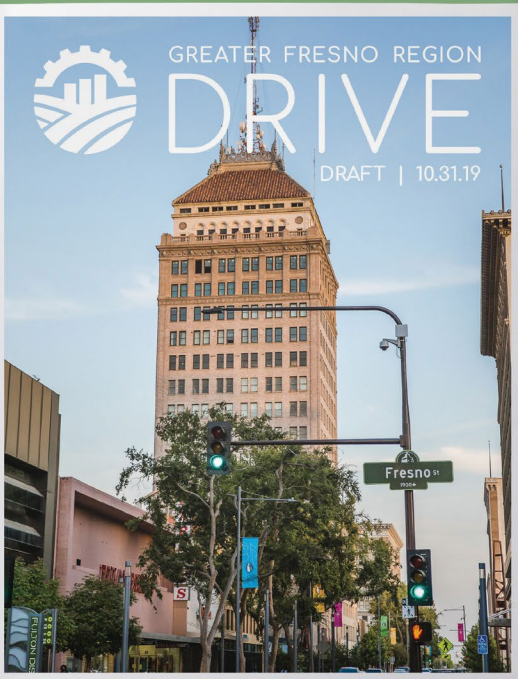


installation | **graphic design** | exhibition & environmental design





A world-class "precision food systems" industry cluster that supports advanced, sustainable agricultural production and food manufacturing, focused on cross-disciplinary engineering capabilities in digitalization and data science, mechatronics, equipment, and systems integration.

OVERVIEW & VISION

The Greater Fresno Region is globally distinctive and recognizable for its agricultural economy. The epicenter of California's San Joaquin Valley, known as "the food basket of the world," the region accounts for more than 57 billion in agricultural commodities production per year. Thus, the region also holds a notable concentration of related industry assets - from food processing, to digital crop management and harvesting robots, to irrigation equipment manufacturing. It is anchored by higher education institutions and some corporate research units along a 75-mile highway (and future high-speed rail corridor) stretching from Merced to Kingsburg, including innovation and talent drivers like UC Merced, Fresno State, UC ANR Kearney Agricultural Research and Extension Center, community colleges, and targeted accelerators. No other regional traded sector compares in scale and strength.

However, the Greater Fresno Region does not fully leverage its collection of assets, firms and talents, nor is the ecosystem as robust as expected. The agricultural economy remains predominantly commodity-based and slow-growing, failing to produce the quality jobs its residents need. The sector is not organized to maximize the potential of fragmented resources. The region struggles to spur, adopt, and commercialize innovations that can help move up the value chain, diversify into product and services related to local industry, but exportable themselves.

- The Fresno Future of Food (F²) Innovation Corridor aims to change this dynamic, leveraging its existing agri-food foundation and engineering DNA to develop a distinctive, world-class "precision food systems" cluster encompassing cross-disciplinary applications in:
- Digitalization and data science (collection, artificial intelligence analysis, applications)
 - Mechatronics (automation, drones and robots, "Internet of things")
 - Equipment and manufacturing (production, processing, biomass) and
 - Systems integration and validation (third-party product demonstrations and testing).

This scope and focus positions the region at the forefront of an emerging industry, responding to global food and sustainability needs, untapped adoption of technologies, and burgeoning market demand. Estimated agri-food tech revenues of \$4.75 billion globally are forecasted

ECONOMIC DEVELOPMENT

to grow 12-14% annually over the next 5 years.¹ Annual global investment in agri-food tech more than tripled to \$10 billion between 2012 and 2017.² The sector also affords opportunities for diversification with crossover to other industries of expertise developed such as sensors, unmanned aircraft systems, blockchain, and artificial intelligence. This cluster represents a niche among the food innovation research assets in California, and a space in which Fresno and the surrounding San Joaquin Valley region are uniquely positioned to win in the global arena.

87th

in GDP per capita among the 100 US metros

THE PROBLEM
Fresno's economy lacks the types of industries and jobs needed to support long-term, inclusive economic growth. The Greater Fresno Region's economy has historically consisted primarily of agriculture and local-serving industries that create mostly low-wage and low-skill jobs. Only 20% of Fresno's economy is comprised of exportable sectors (compared to approximately 51% for the US as a whole).³ This largely non-export economy leads to a slower growth, less robust economy that is largely capped by local demand, with Fresno ranking 87th in GDP per capita among the top 100 U.S. metropolitan areas.⁴ Moreover, the lack of knowledge-economy, exportable industries limits the presence of higher-wage, higher-skilled jobs and reduces employment opportunities across wage and skill levels. For example, Fresno has fewer good and promising high-skilled jobs⁵ than other top metros, with only 17% of Fresno's jobs being high-skilled vs. 23% for the top 100 U.S. metros.⁶ Slowed economic growth is disproportionately felt by communities of color, with poverty rates among Asian, Latino, and Black Fresnoans two to three times that among White residents.

The R&D, commercialization, and innovation ecosystem is underdeveloped. The region lacks the research and development activity necessary to spur ground-breaking commercialization and innovation. Relative to peer California regions including Bakersfield, Los Angeles, Riverside, Sacramento, San Diego, San Francisco, and Stockton, Fresno's R&D funding per capita in 2017 was 1/200th that of its peer average (Fresno per capita R&D funding of \$8 vs. \$240 for peer average).⁷ The region's two largest research institutions, UC Merced and Fresno State, together accounted for \$4.3 million in R&D expenditures in 2017; by contrast UC Davis alone accounted for \$739 million in R&D expenditures in the same year.⁸ Fresno is an aberration among US metropolitan areas with nearly 1 million people, as one of only six in the nation that lacks a top-tier research university.⁹ This lack of investment in R&D leads to an underdeveloped and lagging commercialization and innovation ecosystem.

1/200th

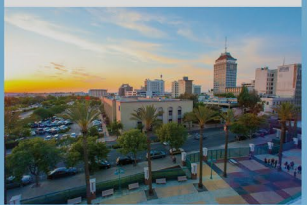
Total venture capital dollars per capita in Fresno relative to California peers

For example, the Fresno region produces 1 patent per 10,000 people compared to 7 per 10,000 for its California peer regions.¹⁰ Limited commercialized research and its lack of export-based industries also limits the robustness of its entrepreneurial ecosystem. For example, total venture capital dollars per capita in Fresno are less than 1/200th the California peer average (\$33 per capita compared to ~\$7,000 per capita between 2014-2016).¹¹

¹ National Bureau of Economic Research, "U.S. Economic Outlook: A Dismal Future?", 2019. ² Statista, "Global Investment in Agri-Food Tech", 2019. ³ Bureau of Economic Analysis, "GDP by Sector", 2019. ⁴ Bureau of Economic Analysis, "GDP by Metro Area", 2019. ⁵ Bureau of Economic Analysis, "GDP by Metro Area", 2019. ⁶ Bureau of Economic Analysis, "GDP by Metro Area", 2019. ⁷ Bureau of Economic Analysis, "GDP by Metro Area", 2019. ⁸ Bureau of Economic Analysis, "GDP by Metro Area", 2019. ⁹ Bureau of Economic Analysis, "GDP by Metro Area", 2019. ¹⁰ Bureau of Economic Analysis, "GDP by Metro Area", 2019. ¹¹ Bureau of Economic Analysis, "GDP by Metro Area", 2019.

EXECUTIVE SUMMARY

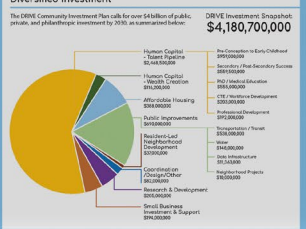
The Fresno DRIVE Initiative
The Fresno DRIVE Initiative is a 10-year Community Investment Plan (CIP) with four focus areas: 1) Economic Development, 2) Human Capital, 3) Neighborhood Development, and 4) Environmental Sustainability. The CIP is designed to address the region's economic challenges and create a more inclusive, vibrant, and sustainable future for all residents.



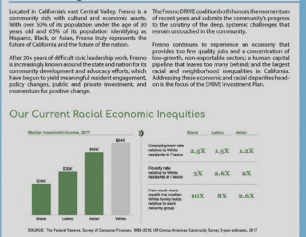
The Impact of DRIVE



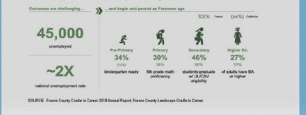
Diversified Investment



Our Starting Point



Our Current Human Capital Pipeline



Our 10-Year Aspirational Goal

VISION: To create opportunities for all residents to achieve real economic mobility by fostering an economy that is inclusive, vibrant, and sustainable.

MEASURABLE OUTCOMES:

- ECONOMIC DEVELOPMENT:**
 - Increase the number of good and promising jobs across all educational levels
 - Attract significant, new capital investment
 - Reduce racial and ethnic economic disparities
 - Develop a robust small business and entrepreneurship ecosystem
- HUMAN CAPITAL:**
 - Improve early childhood development and outcomes across all educational levels
 - Support reskilling/upskilling of current workers to prepare them for better jobs today and tomorrow
 - Increase participation and completion of career technical education and other credentialing programs
 - Increase production of post-secondary graduates in high-growth, high-wage disciplines (engineering, computer science, etc.)
- NEIGHBORHOOD DEVELOPMENT:**
 - Improve housing affordability and stability
 - Reduce racial and economic isolation
 - Support environmental justice and sustainability

Our Roadmap

The Draft DRIVE Community Investment Plan (CIP) (A-AG-GR)
Developing the Draft DRIVE Community Investment Plan begins with a community-wide inventory of existing resources, assets, and challenges. This process involves a series of community meetings, surveys, and consultations with stakeholders. The CIP is designed to address the region's economic challenges and create a more inclusive, vibrant, and sustainable future for all residents.

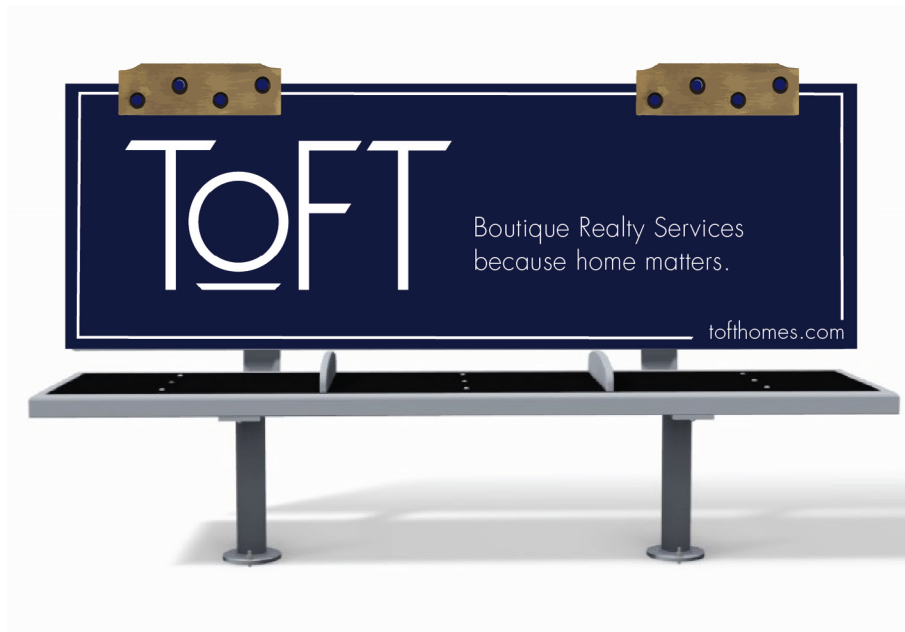
ECONOMIC DEVELOPMENT: Focus on increasing the number of good and promising jobs across all educational levels, attracting significant new capital investment, and reducing racial and ethnic economic disparities.

HUMAN CAPITAL: Focus on improving early childhood development and outcomes, supporting reskilling/upskilling of current workers, and increasing participation and completion of career technical education and other credentialing programs.

NEIGHBORHOOD DEVELOPMENT: Focus on improving housing affordability and stability, reducing racial and economic isolation, and supporting environmental justice and sustainability.



TOFT



TOFT

A collage of four images. From left to right: a close-up of a smiling woman with short blonde hair; a family of three (a man, a woman, and a child) hugging and smiling; a male doctor in a white coat with a stethoscope; and an aerial view of a construction site with many orange shipping containers stacked in rows, with a crane and workers visible.



Arrival will be directly into the ID, clinic module or hospital bed room, based on pre-determined communication and assignment. Much as on-line travel is assigned a gate, we will assign a clinic or patient room for each member and this information will be transmitted via the small tablet or phone. We want to break down the arrival to a specific location rather than to a large lobby and then require that members and their families' visitors have to travel long distances to find their room. Smaller parking lots will be directly adjacent to their clinic or patient room (residential pods) to reduce the walk time from car to care destination.

member experience

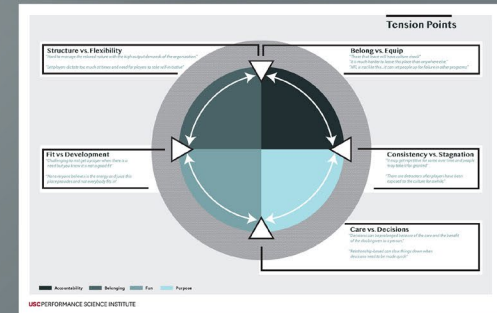
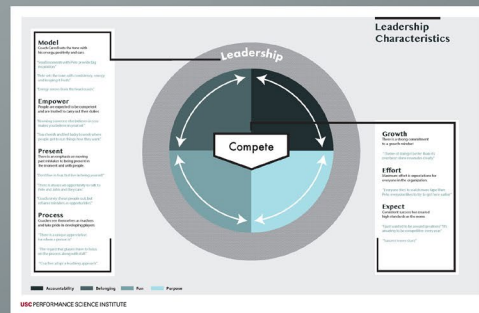
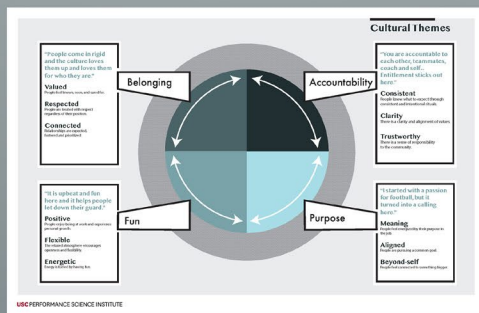
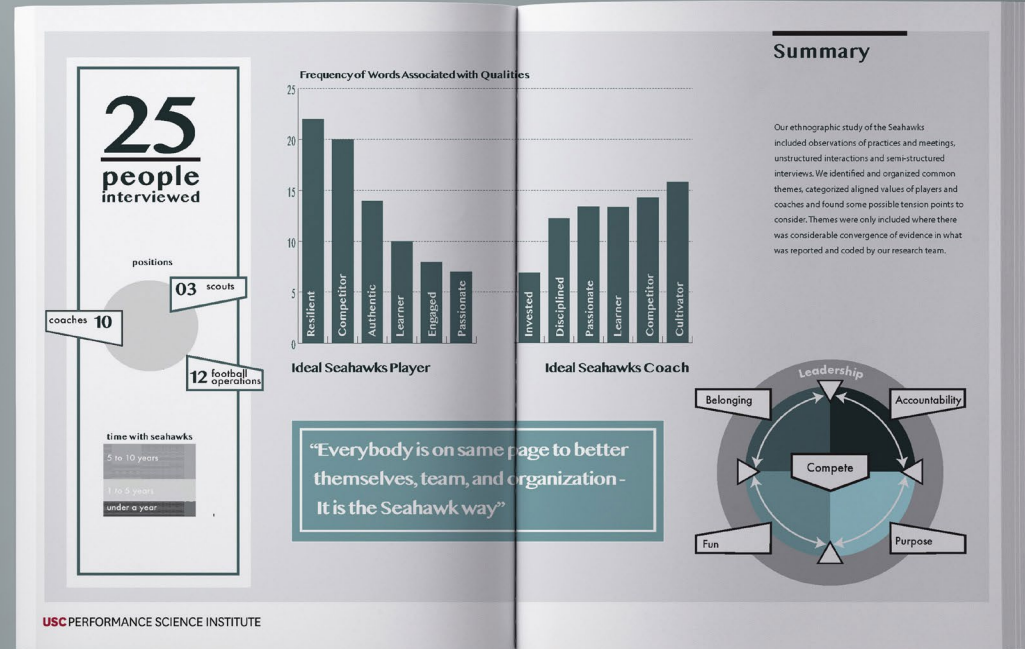


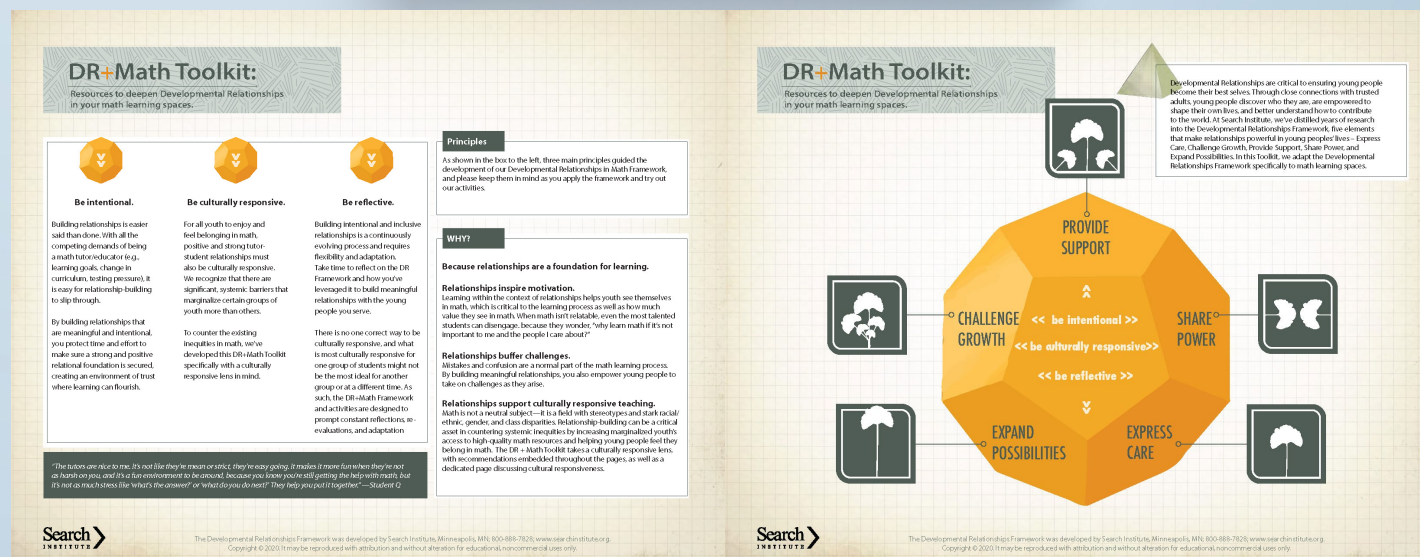
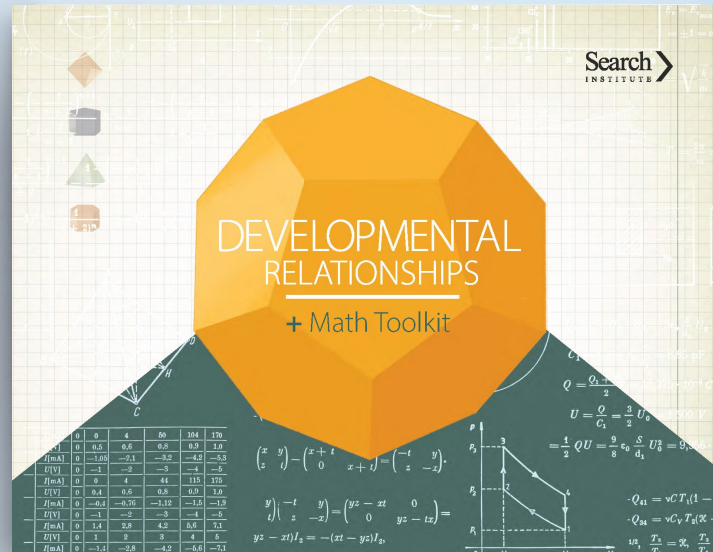
to control the development of over 100 food products within the Food Health

- **Background**
 - A "Maternal Distribution Center" (MDC) is a remote warehouse facility that includes technologically advanced sorting and picking systems, which receives medical supplies and hospital beds via a single health-care system. A basic model for an MDC should be capable of handling all medical/surgical supplies for Maternal Management and Central Sterile Supply, Clean Linens, and Medicines, Consumables, and Gowns.
 - Addition of one of the MDC to centralize some of the services provided may include development of centralized neonatal processing (CNSD, centralized healthcare records (part of the movement for electronic health record program)), and centralized new and used equipment (E) furniture for receiving, testing, refurbishing, and disposal.
 - An MDC is different from a "Service Center" in that it is a remote facility serving multiple facilities, whereas a Service Center on-site at each facility only serves only the hospital attached.

- **Summary Analysis**
 - The feasibility of establishing a dedicated CCU enables receiving a reasonable estimate of the need for CCU services in California's health care system. While there are variations in the maximum occupancy and adjustment to the size of the MCC operations, from prior experience it has been proven that at a maximum a health-care system with 1,000 beds (700 to 800) will require a dedicated CCU with a maximum of 100 beds.
 - In most health-care systems that service multiple hospitals and clinics, a maximum of 100 beds (700 to 800) will require a dedicated CCU with a maximum of 100 beds and one cook. For one clinic the project will be within 200 beds and one cook to just "fill off" already in place equipment and manning. These require more funding.
 - A dedicated CCU will be able to handle all the emergency and critical care services used to manage trauma patients, provide excellent stroke care, and to help serve the user facilities that supplies will not be charged due to stroke, disaster, road closure.
 - A dedicated CCU will be able to handle all the emergency and critical care services used to manage trauma patients, provide excellent stroke care, and to help serve the user facilities that supplies will not be charged due to stroke, disaster, road closure. (e.g., with one cook). One extra Paramedic determined potential for the small local health care system can identify where the MCC could be located to better serve all of California's Paramedics.
 - Development costs of health-care facilities in California are between \$170 to \$1,000. MCC development costs may be 70% lower or more depending if building is leased or purchased.

Oliver Permanente Small Hospital,
Big Idea Competition, 6/22/17, File 1 of 1







Do it for Hooyo Campaign

The word Hooyo means “mother” in English language. Since Somali and East African mothers mourn the most, their children who are involved violence also love and respect their mothers who raise them as single mothers most of the time. This campaign will be more appealing and effective tool mothers can convey their message to young people.

Do it for Hooyo is a social media and awareness campaign to minimize gun violence, while creating culturally appropriate awareness on this issue. Mothers will be the face of the campaign and they will be the ones who will champion this issue. The goal is creating a campaign that will appeal to the emotions, love and the respect young people who are involved violence have for their mothers.

The Somali community continues to be plagued by gun violence with little or no solution to minimize or end gun-related homicides and injuries that is terrorizing entire neighborhoods and communities.

Since Somali and East African mothers don't have the capacity, the resources and the support they need to do something about these unfortunate and senseless killings, Do it for Hooyo campaign is one way and small step that can address and try to slow down the violence between their children.



Community Organizer: Abdirahman Mukhtar Designers: Chris Houlberg, Olivia House, Dan Ibarra, Leon Wang



installation | graphic design | **exhibition & environmental design**



Each, Together

Woven together, our portraits create a tapestry of faces that celebrate, recognize, and honor the people of Augsburg University over the past 150 years. Each of the 1,255 individuals—students, faculty, alumni, and staff—are present together. Covering ten building surfaces along one of the busiest streets in Minneapolis, “Each, Together” exhibits the beauty and diversity of the institution from its founding in 1869 into its future. medal.





On this Spot:

*a historical view of
Augsburg through the years.*

Looking through windows—and sometimes full- scale building scrims—throughout campus, the project gives insight into how the landscape, architecture and people at Augsburg have changed in the last 150 years.

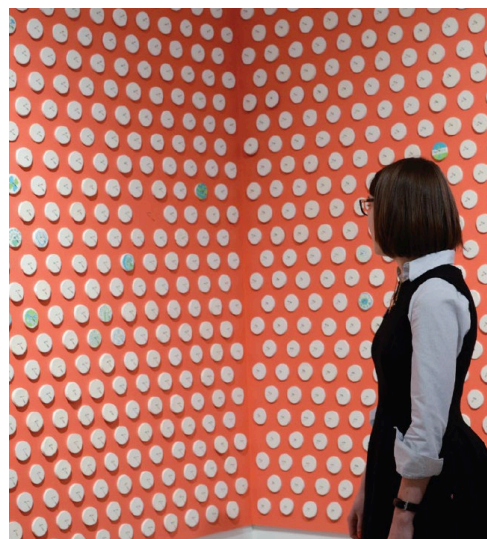




Shaping Peace:

The exhibition includes 128 cubes (20 inches) representing each of the Nobel Peace Prize Laureates. Each cube has been designed to include biographical information as well as original artwork and tweet-length text (140 characters or less) created in response to the winner. There were instructions and prompts for viewers to explore thematic and historic connections among the cubes.

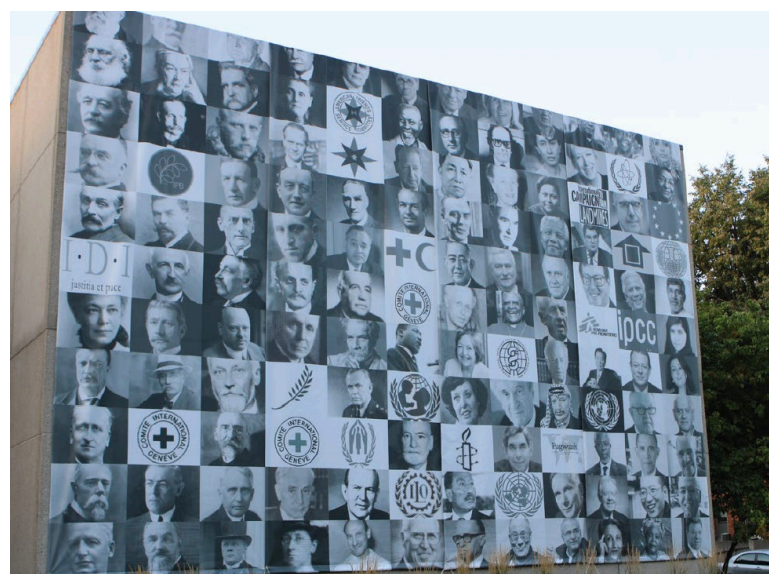
There were 1,600 blank clay medals produced by hand for an interactive/reflective installation. Viewers were invited to respond to the history of the Nobel Peace Prize and add their own symbol, thought or response on an individual medal.





Dialogue in Divided Societies

This work highlights the layered and often overlapping complexity of finding solutions to global issues; that small moments of inspiration can resonate through our actions; and that art may stand in the center of an ever-expanding understanding of our world.

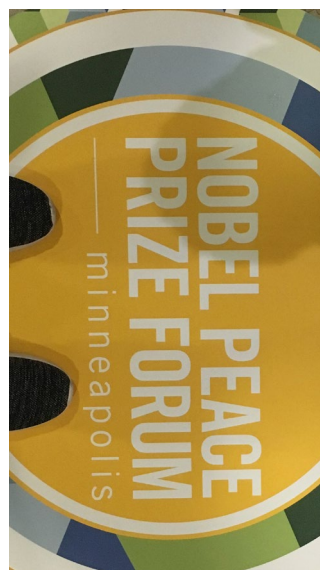
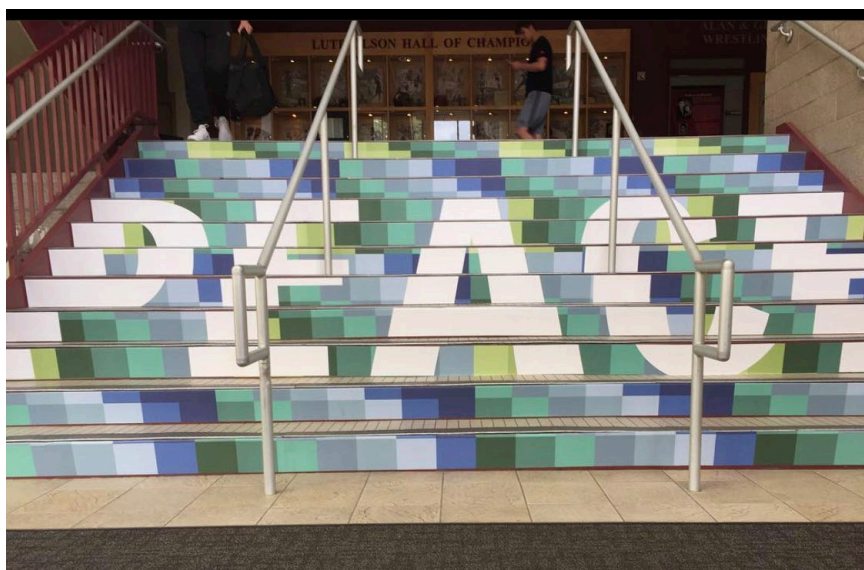


In "Future Light,"⁰¹ artist Asia Ward asks us to consider potential uses of sunlight under a canopy of dichroic film panels. "Common thread"⁰² by Background Stories provides an active, changing visual narrative created by the participants of this Forum. And young artists from Chicago's National Youth Art Movement Against Gun Violence (NYAM)⁰³ are not just seen and heard but in fact hold space on campus. They invite discussion through provocative large scale artwork, both physically and virtually.



Dialogue in Divided Societies

The artwork in the 2018 Forum reflects the spaces that artist take in our society, showing up beyond gallery walls and inviting viewers to become participants. Sinking is a participatory performance of hand drawings and objects sourced by the audience to create virtual rivers on the sides of buildings calling into question how our relationship to objects connects with water. Or a social space, WaterBar, designed to create dialogue and build relationships by serving water. These projects invite attendees of the forum to step inside the artist space as full participants. The art also creates spaces for reflection and insight. Mads Nissen's images capture the humans present in the struggle for peace in Columbia. Leon Wang's protest signs from Hope, Love, Rise are an archive of the human response to violence and injustice here in Minnesota. Max Bray's project considers the Mississippi River as a potent source of cultural production, looking at rhythms and shapes connected by water. Images from ICAN give context to the continual and wide-spread work of peace around the world. The paradox of peace is embodied in these projects by the range of media and application of arts in the in-between spaces. Just like peace, this art invites people to action, movement, consideration and are meant to be experienced.



As part of the arts festival, PeaceMeal is an opportunity to sit at one continuous table to find dialogue, reflection and ultimately human connection. The curated evening is using food grown on this campus, and is the first of series of meals to gather people around a common meal. The idea that this social event holds space in the Forum strives to embody sustainability and equity.