ALBERTO DE SALVATIERRA DUSTIN COUZENS FARHAD MORTEZAEE JASON JOHNSON JEFE I YNESS KATE ALLEN KELLY MORRISON **KRISTEN LIEN** SHAJAY BHOOSHAN SUMFR SINGH WILD. MARQUE7

FALL 2020 M2 Research Studio Options SCHOOL OF ARCHITECTURE, PLANNING AND LANDSCAPE UNIVERSITY OF CALGARY

M2 Studios for the fall of 2020 will include options developed in response to the cancellation of study abroad options for this fall. These options have been developed to take advantage of this moment in history when our enforced physical distance has reinforced the need to creatively design the ways in which we interact and collaborate as designers across the globe. This fall we are embarking on a new project in the architecture program. This project is one that connects students, faculty members, researchers and practitioners in teams to address the challenges that face our communities, cities, regions and nations through the lens of the discipline of architecture. This semester we have put out the call to local and international design thinkers to propose design research projects that we hope will provide some valuable experiences, networks and directions for your futures as designers.

> A summary of each of these Work Integrated Learning/Critical Practice Studios is provided here to give each of you an idea of the range of projects that will be tackled this term. This semester will be an experiment in many ways. It will mark our first full term of studio to be undertaken in a hybridized physically distant way. It will be the first time that we interface in this way with architectural offices, developers, policy makers and builders from outside of SAPL and in some cases outside of Canada. It will be an opportunity for all us of to learn from the work taking place across all of these studio teams and project types. Our hope is that this will mark the start of a new set of collaborative networks that together will begin to tackle some of the most critical challenges and opportunities that face our discipline.

Course Description

This studio option addresses emergent design research topics that exist within critical practice under the guidance/mentorship of design professionals. These topics could take the form of the following:

- Embedded Critical Practice Students working under the supervision of and architect or design team in a form on a specific R&D project or research subject.
- Design Build
- Speculative Critical Practice Competitions, Project Proposals etc. that are speculative in nature.
- Critical Practice Urban Issues Urban scale research and design proposals.
- Critical Practice Culture & Society Research in the realms of social and cultural impacts of design practice.
- Disciplinary Theory Work with theorist/critic on and a specific topic with clear deliverables.

This list is not meant to be comprehensive, but strategic and students should review the attached documentation provided by each section for more details.

Participating Firms and Research Units

Center for Civilization	www.centerforcivilization.
FarMor Architecture	www.fmarch.
FRANK Architecture & Interiors	www.frankarchitecture.
Laboratory for Integrative Design	www.integrativedesign.o
LIVE Mondo	www.facebook.com/livemonde
MTA Urban Design Architecture Interior Design Inc.	www.matlink.co
MERCEDES + SINGH	www.mercedesandsingh.co
MODERN OFFICE OF DESIGN + ARCHITECTURE	www.moda.
W/Purpose	www.wpurpose.co
Zaha Hadid Computation and Design (ZHCODE)	www.zha-code.education.

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I.Ca

.org







ALBERTO DE SALVATIERRA	WIL D. MARQUEZ
Shajay Bhooshan	FARHAD MORTEZAEE
DUSTIN COUZENS	JASON JOHNSON









KELLY MORRISON

KATE ALLEN

KRISTEN LIEN

SUMER SINGH

JEFF LYNESS





CENTER FOR CIVILIZATION

Solarpunk Urbanism: Farms, Forms, Flows and Flux

Instructor(s): Alberto de Salvatierra - SAPL Aziz Barbar Sonny Xu

Final Reviews

December 16 09:00-18:00

Project Description

This year has been one of extremes. Precipitating social upheaval— foregrounded by cataclysmic environmental degradation and accentuated by a deadly global pandemic—has revealed just how fragile and, perhaps, discordant humanity has become. Civilization has reached a critical inflection point. And at the threshold between perdition and redemption, loss of hope is easy. Apocalyptic visions and machinations of the future dominate our media. Every day, a new threat—often existential—assaults our screens. Forecasters and even fiction writers are hard-pressed to imagine a future that does not include a totalitarian state facilitated by a technological dystopia that failed to prevent a climate catastrophe. In the face of such insurmountable odds, what is the role of the designer, the architect, the urbanist? The answer lies in images.

Our power is to imagine, and then design, new possibilities of the relations between human and nature. And there would be no more timely action then, than to breathe life into a nascent, yet plucky, literary genre known as "Solarpunk" that, having been borne from writers, lacks a cohesive imagery to galvanize the masses. Encouraging an optimistic version of our future, Solarpunk is a growing movement that envisions a society 1) built with renewable energies such as solar and wind power, 2) integrated with urban farming and natural ecologies, 3) embracing prefigurative politics and the twin values of pluralism and diversity, while 4) promoting selfsufficiency and decentralization of urban and governance systems. In the words of a crowd-assembled manifesto:

"At its core, Solarpunk is a vision of a future that embodies the best of what humanity can achieve: a post-scarcity, post-hierarchy, post-capitalistic world where humanity sees itself as part of nature and clean energy replaces fossil fuels. The "punk" in Solarpunk is about rebellion, counterculture, post-capitalism, decolonialism and enthusiasm. Solarpunk embraces a diversity of tactics. Solarpunk emphasizes environmental sustainability and social justice. Solarpunk is about youth maker culture, local solutions, local energy grids, ways of creating autonomous functioning systems. Solarpunk includes all cultures, religions, abilities, sexes, genders and sexual identities. Solarpunk is the idea of humanity achieving a social evolution that embraces not just mere tolerance, but a more expansive compassion and acceptance."

Students:

Andrew Burnyeat Natalie Chung Danielle Kim Kayla MacDonald Alexander Mayhew Gordon Ngo Edward Park Anagha Patil Rejwana Rahman Alea Reid Lealyn San Juan Laura Sandor a SEUNG HO RHEE Mehakpreet Sidhu Calvin Stuka

Jurors

- Josh Taron, SAPL (Calgary)
- •Dan Hapton, SAPL (Calgary)
- Josh Vermillion, UNLV (Las Vegas)
- •Samantha Solano, UMass Amherst (Amherst)
- •Dima Rachid, Studio Libani (Beirut)
- Aziz Barbar, Alden Studios (Monrovia)
- •Sonny Xu, STOSS Landscape Urbanism (Boston)
- •Grace Suthata Jiranuntarat, STOSS Landscape Urbanism (Boston)
- •Binh Nguyen, Studio Lolo (Los Angeles)

Background Links

www.centerforcivilization.org

FREE REGISTRATION @ www.centerforcivilization.org/solarpunk

ARCH 700: SENIOR RESEARCH STUDIO IN ARCHITECTURE - presents a final review of fifteen urban design projects -

> - hosted by -PROF. ALBERTO DE SALVATIERRA

- in collaboration with Inaugural 2020 Center for Civilization Fellows-AZIZ BARBAR + SONNY XU



FRANK Architecture

The Architecture of Story Telling

Instructor(s): Kate Allen Kelly Morrison Kristen Lien

Final Reviews

December 17 09:00-13:00

https://global.gotomeeting.com/join/191121573

You can also dial in using your phone. Canada: +1 (647) 497-9391

Access Code: 191-121-573

Project Description

This course is the fifth studio in the Master of Architecture Program sequence and will explore social space, adaptive reuse and storytelling. Student research will run in parallel to 'The Royal Hotel' project in our office, with the goal of expanding our thinking by exploring potential narratives through site/ context (cultural, social, geographical) response while fulfilling the parameters of the client brief. The studio will teach iterative design that grows from the framework and/or idea the client brings to the architect, with the goal to embellish and accentuate that vision functionally and aesthetically. We will encourage collaboration and conversation between course work and project work in the office.

Site / Program

The Royal Hotel, located in Fernie, BC was built following the Fernie fire of 1908. The building currently houses low income residential suites, with run-down hospitality offerings on the main level. This hotel is being renovated / redeveloped by a private ownership group in response to an influx of tourism over recent years.

The building program will include a combination of hospitality (food and beverage) and residential offerings. FRANK Architecture will be involved in a collaborative process to develop the hotel concept and design the interior fit-out.

Students will be challenged to explore the potential of this project by developing a design narrative unique to their individual interpretation, pursuing their research through a directed approach to design development.

Themes may include: Historic preservation, displacement, themed architecture, social/cultural/economic impacts of design intervention, experiential design, placemaking

Students:

Joe Crawford Michael Gross Isabelle Jackson Madisen Killingsworth Hannah Mousek Joy Olagoke Sara Sparks

Jurors

Kate Thompson - CMLC, Calgary Matthew North - HouseBrand, Calgary

Background Links

https://www.frankarchitecture.ca Site Information https://search-bcarchives.royalbcmuseum. bc.ca/royal-hotel-baker-avenue-fernie Hospitality Design Precedents https://www.avroko.com http://www.romanandwilliams.com/about-us Adaptive re-use – Historic Precedents https://kingeddy.ca https://cspacekingedward.com https://www.frankarchitecture.ca/portfolioitem/model-milk/



FARMOR Architecture

CULTURAL PAVILION

Instructor(s): Farhad Mortezaee

Final Reviews

December 17 11:00-13:30

Project Description

Although Canada is a mosaic of many cultures, this beautiful diversity is often not reflected in the built environment. This is in large due to the mass-produced building materials and commercialized architecture resulting into a monotonous urban sprawl that is void of any extensive cultural connections to the community in which it resides. As a result, architecture's ability to be more vocal of the local context is limited to a small selection of materials readily available as "off the shelf" and subsequently comes to very closely resemble one another regardless of the context, city or country. More and more, we are forced to rely on residual pieces of land left behind by gentrification to develop them into unique places that have a sense of self identity and community expression. Although these can be amazing public realms that can thrive and eventually become welcoming dwelling points to passersby, they often lack an architectural element that goes beyond commemorative statues and benches with plagues.

To address this, students will be asked to research, analyze, and discuss a community's cultural facets through the lenses of history, density, typology, demographics and character. Furthermore, they will address and challenge certain established facets in the form of an intervention on a select site. Students will be encouraged to use a wide range of CAD software and digital fabrication technologies to develop their pavilion design and demonstrate its construction. This course will explore the themes and facets of culture within the Canadian context and how it can take shape in the form of a pavilion that can be utilized by members of the public throughout the year. The desired project will be a design for a structure that bridges public art and architecture.

Students:

Joshua TeBokkel Jarrid Hrupp Jason Ip Kang Shui Subrahmanya Sai Anudeep Mummareddy Angela Rose Orser Lilian Wang Huang

Jurors

Background Links & Resources

www.fmarch.ca https://www.calgary.ca/csps/cns/researchand-strategy/research-and-resources.html http://neighbourhoodchange.ca/ documents/2018/04/socio-spatial-polarizationin-calgary.pdf https://ssl.eas.ualberta.ca/cms/download/file/ papers/paper_341.pdf Digital Design Exercises for Architecture Students

Paperback – Illustrated, 2016 by Jason S. Johnson (Editor), Joshua Vermillion (Editor)

FLCA is partnering with the SAPL studio to design a Cultural Pavilion.



Laboratory for Integrative Design (LID)

TOP/DWN Ceiling Topographies

Instructor: Jason Johnson

Final Reviews

December 17 13:30-14:30

Join Zoom Meeting https://ucalgary.zoom.us/j/97164674909 Meeting ID: 971 6467 4909 Passcode: 041521

Project Description

The ceiling as an architectural device has a long historical tradition in the discipline. This studio will examine that history through a series of precedent studies that focus on the roles that patterns and materiality play specific to two aspects of the the surfaces over our heads; Spatial Definition and Acoustic Performance.

The studio will explore these through a process of digital simulation and physical prototypes. The client for these projects is the University of Calgary with support from the Student Wellness Program. The studio will explore a number of spaces that are currently inadequately designed for acoustic performance and require remediation measures to increase their functionality across several functions. These requirements will co-exist with aesthetic considerations developed by the studio through simulation techniques that investigate pattern and materiality as tools for controlling sound and creating spatial demarcation.

Students:

Zainab Ahmad Arpun Kaur Dhillon Vikram Johal Faraz Shapourzadeh Yasmin Tajik Zach Ward

Jurors

Guy Gardner Dan Hapton Alicia Nahmad Vazquez Matthew Parker

Background Links & Resources

www.integrativedesign.org



W/Purpose + LIVE Mondo

URBAN ENTREPRENEURSHIP DETROIT

Instructor(s): Wil D. Marquez Michael Mondo

Final Reviews

Final Projects will be posted on Instagram

#SAPL313

Project Description

While Detroit's rebirth can be traced to a family of companies and the survival of expert citizens whose "never quit" or "we never left" mantra is hard to ignore or miss across the urban landscape. While the Detroit revival may be attributed to focused investment in its core, the development of marquee community projects in key neighborhoods like Midtown, E. Riverfront, Brush Park, or Corktown are also moving Detroit forward at an impressive pace.

This embedded critical practice studio experience will explore two unique projects in Detroit. The differences between the two sites highlight an opportunity to explore urban scale, urban community development, environment and new ways of living. The research completed in this practice expands on existing and ongoing work by two design entrepreneurs with unique backgrounds and ways of working.

The outcomes will advance students' representational competency, while developing skills to critically analyze ways architecture and social entrepreneurship can influence change and understanding. We hope this studio will invite students to use the process to expand their expectations on how to work in today's world, while tackling real design challenges.

The research will explore contemporary issues regarding housing, environment, landbanking, connectivity, and issues related to how people live, work, and play in the future. The goal of this studio is to explore new development ideologies, expand our understanding of urban systems and development, and educate ourselves by facilitating a professional feedback loop with guest speakers, experts, and citizens.

Students:

Thomas James Acheson Elizabeth Cook Kylene Dupuis Lindsey Harbord Dalvir Nanara Yagmur Yurtbulmus

Background Links & Resources

Garden Court Detroit Riverfront Area East Riverfront | <u>City of Detroit</u> East Riverfront Report | <u>City of Detroit</u> East Riverfront Development East Riverfront Development <u>News</u> Detroit Development Trends Garden Court Apartments Garden Court Metro News Garden Court Metro News NW Goldberg Detroit Rehabilitation Zone NW Goldberg | <u>City of Detroit</u> NW Goldberg Cares | <u>City of Detroit</u> NW Goldberg Model Media

NW Goldberg Revitalization Plan MSU

NW.Goldberg Mixed Development

The goal of this studio is to explore new development ideologies, expand our understanding of urban systems, and execute a strategy



sapl313 • Follow Detroit, Michigan

sapl313 This semester @ucalgarysapl put out a call to local and international design thinkers to open their research projects to students. We hope the virtual experience provided some valuable tools for new ways of working as designers, architects, and change agents. #detroit #sapl313

17h

C Liked by faraz.shapurzadeh and 13 others

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Mercedes + Singh

Prefabricated Hybrids

Instructor(s): Sumer Singh

Final Reviews

December 17 15:30-17:30

Zoom TBD.

Project Description

Architecture as a discipline is fast evolving, especially through the decontextualization and grounding of research from other disciplines. With the advent of Industry 4.0, we have an opportunity to apply mass customization at every scale of AEC (Architecture, Engineering, and Construction) projects. The research project at Mercedes and Singh does exactly that through the adaptation of BIM equivalent modular design strategies from other disciplines, and applying them to parametric models of contemporary architecture and design. The goal of this studio is to identify, research, and create new models of approaching AEC projects.

The research started with primary investigations into modular and prefabricated construction, logistics, lifting, and guest talks. This was supplemented by technical software tutorials, fabrication exercises, and lectures. This was further translated into applied research and digital/physical toolkit creation, demonstrated using case studies of Architectural typologies at various scales.

Students:

Jessica Adamson Shelby Christensen Gurkaran Dhaliwal Xuefei Wang

Jurors

Background Links & Resources

https://files.cargocollective.com/c243933/ Wiscombe-2019-Architectural_Design.pdf

https://www.hydrocarbonprocessing.com/ magazine/2016/december-2016/special-focusplant-design-engineering-and-construction/ modularization-the-key-to-success-in-today-smarket

<u>https://www.youtube.com/</u> watch?v=PHPfKeMvs-w

https://failedarchitecture.com/a-year-in-themetabolist-future-of-1972/

https://dfabhouse.ch/

Isamu Noguchi's "An Important and Unique Table for Mr. and Mrs. Samuel C. Dretzin, 1948-1949"

Fuller, R. Buckminster. Operating Manual for Spaceship Earth. Southern Illinois University Press,: Carbondale, 1969.



Sources and Derivatives

City within a City: Reanimating Edmonton's High Level Line

Instructors: Dustin Couzens Michael Rivest

Final Reviews

December 18 09:00-12:00

Join Zoom Meeting https://ucalgary.zoom.us/j/95306881084Meeting ID: 953 0688 1084 Passcode: 551904

Project Description

We began our studio under the premise that the antiquated principles/philosophies by which we continue to design, organize and govern our cities no longer aligns with the fluidity, temporality and indeterminacy of the contemporary condition. The studio produced a highly utopic Master Plan for Edmonton's High Level Line that eschews traditional, endemic ideologies associated with cartesianism, planar vs. sectional spatiality, mutual exclusivity of public/private space, siloized zoning and centralized governance. The second half of the semester shifted scales, proposing various architectural/ infrastructural 'test fits' situated within the confines of our master plan. Common themes being explored across the studio involve; repositioning architecture as an ecology vs. static artifice, elevating/privileging the rural in our urban environments, typological hybridizations, preference towards threshold vs. boundary, temporality vs. stasis, episodic or time/ event-based evolution, etc.

Students:

John Baziuk Brennan Black Dustin Dodd Alana Kerr Jonathan Monfries Vijul Shah Faezeh Yousefi

Jurors

-Bernard Klumper (M0DA) -Michael Zabinski (Dialog + HLL Society) -Mikkel Bogh (EFFEKT – Copenhagen) -Trevor Boddy (TBD)

Background Links & Resources

www.moda.ca www.highlevelline.com www.vanalen.org/project/reimaginingbrooklyn-bridge/ www.effekt.dk







MTa

EMPATHY AND COMMUNITY IN ARCHITECTURE

Instructor(s): Jeff Lyness

Final Reviews

December 18 11:00-13:00

https://us02web.zoom.us/j/85355477972?pwd=RmpWWXRoO XpqdGVVUmRvSk1XS0V1Zz09

Meeting ID: 853 5547 7972 Passcode: 390170

Project Description

We are a precipice in social consciousness that demands a cultural shift in how we respond to the built environment through a more human centric focus. We have a responsibility not only to ourselves but to others and more importantly future generations to proactively respond to the social realities of our current time. Wit affordable Housing as a programmatic basis the studio is an exploration of the notions of empathy and community in a human centric approach to design can have a positive impact on the physical environment. The resulting projects being the embodiment of the determined ideals of the students..

Students:

Caleb Hildenbrandt Ugonna Ohakim John Rivera Destiny Kirumira Mojdeh Kamali Ryan Austin Mona Asadi

Jurors

Bryan Gartner – MTA Alison MacLachlan – MTA Audrina Lim – MTA Medhat Hanna - City of Calgary Affordable Housing Madyson Mackay - City of Calgary Affordable Housing









Zaha Hadid Computation and Design (ZHCODE)

MASS TIMBER HOUSING

Instructor(s): Shajay Bhooshan

Final Reviews

December 18 13:30-14:30

Join Zoom Meeting https://ucalgary.zoom.us/j/91520542196

Meeting ID: 915 2054 2196 Passcode: 579566

Project Description

ZHCODE is a practise-embedded research group focussing on strategic innovations that bridge from disciplinary advances to industrial applications. Our work, guided by our deeply held values of future oriented design also learns from the wisdoms of the past – particularly local and vernacular wisdoms in masonry and timber construction, climatic appropriateness and spatial arrangements and details.

The aesthetics of our designs is a consequence of its physical and social high-performance. They are powered by stateof-the-art, proprietary parametric design software and extensions along with game-engine based, web-integrated, participatory technologies. These tools are a result of over 13 years of dedicated and field-ready research spanning computer graphics, digital design, maturing robotic construction technologies, and historical construction in timber and masonry.

What:

A design research project at the intersection of modern methods of design and construction in timber and vernacular building and material cultures on Canada, particularly Alberta and British Columbia.

Background:

-Geometry based methods of reasoning about shape and construction

-Advances in Digital Manufacturing and Industrial Construction in Architecture.

-Advances in digital design technologies in Architecture -Need and desires for localisation and cultural adaptation in Architectural proposals

Application domains:

Multi-generational housing or high-value public buildings such as arenas, museums etc.

Students:

Rutvi Gajjar Darryl Pollock Ji Sun

Jurors

TBD

Background Links & Resources ZHCODE

http://www.zha-code-education.org/ https://www.instagram.com/shajay / https://www.instagram.com/zhcode/ https://www.archdaily.com/801031/ mathematics-the-winton-aallery-zaha-hadidarchitects https://www.designboom.com/architecture/ zaha-hadid-roatan-prospera-residenceshonduras-07-28-2020/ https://www.facebook.com/ watch/?v=1027996530871439 https://www.designboom.com/design/zahahadid-architects-thallus-sculpture-milan-designweek-2017-04-06-2017/ https://www.digitalfutures.world/workshopseurope-mideast-africa-blog/zahacode

AADRL

http://livingdisruptions.london/?page_id=1940 https://www.autodesk.com/redshift/future-ofurban-housing/

ETHZ

https://block.arch.ethz.ch/brg/people/shajaybhooshan

