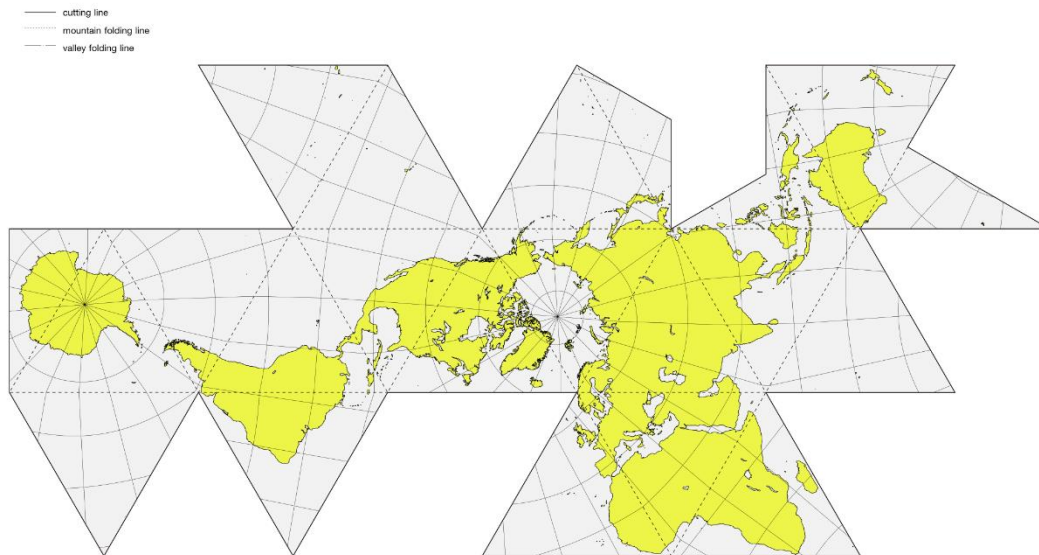


Global Approaches to Sustainable Architecture, Regenerative Design, Healthy & Just Cities



Dymaxion Map, R. Buckminster Fuller

"I am a Passenger on Spaceship Earth."
R. Buckminster Fuller

INTRODUCTION

Increasing social and physical environmental challenges require an examination of the evolving practices of architecture, city-making, and the design of our environments seen through a regenerative perspective. Numerous case studies at various scales and locations will be introduced during the semester to expand student's knowledge of innovative approaches and new models for addressing the complex relationship between the natural and constructed realms. Course readings address key concepts and theories of sustainability and regenerative design, including the role of public policy, governance, and assessment tools.

Students will begin with critical analyses of contemporary sustainability frameworks such as the UN Sustainable Development Goals, the UN Urban Agenda, LEED/USGBC and other certification programs, Resilient Cities Network, and Project Drawdown. Student research will also include a discussion of specific applications for each framework and theory with prospective studies. Building upon this foundational knowledge, students will develop a series of material stories which explore a given material from matter to form, including acts of embodiment and disembodiment, understanding how a specific material is made, maintained, recycled, upcycled, decomposed. This research will require students to engage the *actual* scales of the environment and the scales of time embedded in our constructed world. Each student will shape an area of focused research based on their emerging interests in sustainability and relative to the course materials. Individual research culminates in a final paper and presentation that evidences the students understanding of the impact of historical and contemporary global approaches, methods, and practices on the social, economic, and environmental issues related to resilient, regenerative architecture and urbanism involving design, technology, public policy, building science, and the environment.

COURSE SCHEDULE & ASSIGNMENT OVERVIEW

Phase I: ***Understanding the History and Future -Frameworks and Theories*** Weeks 1-7

Critical analysis, presentations, and discussions of key frameworks, concepts, and theories of sustainability and regenerative Design including architecture, urbanism, and the built environment as well as community health, wellbeing, and quality of life.

Part A: Green/Eco/Bio Architecture, Sustainability, and Regenerative Design (Weeks 1-3)

Part B: The Role of Public Policy, Governance, and Assessment (Weeks 4-7)

Week 7: Summer C Break- No Class

Phase II: ***Material Stories -Cycles of Matter & Form*** Weeks 8-9

Explore materials from matter to form, including acts of embodiment and disembodiment, and the geographical and temporal implications of constructed realm. Project/graphic presentation explaining how specific material is made, maintained, recycled, upcycled, decomposed. Research includes a study of both traditions and innovations.

Phase III: ***Research Paper + Presentation*** Weeks 10-13

Develop individual focus area topic of research including case studies and literature review based on knowledge and evolving interests from previous course work weeks 1-9
Culminates in a 2000-word min. paper and a complimentary 10-minute graphic-based power point presentation.

EVALUATION OF COURSEWORK*

Exam	15%
Assess Understanding of Key Concepts, Terminology, & Documents	
Phase I and II Assignments	60%
Class Participation, Presentation Assignments (30%)	
Assignment Summary Notes (30%)	
Research Paper + Research PPT	25%
2000-word paper and 10-minute graphic-based power point	

* Evaluation Grading Rubrics will be provided on all assignment documents and in the Assignment Folder, on Canvas.