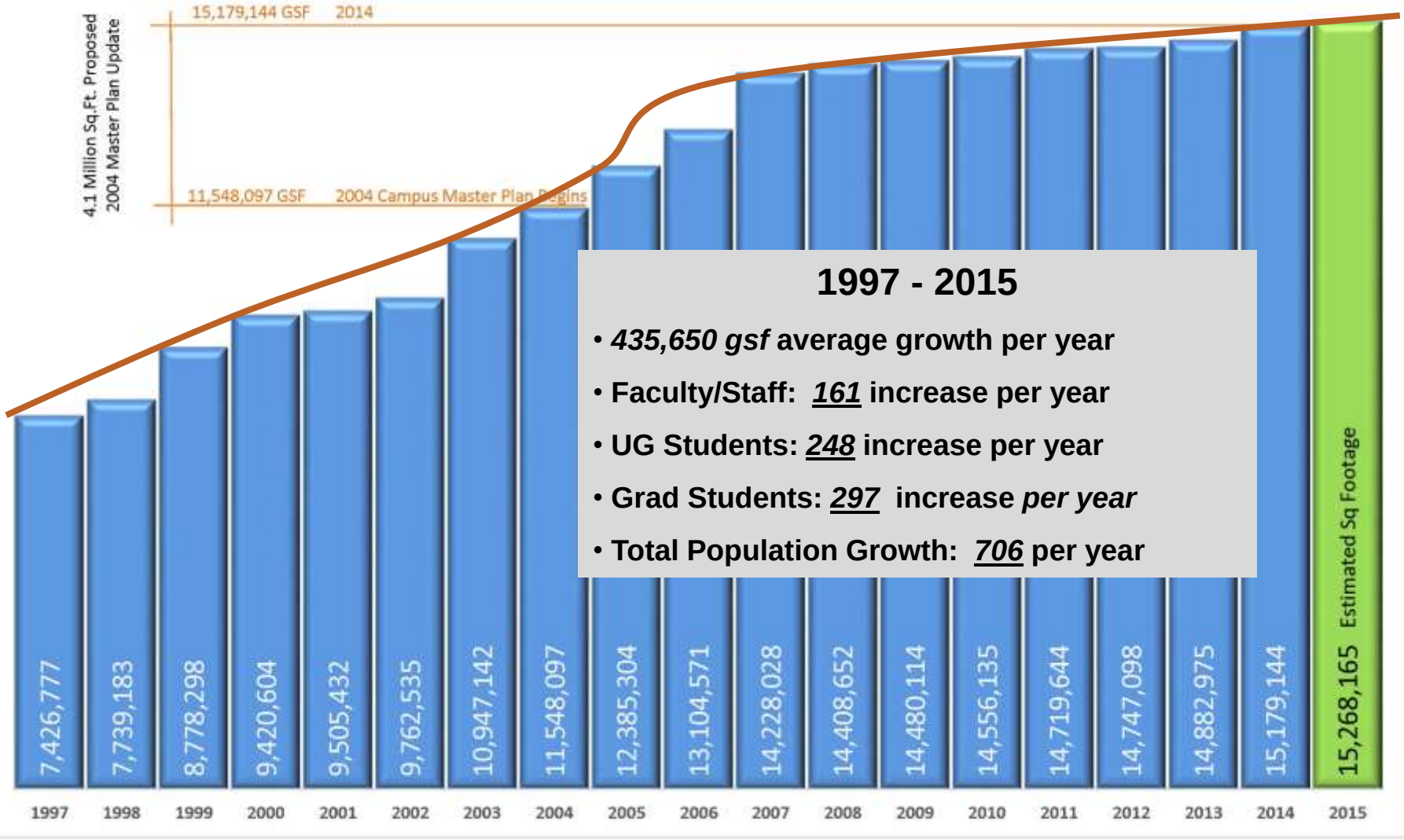


14,682	Undergraduates
8,427	Graduate Students
6,727	Faculty/Staff
15.29 M	Gross SF

Annual Growth

Gross Sq. Ft. by Year (1997-2014) Projected through 2015

IRP: Fact Book (Data Captured Each Fall) & INSITE Database (2015 Projected)



1997 - 2015

- ***435,650 gsf*** **average growth per year**
- **Faculty/Staff: *161* increase per year**
- **UG Students: *248* increase per year**
- **Grad Students: *297* increase *per year***
- **Total Population Growth: *706* per year**

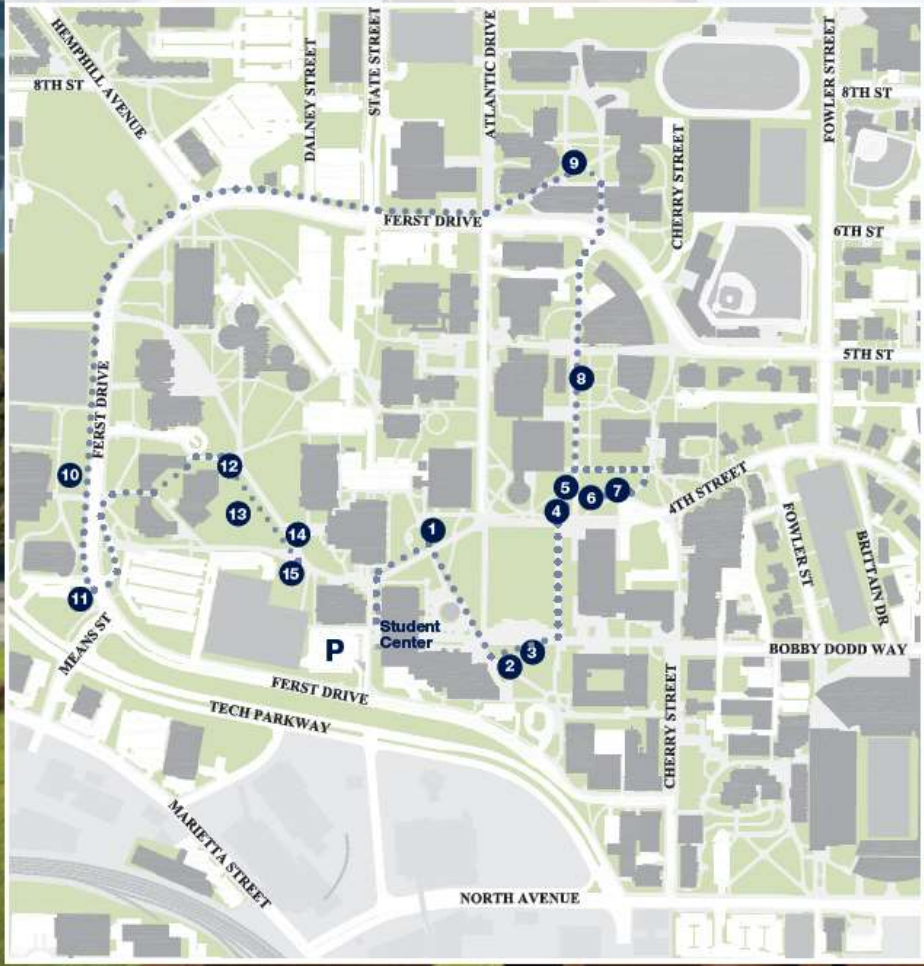
Engineered Art Sculpture Exhibit – Arts@Tech

Overview:

The Georgia Tech campus is home to a 15-piece international exhibition by various artists. The exhibition, on loan to the Institute, features a soaring 50-foot steel piece titled *La Tour* by the internationally acclaimed, Chattanooga-based sculptor John Henry, who also is the curator for the exhibition.

Engineered Art is part of Arts@Tech, an initiative to enhance the Georgia Tech community by fostering programs and events spanning the arts spectrum at the intersection of technological innovation and creative expression. The initiative is an outcome of the Institute's Strategic Plan.

The sculpture exhibition is free and open to the public.



1 ***Tic***
STRETCH
(Tech Green West)
Steel, Glass, Neon
15'H x 12'D x 12'W
4,000 pounds
Courtesy of the artist

2 ***Untitled***
Terrence Karpowicz
(Tech Green West)
Granite, Steel, Wood
9'9"H x 1'9"D x 1'10"W
1,200 pounds
Courtesy of the artist

3 ***Squirt***
John Clement
(Tech Walkway Triangle)
Painted Steel
7'6"H x 6'5"D x 7'8"W
1,400 pounds
Courtesy of the artist

4 ***King of Flying***
Klaus Albert
(Van Leer/Tech Green North)
Stainless and Milled Steel
11'6"H x 2'D x 13'W
800 pounds
Courtesy of the artist

5 ***Oh'd***
Bret Price
(Van Leer/Tech Green North)
Galvanized Steel
7'H x 3'4"D x 4'7"W
300 pounds
Courtesy of the artist

6 ***Portal***
Albert Paley
(Van Leer/Tech Green North)
Natural Patina 588 Corten Steel
11'8"H x 3'3"D x 4'4"W
3,210 pounds
Courtesy of the artist

7 ***Tux***
Isaac Duncan III
(Van Leer/Tech Green North)
Stainless Steel
16'H x 5'4"D x 5'W
400 pounds
Courtesy of the artist

8 ***Big Red Tumpkin***
Verina Baxter
(Noonan Courtyard west of Klaus)
Painted Aluminum, Stainless Steel
13'2"H x 6'2"D x 10'W
800 pounds
Courtesy of the artist

9 ***Scetch II***
Klaus Duschat
(Biotech Quad)
Steel
15'H x 11'8"D x 15'W
1,000 pounds
Courtesy of the artist

10 ***Crown***
Doug Schatz
(Campus Recreation Center entrance)
Painted Steel
13'H x 9'D x 9'W
800 pounds
Courtesy of the artist

11 ***Cinch***
Adam Garey
(Whitehead Building Lawn)
Steel
25'H x 6'D x 4'W
2,000 pounds
Courtesy of the artist

12 ***Cross of Steles***
Hartmut Stielow
(Instructional Center Lawn)
Steel, Granite
10'1"H x 10'D x 5'4"W
10,000 pounds
Courtesy of the artist

13 ***La Tour***
John Henry
(Instructional Center Lawn)
Steel
50'H x 20'D x 25'W
30,000 pounds
Courtesy of the artist

14 ***Renegade***
Chakaia Booker
(Boggs - Student Center Parking Deck)
Rubber Tire, Stainless Steel
8'H x 5'D x 5'W
1,200 pounds
Courtesy of the artist

15 ***Mercury, Venus, Mars***
Peter Lundberg
(Boggs - Student Center Parking Deck)
Copper, Colored Concrete
Mercury: 4'8"H x 2'3"D x 1'W
Venus: 8'8"H x 2'D x 1'6"W
Mars: 7'7"H x 2'8"D x 1'4"W
1,850 pounds
Courtesy of the artist

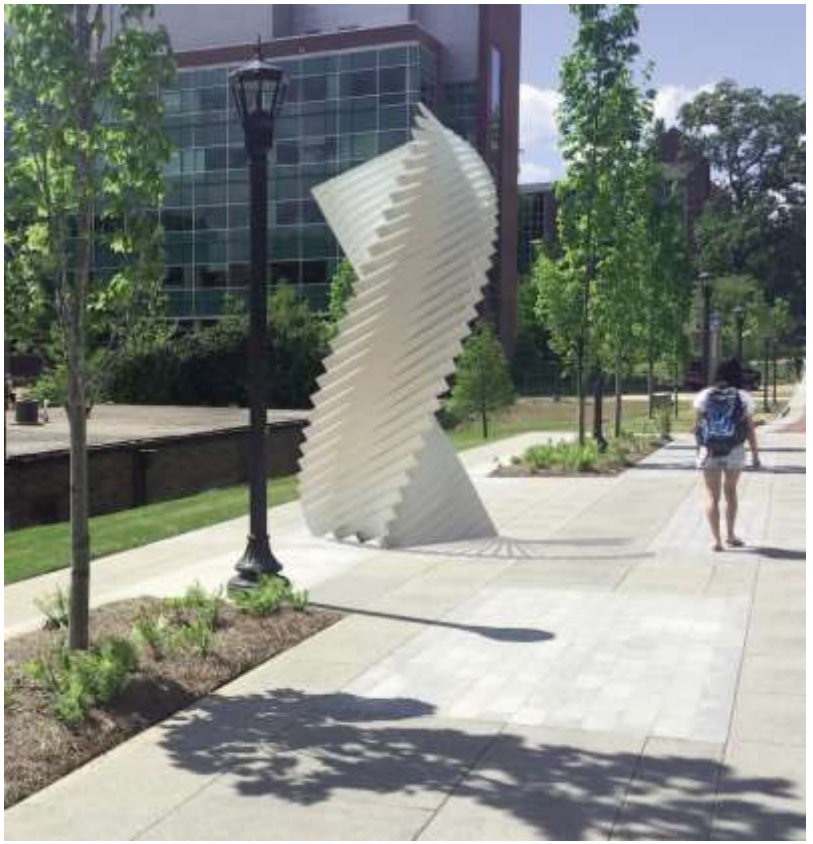
About the Exhibition:

Each of the 15 works represents the best of contemporary sculpture by some of its most recognized artists. Made from a variety of materials including steel, aluminum, cast fiberglass, copper, concrete, wood, and rubber tires, the pieces represent a diversity of styles, themes, and technical approaches characterizing our times. The location of each sculpture was chosen to complement Georgia Tech's lush and open green spaces.

The exhibition's curator, John Henry, is known for his large-scale public sculptures. Since the early 1970s, he has produced monumental works for museums, cities, and public institutions across the United States, Europe, and Asia.

Albert Einstein sculpture

Artist: Josh Garber



Artist: Robert Winkler

Artist: Julian Voss-Andreae





G. Wayne Clough Undergraduate Learning Commons (2011) LEED Platinum

Architect: Bohlin Cywinski Jackson, CM: Turner Construction Co., TPB: $93.6M

G. Wayne Clough Undergraduate Learning Commons (2011)





G. Wayne Clough Undergraduate Learning Commons (2011)

G. Wayne Clough Undergraduate Learning Commons (2011)


Google


JOHN AND JOYCE CADDELL BUILDING


pairs
collaborative
social
individual

Instant Theater

Classroom Improvement Program - Case Study

Project team:

- Students
- Faculty
- Capital Planning & Space Management
- Facilities
- OIT
- CETL (Center for the Enhancement of Teaching & Learning)

Pilot 27-seat SCALEUP Classroom

Long life, loose fit

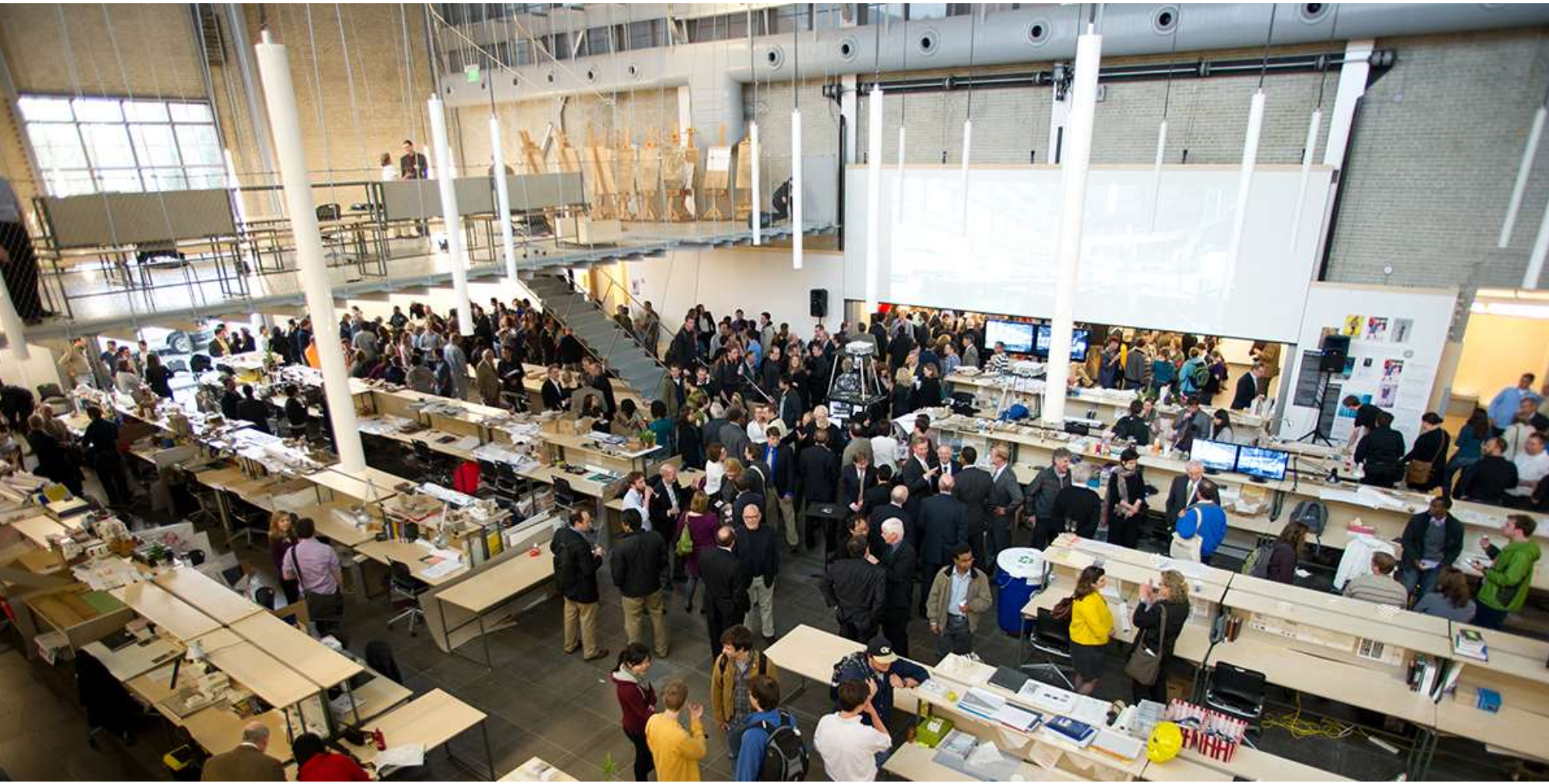
- Full circle of chairs (no tables)
- 4 separate tables each with 4 chairs
- Arrange in a big square or rectangle with no gaps
- One long table with chairs on both sides

Flexible and adaptable to meet various pedagogies

Maker Spaces…many sizes and shapes


Invention Studio


Invention Studio



Interdisciplinary Design Commons

Interdisciplinary Design Commons


THE 2014
PRIZE
PEOPLE'S CHOICE
1ST PLACE
PRIZE @ GEORGIA TECH
PRIZE @ GEORGIA TECH

Architect: Praxis3 with BNIM; CM: Brasfield & Gorrie; TPB: $88M

Questions & Comments

Reimagining the Library for the 21st Century

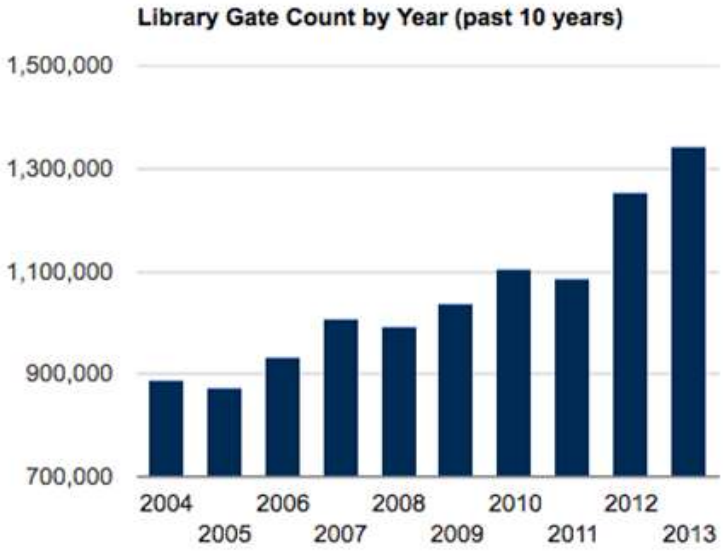
The Georgia Tech Library will enable people to explore the past and design the future by bringing together ***inspirational spaces, curated content, expert guidance, and scholarly communities****.*

Library Renewal Context

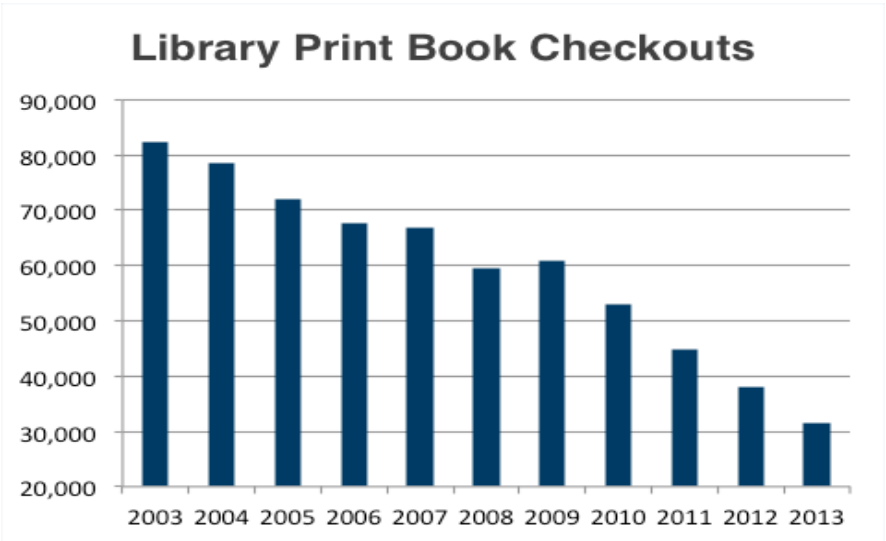
- **Data** Trends
- Core **Principles** and Values
- **Preserving and Expanding Access** to the “Universe of Scholarship.”
- **User-Driven** Spaces, Services and Collections
- **Pilot / Prototyping** Library Renewal Program

context: data

Use of physical library buildings is at a record high.
Use of print book collections was at a record low.
Use of library's digital collections (e-books, e-journals) is very robust.



Library Physical Gate Count



Library Print Book Checkouts

1,000,000+ clicks to library e-books and e-journals (2015).

context: five laws of library science

1) “Books are for use.”

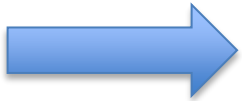
2) “Every user, his / her book.”

3) “Every book, its user.”

4) “Save the Time of the User.”

5) “The Library is a Changing Organism.”

(S.R. Ranganathan, 1931)



Georgia Tech’s “Five Laws” as adapted for the 21st Century:

Scholarly Resources *(e-books, datasets, gadgets, copyright help, research experts)* are for use.

Every User, his / her Scholarly Resource at point of need.

Every Scholarly Resource, its User in the format they require.

“Save the Time of the User” by being proactive, creating a great UX, and anticipating user needs.

“The Library (and the Librarian) is a Changing Organism.”

core values: preservation and access

*Enduring core values for all research libraries include **preservation** of the scholarly record, and **providing access** to that content in a way that **"saves the time of the user."***

Library Service Center of Emory University and Georgia Tech:

- *Climate-controlled to preserve print book and archival collections for 200+ years.*
- ***Technology-rich environment suitable for on demand scanning and e-delivery to campus.***
- ***Reading room***
- ***Modular***

white paper: library's vision for the future

Georgia Tech Library — Library Next

Home | Our Story | Library Service Center | User Research | Pilots | News & Updates | CONTACT US > | SEARCH

GT Home > Home > White Papers

White Paper: Reimagining the Georgia Tech Library

Defining the Technological Research Library for the 21st Century

DOWNLOAD NOW!

As research libraries across the nation seek to reimagine their spaces and services, the Georgia Tech Library is leading the way in defining what it means to be an innovative, user-centered research library for the 21st century.

As a research institute, Georgia Tech needs a research library, and it needs capable Library faculty and staff to operate that research library.

The Library Renewal Project is a 5-year plan to transform the Library's services and spaces to match the changing research, teaching, and learning needs of Georgia Tech.

This white paper will discuss the major elements of the Library Renewal Project, including:

- The work of a technological research library beyond the physical books
- The importance of Library as space
- The Library's role as an interdisciplinary platform for innovative scholarship and learning
- Library services as an integrated network of resources

Download Now!

http://librarynext.gatech.edu

user experience: exploring research behavior

In partnership with brightspot strategy, the library did a deep-dive to gain insight into the unique Georgia Tech research experience. The Library also maintains three advisory boards to provide strategic guidance.

Understanding the UX

- Advisory boards
- **Observation / dScout**
- **Surveys**

Campus Engagement

- **Social Media**
- **e-Newsletters**
- **Library Renewal website**

Library Faculty + Staff Insight

- **“Reimagining” White Paper**
- **Open Forums**
- **Working Groups**

campus engagement: advisory boards and shepherds

The Library maintains three highly engaged advisory boards who provide continual strategic input to the Library's top leadership. Additionally, Faculty "shepherds" were identified to provide specific insight regarding the Library Renewal programmatic design.

campus and library culture: piloting + prototyping

A core principle for the Library Renewal is making the "invisible" world of e-books, e-journals, librarian expertise, and digital scholarship, highly "visible" to the user.

Library "Store" / Roving

Expert Consultation

Geofencing / Beacons

Lockers with Device Charging

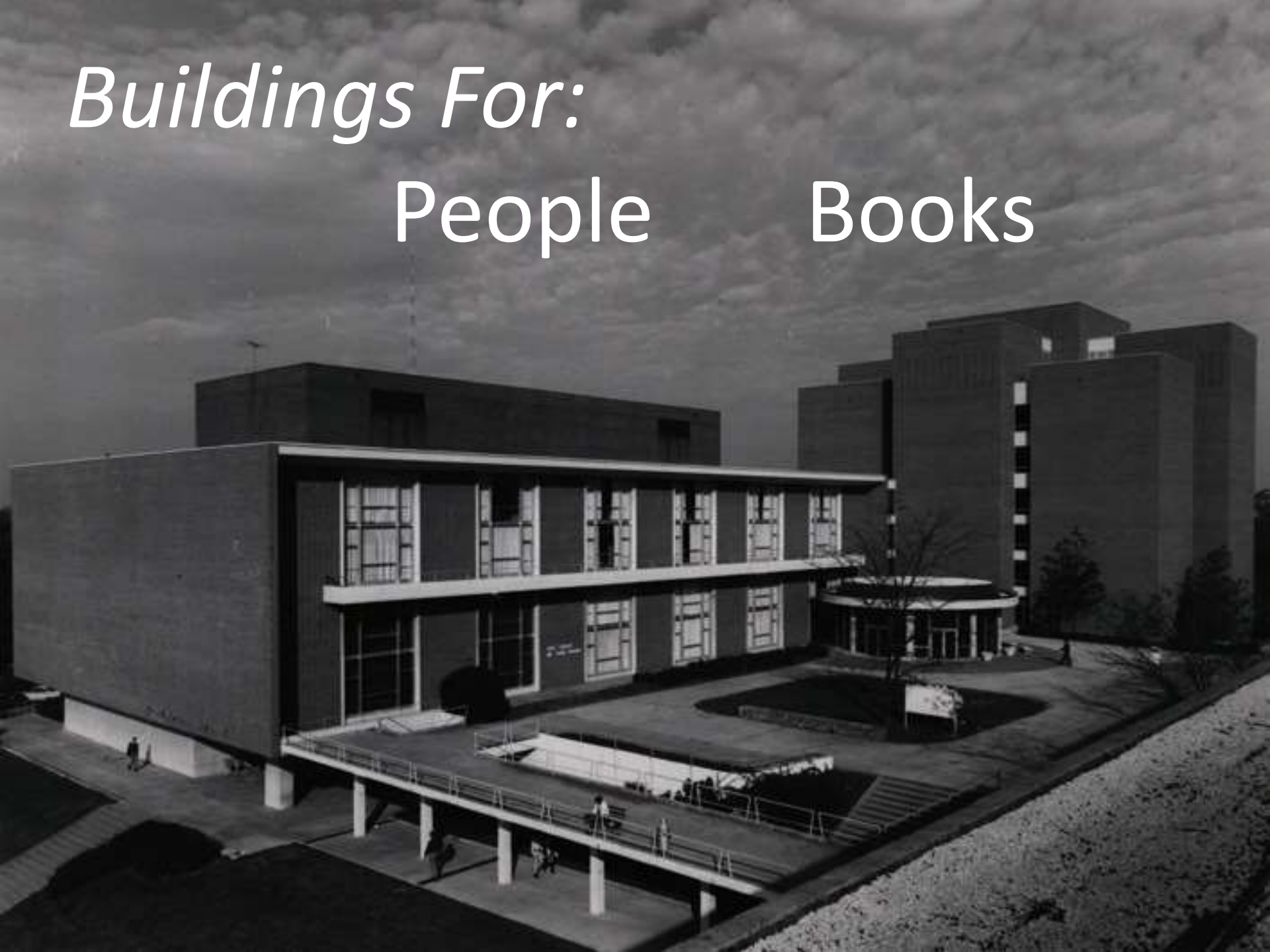
Self-Service Laptop Kiosks

Retro-computing

malleability: infrastructure adapts to lights, fabric dividers, appliances

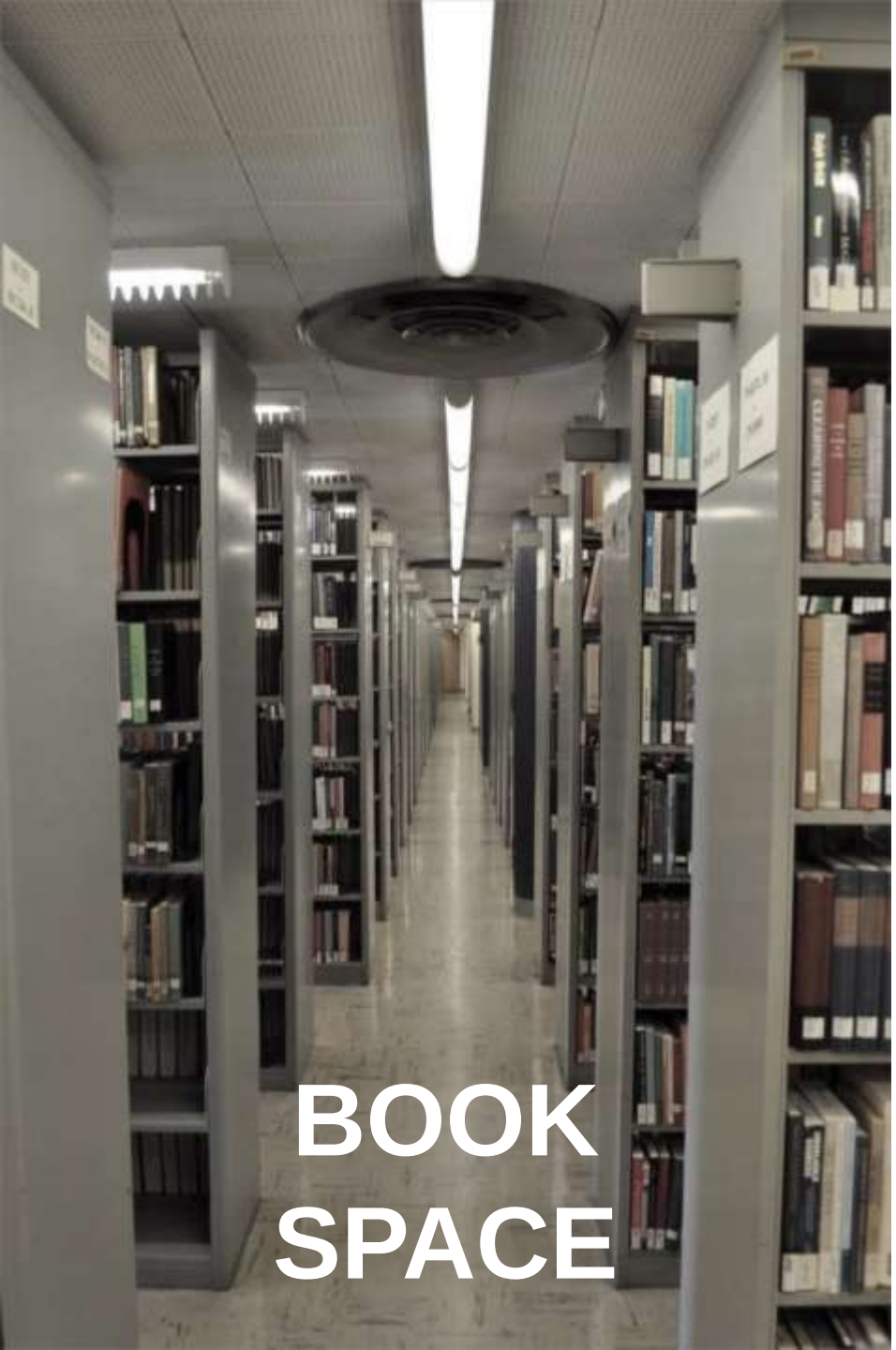
Buildings For:

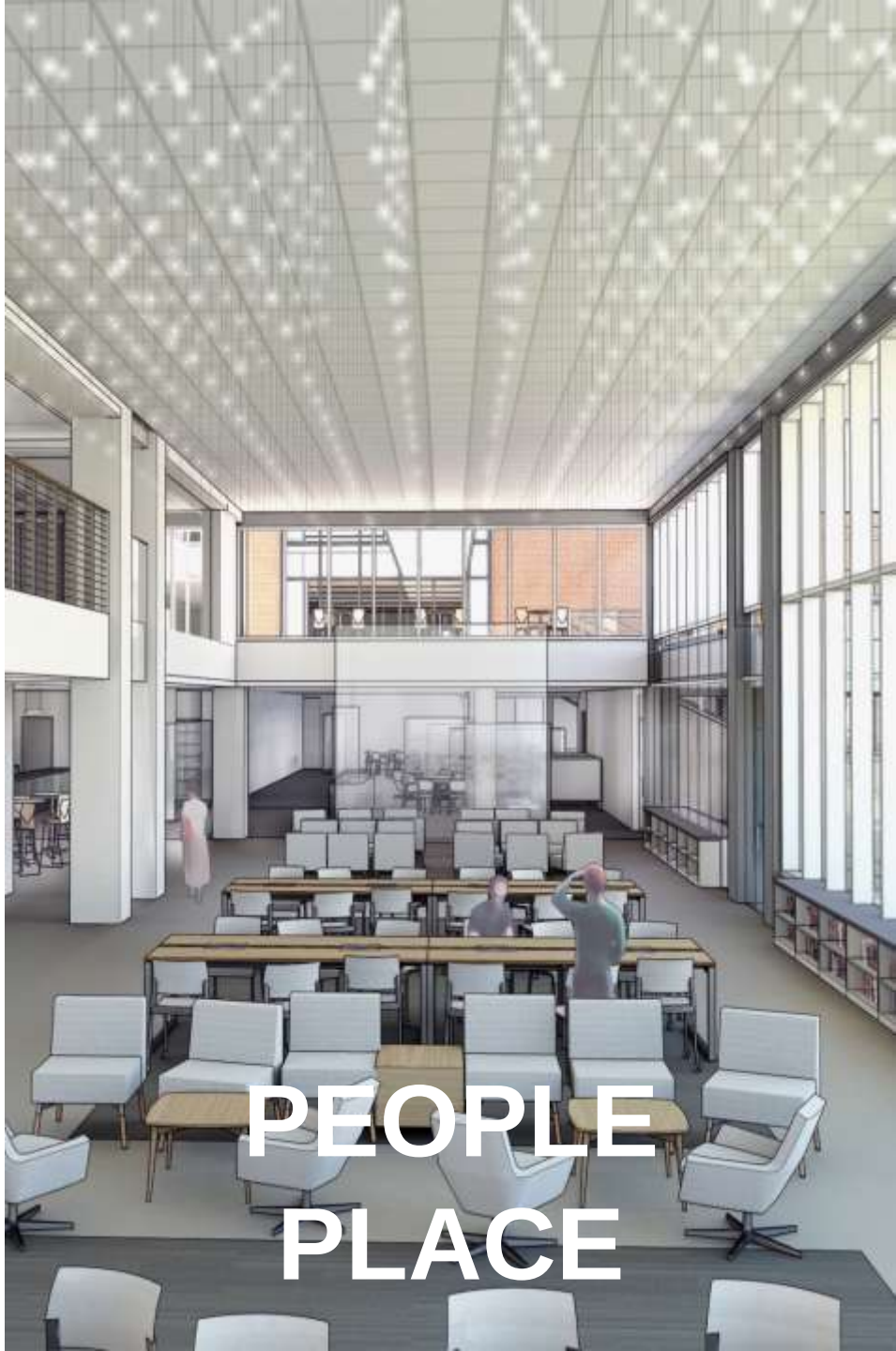
People Books



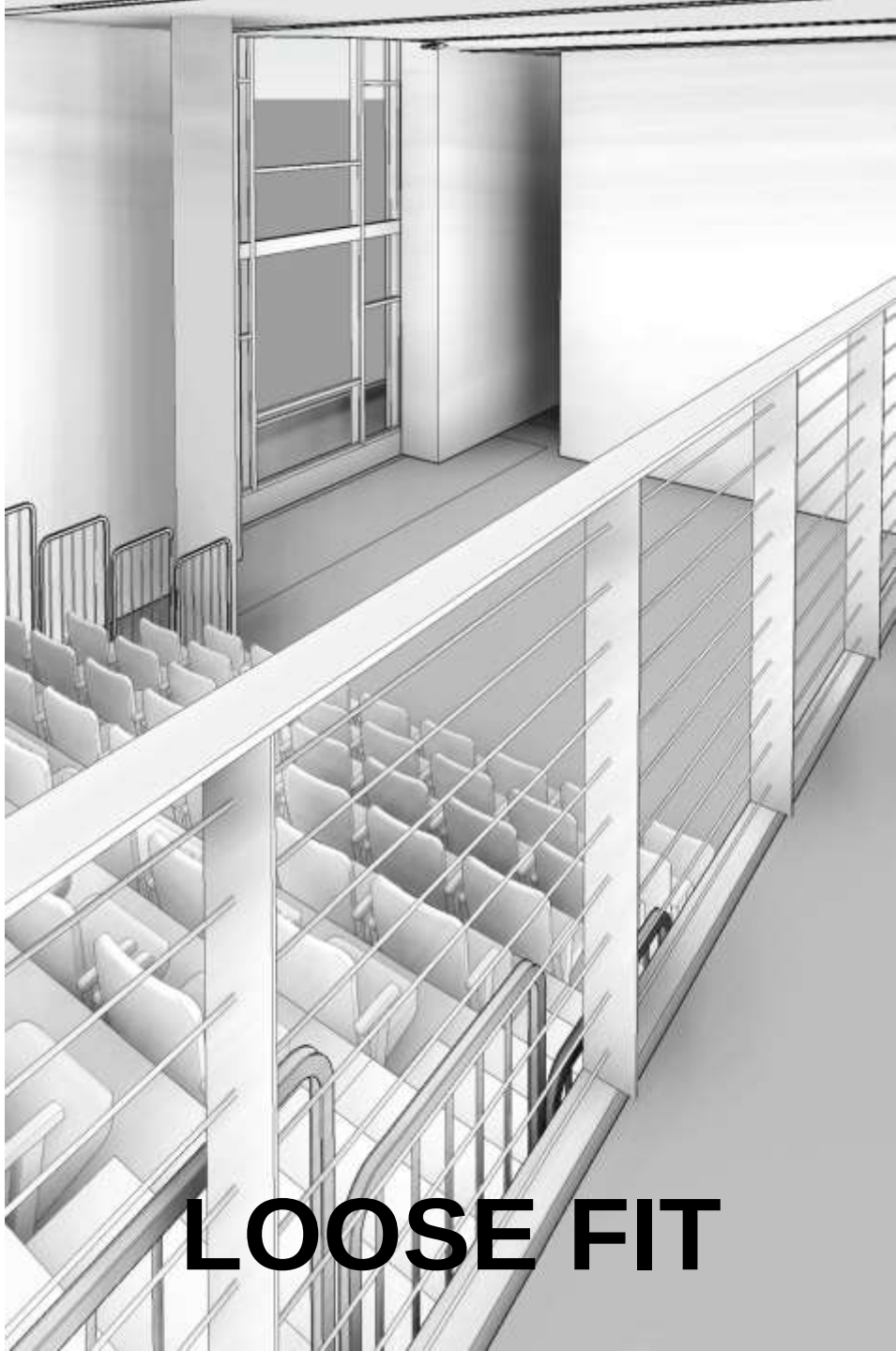

ASSET


RENEWAL


BOOK
SPACE


PEOPLE
PLACE


LONG LIFE


LOOSE FIT

INWARD

OUTWARD

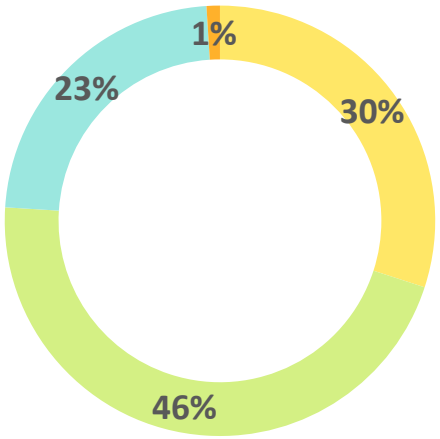

CONGESTION


CONNECTION

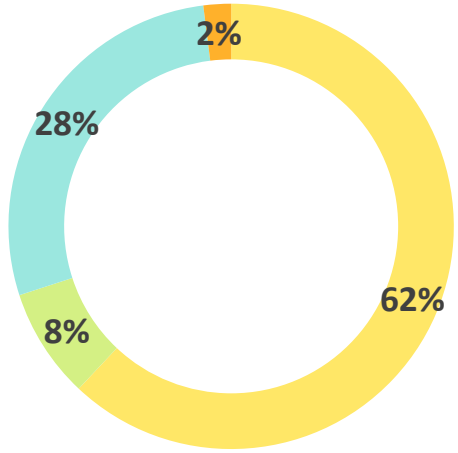

PHYSICAL


DIGITAL

transforming space for people



EXISTING



FUTURE

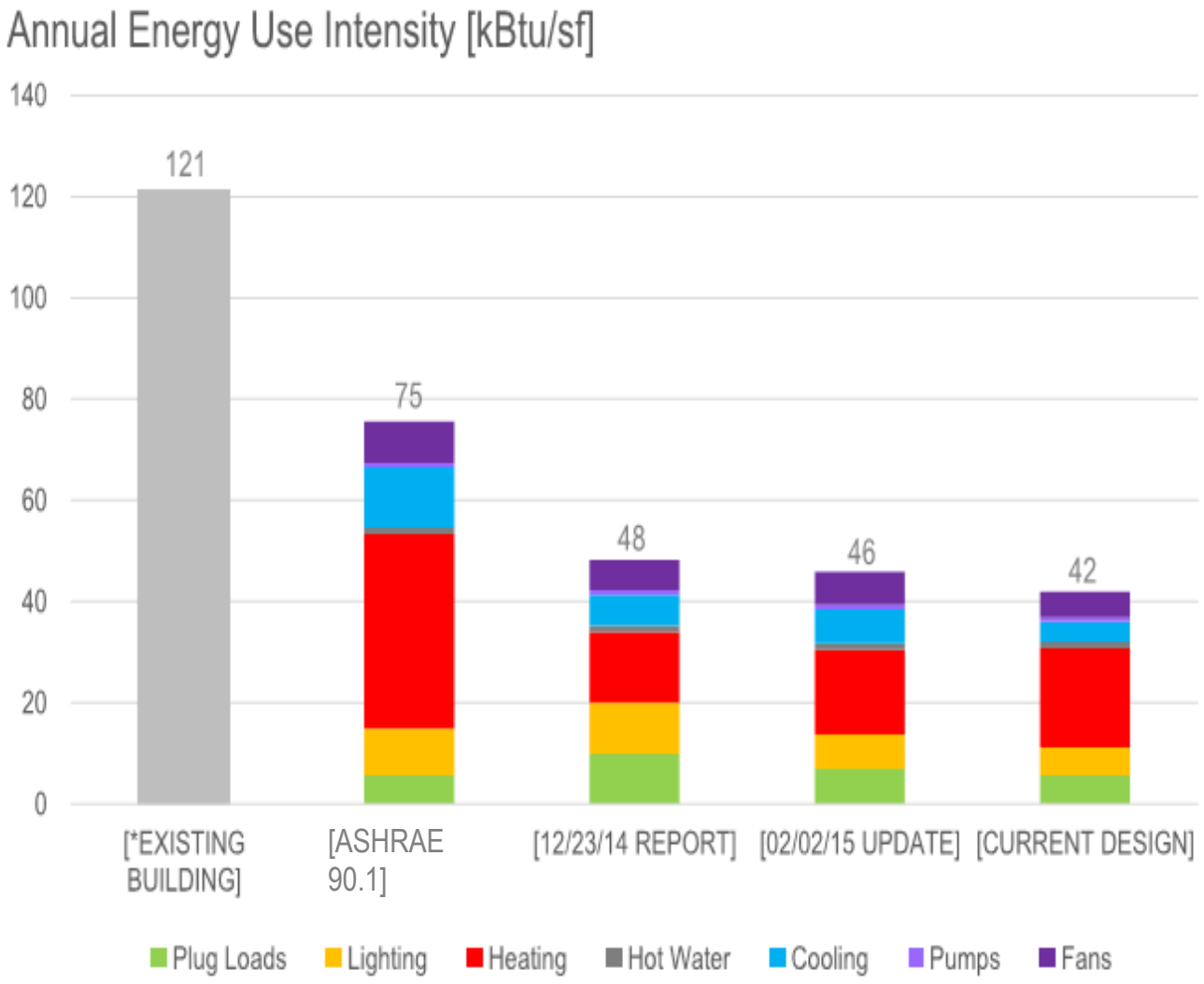
	DIFFERENCE
Experiential Learning	32%
Stacks	-38%
Staff | Faculty	5%
Food Service	1%


PRICE GILBERT LIBRARY

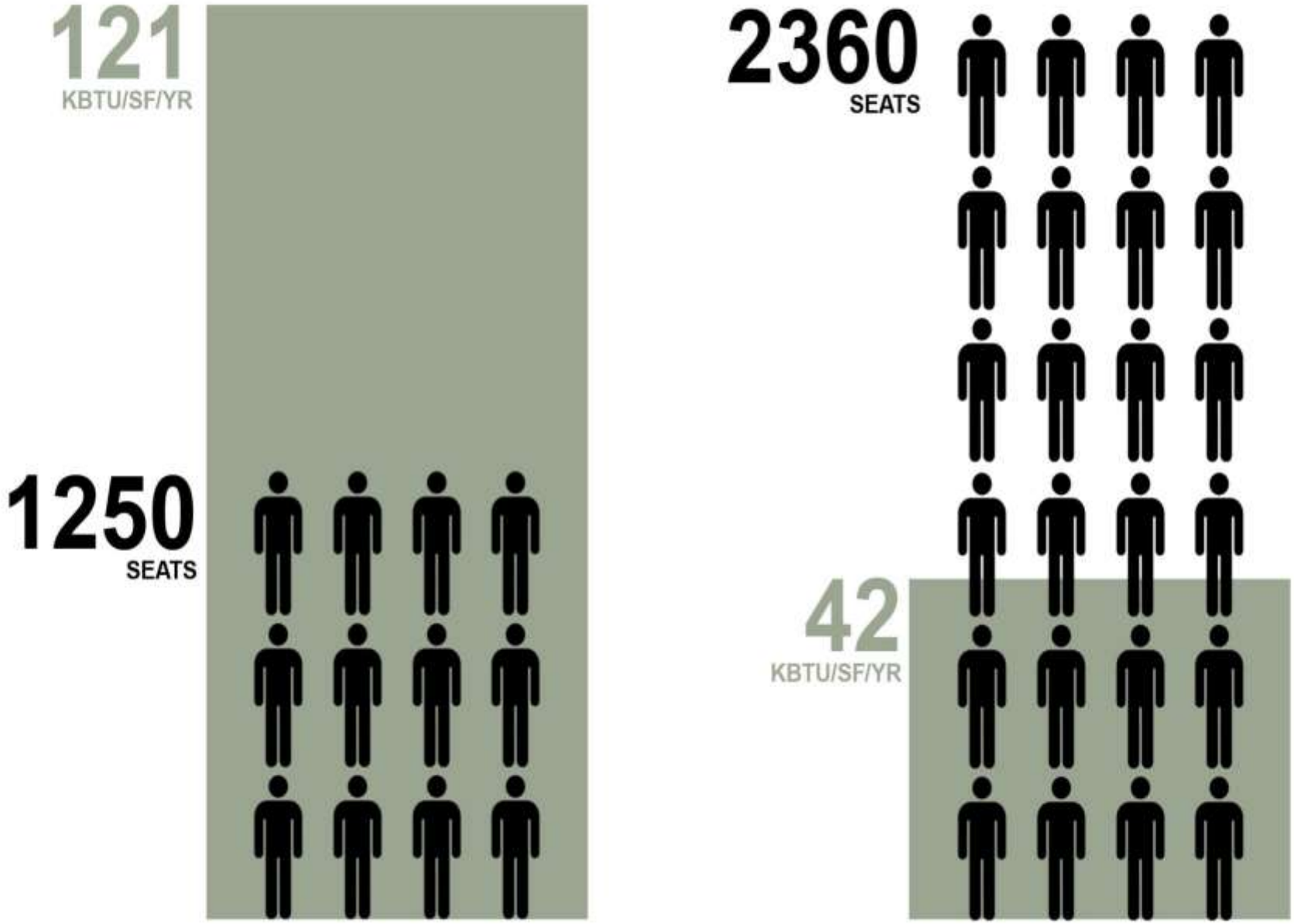

CROSLAND LIBRARY

CT LOBBY RISERS – wood wrapped risers

Energy Model Evolution



*Existing Building data is measured, not modeled


121
KBTU/SF/YR
1250
SEATS
2360
SEATS
42
KBTU/SF/YR

- Program and design aligned with GT Strategic Plan, Landscape Plan and Sustainability Plan
- Design led by innovative process of piloting new services and spaces to predict the future
- Create new services for students and faculty
- Doubled seat count
- Create porosity of library buildings and connect interior spaces to campus
- Replace underutilized book space with space for people
- Integrated learning technology infrastructure for evolving future needs
- Increase space utilization by 100%
- Removed brick walls and replaced with windows for daylight and views
- Reduced energy use by 60%

Images: BNIM, Praxis3, brightspot strategy

Questions & Comments

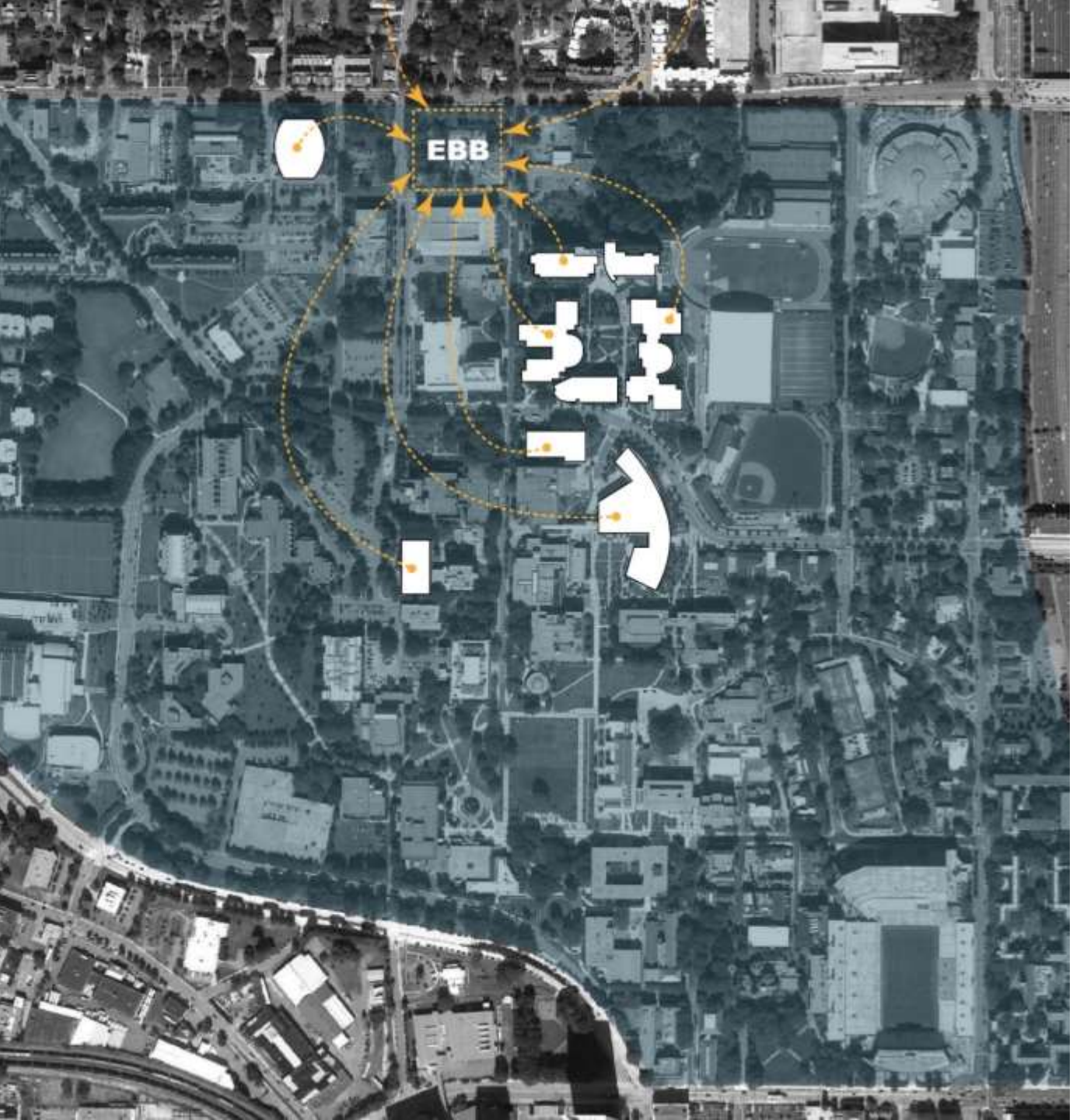
Ryan Jones
Associate Partner

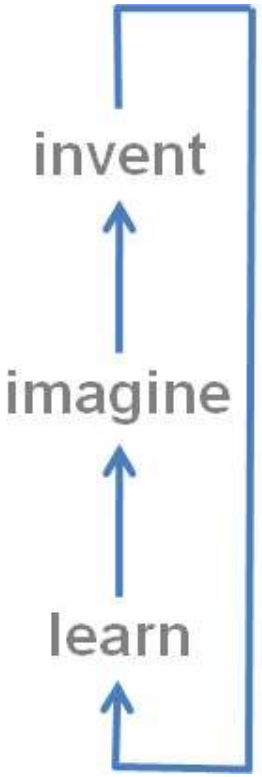
LAKE|FLATO ARCHITECTS

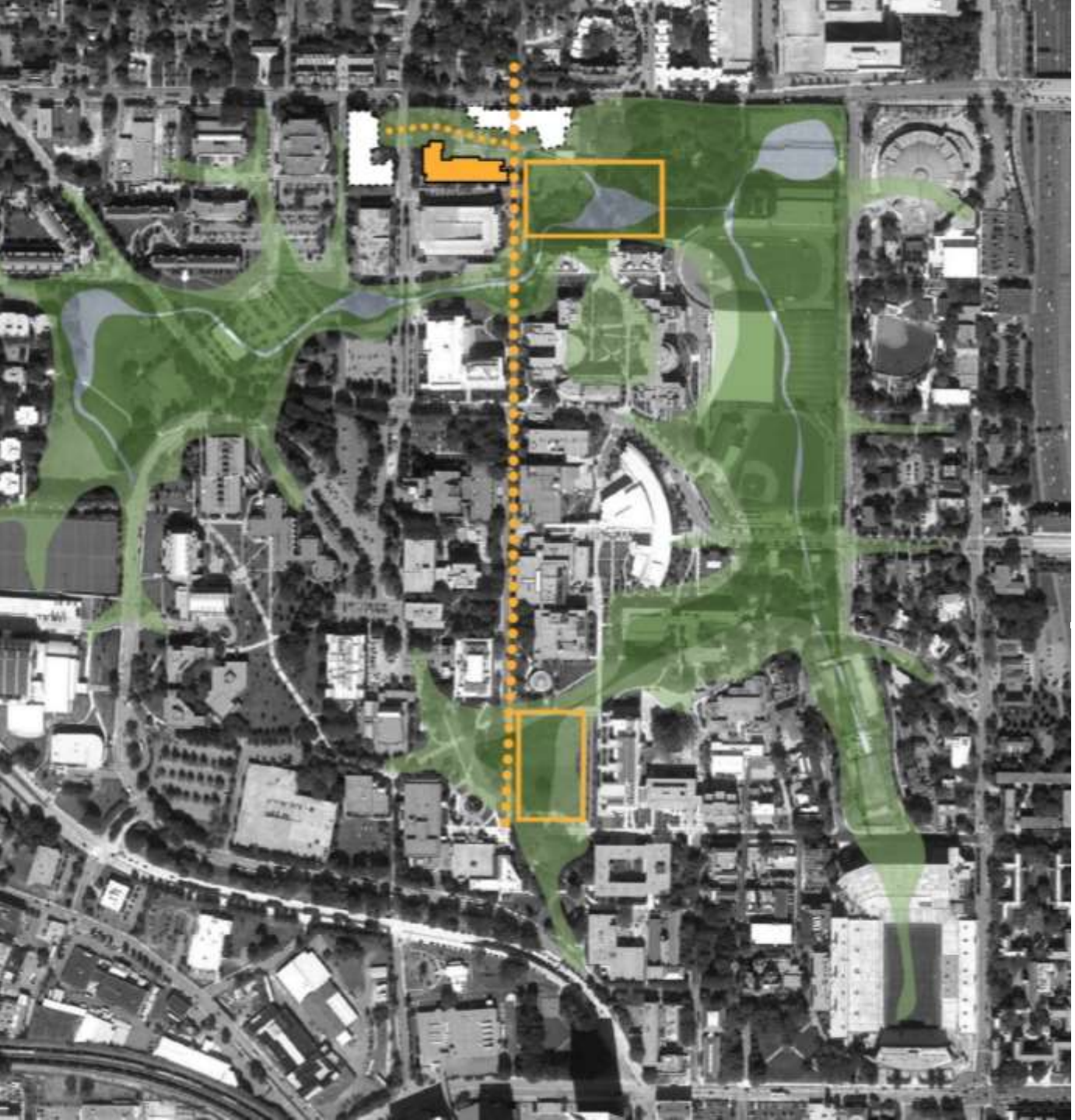
ENGINEERED BIOSYSTEMS BUILDING

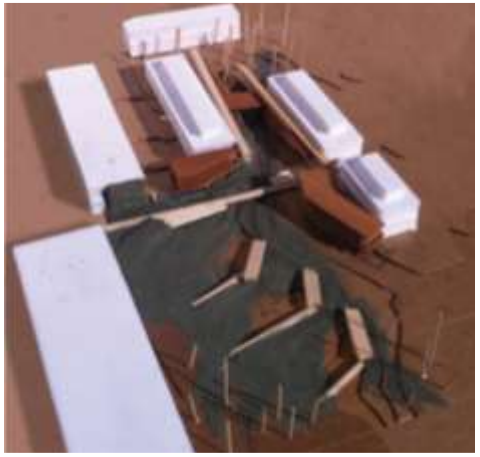
GEORGIA INSTITUTE OF TECHNOLOGY

LAKE|FLATO ARCHITECTS + COOPER CARRY ARCHITECTS

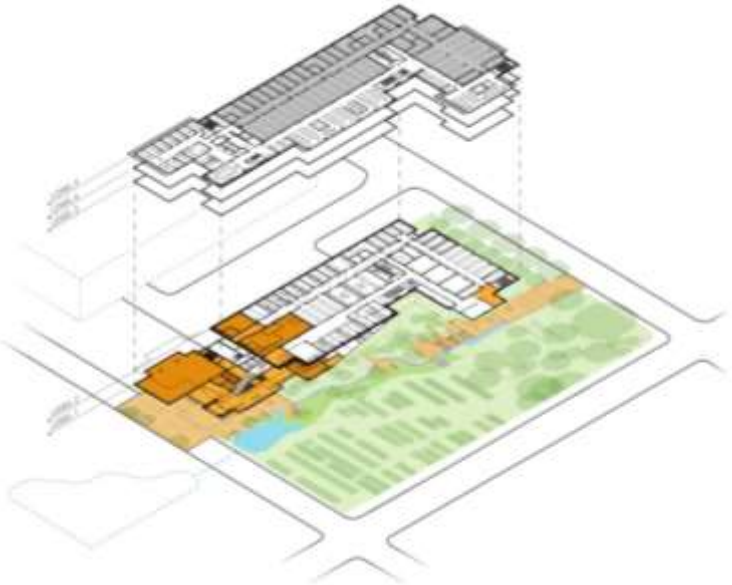

EBB

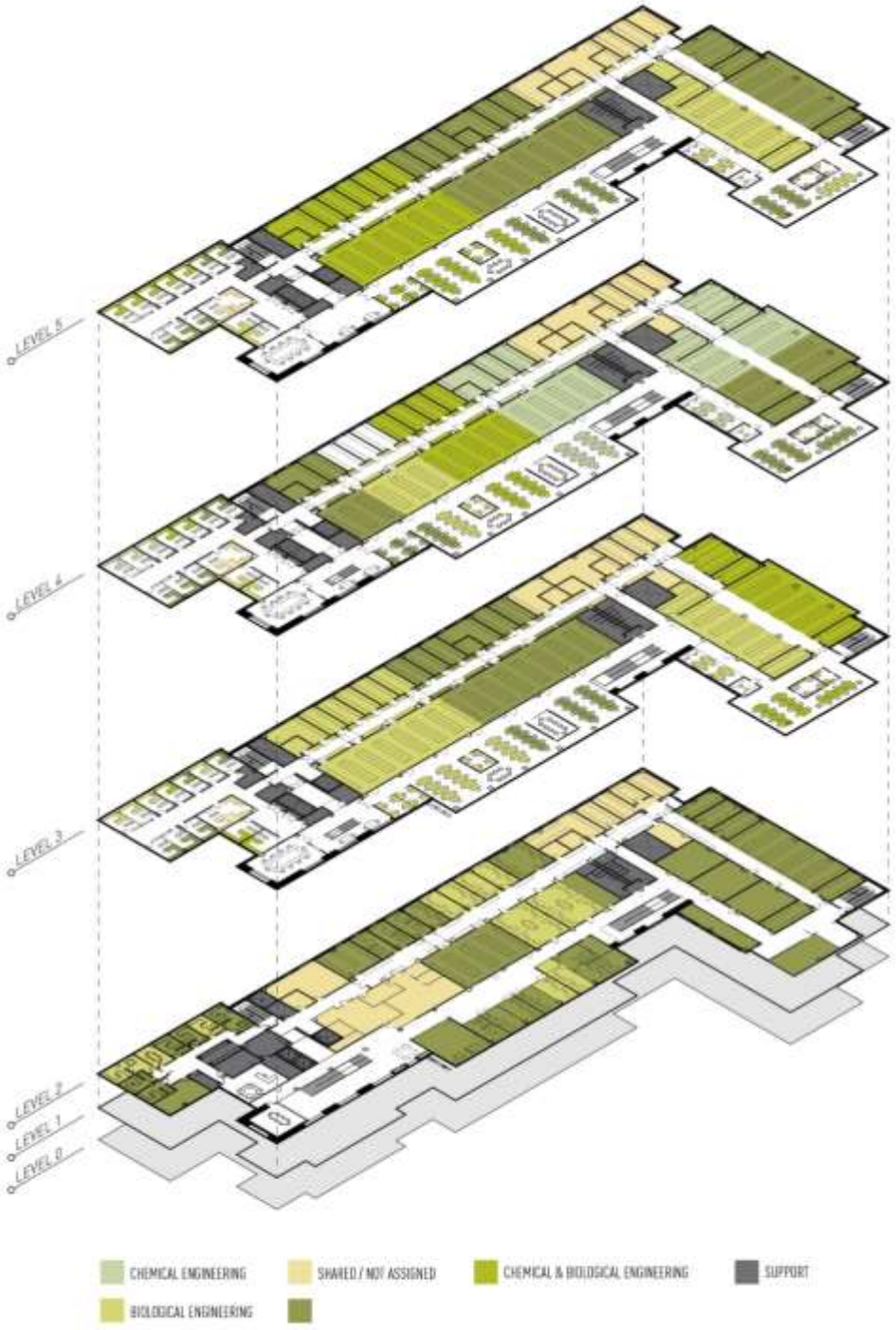

invent
imagine
learn





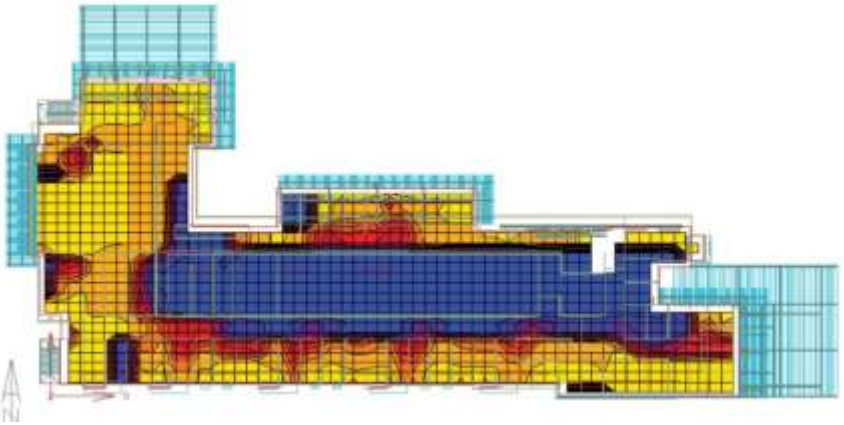

10TH STREET
RAINGARDENS
EBB 1 & 2
EGG COMMONS
EBB PHASE II
EBB PHASE III
EBB PHASE I
AMPHITHEATER SEATING
POND
PEACHTREE PLACE
BAKER
EXISTING PARKING DECK
MSE
RAINGARDEN
FOREST

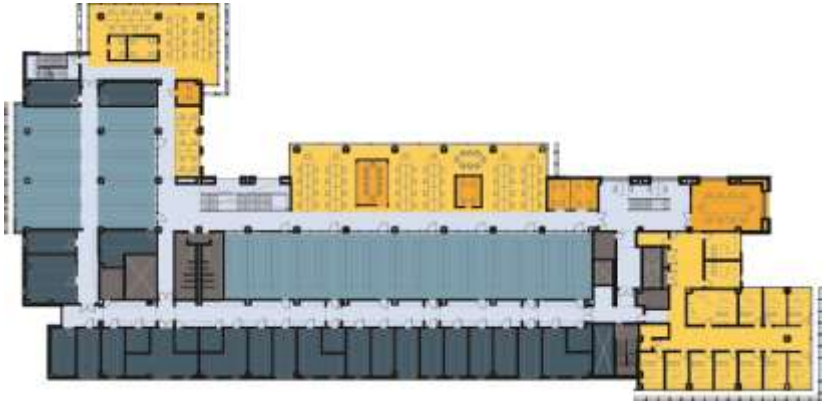



LEVEL 5
LEVEL 4
LEVEL 3
LEVEL 2
LEVEL 1
LEVEL 0
CHEMICAL ENGINEERING
SHARED / NOT ASSIGNED
CHEMICAL & BIOLOGICAL ENGINEERING
SUPPORT
BIOLOGICAL ENGINEERING

DAYLIGHT + ENVIRONMENTAL ANALYSIS

MINIMAL ACCESS



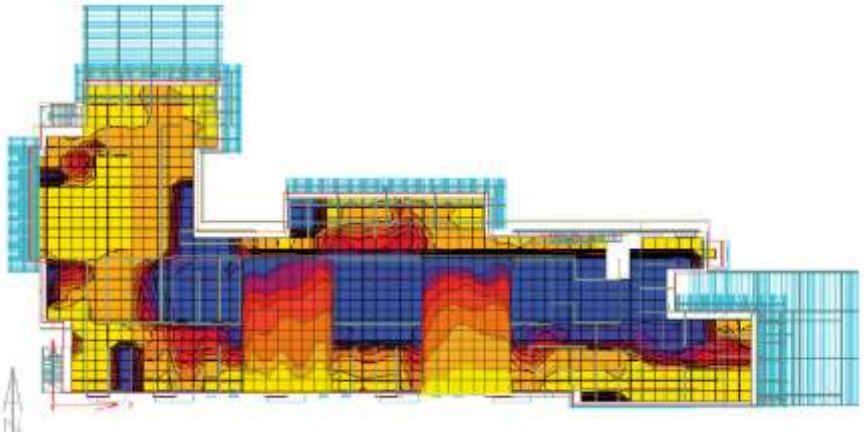


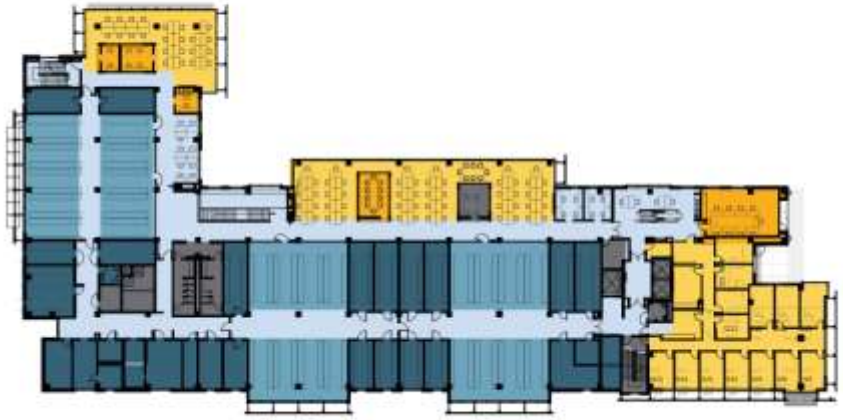
EVOLUTIONARY

LAB ADJACENCY PARADIGM

DAYLIGHT + ENVIRONMENTAL ANALYSIS

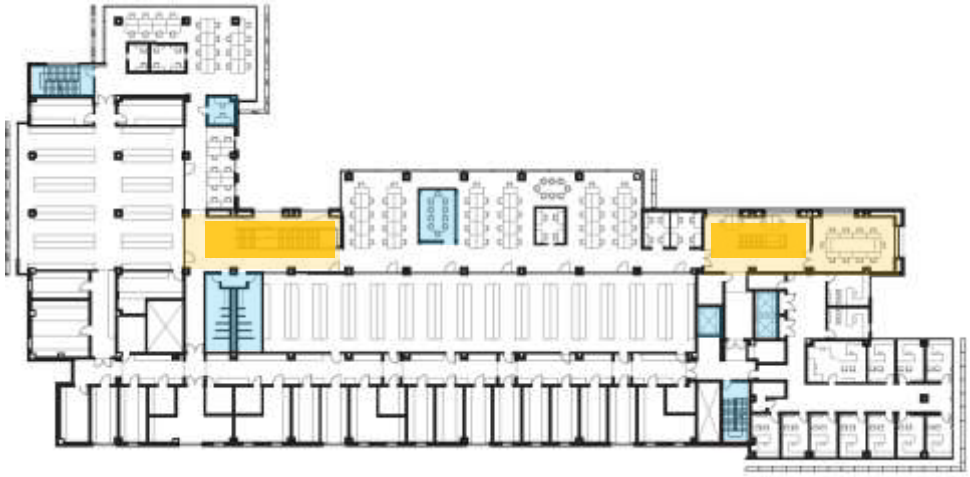
MAXIMUM ACCESS





REVOLUTIONARY

LAB ADJACENCY PARADIGM



ALTERNATING BREAK ROOMS
+
SHARED SPACE AS MAGNETS FOR ACTIVITY

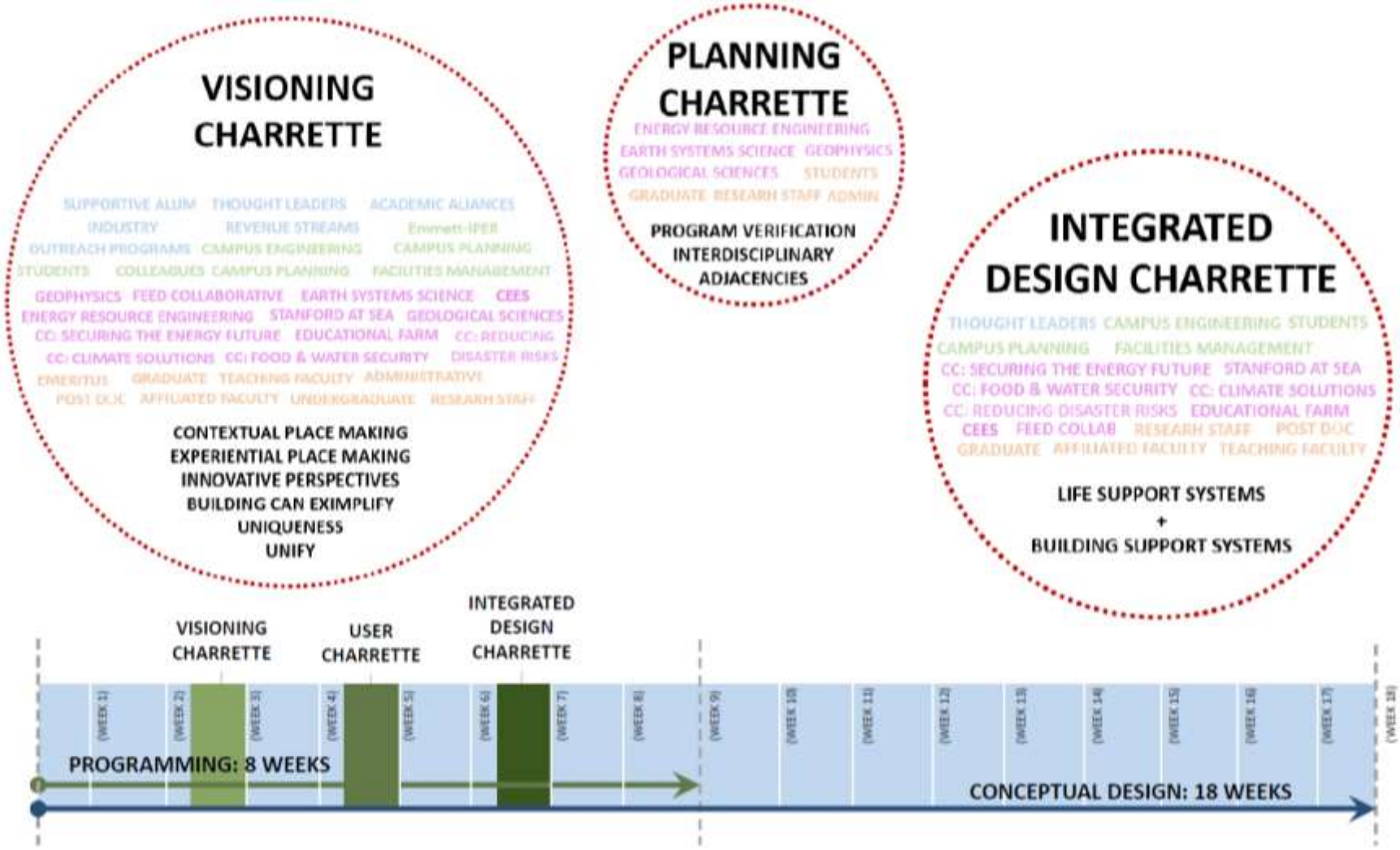
ENGINEERED BIOSYSTEMS BUILDING

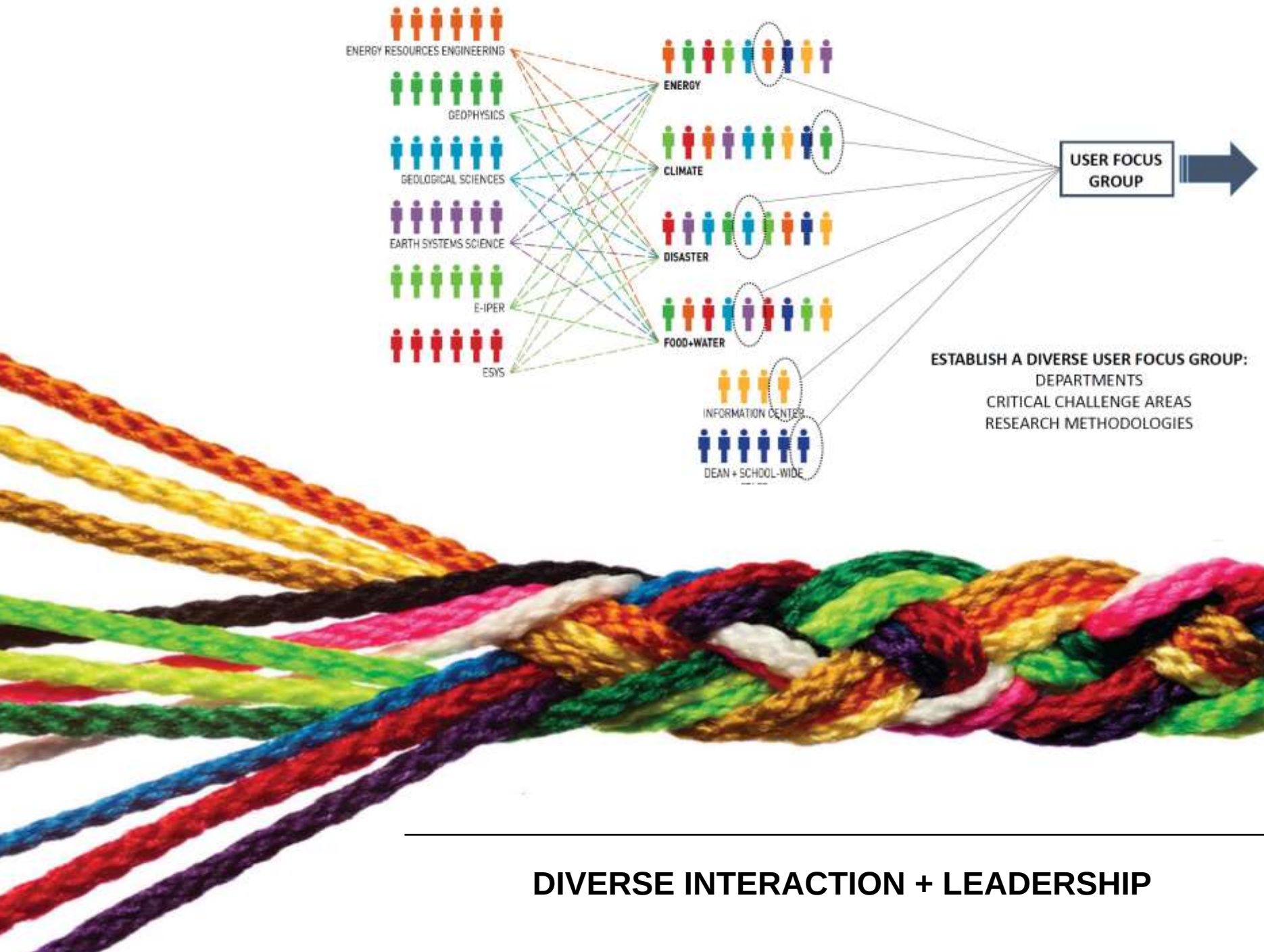
GEORGIA INSTITUTE OF TECHNOLOGY

Collaborative environments are as much a result of a collaborative programming and design process as they are the architectural response.

How do we better integrate our clients and their community into the design process?

CREATE + FOSTER A CULTURE OF INCLUSION



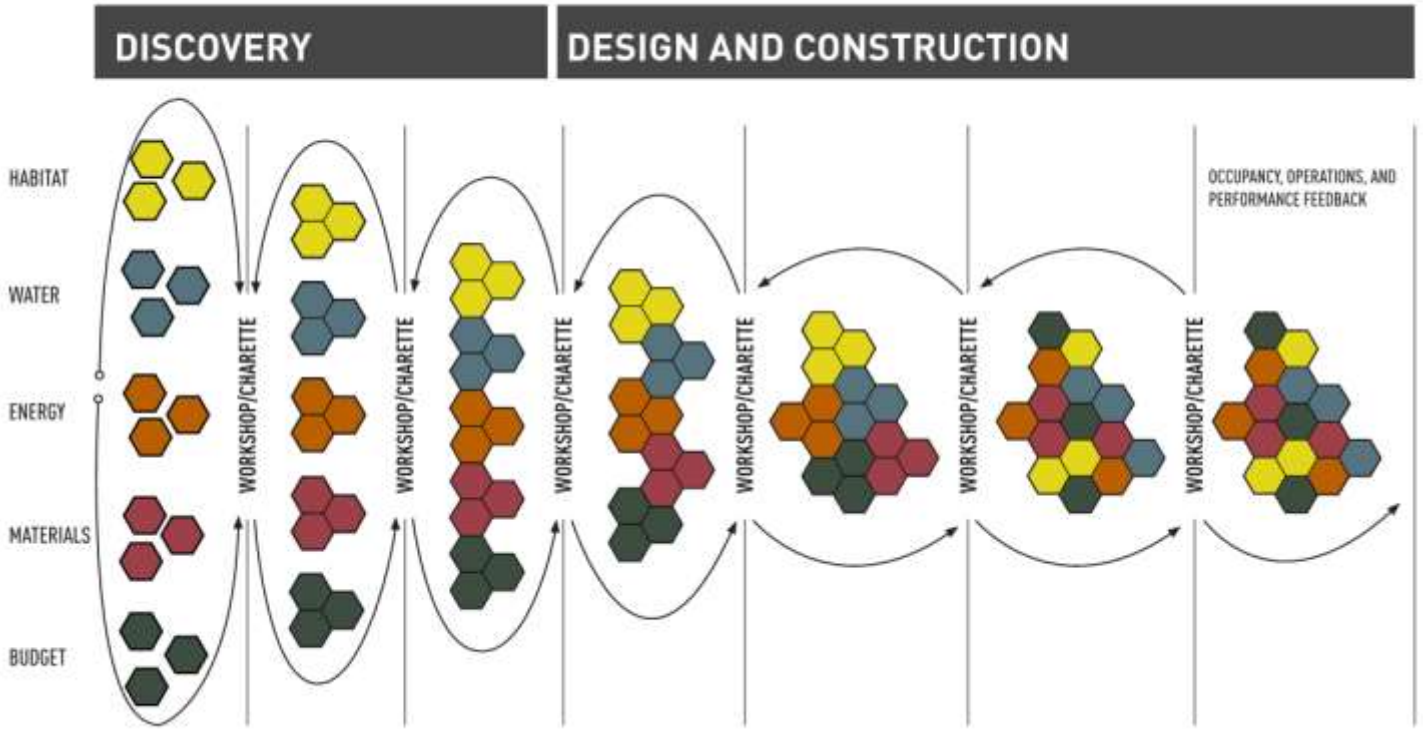


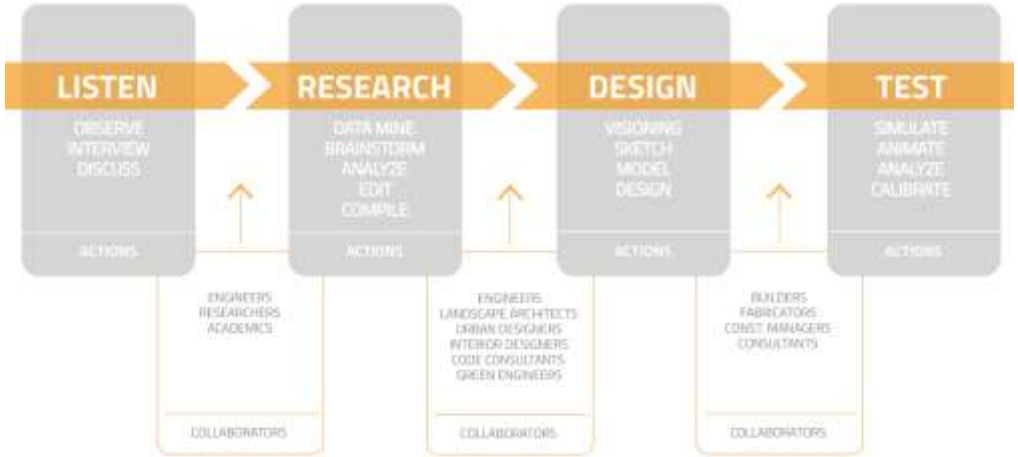
DIVERSE INTERACTION + LEADERSHIP

EBB-1 PLANNING & DESIGN COMMITTEE MEETING

A catalyst for innovation, entrepreneurship and service;
that leverages GIT's world class experience operating labs;
creates a campus community bound by a shared ecological identity;
nuturing discourse that leads to a culture of innovation and creativity.

INTEGRATIVE PROCESS





TRADITIONAL PLANNING PROCESS

INTEGRATED PLANNING PROCESS

Questions & Comments
Final Remarks

... a challenge to academic leaders is to think of new metaphors for shaping goals for student learning, a challenge particularly relevant for those with responsibility and opportunity to shape learning experiences and learning spaces.

(To have) meaningful and productive lives in our increasingly flat world (students) must be great collaborators, leveragers, localizers; they must be 'green' (yup, just green); they must be great explainers, great synthesizers, great adapters, and they must be passionate personalizers.

Thomas L. Friedman

July 2006. International meeting on the *Campus of the Future* (SCUP, etal.)

Truly creative spaces are flexible.

They are easily reconfigured, modular, and responsive to the needs of different people and different projects.

Creative places make it easy for people to discuss, share, and argue ideas, whether in the laboratory or the cafeteria.

By maximizing both formal and informal contact between individuals, such spaces encourage cross-fertilization of thinking.

From the LSC Archives: — *Report on Places of Invention*
The Lemelson Center for the Study of Invention & Innovation. 2007.

People are not born with inherent innovation skills,
but they can learn them.

They can acquire the social skills to work in diverse,
multidisciplinary teams, and learn adaptability and leadership.

They can develop communication skills to describe their
innovation.

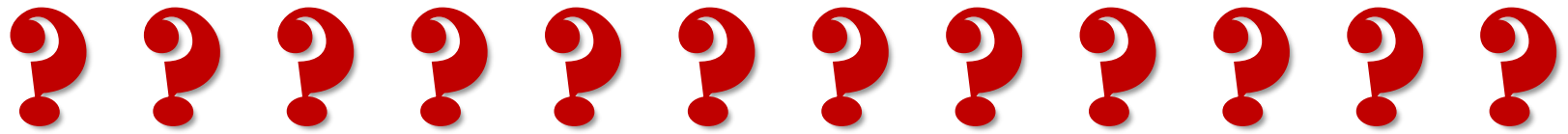
They can learn to be comfortable with ambiguity…
…to translate challenges into opportunities and understand how
to complete solutions from a range of resources.

From the LSC Archives: — *National Innovation Initiative*
Council on Competitiveness. 2005

Creative individuals want to arrange, modify, and adapt their personal work spaces to meet their own needs and whimsy.

It is almost a cliché that creative people have messy spaces and espouse a hands-on mentality.

From the LSC Archives: — *Report on Places of Invention*
The Lemelson Center for the Study of Invention & Innovation. 2007.



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Learning Spaces Collaboratory

Join the conversation – send us your ideas about questions to ask in shaping learning spaces
pkallsc@pkallsc.org

Fall LSC Webinars

- *Spaces for Dissolving Boundaries between Communities*
  November 1, 2015

- *Transformative Renovations and New Connections*
  December 1, 2015