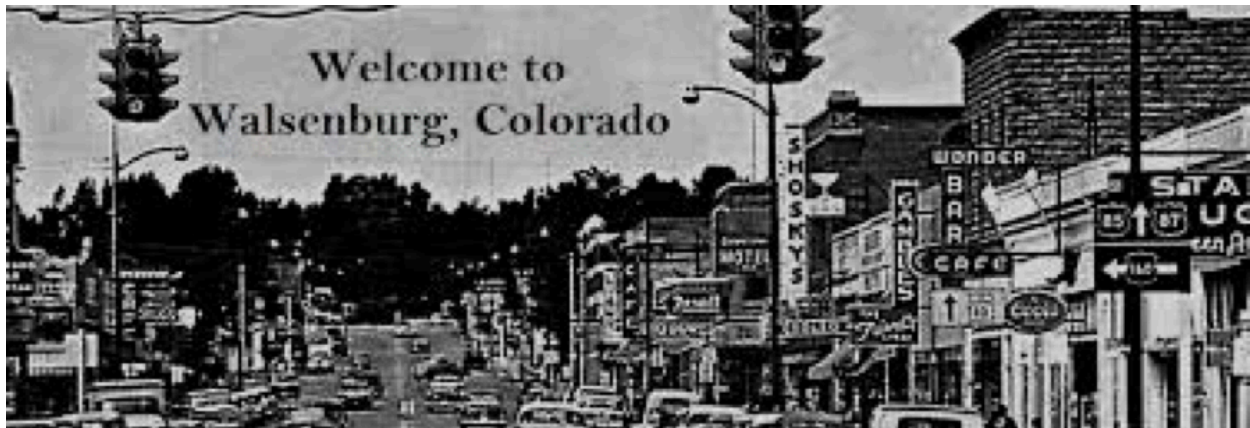


## RETHINKING SUSTAINABILITY: HEALTH/RESILIENCE/CLIMATE CHANGE



*“The earth’s climate is changing, due largely to greenhouse gas emissions resulting from human activity. These human-generated gases derive in part from aspects of the built environment such as transportation systems and infrastructure, building construction and operation, and land-use planning. Transportation, the largest end-use consumer of energy, affects human health directly through air pollution and subsequent respiratory effects, as well as indirectly through physical activity behavior. Buildings contribute to climate change, influence transportation, and affect health through the materials utilized, decisions about sites, electricity and water usage, and landscape surroundings. Land use, forestry, and agriculture also contribute to climate change and affect health by increasing atmospheric levels of carbon dioxide, shaping the infrastructures for both transportation and buildings, and affecting access to green spaces.*”

***Vulnerable populations are disproportionately affected with regard to transportation, buildings, and land use, and are most at risk for experiencing the effects of climate change. Working across sectors to incorporate a health promotion approach in the design and development of built environment components may mitigate climate change, promote adaptation, and improve public health.”***

*“The Built Environment, Climate Change, and Health: Opportunities for Co-Benefits” (Margalit Younger, Heather R. Morrow-Almeida, Stephen M. Vindigni MPH, Andrew L. Dannenberg MD, MPH)*

*“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”. The goals of sustainable development cannot be achieved when there is a high prevalence of debilitating illnesses, and population health cannot be maintained without ecologically sustainable development.*

### ***Principle I of the Rio Declaration on Environment and Development***

#### **INTRODUCTION:**

Much as “sustainability” and the concept of “Green” building transformed how society conceived of the Human/Nature relationship several decades ago, the concepts of health and well-being are beginning to attain a similar influence over how we construct the built environment today. These trends in health and design are broad-ranging and the issues they seek to address cross multiple disciplinary boundaries and affect many disciplines simultaneously.



Though many professions not directly associated to health traditionally are beginning to realize the potential magnitude of this influence to their work, the limitations of their disciplinary frames make it difficult to truly conceptualize its wide ranging importance to the built environment. The potential influence of Health/Well-being concerns can range from the smallest details of particular buildings to the creation of forward-thinking design strategies at the urban scale to influence how large scale development and systemic infrastructure focused on health is conceived and constructed. Few topics attain this level of influence at so many differing scales.

This studio will explore the “vastness” of the issues touched upon when one considers the role of design, health, and sustainability within architecture to more forcefully engage the built environment and transform “how we build”. The concepts of health, design, sustainability, and resilience will serve as the framework and foundation for this “broad-ranging”, yet specialized exploration into how our “well being” can directly affect the discipline of architecture. In the H/D studio several questions are fundamental to exploring the importance of creating a broad-ranging health “lens”:

- 1) *What is “human sustainability” and how can it influence the way we design and construct the built environment?*
- 2) *What are the ethical implications of a frame of reference that views health and well-being as integral to architecture?*
- 3) *How can disciplines allied with architecture and design be encouraged to “pool” expertise to tackle larger the issues we confront in this area?*
- 4) *Is arts integration applicable in the context of design and the built environment? If so, how?*
- 5) *How can the architectural design process truly engage issues and meanings involved in human health and well-being?*
- 6) *Finally, how do we move forward to create design methods, concepts, and insights that truly address global climate change and its after effects?*

#### **PROGRAM/PROJECT INTENT:**

**Architecture 6170** is “the second of two reflective studios, which focuses on the comprehensive design of an architectural project including considerations of structural systems, environmental systems, life safety concerns, regulatory considerations, wall sections, building assemblies and significant detail.” Given these stated curricular goals for the studio, the intent is for students to explore how theoretically sophisticated ideas, theories, and visions within architecture can successfully materialize into detailed constructs that both inspire the individuals experiencing the projects as well as satisfying user needs, structural/material considerations, building regulations, and city/county codes.

Currently, design practices regarding health are focused narrowly on the creation of care facilities catering to the treatment of very specific ailments and addictions. These processes frequently create harsh, and inefficient facilities with overly-specific programing that severely limit treatment effectiveness. These facilities can “fracture” rather than strengthen a sense of community, a necessary factor to overall health and well-being. To transform current practices, a more integrative agenda for arts, health, education and the built environment must be explored. To better explore the role of materiality in this “mix”, the studio will be involved with the 2020 ACSA steel competition.

It will also support and explore how transformative interdisciplinary dialogues around arts, health, and the built environment in rural communities can be driven by the design process. On the larger scale, this studio project will be a documented “practical” design example illustrating how community based arts integrative



design processes can serve as collaborative vehicles for increased access, awareness, and vision regarding environments conducive to healthy living and personal well-being.

Given this, project goals are three fold. Regarding the community: discussions emerging from this design process will inform stakeholders of the expanded potential for building community and well-being with **facilities/programing merging health services, rehabilitation treatment, early childhood education, wellness/nutrition education, and network building arts-based activities into a single aesthetically meaningful complex.** In short, a **“holistic one stop shop” of health and wellness** for the surrounding rural community will be envisioned to potentially secure support for the realization of a future project. For art/design faculty & students: working with the local community, artists, and health agencies, guided by a health agenda emphasizing well-being and human sustainability allows for exploration into transforming how we design and interact with our surrounding environments. Health in design is an emerging trend and its exploration provides a sound foundation for successful design careers. Finally, committing to engaging arts-based approaches to improving and enhancing rural health, partner organizations can share practices and tools with other arts organizations, local jurisdictions, elected officials, and professional associations to increase their visibility and strengthen their networks.

**COMMUNITY PARTNERSHIPS :**

This specific project involves a partnership between the **Huerfano- Las Animas (HULA) Counties Early Childhood Advisory Council, Las Animas -Huerfano Counties District Health Department, CU Denver Health + Design Initiative, and Colorado Healthy Places Collaborative** to develop a prototypical study for a health and wellness center in Walsenburg, Colorado that incorporates health services, rehabilitation treatment, early childhood education/care, adult health/wellness/nutrition education, and network building arts-based activities into a single complex. For connections to the local artist/cultural communities, access to potential exhibit and community events sites as well as expertise regarding the current needs and existing community resources such as the **Museum of Friends and the Huajatolla Heritage Foundation.** Huerfano County is providing a project site located where the present community center stands in **Walsenburg. Radian and HDR will be involved as professional design consultants.**

**SITE:**

As stated above, the site is located on the main street of Walsenburg at its intersection with the Conchara river on the Southside of **Walsenburg** in Huerfano County. **“Huerfano County** is located south of Pueblo, CO and west of San Luis Valley. Huerfano County is **1,593.24** square miles and includes the cities of Walsenburg, La Veta, Gardner, Farista, Cuchara, Calumet, and Badito. The population in Huerfano County is **6,677.** One in three children live in poverty and the average median income is \$35,800, half of the average state income of **\$66,075.** The county has experienced several traumatic events dating from generations ago to third largest fire in Colorado history and the ongoing opioid epidemic. Ongoing intergenerational poverty and traumatic events continue to play as a root cause for the county’s unhealthy outcomes. In addition, the rural county has no or lack of mental health and well-being opportunities. Many citizens treat their mental health and well-being themselves vs. seeking help. Research has shown art in one of many prosocial forms of self-care that can help with promoting health and well-being. We believe if we offer art and other forms of prosocial self-care, we will disrupt the intergenerational cycle and change the trajectory for our youngest population.”

## **SEMESTER SCHEDULE (ROUGH)**

### **WEEK 01: (01.20.20-01.24.20) (Section I: Research/initial design phase)**

01.21.20: General Studio  
Introduction/lottery/studio "move in"  
01.23.20: (Client visit 1) Studio Kick off/sketch project assigned

### **WEEK 02: (01.20.20-01.24.20)**

01.28.20: Initial research feedback  
01.30.20: Sketch project due/program, site, typology, and materials research started

### **WEEK 03: (02.03.20-02.07.20)**

02.02.20: initial research presentation/discussion  
02.06.20: presentation of program/narrative

### **WEEK 04: (02.10.20-02.14.20)**

02.11.20: "Siting" of building/begin general layout  
02.13.20: Desk Crits

### **WEEK 05: (02.17.20-02.21.20)**

(Section II: initial materials research/"overall" design refinement)

02.18.20: initial sketches complete/desk crits  
02.20.20: (Client visit 2) 1<sup>st</sup> pinup/initial 3D studies/plans, sections, elevations,/initial program ideas)

### **WEEK 06: (02.24.20-02.28.20)**

02.25.20: Desk Crits  
02.27.20: Desk Crits

### **WEEK 07: (03.02.20-03.06.20)**

03.03.20: Desk Crits  
03.05.20: Desk Crits

### **WEEK 08: (03.09.20-03.13.20)**

03.10.20: Desk Crits

03.12.20: Desk Crits

### **WEEK 09: (03.17.20-03.19.20) (Section II: initial materials research/"overall" design refinement)**

03.17.20: Pre pin up (desk crits)  
03.19.20: (Client visit 3) midterm pinup/revised 3D studies/plans, sections, elevations, revised program/initial structural wall section detail studies)

### **WEEK 10: (03.23.20-03.27.20) Spring Break**

03.24.20: No Class  
03.26.20: No Class

### **WEEK 11: (03.30.20-04.03.20)**

03.31.20: (Desk Crits) ACSA registration/mid-term debrief  
04.02.20: (Desk Crits)

### **WEEK 12: (04.06.20-04.10.20)**

04.07.20: (Desk Crits)  
04.09.20: Pin up- final presentation materials started

### **WEEK 13: (04.13.20-04.17.20)**

04.14.20: Desk Crits  
04.16.20: Desk Crits

### **WEEK 14: (04.20.20-04.24.20)**

04.21.20: Desk Crits  
04.23.20: (Client visit 4) "Quick pin" up final boards mocked up (wall sections started)/presentation drawings near completion

### **WEEK 15: (04.27.20-05.01.20)**

04.28.20: Desk Crits  
04.30.20: Revised wall sections/reflected ceiling plans/

### **WEEK 16: (05.04.20-05.08.20) Final Crits/(TBD)**

05.05.20:  
05.07.20:

\*\*\*ACSA Submission Deadline: May 20<sup>th</sup> 2020