

BRIDGING THE GAP STUDIO: Urban Design Education for a Global Community

MADLEN SIMON

University of Maryland

SHAIMAA HAMEED HUSSEIN

Al-Nahrain University

GREGORY WEAVER

University of Maryland

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Bridging the Gap studio brings US graduate students together with Iraqi graduate students for a collaborative urban design studio focusing on urban redevelopment proposals for selected commercial districts in the two capital cities of Washington DC and Baghdad. Each group serves as information sources, eyes-on-the-ground, cultural informants, fact-checkers, and design critics for their overseas counterparts. We communicate through multiple digital means.

The theoretical basis of the studio draws upon multiple disciplines. Initial motivation was citizen diplomacy, an international relations concept that engages private citizens in “individual endeavors that serve their own interests and diplomacy which includes a framework for cooperation between countries.”¹

A key theoretical underpinning of the studio is globalization, cutting across multiple disciplines, spanning practice and academia.² Initial support came from a multi-national design firm that viewed the studio as a vehicle for inculcating competencies of global practice. Interaction with the firm’s architects, including a studio design competition bringing US and Iraqi students to the Washington DC office for internships, shows students how practitioners put those cultural understandings and skills into action.

Globalization has also influenced the discipline of geography, leading to innovations in the field of comparative urbanism³ to work “across diverse human experiences.” Bridging the Gap Studio produces studies in comparative urbanism as the US and Iraqi students discover both similarity and difference in their focus districts.

The pedagogical method draws upon situated learning theory, positing that learning should take place in authentic practice settings and within social communities.⁵ While one could argue that every architectural design studio exemplifies situated learning, Bridging the Gap studio offers a particularly robust example, creating a setting that mimics global practice and a social community that includes inhabitants of the urban places under study.

INTRODUCTION

The paper focuses on a case study of architectural education in a virtual studio. First, the authors, two architecture faculty/scholars and one scholar of international education, define the virtual engaged international studio model, situating it within a taxonomy of models for international studio education.

We introduce the case study, a collaboration between the two architecture faculty’s studios at the University of Maryland in the United States and Al-Nahrain University in Iraq, discussing initial motivations, methods, and learning objectives for the case study studio. Next, we examine the virtual collaboration through multiple lenses in order to better understand its benefits, both shared and different, to the students on both sides of the globe. In conclusion, the authors discuss the model and its broader educational potential.

MODELS FOR INTERNATIONALIZATION OF STUDIO EDUCATION

International education is a feature of both Iraqi and American higher education, however, the context varies for both countries. Iraqi students on outbound exchange typically obtain degrees in universities outside the country. American universities offer a variety of year-long, semester-long, and short-term exchange programs and receive international students on exchange.^{6,7}

In the Western world, the discipline of architecture developed a culture of education abroad, dating back to the Grand Tour, an extended period of travel in which elite northern Europeans and Americans were introduced to the art and culture of France and Italy. The objective of the Grand Tour was to return with “an understanding of art and architecture formed by exposure to great masterpieces”⁸. While architectural education abroad programs still offer versions of the passive learning from observation of historic places featured in the Grand Tour, this paper focuses on internationalization of the active learning setting, architecture studio. Following is a taxonomy of international architecture studio education models, with examples of studios faithful to the model, as well as hybrid versions spanning categories.



Figure 1. Al-Nahrain University student and faculty members of Bridging the Gap Studio 2019. Image by author.

STUDIO ABROAD

Iraqi architecture students may engage in international studios within the context of earning degrees abroad. While it is fairly rare for American students to pursue their undergraduate and graduate degrees abroad, degree acquisition abroad is encouraged in Iraq as a way to build a cadre of faculty who would improve Iraqi education.⁹ Iraqi students of architecture studying in universities abroad are engaged with American and, often, other international students in the design studios. Short-term study abroad programs are not a feature of Iraqi universities as they are at American universities. Many Iraqi students and faculty members have studied abroad through this program, including some in the United States. Iraqi mobility to the United States has become increasingly difficult since President Trump signed Executive Order 13769 naming Iraq in the Travel Ban, curtailing opportunities for Iraqi and American students to interact in the context of architecture design studios.^{10 11 12}

TRAVELING STUDIO

In the traveling studio model, students and faculty typically travel abroad from their home institution for a short period of time to research a site, consult stakeholders and/or local experts, return to their own institution, and design for the place they have visited. The Rotch Traveling Studio Grant was created in 2008 to support this model. This scholarship represented an evolution of the original Rotch Traveling Scholarship, created in 1883, to fund two years of travel abroad on the model of

the Grand Tour. The Rotch Traveling Studio Grant responded to growing interest in active learning, rather than passive viewing, during international travel. The initial winner was Parsons: the New School for Design's Bangkok's Three Ecologies Studio. Along with two site-specific learning objectives, the generalizable design process learning objective was "...to provide students with the social observation, notational and survey tools to be able to provide the basis of the design of urban institutions and spaces which can accommodate the logistics of daily life..." RPI's Old Agra: Upcycling of Agrowaste Studio, supported by the Rotch Traveling Studio Grant, is an example that adds a high level of engagement to the model, as well as a high level of on-site design activity, with local stakeholders collaborating with students in the design process.¹³

IMMERSIVE STUDIO

In the immersive studio, students and sometimes also faculty from one country spend a semester (or other significant amount of time) on location abroad, get to know a site and its context, interact with stakeholders and/or local experts, and design for their location. An example of this model is Georgia Tech's Architecture Undergraduate Design Studio.¹⁴ A variation of this model is Harvard Graduate School of Design's Studio Abroad, where students travel from the United States to a destination abroad, for example, Tokyo, to engage in an architecture studio under the tutelage of a distinguished local architect.¹⁵



Figure 2. University of Maryland student members of Bridging the Gap Studio. Image by author.

ENGAGED STUDIO

Students travel abroad and collaborate with local students to undertake a project in their country. University of Maryland's St. Petersburg Urban Redevelopment Studio, for example, brings students and faculty from the U.S. for a month-long studio collaboration with Russian students and faculty at St. Petersburg State University of Architecture and Civil Engineering International, multi-disciplinary student teams focus on a local redevelopment site, negotiating divergent cultural perspectives and practices through the design process.

VIRTUAL ENGAGED INTERNATIONAL STUDIO

This model is named the Virtual Engaged International Studio to distinguish it from the broader concept of deploying digital technology to immerse students in virtual environments or enable remote or blended learning in the architecture studio. In the virtual engaged international learning studio model, students in one country collaborate virtually with students in another country. The authors are not aware of any examples of this model outside of their own Bridging the Gap Studio. We identified two articles on virtual international studio collaborations, however have not yet discovered actual applications of the concepts discussed therein.^{16 17}

VIRTUAL ENGAGED INTERNATIONAL STUDIO CASE STUDY

Bridging the Gap studio brings Iraqi and American graduate students together in a virtual collaborative urban design studio focusing on urban redevelopment proposals for selected commercial districts in the two capital cities of Washington D.C. and Baghdad. The studio is jointly led by an American professor and an Iraqi professor, with approximately a dozen graduate students in each location. (Figures 1 and 2)

Students provide information about their local sites, then create proposals for each other's cities. Each group serves as information sources, eyes-on-the-ground, cultural informants, fact-checkers, and design critics for their overseas counterparts. We communicate through multiple virtual spaces including WebEx videoconferences, Google Drive, and Facebook. (Figure 3)

The studio grew out of conversation five years ago between two architects in Washington, D.C. who wanted to bridge the gap of cultural understanding between the U.S. and Iraq, following recently ended war between the two countries. Due to isolation during conflict, Americans and Iraqis tended to know one another only through media coverage of war. The project initiators approached the Washington, D.C. office of a large multinational firm with a proposal for a joint studio and gained funding through its in-house kick-starter-type program. The firm reached out to universities in both countries to become academic partners in the proposed studio. An expanded group of professional partners assisted in forming the working relationship between designated faculty in the two collaborating institutions.

ANALYSIS THROUGH MULTIPLE LENSES

As we created Bridging the Gap Studio, our professional partners' commitment to intercultural communication and preparation for global practice resonated with us. Throughout the five year collaboration we have discovered additional and more nuanced learning objectives and benefits to students, as well as to our own development as faculty and scholars. The following discussion trains a series of analytical lenses on the collaboration in order to examine some of the concepts that have revealed themselves as our pedagogical model has matured.

LENS 1: CITIZEN DIPLOMACY

The initial motivation was citizen diplomacy, an international relations concept that engages private citizens in "individual endeavors that serve their own interests and diplomacy which includes a framework for cooperation between countries"¹⁸. The collaboration was built upon such frameworks, including a memorandum of understanding between the two universities. The collaboration continued to grow in this direction, gaining funding from IREX, an organization that "support(s) individuals and institutions to create change in their own communities – and to create person-to-person bridges between nations."¹⁹ The shared discipline of architecture was the proposed bridge between students in the U.S. and Iraq. Architecture, with its shared visual representational language, design process methodologies, and appreciation for the built environment, seemed to offer good potential for creating common ground among participants.

Bridging The Gap- Private Group-UMD + NU

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All,
Please find the attached for my proposal for Karrada District Design Centre. It would be greatly appreciated if you could provide some critiques and I would be happy to answer any questions. I look forward to see your proposals for K Street in D.C. soon!

Thanks,... [See More](#)

Karrada District Design Centre Re-imagining the Tigris Riverfront

Exterior Perspective From Street Level

The design seeks to reconnect people from Karrada after decades of neglect. A portion of the historic Plaza, which was once a vibrant public space, is being reimagined as a modern pedestrian plaza. The design seeks to reconnect people from Karrada after decades of neglect. A portion of the historic Plaza, which was once a vibrant public space, is being reimagined as a modern pedestrian plaza. The design seeks to reconnect people from Karrada after decades of neglect. A portion of the historic Plaza, which was once a vibrant public space, is being reimagined as a modern pedestrian plaza.

You, Kabas Hameed, Arch Aisha and 5 others 1 Comment Seen by 35

Like

Comment

Shams Qais good job, I really like your concept to re connect karrada to the tigris river ,especially you think to get the priority to the pedestrians 🚶

Like · Reply · 21w · Edited

Figure 3. A private Facebook group is a space for sharing files and critique with current students, alumni, and professional advisors. Image by Paris Gijoon Sim, Shams Qais, and author.

SITE PLAN



Site Plan - Proposed design



Franklin square park



Franklin square park

Figure 4. Student team proposal for K Street. Image by Heba Amer Dawood, Aisha Alaa Salih, abnd Kabas Abdul Hameed Salman.

LENS 2: GLOBALIZATION

A key theoretical underpinning of the studio is globalization, cutting across multiple disciplines, spanning practice and academia.²⁰ The motivation of the sponsoring firm was educating students for global practice. The multi-national design firm viewed the studio as a vehicle for inculcating competencies required of their architects, who regularly engage with colleagues and clients around the world. The firm hosts videoconferences, workshops, and reviews. Interaction with the firm’s architects, including a studio design competition that brought US and Iraqi students to the Washington D.C. office for

internships, shows the students how practitioners put cultural understandings and skills into action. The comparative view of urban issues in each other’s countries also makes students aware of the degree to which current challenges, such as climate change and rapid urbanization, are global phenomena requiring international perspectives.

The timing of the studio coincided with the creation of the American partner university’s Global Classrooms Initiative for the development of courses that “aim to provide our students with international experiences that mirror the kind of work they will encounter throughout their lives: cross cultural,

project-based and virtual.”²¹ Bridging the Gap Studio was competitively selected for funding through this program, linking it formally to the strategic objectives of the American university. A Memorandum of Understanding signed by both the American and Iraqi universities further aligned the individual faculty’s interests with both institutions’ global agendas.

LENS 3: COMPARATIVE URBANISM

As the cross-cultural, academy/practice collaboration evolves, we continue to discover additional lenses through which to view the studio. Globalization has influenced the discipline of geography, leading to innovations in the field of comparative urbanism to work “across diverse human experiences.”²² ²³ Bridging the Gap Studio produces studies in comparative urbanism as the US and Iraqi students discover both similarity and difference in their focus districts. We tried out three site pairs during the three iterations of the studio. In the first year, we juxtaposed two urban circles, Washington Circle in Washington, D.C, and Tahrir Square (actually a circle) in Baghdad. While students found common issues in dealing with circular urban public spaces in the two cities, the cultural issues were somewhat peripheral to the formal focus of the design investigations. The project surfaced some understanding of different lived experiences in the two cities, but these insights lacked a clear comparative framework.

In year two, we focused on function rather than form type, taking the marketplace as our comparative theme. We began with case studies of market typologies around the world in order to survey a variety of cultural approaches to buying and selling. We selected sites representing typical Iraqi and American retail settings. The Baghdad site was Karrada District, centered on a historically lively urban retail street suffering from massive loss of life and destruction of buildings in two recent terrorist bombings targeting the area. For comparison, we selected a “dead” mall in the Washington, D.C. metropolitan area. The juxtaposition of sites led to comparisons of shopping and entertainment experiences in Iraq and the U.S. In retrospect, the differences were too stark between the vibrant human-scaled urban street embedded in a neighborhood vs. the hulking empty monolith of the mall rising out of a sea of parking and cut off from community by high-speed roadways. While the projects gave the students opportunities for dialogue, they were not fertile ground for comparative urbanism.

In the third iteration, the American professor was keen to revisit the Karrada District, because we had begun to develop understanding of the place and appreciation for its history, culture, and challenges. The Iraqi professor insisted that we select an urban street in Washington, D.C, a prestigious downtown thoroughfare, for comparison. This tightly focused investigation of human experience on commercial streets in the capital cities of Iraq and the United States enabled significant comparative insights. Particularly vivid graphic comparison of urban scales resulted from the juxtaposition of same-scale maps of the commercial corridors under study, Washington’s K Street and Baghdad’s Karrada Dakhil. We compared Karrada Dakhil’s fine

grained buildings opening to outdoor spaces with K Street’s massive enclosing structures. Discussion of activities in the two places, the Iraqi street that comes alive in the evenings and the U.S. street that is only active from 8am to 6pm helped us to understand the role of climate in culture, when we compared daily patterns in the extreme summer heat of Baghdad to those in the more bearable Washington summer. Discussion of demographic changes over time surfaced discussions of diversity, urban conflict, changing patterns of settlement, urban violence, and place-based memory. Buildings are boxes of memories, so when terrorists target buildings, they are attacking the memories of the inhabitants.²⁴ American students learned that the Karrada District was historically the most diverse district of Baghdad, bringing together Sunni and Shiite Muslims, Christians, and Jews, producing a vibrant hub of arts and culture. Although Christians and Jews have emigrated and Sunni, and Shiite residents have self-segregated, Karrada continues to retain the memory of multi-cultural harmony, serving as the target of sectarian violence aiming to destroy that legacy. Preservation of memory and restoration of multi-cultural peace became a potent theme in designs for Karrada.


Freedom from Washington’s traditions animated the Iraqi students’ projects. The Iraqi students identified urban problems of K Street that they felt required radical solutions. Key issues were the homogeneity of the population, paucity of opportunities for eating and gathering, impermeability of buildings, lack of activity evenings and weekends. The U.S. based students were struck by the innovative solutions produced by students who did not feel constrained by the historic norms of architecture and urbanism that the local students take for granted.

LENS 4: PEDAGOGICAL THEORY AND METHODS

The pedagogical method draws upon situated learning theory, positing that learning should take place in authentic practice settings and within social communities.²⁵ One could argue that every architectural design studio exemplifies situated learning to some extent, because learning is typically centered around a place-based project. The traveling studio model makes place vivid, by immersing students in an unfamiliar setting. The engaged international studio model adds in the component of learning within the social community of local architecture students. Bridging the Gap studio offers a particularly robust example of situated learning, by creating a learning context that mimics authentic global practice and a social community that includes inhabitants of both urban places under study. The social context of the studio education is particularly interesting, serving as content as well as context. Students are motivated to learn about the contexts within which they are designing, creating a necessity for the intercultural dialogue that is an objective of the studio.

This virtual studio uses a blended learning model to create the context and community. We work asynchronously in our own studios and online and meet synchronously for presentation and discussion of analysis and design proposals. Continuing improvements in digital tools have facilitated collaboration.


RE-DEVELOPMENT OF KARRADA DISTRICT Capitalizing on Density: Commercial & Residential



Empathizing with Karrada District

Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> -High pedestrian traffic -Diverse Amenities -Riverfront (Tigris River) -Food, Restaurants, Ice cream, -Fish -Mixed uses in close Proximity 	<ul style="list-style-type: none"> -High vehicular traffic -Hot Climate -Inadequate Electricity -Vendors spill into parking -Narrow blocks in places -Bad building conditions 	<ul style="list-style-type: none"> -Open space on waterfront -Vacancies -High density -Commercial district 	<ul style="list-style-type: none"> -Climate -Flooding -Sandstorms -Terrorism

Exiting Site Conditions



Defining Potential Needs for Karrada District

- Need more functional roadways
- Need organized and reliable transit
- Need more Housing types
- Need safety in transit for pedestrians
- Need more social hubs
- Need established districts
- Need Shade

Business Owner- Commuter

Mushta al-Amir
Age: 33
Job: Vendor

Mushta has lived in Karrada his whole life. When he is exhausted he goes to the terrace of Scheherzade

He says the statue changes his mood. "It gives you comfort, especially with the psychological pain inside because of the situation here."

Family/ Children- Pedestrian

Saya Essa
Age: 27
Job: Plumber

Saya used to shop at the markets in Karrada everyday but is afraid of another attack.

Saya devotes hours every day to supporting her family. Karrada is the one place she can get all her family needs quickly enough to spend time with them too.

Commuter-Pedestrian-College Student

Zaynah al-Maloof
Age: 21
Job: History Student

Zaynah battles crowds and traffic on her daily commute to the university from her apartment in Karrada.

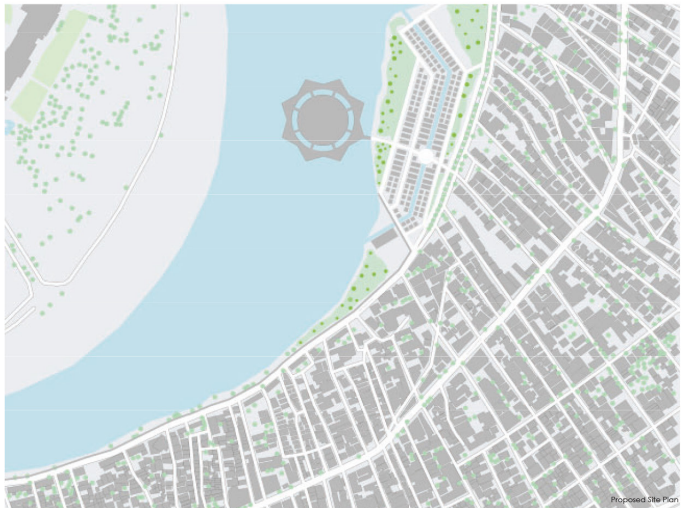
Zaynah loves to spend her free time in parks and nature. A history student, Zaynah wishes she could see historic orange gardens and greenery in Karrada.

Commuters

Nayyef & Btooo
Age: 24 and 25
Job: Sp and Translator


Nayyef and Btooo are a couple who found their love fleeing Iraq. They are still looking for acceptance.

Nayyef and Btooo are waiting for Karrada to become the center for diversity, intellect, and acceptance it was many years ago.



Canals of Amsterdam

Over 400 years ago, the government of Amsterdam employed the design of canals into their city to solve the problem of inundation, because the city is located several meters below sea level. Not only did the canals fix that issue, but the canals have also become a major spot for tourism. And also improved the comfort of the users in the surrounding buildings.



The London Eye

The London Eye is located on the south bank of river Thames. Its distinct height amongst its surrounding structures, and strategic location makes it a hot spot for tourists. With a diameter of 394 Feet, it offers the highest viewing point in the city. The aforementioned strategies will be implemented in Karrada.




Figure 5. Student team project for Karrada District. Image by Rachel Cain and Toshi Ohakawa.

Google Drive permits easy exchange of files, far simpler than the ftp site we began with five years ago. Webex and Skype permit file sharing during virtual meetings, although our synchronous communications are challenged by software glitches, electrical outages, and internet shutdowns. A private Facebook group has built an online community over the past five years, including current students and alumni of the studio, as well as faculty and practitioner-mentors. The group is a venue for sharing questions, concepts, design proposals, and critique with the community.

The studio pedagogy is also influenced by the human-centered design thinking method taught at the Stanford d.school. The five step process begins with empathy, grounding design in a deep understanding of the users.²⁶ In Bridging the Gap Studio, students begin the urban design projects with research on people and place in their home cities, exchanging that information with counterparts abroad. Students are encouraged to create personas to give insight into the people who live, work, shop, eat, and create in their study districts. Situating the Baghdad urban design project within the Karrada District, where images of the site documented recent death and destruction at the hands of terrorist bombers, sparked empathy in the U.S students and forged an emotional connection to the people and place for whom they were designing. Evidence of this empathy for their clients across the globe is present in

the students' focus on memorializing lives lost and promoting peace in their design interventions for the district. As the U.S. students learned more about the city of Baghdad and realized that their Iraqi counterparts cross this district on their way to the university, they came to understand how the threat of violence impacts the lives of their fellow students in that city.

The key role of empathy in bridging cultural gaps is discussed by Michael Vande Berg In his presentation on Intercultural Learning through Education Abroad: Theories, Processes, and Practices.²⁷

LENS 5: STUDENT MOBILITY AND GLOBAL STANDARD OF EDUCATION

Iraqi architectural education has suffered from isolation. While there were international students studying in Iraq prior to the start of the war in 2003, there are currently none. Although the Iraq Education Initiative was founded at the end of the war to send Iraqi students to study abroad, recent immigration policy changes restrict access of Iraqi students to educational opportunities in the U.S. Early in our collaboration, the architecture faculty discovered that visual communication abilities of Iraqi students fell short of international standards. This deficit reduced the ability of the U.S. and Iraqi students to communicate architectural concepts effectively. In a broader sense, it also prevented Iraqi students from competing

effectively for international graduate education and employment. This discrepancy between the abilities of the U.S. and Iraqi students formed the basis for a grant application to IREX, a foundation which “works with partners in more than 100 countries in four areas essential to progress: empowering youth, cultivating leaders, strengthening institutions, and extending access to quality education and information.”²⁸ The resulting award funded a three-week workshop for faculty from two Iraqi schools of architecture at the U.S. partner institution to develop their capacity to teach graphic design principles and practices for architectural communication. The workshop was designed to improve Iraqi architectural education by teaching the faculty who would, in turn, teach the students who would become future faculty at schools of architecture around Iraq. Current travel restrictions would likely make such a workshop impossible today. This points out the importance of the virtual collaboration to break down barriers to mobility of students and faculty.

A measure of the success of the collaboration in elevating the Iraqi students’ visual communication abilities to a global standard is the recent award of an Architect Magazine Studio Prize 2019 to Bridging the Gap Studio, recognizing the collaborative work of the Iraqi and U.S. students and faculty.²⁹

The studio has also been recognized by competitive selection for funding by the University of Maryland’s Global Classrooms Initiative. While Bridging the Gap Studio is one of several of these courses to break down barriers to student mobility through virtual collaboration across geography and time, it is the only Architecture studio to receive this recognition.

LENS 6: INTERCULTURAL COMPETENCE AND POST-HUMAN THEORY

While we began our collaboration with the confidence that it would bridge the cultural gap, we have learned through our research that architectural design is actually an effective vehicle for developing intercultural competence through international education. Intercultural competence theory identifies a series of steps along a continuum from the monocultural mindset to the intercultural/global mindset: from denial of difference through polarization, minimization, acceptance, to adaptation³⁰. In an article applying intercultural competence theory to education abroad, Hammer writes, “This research has identified the following program components as most influential in building intercultural competence during study abroad: cultural mentoring, learning about patterns of cultural differences, reflection on intercultural experiences, active involvement in the cultural setting, pre-departure and reentry preparation, and onsite intercultural interventions.”³¹ While some of these steps are necessarily absent in this virtual collaboration that does not involve actual travel, other influential components are featured. Using an urban design project as a focus for active learning engages students in learning about patterns of cultural difference. Discussing and critiquing each other’s design proposals engages students in reflecting on intercultural experiences. While students are not physically present within

the urban design site, the fact that they are conducting a design thinking process engages them actively in the cultural setting. Furthermore, the authors would argue that the urban design process engages students in onsite intercultural interventions.

While the discipline of anthropology was built upon the philosophies differentiating self and other,³² post-human theory posits that “we-are-in-this together-but-we-are-not-one-and-the-same.”³³ It seems that this is the ideal we strive for. Rather than engaging in the investigation of one another’s contexts and cultures from an anthropological framework of otherness reinforced by the fact that our nations have recently been at war, we aspire to a sense that we are all citizens of our planet and invested in a shared future.

VALIDATION OF THE MODEL AND NEXT STEPS

This is a challenging studio model that takes students outside their familiar social circles and knowledge base, challenges them to open themselves to new experiences, communicate in new ways, challenge their assumptions, develop new competencies, and at the same time, produce competent design projects. The pedagogical model has been validated in several ways. The studio collaboration has been peer reviewed through multiple competitive selections for funding by three different types of institutions, a multi-national design firm, an international non-profit, and a public research university. And, finally, the quality of the course design and student work has been peer reviewed and recognized internationally by the award of the Studio Prize.

With the addition of a scholar of international education to our team, we have the opportunity to move beyond anecdotal, qualitative description to more sophisticated analysis of student outcomes. Research has demonstrated the studio follows several of the practices correlated with successful development of intercultural competencies in students. Our next step in validating the pedagogical model is to assess the Bridging the Gap Studio students’ development over the course of the semester to confirm that correlation in our program.

As we strive to increase intercultural engagement, our greatest obstacle is the difficulty of communicating synchronously across a nine hour time difference and varying studio schedules. These difficulties are exacerbated by unreliable electricity and internet service that experiences outages and shut-downs due to the economic and political situation. Another important challenge going forward is to mentor new leaders to continue the collaboration. The Iraqi school is leading the way, with broader faculty participation and students who participated as undergraduates returning to the studio as graduate students. The American school has the potential to draw upon practitioner/mentors in the local professional community, including several alumni of the program who have stayed involved as design critics at workshops and reviews.

While the case study we presented focuses on architecture as a cultural connector, we hypothesize that faculty in other disciplines could adopt this virtual engaged international studio model, leveraging shared academic cultures to bridge space and time when student mobility is not possible.

ENDNOTES

- Rajika Bhandari and Raisa Belyavina, "Evaluating and Measuring the Impact of Citizen Diplomacy: Current Status and Future Directions," (Institute of International Education, 2011), 3.
- Anthony King, "Architecture, Capital and the Globalization of Culture," *Theory, Culture & Society* 7, no.2-3 (June 1990): 397-411.
- Jennifer Robinson, "Thinking Cities through Elsewhere: Comparative Tactics for a More Global Urban Studies," *Progress in Human Geography* 40, no.1 (February 2016): 3-29.
- Colin McFarlane and Jennifer Robinson, "Introduction - Experiments in Comparative Urbanism," *Urban Geography*, 33:6 (2012): 765-773.
- Jean Lave and Etienne Wenger, "Situated Learning: Legitimate Peripheral Participation," in *Learning in Doing: Social, Cognitive and Computational Perspectives* (Cambridge: Cambridge University Press, 1991).
- Madlen Simon, "Design Thinking for the Global Community in an Age of Disruption," in *Happiness: The Built Environment Shaping the Quality of Life*, ed. Kate Wingert-Playdon and Hazem Rashed-Ali (ARCC-EAAE, 2018), Vol.2, 340-348.
- Madlen Simon, "Future Studio: preparing students for practice in the global context," in *Architectural Research Addressing Societal Challenges*, ed. Manuel Couceiro da Costa et. al. (Boca Raton, FL: Taylor & Francis Group, 2017), 875-880.
- "The Grand Tour," Heilbrunn Timeline, Metropolitan Museum, accessed October 12, 2019, https://www.metmuseum.org/toah/hd/grtr/hd_grtr.htm.
- Iraq Education Initiative website, accessed October 13, 2019, http://www.hcediraq.org/HCED_english_website/aboutus.html.
- "Protecting the Nation From Foreign Terrorist Entry into the United States," *Federal Register*, January 2017, <https://www.federalregister.gov/documents/2017/02/01/2017-02281/protecting-the-nation-from-foreign-terrorist-entry-into-the-united-states>.
- "Protecting the Nation From Foreign Terrorist Entry into the United States," *Federal Register*, March 2017, <https://www.federalregister.gov/documents/2017/03/09/2017-04837/protecting-the-nation-from-foreign-terrorist-entry-into-the-united-states>.
- "Executive Order Entry Ban," Legislation Updates, 2018, NAFSA website, https://www.nafsa.org/Professional_Resources/Browse_by_Interest/International_Students_and_Scholars/Executive_Order_Entry_Ban_Litigation_Updates/.
- "Rotch Traveling Studio," Rotch Traveling Studio website, accessed October 12, 2019, <http://rotch.org/studio/2008/2008-studio-submission.pdf>.
- School of Architecture, Georgia Tech University website, accessed October 12, 2019, <https://arch.gatech.edu/international-education>.
- "Studio Abroad," Harvard Graduate School of Design, accessed January 12, 2020, <https://www.gsd.harvard.edu/studio-abroad/>.
- R. Niculae, "The Virtual Architectural Studio - An Experiment of Online Cooperation," *Review of Applied Socio-Economic Research, Pro Global Science Association* 1 (July 2011): 38-46.
- N. Zemmouri and M. Zemmouri, "Virtual Design Studio, new ways of practicing architecture and teaching design in collaboration," abstract on Research Gate, accessed October 16, 2019, https://www.researchgate.net/publication/251949510_Virtual_Design_Studio_new_ways_of_practicing_architecture_and_teaching_design_in_collaboration.
- Rajika Bhandari and Raisa Belyavina, "Evaluating and Measuring the Impact of Citizen Diplomacy: Current Status and Future Directions," (Institute of International Education, 2011), 3.
- IREX website, accessed June 19, 2019, www.irex.org.
- Anthony King, "Architecture, Capital and the Globalization of Culture," *Theory, Culture & Society* 7, no.2-3 (June 1990): 397-411.
- "Global Classrooms Initiative," Office of International Affairs website, University of Maryland, accessed October 15, 2019, <https://globalmaryland.umd.edu/offices/office-international-affairs/global-classrooms-initiative>.
- Jennifer Robinson, "Thinking Cities through Elsewhere: Comparative Tactics for a More Global Urban Studies," *Progress in Human Geography* 40, no.1 (February 2016): 3-29.
- Colin McFarlane and Jennifer Robinson, "Introduction - Experiments in Comparative Urbanism," *Urban Geography*, 33:6 (2012): 765-773.
- Shaimaa Hameed Hussein, Z.R. Abdulla, and N.M.Daood, "Urban Regeneration through Post-War Reconstruction: Reclaiming the Urban Identity of the Old City of Mosul," *Periodicals of Engineering and Natural Sciences*, 7, (2019): 1.
- Jean Lave and Etienne Wenger, "Situated Learning: Legitimate Peripheral Participation," in *Learning in Doing: Social, Cognitive and Computational Perspectives* (Cambridge: Cambridge University Press, 1991).
- "Design Thinking Bootleg," Stanford d.school website, Stanford University, accessed October 13, 2019, <https://dschool.stanford.edu/resources/design-thinking-bootleg>.
- M. Vande Berg, "Intercultural Learning through Education Abroad: Theories, processes, and practices," *From the Inside Out: Transformative Learning and Teaching*, accessed October 13, 2019, <https://prod.wp.cdn.aws.wfu.edu/sites/18/2016/03/Training-WISE-workshop-second-version-2-3-16.pdf>.
- IREX website, accessed June 19, 2019, www.irex.org.
- Katie Gerfen, "The Studio Prize," *Architect Magazine*, (September 2019): 108-111.
- M. Hammer, "Additional cross-cultural validity testing of the Intercultural Development Inventory," *International Journal of Intercultural Relations*, vol 35, 2011: 474-487.
- M. Hammer, "The Intercultural Development Inventory: A new frontier in assessment and development of intercultural competence," in *Student Learning Abroad*, ed. M. Vande Berg, R.M. Paige, & K.H. Lou (Sterling, VA: Stylus Publishing, 2012) 115-136.
- Sundar Sarukkai, "The 'Other' in Anthropology and Philosophy," *Economic and Political Weekly* 32, no.24 (1997): 406-409, <http://www.jstor.org.proxy-um.researchport.umd.edu/stable/4405512>.
- R. Braidotti, "All Too Human: The Memoirs and Aspirations of a Posthumanist," *The Tanner Lectures on Human Values, Yale University* (2017): 23, accessed October 13, 2019, <https://tannerlectures.utah.edu/Braidotti%20Lecture.pdf>.