

Kusske Design Initiative

Annual Report
2022–2023



COLLEGE of DESIGN
UNIVERSITY OF MINNESOTA

Kusske Design
Initiative

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Chris (1953–2018)

1978 Landscape Architecture alumnus



“On this bench I shall stay for longer than tomorrow...”

Village of Masset

Haida Qwail, BC, Canada (1974)

We are grateful to Manitou Fund for their generous support of the Christopher Arthur Kusske Design Initiative.

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“Participating in the Kusske Design Initiative will help me to design products that last and positively impact the community... I will be able to better understand how to design for a circular economy by knowing when to recycle, repair, or regenerate. I want to garner a greater understanding of how I impact the world through my design choices so I can make intentional and informed sustainable products. I hope to learn from industry professionals, professors, and fellow students so I can become a professional that will contribute to our environment’s protection and social equity.”

Nicolas Donoso, product design
Kusske Scholar (2023–2025)

Overview

Following discussions begun in late 2019, Manitou Fund made a generous commitment in December 2020 enabling the University of Minnesota's College of Design to honor the memory of distinguished alumnus Christopher Arthur Kusske (BLA '78). The Kusske Design Initiative (KDI) honors his legacy through scholarships and other support for students, widely inclusive events, and collaborations among a growing community of broadminded designers. KDI is "advancing the dialogue" across disciplines to address the complex issues of our time.

The biweekly KDI Exchange convenes students, faculty, staff, and friends for multifaceted conversations aiming to broaden perspectives on design and create opportunities for collaborative learning and creativity. Additionally, each year the college hosts the Kusske Lecture & Dialogue, which features renowned design practitioners and thought leaders whose work models ways of addressing humanity's most pressing issues and generating solutions for our radically changing world. Each spring, the KDI Burst encourages engagement with diverse creative perspectives through a colloquium and workshop featuring guest designers. Broad-reaching, intermodal KDI Vista exhibits reflect each year's events and invite engagement with outcomes of the creative mix.

The initiative provides funding for undergraduate Kusske Scholars, graduate-level Kusske Fellows and Assistants, and faculty co-principals. KDI funds also support ad-hoc projects in response to the ongoing dialogues, as well as creation of places and tools that enhance the initiative and advance the college by encouraging interdisciplinary connections. A demonstration site for a BioLab is emerging to supplement the college's existing fabrication facilities with innovative technologies and materials that will support biophilic, bio-inspired, and environmentally conscientious design. KDI collaborators are also developing Canopy, a suite of digital tools to support communication and collaboration within the college and among the broader design communities.

Christopher Kusske's values and methods inform everything we do. Chris's emphases on interdisciplinary dialogue, co-creativity, and celebration of the natural world inspire solutions for planetary-scale challenges. By combining values of ecological stewardship with the disciplinary spectrum that forms the college's DNA, KDI programs and inquiries have transformative potential for the products we use and the environments we inhabit.

We are grateful to the McNeely family and Manitou Fund for this visionary opportunity. KDI continues to grow as a deeply rooted, broadly inclusive force for design.

"It is your resources and initiative that impact and shape designers to bring about change effectively."

Audra Sims, graphic design
Kusske Scholar (2023–2025)

Summary of Achievements

As the second academic year of the three-year KDI pilot draws to a close, we are pleased to report that we continue to refine the core KDI programming while identifying opportunities for collaboration within and beyond the College of Design (CDes). Awareness of KDI continues to grow in the college, University, and broader design community. Our programs are maturing, and we are well positioned for the final year of the pilot. We also anticipate, with gratitude and delight, a graceful transition to phase two of the initiative.

Below is a high-level summary of our achievements this year. More detailed reports on individual components of the initiative appear in the sections that follow. This report covers the College of Design's 2022–2023 academic/fiscal year, which ran from July 1, 2022–June 30, 2023. Previous KDI annual reports, issued in June of 2021 and 2022, are accessible [here](#).

1 | Appoint the second dyad of KDI co-principals from College of Design faculty.

The initial pair of KDI co-principals—Associate Professor of Graphic Design [Eugene Park](#) and Assistant Professor of Landscape Architecture [Jessica Rossi-Mastracci](#)—joined KDI in January 2021 and helped launch the initiative. Their two-year terms ended in late 2022. To effect a smooth transition in the early days of KDI, their terms overlapped with our second pair of co-principals—Associate Professor of Apparel Design [Linsey Griffin](#) and Assistant Professor of Product Design [Carlye Lauff](#)—who joined the initiative in June 2022.

In collaboration with Dean [Carol Strohecker](#), KDI Coordinator [Alanna Nissen](#), and KDI Advisor [Allen Kolkowitz](#), Carlye and Linsey are co-leading the initiative through the end of the three-year pilot in spring 2024. This group forms the KDI core team. Carol will soon be entering a new role, in which she will continue as a member of the core team while cooperating with the college's new dean to ensure the initiative's stability and guide its ongoing development. The team is excited by the recent announcement that [Prasad Boradkar](#) will enter the dean role in September 2023.

KDI co-principals collaborate with the dean, advisor, and coordinator to develop KDI programming. The co-principals also conduct research related to the initiative's themes and programs. Their research is supported by KDI-funded graduate assistants, who are members of the student cohort along with the undergraduate students receiving scholarships and the graduate students receiving fellowships. Details on the co-principals' research follow in the Design Inquiries section of this report, and details on the student cohort appear below.

Additional faculty members collaborate with the KDI core team as members of our Canopy and Biomaterials Lab Advisory Groups, as event participants, and through additional design inquiries. Further details on these collaborations follow in the appropriate sections below.

2 | Award and support Kusske Scholars, Fellows, and Assistants.

Students selected as Kusske Scholars and Fellows receive awards including full tuition, University and collegiate fees, course fees, project support, and support for learning abroad experiences. In the spring of 2021, we identified the first class of the KDI student cohort for awards covering the 2021–2022 and 2022–2023 academic years. This first group graduated from the College of Design in May 2023 and included:

- Noah Hertel (product design), Kusske Scholar
- Ashani Trinh (architecture), Kusske Fellow
- Angelica Valencia (interior design), Kusske Scholar

In the fall of 2022, our second group of students joined the cohort for the 2022–2023 and 2023–2024 academic years. This group includes:

- Jacob Dommer-Koch (architecture), Kusske Scholar
- Christine Flauta (landscape architecture), Kusske Fellow
- Joseph Hillenbrand (graphic design), Kusske Scholar
- Tse-Hsun Kuo (human factors & ergonomics), Kusske Fellow

The interleaving of student terms ensures that the KDI cohort includes both new and returning students in each academic year. This mix of accomplished and fresh perspectives creates opportunities for peer mentoring, a benefit that is reinforced by the appointment of a graduate student as a teaching assistant and cohort facilitator.

During the Spring 2023 semester, we also identified students who will join the cohort beginning the fall of 2023. These students' terms will include the final year of the KDI pilot (2023–2024) as well as the first year of phase two (2024–2025). Selected students include:

- Nicolas Donoso (product design), Kusske Scholar
- Audra Sims (graphic design), Kusske Scholar
- Milo Tacheney (product design), Kusske Fellow

The KDI student cohort also includes graduate-level Kusske Assistants. These are master's and doctoral students employed as research, teaching, and administrative assistants. They work with KDI co-principals and staff and are compensated with an hourly wage as well as health and tuition benefits. The Kusske Assistants' work has proven invaluable in supporting the co-principals' efforts and the initiative overall. Kusske Assistants for 2022–2023 included:

- Julianne Bur (human factors & ergonomics), Kusske Research Assistant supporting Linsey Griffin
- Andria Banker Codner (product design), Kusske Research Assistant supporting Carlye Lauff
- Alison Cloet (apparel studies), Kusske Research Assistant supporting Linsey Griffin

- Torey Erin (landscape architecture), Kusske Research Assistant supporting Jessica Rossi-Mastracci and collaborator Rebecca Krinke, and Kusske Administrative Assistant supporting Alanna Nissen
- Christine Flauta (landscape architecture), Kusske Research Assistant supporting collaborator Rebecca Krinke
- Micki Grover (product design), Kusske Research Assistant supporting Carlye Lauff
- Valeria Lopez Torres (graphic design), Kusske Research Assistant supporting Eugene Park
- Paith Philemon (human factors & ergonomics), Kusske Research Assistant supporting Eugene Park
- Vanessa Segura Duque (human factors & ergonomics), Kusske Research Assistant supporting Linsey Griffin
- Emily Seifert (human factors & ergonomics), Kusske Research Assistant supporting Linsey Griffin
- Yiling Zhang (apparel studies), Kusske Cohort Facilitator

Alison Cloet graduated in summer 2022, and Andria Banker Codner and Micki Grover graduated in May 2023, adding to our growing group of KDI alumni. We continue to engage KDI alumni through invitations to events and programming, including special opportunities open only to current and former members of the student cohort (such as our December 2022 dialogue with design luminary [Neri Oxman](#), described below).

3 | Continue development of KDI Canopy in partnership with web design/development agency.

Increased reliance on digital modes of communication during the pandemic led to the inclusion of a dedicated KDI communication platform—KDI Canopy—in our deliverables for the three-year pilot. Last year (fiscal/academic year 2021–2022) we launched a suite of tools that constituted Canopy version 1.0: [a KDI website](#), an emerging [database of resources](#) housed in Airtable, [archives of event videos](#) housed on the College of Design YouTube channel and photographs in Google Drive, and regular emails to the student cohort coordinated by Yiling Zhang, the graduate assistant working as the cohort’s peer facilitator.

While launching this initial suite of tools, we also worked to scope improvements leading to Canopy version 2.0—a robust, media-rich interactive website. This new version of Canopy will synthesize the initial range of functions and platforms into a more cohesive presentation with an innovative visual and user-experience (UX) design. We have partnered with Brooklyn-based design/development agency [View Source](#) to create the site and look forward to launching Canopy 2.0 at the end of calendar year 2023. While Eugene Park’s term as co-principal ended in December 2022, we are grateful for his continued collaboration and leadership as we work with View Source to create the new site. More detailed information about progress toward Canopy 2.0 follows in the Canopy subsection of the Supports section of this report.

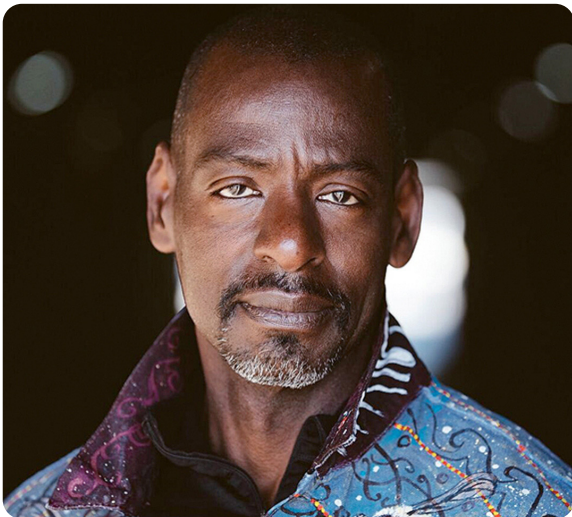
4 | Conduct biweekly Exchange dialogues to connect people, develop shared language, and seed projects.

In 2022–2023 we hosted 26 Exchange sessions in partnership with nearly 40 guest conversation partners. Participants span the College of Design—including students, staff, and faculty from all seven disciplines—as well as the broader University community and beyond. The Exchange subsection of this report includes a full list of session topics.

The biweekly KDI Exchange is part of a larger cadence of regularly occurring dialogues at different timescales. The KDI core group meets weekly to ideate, develop, execute, and evaluate the activities of the initiative. These meetings include Carol Strohecker, Allen Kolkowitz, Alanna Nissen, and the KDI co-principals. The student cohort meets monthly for their own dialogues in addition to participating in the Exchange, special cohort events, and student-initiated sessions for collaborative work. Cohort dialogues are led by Cohort Peer Facilitator Yiling Zhang and supported by Alanna.

5 | Hold the second annual Kusske Lecture & Dialogue.

We hosted the second annual Kusske Lecture & Dialogue in December 2022 at McNamara Alumni Hall. The event featured a keynote by “Gangsta Gardener” Ron Finley, a fashion designer, urban gardening advocate, and social justice activist. The lecture was followed by a panel conversation among Ron and College of Design faculty members Linsey Griffin (KDI co-principal, associate professor of apparel design, and director of the Human Dimensioning@Laboratory) and Terresa Moses (assistant professor of graphic design, director of Design Justice), moderated by Carlye Lauff (KDI co-principal; assistant professor and graduate program director, product design). The event was followed by a well attended reception for guests and community members.



Fashion designer, urban gardening advocate, and social justice activist Ron Finley delivered the keynote at the 2022 Kusske Lecture & Dialogue.



Audience members at the second annual Kusske Lecture & Dialogue in December 2022.

This in-person event was free and open to the public, drawing more than 350 attendees. Community engagement was particularly strong, including members of Appetite for Change, Frogtown Farm, Juxtaposition Arts, Minneapolis Edible Boulevards, the Minnesota State Horticultural Society, Project Sweetie Pie, Urban Farm and Garden Alliance, Urban Ventures, Youth Farm, and volunteers from the University of Minnesota Extension Service's Master Gardener program.

We hosted a design charrette the following day, in which students had the opportunity for deeper conversation with Ron while ideating and sketching transformations of outdoor spaces based on his methods. The simultaneous KDI Exchange was well attended, and afterward many participants noted special appreciation for the depth of the dialogue and intensity of the participants' engagement.

Additional details about the Kusske Lecture & Dialogue and associated events are included in the Events section of this report.

6 | Present KDI Vista displays.

We conducted two formal Vista installations in 2022–2023: one included research by KDI co-principals and their research assistants, displayed in the window of the Deans Office suite in Rapson Hall; the other was a group exhibition of student explorations of biomaterials, displayed in a window of the Goldstein Museum of Design in McNeal Hall.

Additional, less formal displays were installed on a pop-up basis throughout the year. The student cohort created an interactive data-collection exhibit entitled "Through-Line," which was installed in Rapson Hall in Spring 2023. Alanna Nissen and Carlye Lauff also collaborated with fabrication shop staff to collect and sort discarded models and prototypes from students through the year, which fabrication technicians used to create a collaborative mini-golf hole as part of a broader University-wide mini-golf course in May 2023.

When the new Canopy 2.0 website launches in late 2023, we will have a digital platform that will allow KDI to present additional displays of work by students, faculty, staff, and collaborators. All Canopy users will be able to share creative work on this platform. The launch of the online Vista gallery as part of the Canopy site will realize our goal for multi-modal Vista programming.

7 | Present the KDI Burst colloquium.

In March 2023 we hosted our third iteration of the KDI Burst, focused on the theme of "Empathy at Scale." Organized in partnership with the [Eames Institute of Infinite Curiosity](#), the event included an opening dialogue and a two-day workshop.

The opening dialogue, held in the Best Buy Theater in Northrop Auditorium, featured Eames Institute Chief Curator Llisia Demetrios and President & CEO John Cary (an alumnus of the College of Design's architecture program) in conversation with National Humanities Medalist and bestselling author [Krista Tippett](#). The event was free and open to the public, with an audience of approximately 150 attendees.



KDI Co-Principal Linsey Griffin (apparel design) works with students during the 2023 Burst workshop, including incoming Kusske Scholars Nicolas Donoso (product design) and Audra Sims (graphic design) and Kusske Research Assistant Vanessa Segura Duque (human factors & ergonomics).

The dialogue was followed by a two-day workshop held in the courtyard of Rapson Hall. The workshop was co-led by KDI Co-Principals Linsey Griffin and Carlye Lauff with John Cary and Lliisa Demetrios and supported by Alanna Nissen and Kusske Research Assistants. Participants dissected, analyzed, and redesigned objects and systems for more positive impacts on humans and the environment. More than 20 graduate and undergraduate students participated in the workshop, generating solutions based on inspiration from the work of design pioneers Charles and Ray Eames and the ongoing work of the Eames Institute.

“To excel in the structuring of a problem, we must be committed to a concern for quality in everything around us. We must learn to care deeply.”

Charles Eames

8 | Successfully host cohort events including convenings and dialogues.

To promote a sense of shared identity and encourage collaboration among the student cohort, we hosted a number of events specifically for the Kusske Scholars, Fellows, and Assistants during the 2022–2023 academic year, in addition to the larger events open to the college and broader community.

We host three cohort convenings each year, marking key moments in the academic calendar. At the start of the fall semester, we hosted the cohort welcome event—a dinner at [Owamni](#) where returning and new students had the opportunity to get to know each other and the KDI core group while learning about and enjoying indigenous American foods. The students reconvene each January, this year at the [Walker Art Center](#) for a screening of [Anyox](#), a film that presents a striking view of the long-term and large-scale impacts that result from the selection and mining of materials. The end of the academic year was marked by a casual gathering at the Campus Club, where we celebrated our graduating cohort members and welcomed the newly selected students entering the cohort next fall.

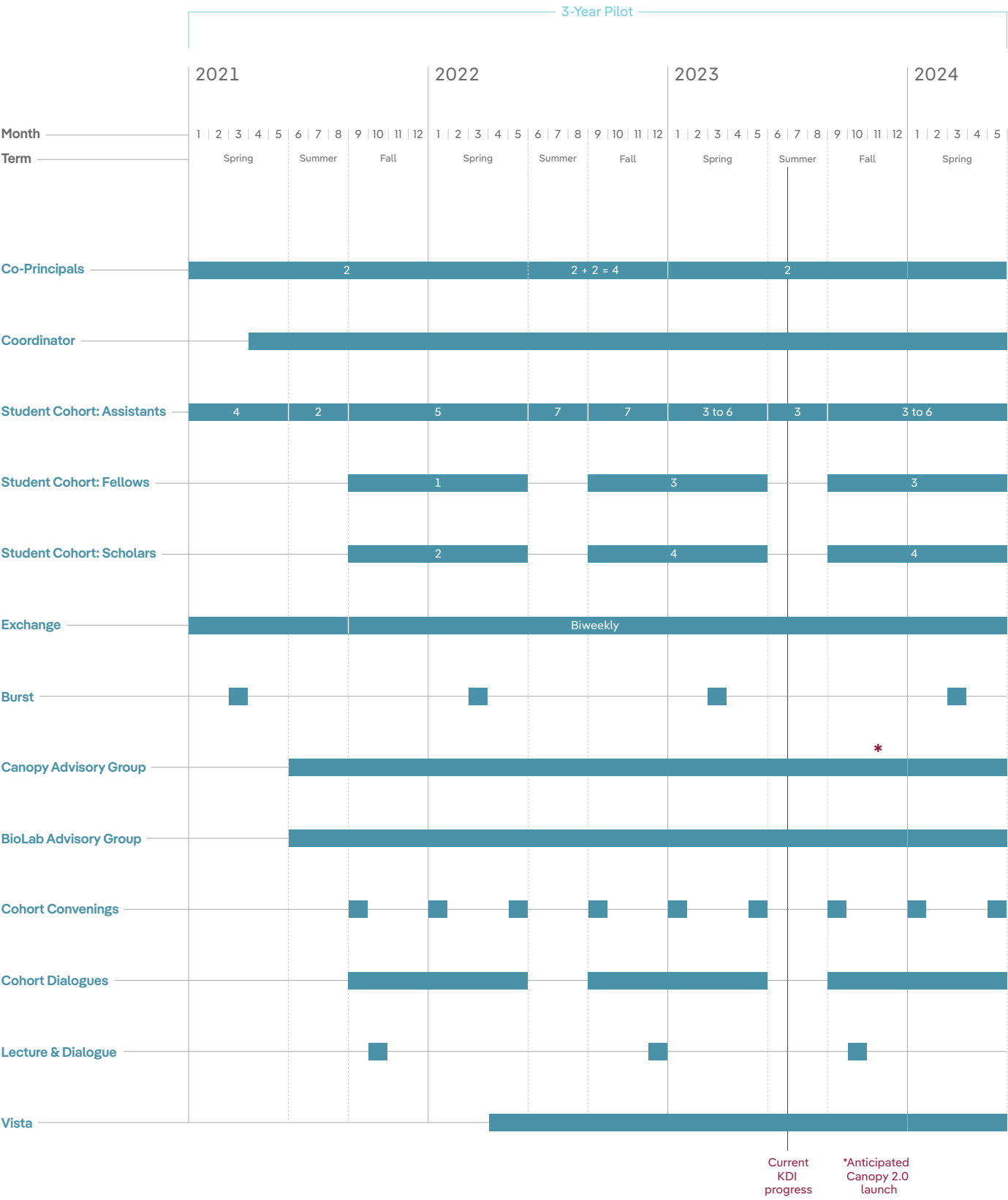
Monthly cohort dialogues and dedicated events provide additional opportunities for the cohort to form bonds as a group, learn about each others' work, and conduct collaborative projects like the “Through-Line” interactive data-collection installation detailed later in this report. This year's special events included tours of exhibitions at the [Minneapolis Institute of Arts](#) ([Dressed by Nature](#), focused on historical Japanese apparel created from local biomaterials) and the [Goldstein Museum of Design](#) ([Plastic Rapt](#), focused on the history of plastics in design), a tour of the University's [Virtual Reality Studio](#), and a virtual conversation with innovative architect and transdisciplinary designer [Neri Oxman](#). Further details on these events follow in the appropriate subsection of the Events portion of this report.



Transdisciplinary designer Neri Oxman joined the cohort for a special presentation and dialogue in December 2022.

“The future of design is a future where anything material in the environment—whether it’s wearables, cars, buildings—can be designed with this variation of properties and relationship with the environment that can take part in the natural ecology.”

Neri Oxman
Founder of the Mediated Matter research group and OXMAN



People

The core team includes the KDI advisor, dean, faculty co-principals, and a coordinator. This group guides the student cohort and engages program participants in advancing the dialogue across disciplines, aiming to design for equity and resilience in communities, products, and services that promote the common good.

In October 2021, we identified the co-principals for the second half of the pilot: [Linsey Griffin](#) (associate professor of apparel design and director of the [Human Dimensioning@ Laboratory](#)) and [Carlye Lauff](#) (assistant professor and director of the product design graduate program). Linsey and Carlye officially joined the initiative in June 2022. Our initial dyad of co-principals—[Eugene Park](#) and [Jessica Rossi-Mastracci](#)—completed their terms during the Fall 2022 semester, following a period of overlap with the new co-principals to ensure a smooth transition.

Another transition is now beginning to play out, with the recent announcement that [Prasad Boradkar](#) will become dean of the College of Design in September 2023. After serving six years as dean, [Carol Strohecker](#) will enter a phased retirement during which she will work half-time with a dedicated focus on KDI. Carol will continue as a member of the KDI core team and aim to grow resources for the initiative, both financially and through institutional and individual partnerships.

In the fall of 2022, the cohort grew to the size imagined in the initial scoping of KDI. We are thrilled now to be supporting the full complement of four undergraduate Kusske Scholars, three graduate Kusske Fellows, and Kusske Assistants supporting teaching, research, and the operations of the initiative.

The two-year terms of our Kusske Scholars and Fellows are interleaved to ensure that our cohort includes both new and returning students each academic year. This fall we welcomed back our inaugural Kusske Scholars Noah Hertel (product design) and Angelica Valencia (interior design) and Kusske Fellow Ashani Trinh (architecture) for their final year. We also integrated new cohort members Jacob Dommer-Koch (Kusske Scholar, architecture), Joseph Hillenbrand (Kusske Scholar, graphic design), Tse-Hsun Kuo (Kusske Fellow, human factors & ergonomics), and Christine Flauta (Kusske Fellow, landscape architecture).

With Noah, Angelica, and Ashani graduating in May, we also conducted a call for applications and a comprehensive review process to select the students who will take their places in the cohort beginning in the Fall 2023 semester. In April, we identified new Kusske Scholars Nicolas Donoso (product design) and Audra Sims (graphic design) and w Fellow Milo Tacheny (product design), who will enter the cohort in September, joining returning students Jacob, Joseph, Tse-Hsun, and Christine.

The KDI student cohort reflects the rich diversity of the College of Design. Our Kusske Scholars, Fellows, and Assistants now come from all of the disciplines in the college and represent a broad range of cultural backgrounds. Each student contributes a unique perspective and lived experience to the group, which includes both traditional and nontraditional students,

immigrants, parents, first-generation college students, international students, and English as a second language (ESL) speakers. This diverse cohort universally shares passion for design, respect for the natural world, insatiable curiosity, and enthusiasm for peer learning and collaboration. The students are building broad and deep cross-disciplinary connections with each other and with fellow students, faculty, and staff all across the college.

In addition to the core team and student cohort, we have been pleased to engage in collaborative efforts with faculty, staff, and students throughout the college, as well as in the broader University community and design professions. We have also hosted an impressive slate of prominent guests, from world-renowned designers and speakers such as Frank Gehry, Neri Oxman, Krista Tippett, and Ron Finley to innovative faculty from other universities and inventors developing the next generation of ecologically responsible materials. These collaborative efforts include workshops and events; advisory groups to guide KDI special projects; and deeper, longer-term partnerships to develop new opportunities for advancing dialogue and bridging gaps between disciplines and campuses.

Without the impetus of KDI thematic inspiration and programmatic structure, many of these people would not even have met, much less engaged in the energetic conversation and creative activity we encourage. Together, and with the support of KDI, these faculty, students, and collaborators have potential to generate important solutions for our community. We aim to pose KDI innovations even more broadly, as models for a world sorely in need of change.

The following pages include brief profiles of our core team, student cohort, and collaborators.

“KDI is everything a designer like me has ever hoped for in education—a collaborative community of creatives and hands-on problem-solvers eager to blend the lines between disciplines.”

Jacob Dommer-Koch, architecture
Kusske Scholar (2022–2024)

Advisor



Allen Kolkowitz

Co-Founder, KOLKOWITZ KUSSKE

Allen Kolkowitz co-founded KOLKOWITZ KUSSKE in 1985. The firm has received several awards from the New York City Art Commission for the design of public parks and open spaces. Since 2002, Allen has worked as consulting architect and donor representative on projects for Johns Hopkins University in Baltimore, MD. The Charlotte R. Bloomberg Children's Center and The Sheikh Zayed Hospital Tower, which opened in 2012, achieved a noted level of design excellence with seamless integration of architecture, site development, art, and the clinical environment. A native of California, Allen earned his Bachelor of Architecture at the University of Minnesota in 1982. He continued studies at the Royal Danish

Academy in Copenhagen, with a focus on urban planning, before joining the offices of Marcel Breuer in New York and Paris. Currently, Allen is a licensed architect in New York, Connecticut, Minnesota, Colorado, and California. He served on the board of trustees of the Public Art Fund from 1993 to 2018. As a lecturer in design methodology, he continues to explore the impact of collaboration on the design process.

Co-Principals

The KDI co-principals collaborate to develop plans and strategies for KDI events, projects, and activities throughout the year. These include the high-profile annual Kusske Lecture & Dialogue in the fall and the spring Burst colloquium and workshop. Through these and related engagements, the co-principals forge connections with members of the college and University and among civic and professional communities. Co-principals also mentor students and work with other members of the ever-growing KDI network. They help to ensure integration of KDI participants and events with research and academic programs across the College of Design.

KDI co-principals are highly open-minded, collaborative, visionary, and accustomed to engaging in dialogue as a method for creative inquiry. They profoundly appreciate the value of different perspectives. Together, they promote the integration of design and other disciplines needed for generating 21st-century solutions.

The co-principals invoke contexts for situating new vocabulary and myriad representational strategies, aiming to engender wide-ranging collaborative projects with transformative results. They actively develop formal language that can support and sustain broadly inclusive, creative dialogues. They also nurture people and ideas to cultivate strongly bonded generations of the student cohort, whose formative experiences in KDI will create ties lasting long into the future.



Eugene Park
Associate Professor of Graphic Design
(2021–2022)

Eugene has been a member of the College of Design's graphic design faculty since 2013. His scholarship is primarily dedicated to better understanding how data visualization can serve as an extension of graphic design practice as a creative form of inquiry that can be accessible to those outside of science and academia. In his classes, Eugene challenges his students to think of graphic design beyond industry trends and encourages form-driven experimentations and tinkering with code. Eugene's creative work has been exhibited through AIGA Minnesota and the Weisman Art Museum and has been recognized by *PRINT* magazine, *HOW Design* and the Society of Typographic Arts. Although Eugene's formal co-principal appointment ended last year, he continues involvement with the initiative by advising on the design of Canopy.



Jessica Rossi-Mastracci
Assistant Professor of Landscape Architecture
(2021–2022)

Jessica has served various roles in the College of Design since 2017. From 2010–2019, she gained professional experience in award-winning landscape architecture and urbanism firms, including TEN x TEN in Minneapolis, MN; Bionic Landscape in San Francisco, CA; TLS Landscape Architecture in Berkeley, CA; and West8 in Rotterdam, The Netherlands. Jessica is a licensed landscape architect and a member of both the American Society of Landscape Architects and the Council of Educators in Landscape Architecture.



Linsey Griffin

Associate Professor of Apparel Design and Co-Director of the Human Dimensioning Laboratory (2022–2024)

Linsey is an associate professor at the University of Minnesota, specializing in the development of wearable health and safety products. She has conducted wearable product research with organizations including the UMN Medical Center, Park Nicollet Health Services, 3M, and NASA. Linsey's design, research, and teaching perspectives are informed by eight years of international apparel industry experience in the United States, England, South Korea, India, and Spain. She received a PhD and MS in apparel studies from the University of Minnesota and a BS in textile and apparel design from Cornell University.



Carlye Lauff

Assistant Professor and Graduate Program Director, Product Design (2022–2024)

Carlye is an assistant professor of product design at the University of Minnesota, where she directs the product design graduate program. She earned her PhD from the Department of Mechanical Engineering at the University of Colorado Boulder as a National Science Foundation Graduate Research Fellow studying the role of product prototyping in business company contexts. Carlye's research is in design theory and methodology. She studies how designers engage in the product development process and then improves tools and methods to support them. Carlye works at the intersection of multiple disciplines including engineering, product design, education, management science, and the social sciences. She often draws on qualitative and mixed-methods research and collaborates across diverse disciplines. Carlye has worked with more than 25 global companies in industries including medical devices, consumer electronics, transportation systems, educational toys, and footwear and apparel.

Student Cohort

The KDI student cohort consists of both undergraduate and graduate students who are registered in degree programs hosted by the College of Design. Striving for excellence in KDI programming and creative work, we seek high-achieving students and cultivate diversity through several overall characteristics of the student cohort:

The cohort includes a balance of disciplinary perspectives.

The College of Design undergraduate majors include apparel design, architecture, graphic design, interior design, landscape architecture, product design, and retail merchandising. Our academic portfolio complements these disciplines with advanced studies in wearable technologies, human factors & ergonomics, digital techniques, metropolitan design, regenerative energy for net-positive buildings and environments, and other timely focuses.

The cohort includes richly diverse cultural perspectives.

Many students at the University of Minnesota come from our own and surrounding states, such as Wisconsin, Iowa, and the Dakotas. Students also hail from across the US and around the globe, adding perspectives from places in Asia, South America, Europe, and Africa. We actively welcome Black, Indigenous, and Students of Color. Collaborators in our Design Justice Initiative create a supportive environment for all, as students prepare for their careers and their entire lives as fully participating members of their communities.

Students bring varied backgrounds and experience to KDI dialogues and creative work.

Many College of Design students enter the college directly from high school, aiming to complete their undergraduate degree in four years. More and more students arrive after having completed studies at area community colleges. Among the college's student body are many who are considered "nontraditional" students because they work while pursuing their academic degree. At both the undergraduate and graduate levels, many students have jobs and many have families. We encourage students to participate in learning abroad programs and to work as interns with design firms and corporations in the Twin Cities and beyond.

KDI student roles have different responsibilities in helping to grow the initiative.

Academically successful students are invited to apply for the undergraduate scholar and graduate-level fellow positions. Graduate-level assistants from a broad range of programs help with KDI-related teaching and research and with the administration of KDI programs and events. These roles are described in more detail on the following pages.

Undergraduate Kusske Scholars

Kusske Scholars are selected as rising juniors whose essays and portfolios demonstrate relevant interests and promising abilities. KDI scholarships provide support for the students' junior and senior years, covering full tuition, collegiate and University fees, and course fees. Students may also receive project support and aid for learning abroad opportunities.



Jacob Dommer-Koch, architecture
(2022–2024)

Jacob Dommer-Koch is an architecture major pursuing minors in landscape design & planning and interdisciplinary design. He hopes to leverage community-driven and ecologically innovative architecture for urban-scale climate action. Jacob is a certified welder who has worked as a resident welder, fabricator, and metal artist at Can Can Wonderland. He loves finding new ways of upcycling reclaimed materials; past projects have ranged in scale from thematic furniture to shipping container conversions to dog toys. Jacob has also worked as a biological researcher in Tortuguero National Park in Costa Rica, where he studied the ecological impact of human activity on biodiversity. His research included coastal conservation, marine turtle tracking and nest monitoring, and biodiversity surveys of spider monkeys and tropical birds.



Nicolas Donoso, product design
(2023–2025)

Nicolas Donoso is a product design student who has a passion for art and design, which he uses as a means of self-expression. Nicolas's passion for design began as a child when he would spend entire days transforming sand into cities and rocks and twigs into spaceships. He brings elements of his Ecuadorian and American identities into his art and design work, believing it to be a great way to share about oneself and connect with others. He is the co-founder and president of the Collaborative Arts Club, a campus organization aiming to bring students of all disciplines together through a shared passion for art. He hopes to continue growing a community that promotes artistic growth and interconnectedness through art and design.



**Noah Hertel, product design
(2021–2023)**

Noah Hertel has a deep-seated passion for the outdoors. Originally from Wisconsin, his childhood was spent camping with family at local state parks and drawing pictures inspired by nature. Now, in addition to studying product design, Noah shares his love for the natural world by guiding outdoor expeditions. In the summer of 2021, Noah interned at Bass Pro Shops, where he designed products with outdoor recreation, conservation, and sustainability in mind.



**Joseph Hillenbrand, graphic design
(2022–2024)**

Joseph Hillenbrand is a graphic designer who is continually striving to find the balance between simplicity and storytelling in his work, which has a strong focus on logo and brand identity design. Coming from a nomadic upbringing, he brings his varied experiences from the largest of cities to the smallest of towns into his process. Joseph is the creator and host of the podcast *Magic Wand*, which he describes as “the non-stuffy design podcast where the black turtlenecks come off.”



**Audra Sims, graphic design
(2023–2025)**

Audra Sims is an aspiring graphic designer and artist. Her areas of interest include social justice, minority representation, sustainability and environmental health, community work, and humanitarianism. She is majoring in graphic design and minoring in cultural studies and comparative literature. As an at-large representative for the Undergraduate Student Government, she aims to create safe spaces for discussion on combating systemic oppression. Before her time at the University of Minnesota, Audra lived in Phoenix, Arizona, where she gave back to her community through her position as historian in the Keystone Club at the Barker branch of the Boys and Girls Club of Greater Scottsdale. Through her involvement in KDI, she hopes to learn more about how to incorporate social equity and sustainability into design.



**Angelica Valencia, interior design
(2021–2023)**

Angelica was born in Colombia, moving to the United States in 1999. She earned a bachelor's degree in international business in Colombia and worked in the corporate world for more than a decade before pursuing her studies in interior design. Angelica's ambition is to join a multicultural international design firm where she can contribute to society and leave a signature of quality, commitment, creativity, and hard work.

"I want to create sustainable, ecologically friendly designs for underdeveloped and underrepresented communities. Being a part of a passionate group that strives toward similar goals will give me new perspectives as well as relevant knowledge, and I hope to give the same to everyone else."

Audra Sims, graphic design
Kusske Scholar (2023–2025)

Graduate Kusske Fellows

Kusske Fellows are students in master's-level programs who receive support for two years as they pursue their graduate degrees. As with Kusske Scholars, they receive full tuition and fees and may receive additional support for creative or research projects and other learning opportunities.



**Christine Flauta, landscape architecture
(2022–2024)**

Christine Flauta is a Master of Landscape Architecture student from O'ahu, Hawai'i. She received her bachelor's degree in geography at the University of Hawai'i–Manoa. Christine worked for the State of Hawai'i under the Division of Forestry and Wildlife doing non-native plant management and forest restoration. She aspires to combine her knowledge of ecology and culture with her growing knowledge of landscape architecture to help build people's connection to place and deepen their understanding of the environment.



**Tse-Hsun Kuo, human factors & ergonomics
(2022–2024)**

Tse-Hsun aspires to be a healthcare product developer with the skills to shrink the gap between manufacturing and research. He has a BS in physical therapy from National Taiwan University and an interest in biomechanics—a background which will enable him to share his knowledge about the human body through an interdisciplinary approach to design. Tse-Hsun is interested in the integration of human research and design and, through KDI, he intends to solve healthcare problems by coupling new technologies and development methods to create well-designed and well-fitting healthcare products.



**Milo Tacheney, product design
(2023–2025)**

Milo Tacheney is a Kusske Design Initiative Fellow pursuing their Master of Science in product design at the University of Minnesota, Twin Cities. As a non-binary outdoor gear enthusiast, Milo aspires to design gender-inclusive outdoor gear that goes outside the gender binary. For the last five years, Milo has worked in business operations with organizations on the cutting edge of technology, which inspired them to return to academia to better understand the relationship between humans and well-designed products. They received their bachelor's degrees in English and visual arts with a focus in photography at the University of Minnesota in 2014. In their free time, Milo creates online content that focuses on innovative gear to help others feel confident in the outdoors.



**Ashani Trinh, architecture
(2021–2023)**

Ashani received her Bachelor of Design in Architecture from the University of Minnesota in 2020 and is now pursuing her Master of Architecture. Prior to attending the University, Ashani received her associate's degree from Century College, where she was on the Dean's List. As an undergraduate in the College of Design, Ashani received the Women's Club Scholarship (2018–2020). Ashani is a first-generation college graduate and she is interested in residential architecture, sustainability, and regenerative design.

“This [has been] my second year being part of the cohort, and my journey within KDI has been amazing and unforgettable. ... KDI has expanded my connections beyond the architecture program with students in different interdisciplinary majors and backgrounds. I'm so proud to see our KDI family grow!”

Ashani Trinh, architecture
Kusske Fellow (2021–2023)

Kusske Graduate Assistants

We employ graduate assistants to support the KDI co-principals and coordinator in performing high-quality research, creative, and operational work, and to provide mentoring for the student cohort. Unlike scholarship and fellowship recipients, graduate assistants are employees who are compensated for their work through wages and benefits, which include health insurance and tuition. Graduate assistants are appointed on a term-by-term basis with the intention of renewing each appointment for up to two years. These students' participation in KDI, therefore, is comparable to that of other members of the cohort. Their roles and length of involvement ensure consistency of support for KDI functions.

Graduate assistants may be appointed in various roles:

- Research assistants (RAs) help to conduct design inquiries and augment the KDI portfolio of creative and scholarly work.
- Teaching assistants (TAs) support the student cohort's emergence as a coherent community and facilitate the co-principals' guiding and mentoring of individual students as they address KDI-related topics in their creative and scholarly work.
- Administrative assistants (AAs) help with general operations, events, and communications.



**Julianne Bur, human factors & ergonomics
Kusske Research Assistant
(Fall 2022–present)**

Julianne is a human factors & ergonomics MS student with a BS in apparel design from the University of Minnesota. With specialized fields of apparel as the guiding inspiration for her work, Julianne applies exceptional technical precision to fabricate her designs. Incorporating her background as a human factors intern at NASA with her pattern-making skills, she designs apparel for optimal comfort and quality of fit. As an eager apparel innovator, she aspires to apply her focus on human factors to the diversity of soft goods production.



Andria Banker Codner, product design
Kusske Research Assistant
(Summer 2022–Summer 2023)

Andria is a student in the product design MS program. She has a passion for many forms of making, including metalsmithing, working with clay, and digital design. She earned her BFA at Eastern Kentucky University with concentrations in ceramics and metals. She is currently exploring the subject of joy: what ways joy can be brought into a design and how a product can bring joy. As a research assistant with KDI, Andria supports KDI Co-Principal Carlye Lauff in developing methods for evaluating prototypes of products for children.



Torey Erin, landscape architecture
Kusske Research and Administrative Assistant
(Fall 2021–present)

Torey is a multidisciplinary artist, curator, and writer. She received her Bachelor of Fine Art degree from the University of Minnesota and is currently pursuing her Master of Landscape Architecture. Torey is the recipient of the Jo Tushie Endowed Fellowship, Minnesota Artist Initiative Grant, UMN Landscape Architecture Recruitment Fellowship, and Springboard Hinge Artist Residency. Her films, sculptures, and installations are centered around impermanence. Her work has been exhibited in multiple venues, including Silverwood Park, Franconia Sculpture Park, Rosalux Gallery, Mirrorlab, FilmNorth, and Soo Visual Arts Center.



Micki Grover, product design
Kusske Research Assistant
(Summer 2022–Spring 2023)

Micki is an aspiring toy designer who seeks to help children explore and connect with the world through play. With a Bachelor of Science in mechanical engineering and three years of professional experience as a manufacturing engineer, Micki approaches design with an emphasis on function and manufacturability. She is currently pursuing a Master of Science in product design and is a research assistant for KDI Co-Principal Carlye Lauff on a project that uses ethnographic interviewing techniques and qualitative data analysis for establishing user-centered design specifications.



Valeria Lopez Torres, graphic design
Kusske Research Assistant
(Spring 2021–Fall 2022)

Valeria is a graphic design PhD student at the College of Design. Her research interests and expertise lie at the intersection of art, design, and technology. Currently she is investigating the cultural effects and opportunities brought about by image-making techniques that use artificial intelligence. As a KDI research assistant, Valeria worked with KDI Co-Principal Eugene Park.



Paith Philemon, human factors & ergonomics
Kusske Research Assistant
(Fall 2021–Summer 2022)

As a graduate student in human factors & ergonomics, Paith's research interests are designing programming models and programming tools to make it easier for people to create the software they intended and applying these ideas to theory and implementation in the Wearable Technology Lab. Originally from South Sudan, Paith is a developer enthusiast, fueled by her passion to promote science, technology, engineering, and mathematics (STEM) to as many communities as she can reach. As a KDI research assistant, she worked with KDI Co-Principal Eugene Park.



Vanessa Segura Duque, human factors & ergonomics
Kusske Research Assistant
(Spring 2023–present)

Vanessa Segura Duque is a doctoral student in human factors & ergonomics and a Fulbright Minciencias Scholar. Originally from Colombia, Vanessa holds bachelor's and master's degrees in industrial and product design from the Universidad Nacional de Colombia. Her interests include product development, research, and entrepreneurship. She has delivered presentations on topics including design, sustainability, environmental responsibility, and ergo-ecological models for product design and development. Vanessa is a KDI research assistant supporting KDI Co-Principal Linsey Griffin.



Emily Seifert, human factors & ergonomics
Kusske Research Assistant
(Spring 2023)

Emily Seifert is a doctoral student in the human factors & ergonomics program. She holds bachelor's and master's degrees in apparel design from the University of Minnesota, where she completed research assistantships in the [Human Dimensioning@ Laboratory](#) and was a teaching assistant for courses in apparel design and design thinking. In 2018, Emily was a global technical development intern at Nike; in 2021, she was an intern for the Wearables, Human Factors & User Experience Research Team at Google.



Yiling Zhang, apparel studies
Kusske Cohort Facilitator (TA)
(Summer 2022–present)

Yiling is an apparel studies doctoral student in the dress, history, and culture track and a Design Graduate Program Fellow. Her research focuses on fashion related to play, which is inspired by past work on Lolita fashion subculture and her interest in game theory, which she studied as an undergraduate economics major in China. Yiling holds a master's degree in design history and material culture, having studied at the Royal College of Art and the Victoria and Albert Museum in London. While in London, Yiling also curated two picture galleries for the Wellcome Collection, which focused on the histories of Chinese pillows and Chinese cloud collars. After completing her doctorate, she is interested in pursuing a position in fashion research.

Alumni

The following KDI students have graduated from the College of Design. We maintain contact with alumni of the KDI student cohort and include them in KDI programming and special events.

- Marla Brown, MLA '21
Kusske Research Assistant (Spring 2021)
- Alison Cloet, MS, apparel studies '22
Kusske Research Assistant (Summer 2022)
- Andria Banker Codner, MS, product design '23
Kusske Research Assistant (Summer 2022–Summer 2023)
- Micki Grover, MS, product design '23
Kusske Research Assistant (Summer 2022–Spring 2023)
- Noah Hertel, BS, product design '23
Kusske Scholar (2021–2023)
- Cholong Kim, MFA, graphic design '21
Kusske Research Assistant (Spring 2021)
- Aubrey Olson, MLA '22
Kusske Research and Teaching Assistant (Spring 2021–Spring 2022)
- Paige Tomfohrde, MA, apparel studies '22
Kusske Administrative Assistant (Fall 2021–Spring 2022)
- Ashani Trinh, M.Arch '23
Kusske Fellow (2021–2023)
- Angelica Valencia, BS, interior design '23
Kusske Scholar (2021–2023)

Kusske Design Initiative

Student Cohort



TBD
Displayed in
category color



ALUMNI
Displayed in conjunction
with category color


	2021												2022											
	1 2 3 4 5					6 7 8			9 10 11 12				1 2 3 4 5					6 7 8			9 10 11 12			
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SCHOLARS																								
FELLOWS																								
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Kusske Design Initiative

















































































Student Cohort



TBD
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ALUMNI
Displayed in conjunction
with category color

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End of 3-Year Pilot

Staff



Adam Buhr
Chief Development Officer

Adam leads fundraising for the College of Design. He has worked in professional fund development for more than 20 years, with experience in refugee resettlement, land conservation, and higher education. Prior to joining the college, Adam led fundraising campaigns to build the Hmong American Center, Frogtown Park and Farm, and the Midway Peace Park. Adam greatly values the community connections of College of Design faculty and students, and he works to secure resources to increase the impact they have in pursuing design justice and designing in ways that respect and protect the natural world. He is thrilled to be playing a role in establishing and advancing the Kusske Design Initiative.



Alanna Nissen
Kusske Design Initiative Coordinator

Alanna is an arts administrator and project manager with experience in a range of creative fields, including craft, design, and fine arts. She holds a Bachelor of Arts in art history from Grinnell College and a Master of Arts in liberal studies from the State University of New York. Her graduate research focused on gender and supernatural belief in late medieval and early modern England. Alanna joined the College of Design in 2021 as coordinator for the Kusske Design Initiative.

The KDI coordinator supports the overall initiative and KDI participants; develops high-level planning, oversight, and implementation of events and activities; and manages all aspects of KDI operations. These include arranging an annual lecture and related events, collaborating with college and University colleagues to implement these events, contracting with external participants, managing collaborative processes for identifying and selecting faculty and student participants, ensuring integration of KDI participants and events with programs across the College of Design, and coordinating engagements with professional and civic communities.



Carol Strohecker
Dean of the College of Design

Carol Strohecker is a professor at the University of Minnesota and dean of its College of Design. She served as vice provost of the Rhode Island School of Design (RISD) and as the inaugural director of the University of North Carolina's Center for Design Innovation (CDI). Previously she conducted research on learning environment design and technology-enhanced learning at Media Lab Europe (the European partner of the MIT Media Lab) and Mitsubishi Electric Research Labs. Carol has served as an advisor for various programs of the European Commission and the US National Science Foundation, and co-founded the NSF-funded global Network for Sciences, Engineering, Arts, and Design (SEAD). Her research has resulted in four US patents and numerous publications. A former Executive Fellow at the Harvard Graduate School of Design and an Arts Management / Research Fellow at the US National Endowment for the Arts, Carol has taught at MICA (Maryland Institute College of Art), Media Lab Europe, CDI, and Harvard GSD. She studied at the Massachusetts Institute of Technology (MIT), where she received the PhD in media arts and sciences and the Master of Science in visual studies.

Collaborators

Through events, programs, and special projects, KDI engages collaborators across the College of Design, University of Minnesota, Twin Cities community, and beyond. These collaborators are part of a growing network of broad-minded designers, artists, scientists, technologists, researchers, scholars, and more. They range from young students to senior professors, emerging designers to renowned practitioners. The impacts of their work and their ongoing KDI dialogues have transformative potential for the world our students are inheriting.

Special Project Collaborators

Through deep and ongoing collaboration with the KDI core group, the following collaborators scope and evolve significant projects, ranging from key KDI events to cross-campus community building.

Fred Kennedy

Musician, Composer, and Assistant Professor of Sound Design in the Department of Theater Arts and Dance, University of Minnesota College of Liberal Arts

Audio Signature Collaborator

Fred Kennedy is a musician, composer, and sound designer. He is fascinated by the ways in which improvisation informs design, how physical space shapes our relationship to hearing and storytelling, and how technology can affect the creative act. Currently assistant professor of sound design in the Department of Theater Arts and Dance, Fred has served on the faculties of the Yale School of Drama, the City University of New York, and Connecticut College. He holds an MFA in sound design from Yale School of Drama and a Bachelor of Music in jazz studies from the University of North Texas College of Music.

Fred is collaborating with the KDI core group to explore potentials for an audio signature for the initiative. Details on this project follow in the Design Inquiries section of this report.

Rebecca Krinke

Professor of Landscape Architecture, University of Minnesota College of Design

Convening Site Collaborator

Rebecca Krinke is focused on students, teaching, and her transdisciplinary art/design practice; her work includes outdoor permanent built works, temporary traveling installations, sculpture in galleries, and participatory public events. Students are always employed in her practice, and her practice inspires her teaching. Rebecca became a landscape architect out of a deep love and connection to nature. She began making sculpture as a way to be more directly involved with materials, making, and non-traditional ideas of the landscape. Over time, her work has increasingly integrated her interests in public space, private experience, memory, healing, and our emotional and spiritual connection to place.

Rebecca has connected with the KDI core group and worked with Kusske Research Assistants Torey Erin and Christine Flauta (also a Kusske Fellow), as the lead designer in developing a proposal for a Convening Site to reflect KDI values and encourage dialogue across the College of Design.

Aubree Tillett

Humanities and Design Librarian, University of Minnesota Libraries

BioLab Collaborator

Aubree Tillett recently joined the University of Minnesota as the humanities and design librarian. She holds a BA in creative writing and art history from Valparaiso University, an MA in art history from the University of Arizona, and an MLIS from the University of Wisconsin, Milwaukee. Prior to joining the University of Minnesota Libraries, Aubree was a reference assistant at the Gale Family Library at the Minnesota Historical Society and a research assistant at the Cedarburg Art Museum. As the new liaison librarian for the College of Design, Aubree will collaborate with the KDI core group and the Biomaterials Lab Advisory Group to advance the pilot site for the KDI BioLab.

Event Collaborators

Visiting Designers, Artists, and Scholars

- Lola Ben-Alon, assistant professor of architecture and director of the building science and technology curriculum, Columbia University (KDI Burst + Catalyst workshop leader)
- Maurice Blanks, co-founder and chief operating officer at Blu Dot and member of the College of Design Advisory Board (Exchange conversation partner)
- Rachel Breen, fiber artist (Exchange conversation partner)
- John Cary, President and Executive Director, Eames Institute of Infinite Curiosity (KDI Burst collaborator)
- Patricia Cummins, director of government strategy and policy solutions, Esri (Exchange conversation partner)
- Roger Cummings, chief cultural producer, Juxtaposition Arts (KDI Burst + Catalyst workshop leader)
- John Cuningham, founder, Cuningham Group (Exchange conversation partner)
- Lliisa Demetrios, chief curator, Eames Institute of Infinite Curiosity (KDI Burst collaborator)
- Ron Finley, fashion designer and urban gardening activist (Kusske Lecturer)
- Frank Gehry, architect and philanthropist, Gehry Associates (Kusske Lecturer)
- Jean-Francois Gomree, industrial designer at Blue Origin, Blue Origin (Exchange conversation partner)
- Jordan Hedlund, landscape designer, Ten x Ten (Kusske Lecture & Dialogue panelist)
- Charlie Heinz, multimedia specialist, University of Minnesota Libraries (Exchange conversation partner)
- Joe Iles, circular design program lead, Ellen MacArthur Foundation (KDI Burst + Catalyst guest speaker)

- Frederick (Fred) Kennedy, musician, composer, and assistant professor of sound design in the Department of Theater Arts and Dance, University of Minnesota College of Liberal Arts (Exchange conversation partner)
- Grace Knight, design and prototyping specialist, Ecovative (KDI Burst + Catalyst guest speaker)
- Tracy Krumm, fiber artist (Exchange conversation partner)
- Meg Lundquist, associate architect, Albertsson Hansen Architecture (KDI Burst + Catalyst workshop leader)
- Kate Maple, former assistant dean for student services; watercolorist and botanical illustrator (Exchange conversation partner)
- Adam Marcus, associate professor of architecture and co-director of the Architectural Ecologies Lab, California College of the Arts
- Adam Marcus, associate professor of architecture and co-director of the Architectural Ecologies Lab, California College of the Arts (KDI Burst + Catalyst workshop leader)
- Jonathan Muecke, furniture designer, artist, architect (Exchange conversation partner)
- Neri Oxman, founder, OXMAN (guest speaker)
- Alice Potts, biotech fashion designer and material researcher (KDI Burst + Catalyst workshop leader)
- Adam Rysanek, assistant professor of environmental systems, University of British Columbia (KDI Burst + Catalyst workshop leader)
- Blair Satterfield, architecture program chair and director of HiLo Lab, University of British Columbia (KDI Burst + Catalyst workshop leader)
- Emilie Snell-Rood, associate professor of ecology, evolution, and behavior, University of Minnesota College of Biological Sciences (Exchange conversation partner)
- Susan Sokolowski, professor of product design and founding director of the Sports Product Design MS program, University of Oregon (Exchange conversation partner)
- Scott Spicer, media outreach librarian, University of Minnesota Libraries (Exchange conversation partner)
- Lindsey Strange, designer of circular capabilities and acumen, responsible design, Target (pop-up workshop co-organizer)
- April Stone, indigenous black ash weaver (pop-up workshop leader)
- Charissa Terranova, professor of art and architectural history, University of Texas at Dallas (Exchange conversation partner)
- Sheng Thao, interior design coordinator, HDR (Exchange conversation partner)
- Aubree Tillett, humanities and design librarian, University of Minnesota Libraries (BioLab collaborator)
- Krista Tippett, Peabody Award-winning broadcaster, National Humanities Medalist, and New York Times bestselling author (KDI Burst opening dialogue moderator)
- Deborah Ultan, arts and design librarian, University of Minnesota Libraries (Exchange conversation partner, BioLab collaborator)
- Megan Valanidas, multi-disciplinary industrial designer and researcher (KDI Burst + Catalyst workshop leader)
- Diane Willow, associate professor of art and convener of the ArTeS (Art + Technology + Science) Collaborative, University of Minnesota College of Liberal Arts (Exchange conversation partner)

- Michael Winikoff, director, Science Communication Lab of the BioTechnology Institute, University of Minnesota College of Biological Sciences (Exchange conversation partner)

College of Design Event Collaborators

- Noor Abdelhamid, architecture graduate student (Exchange conversation partner)
- Abimbola Asojo, professor of interior design (Exchange conversation partner)
- Laureen Berlin-Gibson, registrar and exhibitions coordinator, Goldstein Museum of Design (Vista collaborator)
- James Boyd Brent, professor of graphic design (Exchange conversation partner)
- Missy Bye, professor of apparel design (Exchange conversation partner)
- Mike Christenson, professor of architecture (Exchange conversation partner)
- Sauman “Sue” Chu, Morse-Alumni Distinguished Professor of Graphic Design (Exchange conversation partner)
- Tane Danger, teaching specialist in design thinking and co-director of The Theater of Public Policy (Exchange conversation partner)
- Sage Davis, apparel design doctoral student (Exchange conversation partner)
- Marilyn DeLong, professor of apparel studies and apparel design (Exchange conversation partner)
- Tejas Dhadphale, associate professor of product design (Kusske Lecture & Dialogue panelist)
- Stephanie Dilworth, finance director (Exchange conversation partner)
- Greg Donofrio, associate professor of architecture and director of the heritage studies and public history program (Exchange conversation partner)
- Alex Duval, associate professor in practice, architecture (Exchange conversation partner)
- Karl Engbretson, lecturer of graphic design (Exchange conversation partner)
- Torey Erin, graduate student, landscape architecture and Kusske Research and Administrative Assistant (Exchange conversation partner)
- Joe Favour, professor of landscape architecture (Exchange conversation partner)
- Christine Zeni Flauta, graduate student, landscape architecture, Kusske Fellow and Kusske Research Assistant (Exchange conversation partner)
- Richard Graves, director of the Center for Sustainable Building Research (Exchange conversation partner)
- Tasoulla Hadjiyanni, Northrop Professor of Interior Design (Exchange conversation partner)
- Dzenita Hadziomerovic, lecturer in architecture (Exchange conversation partner)
- Annie Henly, fabrication technician (Exchange conversation partner)
- Brad Hokanson, professor of graphic design and director of the design graduate program (Exchange conversation partner)
- Brad Holschuh, associate professor of apparel design and co-director of the Wearable Technology Lab (Kusske Lecture & Dialogue panelist)
- Lisa Hseih, professor of architecture (Exchange conversation partner)
- Naeun (Lauren) Kim, assistant professor of retail merchandising (Exchange conversation partner)
- Rebecca Krinke, professor of landscape architecture (Exchange conversation partner, gallery talk)

- Barry Kudrowitz, professor of product design and head of the Department of Graphic Design, Apparel Design, Retail Merchandising, and Product Design (Exchange conversation partner)
- Chris Leberecht, landscape architecture graduate student and research assistant (gallery talk)
- Josh Lesson, Master of Landscape Architecture '22 (gallery talk)
- Terri Leung, architecture graduate student (Exchange conversation partner)
- Valeria Lopez Torres, Kusske Research Assistant and graphic design doctoral student (Exchange conversation partner)
- Karen Lutsky, assistant professor of landscape architecture (Exchange conversation partner, cohort workshop leader)
- Thomas Mahota, product design graduate student and research assistant (Exchange conversation partner)
- Jacob Mans, associate professor of architecture (Exchange conversation partner)
- Jean McElvain, interim director and associate curator of the Goldstein Museum of Design (Exchange conversation partner, Vista collaborator)
- Connor McManus, architecture/landscape architecture graduate student and research assistant (gallery talk)
- Kristine Miller, professor of landscape architecture and interim director of the Department of Landscape Architecture (Exchange conversation partner)
- Trevor Miller, assistant dean for strategy and advancement (Exchange conversation partner)
- Bill Moran, teaching specialist, interdisciplinary design (Exchange conversation partner)
- Terresa Moses, associate professor of graphic design and director of Design Justice (Kusske Lecture & Dialogue panelist, Exchange conversation partner)
- Betsy Mowry Voss, student services operations manager (Exchange conversation partner)
- Sree Nair, graphic design doctoral student (Exchange conversation partner)
- Patrick Nunnally, lecturer, landscape architecture (Exchange conversation partner)
- Java Nyamjav, M.Arch alumna and MSRP student (KDI Burst + Catalyst workshop leader)
- Tom Oliphant, furniture designer and adjunct instructor (Exchange conversation partner)
- Jenny Preuss, architecture graduate student and research assistant (gallery talk)
- Mia Riza, director of human resources (Exchange conversation partner)
- Julia Robinson, professor of architecture (Exchange conversation partner)
- Gabriel Ruegg, senior lecturer, product design (Exchange conversation partner)
- Molly Sanford, fabrication director (Exchange conversation partner, Vista collaborator)
- Chris Schlichting, undergraduate advisor (Exchange conversation partner)
- Ji Youn Shin, assistant professor of product design (Exchange conversation partner)
- Virajita Singh, associate vice provost, Office of Equity and Diversity; assistant professor of architecture (Exchange conversation partner)
- Amanda Smoot, department administrator, Department of Graphic Design, Apparel Design, Retail Merchandising, and Product Design (Exchange conversation partner)
- Malini Srivastava, associate dean for research, creative scholarship, and engagement and associate professor of architecture (Exchange conversation partner, KDI Burst + Catalyst curator)
- Lynn Tanaka, artist and Academic Service Program Specialist (Exchange conversation partner)

- Cecilia Wang, assistant professor of graphic design (Exchange conversation partner)
- Juanjuan Wu, professor of retail merchandising, director of the interdisciplinary design minor, and associate dean for academic programs (Exchange conversation partner)
- Steve Yang, assistant dean for student services (Exchange conversation partner)
- Jennifer Yoos, professor and head of the School of Architecture (Kusske Lecture & Dialogue moderator, Exchange conversation partner)
- Yiling Zhang, apparel studies doctoral student and peer facilitator for the KDI student cohort (Exchange conversation partner)

Advisory Group Members

Development of the Canopy suite of digital tools and the emerging BioLab is guided by two advisory groups comprising faculty and staff from across the College of Design.

Biomaterials Lab Advisory Group

- Deborah Ultan, arts & design librarian (chair)
- Alanna Nissen, KDI coordinator
- Abimbola Asojo, professor of interior design
- Joe Favour, professor of landscape architecture
- Linsey Griffin, KDI co-principal, associate professor of apparel design, and director of the Human Dimensioning© Laboratory
- Mary Guzowski, professor of architecture
- Barry Kudrowitz, associate professor of product design and head of the Department of Graphic Design, Apparel Design, Retail Merchandising, and Product Design
- Jean McElvain, interim director and associate curator of the Goldstein Museum of Design
- Molly Sanford, fabrication director
- Emilie Snell-Rood, associate professor and associate head of the Department of Ecology, Evolution, and Behavior (College of Biological Sciences)
- Billy Weber, lecturer of architecture
- Jennifer Yoos, professor and head of the School of Architecture

Canopy Advisory Group

- Eugene Park, KDI co-principal and associate professor of graphic design (chair)
- Alanna Nissen, KDI coordinator
- Michael Arney, lecturer of graphic design
- Alex Duval, associate professor in practice, architecture
- Naeun (Lauren) Kim, assistant professor of retail merchandising
- Amelia Narigon, director of communications
- Malini Srivastava, associate dean for research, creative scholarship, and engagement and associate professor of architecture

Events

Exchange

A primary goal for KDI is to create spaces for regular dialogues, bringing people together to share perspectives and address critical design issues. The biweekly recurrence of the KDI Exchange sustains a regular flow of conversation to compare and contrast perspectives, develop common vocabulary and culture, and spark collaboration across disciplines. Each session begins with two or more conversation partners describing their varying perspectives on the topic and then inviting participants to chime in. Conversation partners and other Exchange participants include faculty, staff, students, and guests.

Many of the topics derive from curricular focuses or research interests of members of the college community. Topics also address pressing social issues that arise in day-to-day news. By dovetailing Exchange topics with existing threads of work and conversation, the forum both draws from and contributes to the ever-evolving DNA of the college. The program also forges new, often unexpected connections across conventional disciplinary boundaries.

In the 2022–2023 academic/fiscal year, we hosted 26 Exchange sessions, averaging approximately 30 attendees per session. Each session is recorded and shared on the College of Design [YouTube](#) channel. References and resources shared during the conversation are also archived in a library of resources and indexed to the event. This documentation will soon feed into the new KDI Canopy site, projected to launch in late 2023. Canopy will provide access to historical KDI programs along with references and other supplemental content, yielding a robust library of interdisciplinary resources.

Exchange Topics

This year, we conducted these Exchange sessions:

July 1, 2022	Exploring American Identity
July 15, 2022	Exploring American Identity, Part II
July 29, 2022	Biomaterials Brainstorm
August 12, 2022	Furniture Design
August 26, 2022	Prototyping
September 9, 2022	Signature Objects, Images, and Ideas

EVENTS

September 23, 2022	Body as Landscape, Cloth as Terrain
October 7, 2022	Plastics
October 21, 2022	Conversation Design
November 4, 2022	From Alphabets to Typography: A Cast of Characters
November 18, 2022	Earth-Based Practices
December 2, 2022	Biomaterials Brainstorm
December 16, 2022	Intersections of Design, Technology, and Nature
January 6, 2023	Mindsets for Empathetic Design
January 20, 2023	Organic Modernism
February 3, 2023	Data and Design
February 17, 2023	Biodesign Challenge
March 3, 2023	Strategies for Repairing Designed Objects
March 17, 2023	Virtual Reality
March 31, 2023	Descriptive Language for Visual Shapes and Palpable Forms
April 14, 2023	Light in Art, Design & Nature
April 28, 2023	The Dynamic Surface
May 12, 2023	Commonalities in Architecture and Product Design
May 26, 2023	Unifying Patterns in Nature
June 9, 2023	Found Objects and Bio-Inspiration
June 23, 2023	Walk and Talk in the Lyndale Park Peace Garden

A full listing of KDI Exchange sessions since January 2021 can be found on the [KDI website](#).

Kusske Lecture & Dialogue



“Thank you SO much again for last night!!! It was incredible from the moment I got there to the moment I left. I mean, who could’ve foreseen that [Ron Finley would] sit down next to [me] so we could talk beforehand?! That and getting to talk with Torey [Erin, a KDI graduate assistant] from landscape architecture afterwards were my two favorite parts of the night.”

Michelle Shaw
Minneapolis Edible Boulevards Coordinator



Fashion designer and urban gardening activist Ron Finley speaks at the second annual Kusske Lecture & Dialogue, held at McNamara Alumni Center on December 1, 2022.

In December 2022 we hosted the second annual Kusske Lecture & Dialogue featuring fashion designer, urban gardener, and social activist [Ron Finley](#). The diverse audience of more than 350 attendees included students, faculty, and staff from the college and broader University community, as well as community members interested in design, gardening, and social and environmental justice. We were pleased to welcome members from groups including Appetite for Change, Frogtown Farm, Juxtaposition Arts, Minneapolis Edible Boulevards, the Minnesota State Horticultural Society, Project Sweetie Pie, Urban Farm and Garden Alliance, Urban Ventures, Youth Farm, and volunteers from the University of Minnesota Extension Service’s Master Gardener program.

Following the lecture portion of the evening, College of Design colleagues engaged in a panel discussion about design, values, and social and environmental justice. KDI Co-Principal Carlye Lauff (assistant professor of product design) moderated as Ron spoke with fellow KDI Co-Principal Linsey Griffin (associate professor of apparel design and director of the Human Dimensioning© Lab) and Director of Design Justice [Terresa Moses](#) (assistant professor of graphic design). The conversation connected Ron’s work as an urban gardening activist to systems-level thinking about design education, climate justice, and food insecurity. The evening concluded with a very active Q&A session with the audience, followed by a lively reception.



KDI Co-Principal Carlye Lauff (far right) moderates a panel discussion with Ron Finley, KDI Co-Principal Linsey Griffin, and Director of Design Justice Terresa Moses (right to left) as part of the Kusske Lecture & Dialogue.

The event was recorded in a multi-camera shoot, and a short-form video and full transcript have been released along with a [blog post](#) on the KDI website. The full-length video will become part of our KDI archive.

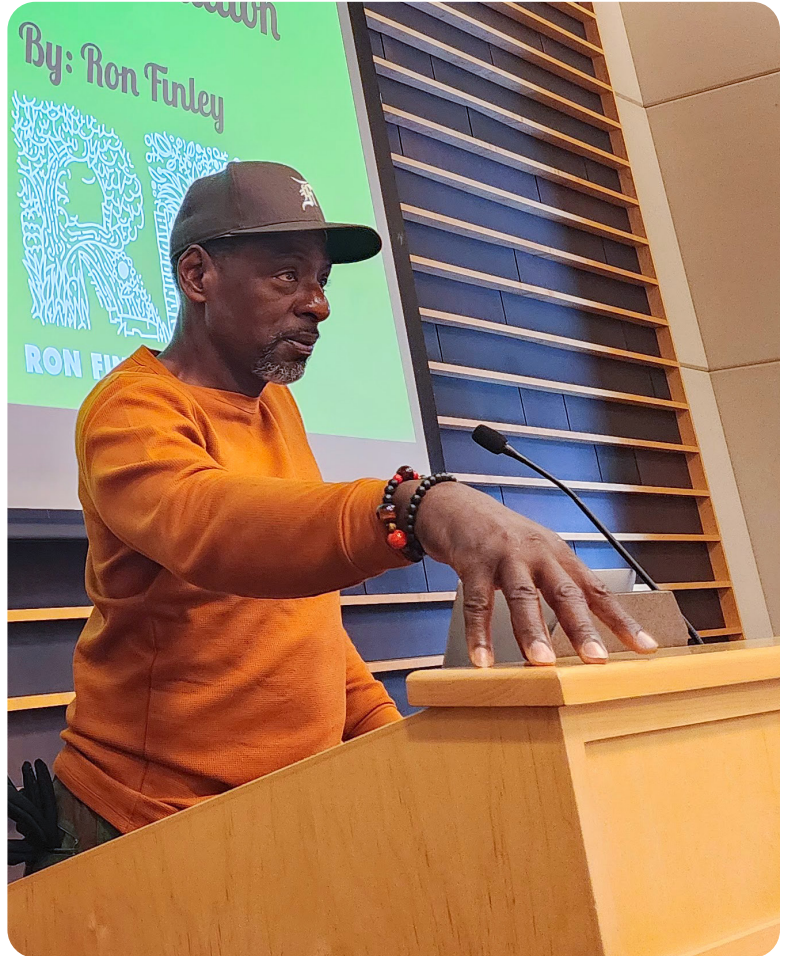
We were able to expand the programming around the Kusske Lecture & Dialogue to provide a more hands-on and intimate experience for students through a design charrette the following day. A multidisciplinary group of graduate and undergraduate students, including several members of the KDI student cohort, engaged in further dialogue with Ron while ideating and sketching transformations of outdoor spaces based on his methods. Participants' ideas included:

- A transformation of bus stops into green-roofed and -walled oases intended to improve the experience of public transit and encourage ridership while providing pockets of green space in urban areas
- A biophilic renovation of the McNeal Hall “treehouse” study area to link the interior and exterior spaces, including rolling planting beds that can be brought inside to expand the growing season
- Planting pockets on the McNeal Hall atrium pillars reusing materials from a current fabric-wrap installation
- Redesign of an underutilized exterior space adjacent to Rapson Hall, including a garden that would provide materials for courses and the BioLab (dye and fiber plants, mycelium, and more), as well as a mycelium-based shade canopy and a wooden boardwalk

In tandem with the design charrette, various students, faculty, and staff in the college participated in a dynamic KDI Exchange dialogue. Having reflected on the previous night's lecture and panel discussion, participants were eager to exchange views on Ron Finley's "complete shift of consciousness." We considered storytelling, asking "what if?," and other speculative methodologies for creating a manifesto on the inspiration to "regenerate." Participants also discussed how to reflect this inspiration in our design work and development of the emerging KDI BioLab.



Ron Finley speaks with student participants during a design charrette in which he inspired students to imagine and sketch transformations of urban spaces.



Ron Finley presents his guerilla gardening techniques to introduce a design charrette following his Kusske Lecture & Dialogue.

This year's highly successful Kusske Lecture & Dialogue event constituted a robust realization of the program, which was inaugurated last year with a hybrid event featuring world-renowned architect Frank Gehry in conversation with Jennifer Yoos, head of the School of Architecture. The loosening of pandemic restrictions this year allowed us to welcome a larger audience and include additional opportunities for connection and dialogue through the reception and follow-on charrette and KDI Exchange.

We continue to cultivate potential speakers for future events in the Kusske Lecture & Dialogue series, and we are thrilled to share that we have an informal agreement with the speaker for next year. We look forward to welcoming Janine Benyus to the College of Design as our 2023 keynote speaker. Janine is a biologist, innovation consultant, and author whose landmark

book *Biomimicry: Innovation Inspired by Nature* popularized biomimicry—emulation of nature’s designs and processes—as a design strategy for a healthier, more sustainable planet. Janine Benyus is the founder of the world’s first bio-inspired consultancy, with clients including Boeing, Nike, General Electric, Herman Miller, HOK architects, IDEO, Levi’s, Kohler, and General Mills. Her nonprofit Biomimicry Institute works to embed biomimicry in both formal education and informal learning spaces, such as museums and nature centers. Alanna is working with the Biomimicry Institute team on the event contract, and we are planning a public announcement to be timed as the fall semester approaches. We look forward to sharing more as we work with Janine to plan details of the program.



Biologist, innovation consultant, and author Janine Benyus will be the featured speaker for the 2023 Kusske Lecture & Dialogue.

“The more our world functions like the natural world, the more likely we are to endure on this home that is ours, but not ours alone.”

Janine Benyus
Co-Founder, Biomimicry Institute

Burst



John Cary and Lllisa Demetrios of the Eames Institute in conversation with Peabody Award-winning journalist Krista Tippett (left to right) during the opening dialogue of the 2023 KDI Burst.

We realized the first fully mature KDI Burst in March of 2023, following prior instantiations as combined programs with the KDI Exchange (2021) and *Architecture as Catalyst* (2022). Organized in partnership with the Eames Institute of Infinite Curiosity, our third annual Burst focused on the theme of “Empathy at Scale” and included an opening dialogue and a two-day workshop.

We welcomed journalist Krista Tippett for an opening dialogue with our partners from the Eames Institute, Lllisa Demetrios (chief curator and granddaughter of Charles and Ray Eames) and John Cary (president and CEO), in the Best Buy Theater at Northrop Auditorium. The theater provided an intimate environment for an audience of approximately 150 attendees, including students, faculty, and community members. The wide-ranging conversation included examination of the values and methodologies of legendary designers Ray and Charles Eames.

The panelists discussed ways in which the Eames Institute carries those ideas forward, inspiring today’s designers to embrace curiosity, playfulness, and empathy. In the days following the event, Krista shared that she found the evening “energizing and inspiring,” and Lllisa emailed to thank us for “creating the space to open the door to the idea of nurturing empathy at various scales! It takes a very thoughtful village of people who care very deeply.”

A group of more than 20 graduate and undergraduate students from various design disciplines participated in the two-day workshop that followed the opening dialogue, putting the ideas and methodologies into practice. Participants examined deconstructed objects including furniture, footwear, and museum exhibition designs. These “inside views” supported the students’ consideration of the complex systems of material extraction, manufacturing, distribution, use, and disposal that surround the objects. Visual aids included world maps showing routes in supply chains and disposal locations. The students charted and described impacts on humans and the environment at scales from individual to community to planetary. As groups, they generated ideas for redesign of the objects and beneficial systems effects.

KDI Co-Principals Carlye Lauff and Linsey Griffin co-facilitated the workshop, with John and Lliisa interspersing commentary from perspectives of the Eames legacy. Alanna and Kusske Assistants Julianne Bur (human factors & ergonomics), Vanessa Segura-Duque (human factors & ergonomics), and Torey Erin (landscape architecture) provided vital research and design support in preparation for the workshop. The maps, posters with quotes from Ray and Charles Eames, along with data on materials sourcing and transport, enabled the students to begin working with the content at a deep level, resulting in a vibrant set of conversations and co-creative work.



KDI Burst collaborators John Cary and Lliisa Demetrios of the Eames Institute for Infinite Curiosity discuss the concept of “empathy at scale” during the 2023 KDI Burst workshop. Students pictured include Kusske Scholars Audra Sims, Noah Hertel, and Nicolas Donoso; Kusske Scholar Tse-Hsun Kuo; and Kusske Research Assistant Vanessa Segura Duque.



Kusske Scholar Noah Hertel (product design) and Kusske Research Assistant Julianne Bur (human factors & ergonomics) discuss a disassembled sneaker with fellow student Neha Aramkuni (product design) during the 2023 KDI Burst workshop.



During the Burst workshop, students mapped human and environmental impacts of products like Nike footwear.

Participating students were highly engaged, generating ideas for new product designs, interventions into existing systems, and cultural changes to reduce waste and pollution, protect the health and safety of workers, and increase circular re-use of materials. Many students also expressed excitement about the opportunity to work together with students from other disciplines and across graduate/undergraduate programs.

Kusske Research Assistant Andria Banker Codner (product design) is now working with Carlye, Linsey, and Alanna to plan an on-campus Vista display of the outcomes of the workshop, which will be presented in the library in Rapson Hall this fall.

“The Eames practice was strongly aligned with values to achieve ‘the best for most for least’—to make the best product, for the most people, for the least amount of money.”

Ellsa Demetrios
Chief Curator, Eames Institute

Cohort Convenings, Dialogues & Special Events

Convenings

To promote a sense of shared identity and encourage collaboration among the student cohort, we hosted a number of events specifically for the Kusske Scholars, Fellows, and Assistants during the 2022–2023 academic year, supplementing the larger events open to the college and broader community. We host three cohort convenings each year, marking key moments in the academic calendar.

In September 2022, we welcomed the cohort back to campus for the fall semester with a dinner at Owamni, a James Beard Award-winning restaurant focused on revitalizing indigenous American cuisine and culture. Founder Sean Sherman was recently named one of *Time* magazine's 100 Most Influential People for his efforts on decolonizing food systems and food sovereignty. Kusske Fellow Christine Flauta (landscape architecture) and graduate assistant Torey Erin (landscape architecture) opened the dinner with a grounding exercise and a traditional Hawaiian oli (a chant that honors those gathered and calls for wisdom from the earth). The students, co-principals, and KDI staff spent the evening getting to know each other, sharing stories, and learning about indigenous American foodways.

With the start of the spring semester in mid-January, the student cohort came back together for Reconvene. Together with KDI Co-Principals Linsey Griffin and Carlye Lauff and KDI Coordinator Alanna Nissen, the cohort gathered at the Walker Art Center for a screening of the film Anyox, by Jessica Johnson and Ryan Ermacora. The film explores the “intersecting histories of labor, immigration, and extractive capitalism” that have impacted the landscape of a post-industrial British Columbia ghost town, where “the two remaining residents manage ominous dunes of slag left behind by last century’s copper smelting.” The film presents a striking view of the long-term and large-scale impacts that result from the selection and extraction of materials, an ongoing topic of interest for KDI students and collaborators as we consider circular economies in the production and use of materials and products.



Still from the film *Anyox* by Jessica Johnson and Ryan Ermacora. The KDI cohort attended a screening of the film at the Walker Art Center for the January 2023 Reconvene event.

“In dialogue with my cohort I was given new inspiration and motivation toward my research. This initiative truly energizes discussion and innovation.”

Andria Banker Codner, product design
Kusske Research Assistant
(Summer 2022–Summer 2023)

The end of the academic year was marked by a casual gathering at the Campus Club, where we celebrated our graduating cohort members and welcomed the newly selected students entering the cohort next fall. Graduating students were presented with special KDI honor cords to wear as part of their regalia at commencement ceremonies the following week, where they were also recognized within the event program.



Graduating Kusske Scholar Angelica Valencia (interior design) wears cords to represent her KDI cohort membership and University honors.



Friends and families of the Class of 2022 filled Northrop Auditorium for the College of Design graduation celebration. Members of the KDI cohort were recognized during the event program.

Cohort Dialogues & Special Events

Cohort dialogues and dedicated events provide additional opportunities for the cohort to form bonds as a group, learn about each others' work, and conduct collaborative projects. The student cohort meets monthly for their own dialogues, led by Cohort Peer Facilitator Yiling Zhang (apparel studies), in addition to participating in the Exchange, special cohort events, and student-initiated sessions for collaborative work. With these various event cycles, members of the student cohort typically have some form of engagement with each other or the broader KDI community every week throughout the academic year.

The monthly dialogues focus on topics of shared interest. This year, the students considered biomimicry, circular economy, and play. In the spring semester, the scholars, fellows, and assistants focused much of their conversation and collaboration on their shared interest in connections between learning and play. They developed an interactive installation that invited students throughout the college to share how they learn, design, and play. Participants wound color-coded threads to connect pegs indicating preferences in how they learn, find inspiration, focus their design process, approach play, and anticipate impacts from their design work. The installation was a tool for collecting data about varying styles in creativity and cognition.



Kusske Scholar Noah Hertel (product design) discusses the cohort's "Through-Line" interactive installation with fellow CDes students.



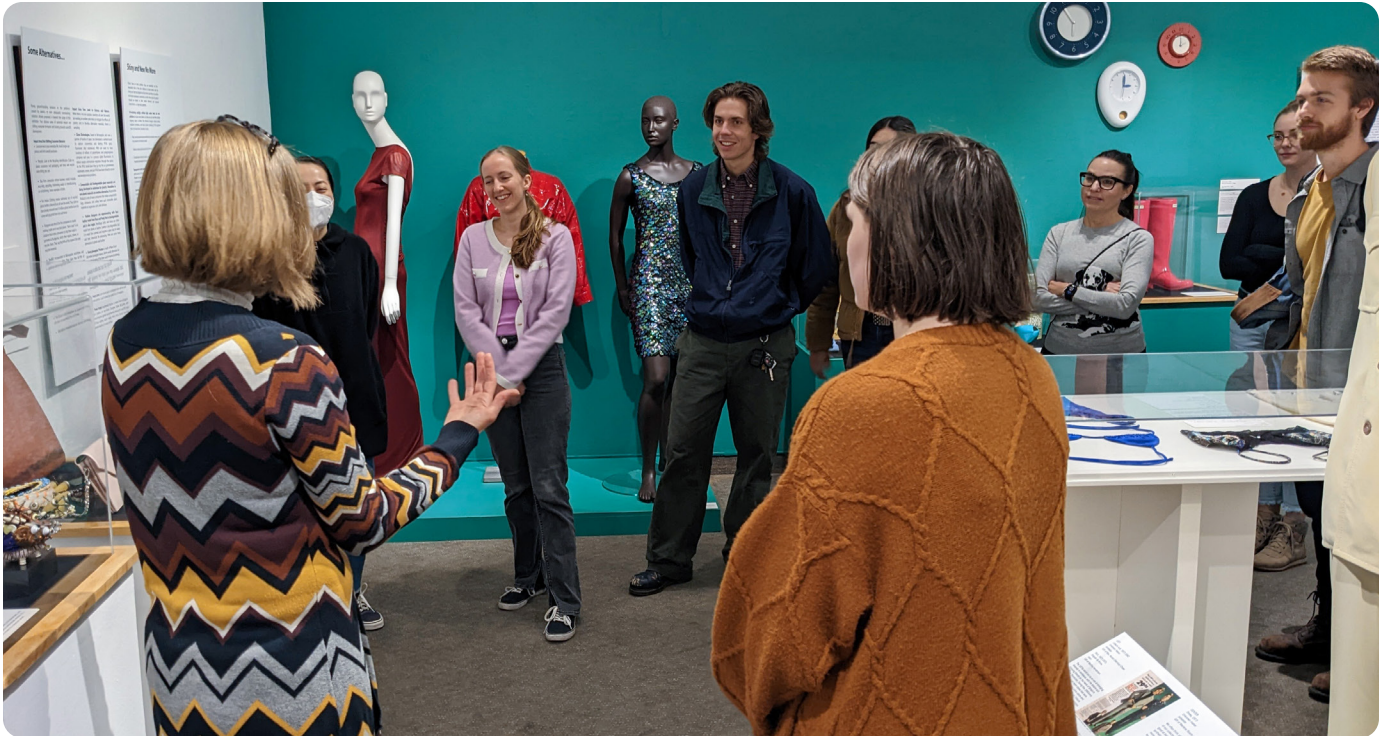
Kusske Scholar Angelica Valencia (interior design) examines a jacket made of fish leather in the Minneapolis Institute of Arts exhibition *Dressed by Nature: Textiles of Japan*. Members of the cohort joined KDI Co-Principal Linsey Griffin's apparel design studio course for a guided tour of the exhibition, where they learned about Japanese textiles crafted from local biomaterials.

In their introduction to the installation, the collaborating students stated: "Although we are from seven disciplines at the College of Design and at different stages of our design learning and practicing, we, as design students and researchers, find our common enthusiasm in the relationship among learning, designing, and playing." Data collection continued until the end of the term in May 2023, and the students look forward to analyzing and sharing the data when they return for the fall semester. Additional photographs of the completed installation are included in the Vista section of this report.

In addition to the recurring cohort events, this year we provided a number of special opportunities for the scholars, fellows, and assistants, based on interests of the group and broader themes of the initiative.

In September, members of the cohort were invited to join KDI Co-Principal Linsey Griffin's apparel design studio course for a guided tour of the Minneapolis Institute of Art exhibition *Dressed by Nature: Textiles of Japan*. The exhibition featured Japanese textiles crafted from local materials including fish leather, paper, elm bark, nettle, banana leaf fiber, hemp, wisteria, deerskin, cotton, silk, and wool dyed with natural colorants including indigo, safflower, and smoke.

In October, interim director and associate curator of the Goldstein Museum of Design (GMD) Jean McElvain led the cohort on a guided tour of the exhibition *Plastic Rapt: A History of Designing Forever*. Students learned about the history of plastics, including early synthetics like celluloid and Bakelite, and discussed both innovations enabled by the development of modern plastics and the environmental impacts of petroleum-based materials.



Jean McElvain, interim director and associate curator of the Goldstein Museum of Design, (left) leads the KDI student cohort on a tour of *Plastic Rapt: A History of Designing Forever*.

Following the tour, Linsey Griffin led the students in a workshop using objects from the GMD collection to explore whole-systems mapping for comparison of similar objects produced using plastics and natural materials. Linsey then joined the next cohort dialogue for continued discussion of circular economy concepts. Referring to outcomes of their earlier workshop, Linsey also helped the group to transform the linear product lifespan maps they had generated into maps of circular lifecycles.

One of the year's special achievements was the December 2022 event with design luminary [Neri Oxman](#). A world-renowned transdisciplinary innovator, Neri formerly directed the [Mediated Matter research group](#) at the MIT Media Lab. She is the creator of the field of “material ecology,” which strives to integrate biological, technological, and design considerations in imagining and fabricating objects and spaces. While Neri’s schedule precluded her from



Cohort facilitator Yiling Zhang (apparel studies) and Kusske Scholar Jacob Dommer-Koch (architecture) compare snow boots made of reindeer hide and plastic-based materials during a workshop led by KDI Co-Principal Linsey Griffin following a tour of the *Plastic Rapt* exhibition.

being our Kusske Lecturer for the year, we were thrilled to be able to organize this encounter for the KDI cohort and collaborators. The session was a unique and special opportunity for our students to have an intimate conversation with one of the most influential designers working today.

Neri shared her approach to design and a range of past projects, as well as recent work from her new company, OXMAN, which is “rethinking design to empower a future of complete synergy between Nature and humanity.” She then engaged the group in more casual conversation. Students and co-principals alike left the Zoom session inspired by Neri’s radical approach in blending art, design, science, and engineering. KDI Co-Principal Linsey Griffin described herself as “at a loss for words” following the “incredible” call.



World-renowned transdisciplinary designer Neri Oxman in conversation with the KDI cohort and collaborators during a special event in Fall 2022.

The cohort’s interest in technological advancements and interconnections between design and the sciences also led us to organize a tour of the University’s Virtual Reality Studio at the Health Sciences Library in February 2023. The Virtual Reality Studio provides support and access to equipment for virtual and augmented reality, and the library staff responsible for it have been collaborating with faculty and researchers in the College of Design with increasing frequency. The tour was led by Media Outreach and Learning Services Librarian Scott Spicer, who, along with Juanjuan Wu (professor of retail merchandising, director of the interdisciplinary design minor, and associate dean for academic programs) and Charlie Heinz (multimedia specialist), led an Exchange session focused on virtual reality and other immersive technologies a few weeks later.

These organized dialogues and special events provide a strong foundation for relationship development and collaboration among the students in the cohort. By spring semester, they were planning their own co-creative work sessions to advance their collaborative project and share other creative and scholarly work. Looking ahead to the 2023–2024 academic year, we plan to continue a model for cohort participation that combines activities focused on building understanding of KDI themes with student-initiated opportunities for peer-learning and bonding. These events and activities will continue to be supported by Cohort Peer Facilitator Yiling Zhang and KDI Coordinator Alanna Nissen, as well as the dean and co-principals.

We are thrilled to see KDI students emerging as co-directors of their own learning and common experience, while developing senses of shared identity and belonging. We are encouraging students to stay connected to the cohort as they graduate and move beyond the University, bringing their KDI learnings to their new professional work and their personal lives.

Partnerships



Richard Graves, director of the Center for Sustainable Building Research, (third from left) presents a gallery talk for the exhibition *Biophilia + Well-being + Design* in HGA Gallery.

Throughout the year, KDI cooperated in a range of events beyond the core programming, such as presentations to collegiate academic and administrative groups and collaboratively planned internal and public events. These involvements help to raise awareness of KDI among the campus community and beyond, ensure alignment of KDI and collegiate operations, and create

additional opportunities for KDI to become embedded in and contribute to the DNA of the College of Design. In 2022–2023, these auxiliary involvements included:

Summer 2022	Alanna served on the search committee for the Goldstein Museum of Design's new registrar and exhibition coordinator.
October 2022	Alanna participated in sessions among an advisory group discussing possible improvements to the layout and shared use of the HGA Gallery in Rapson Hall, organized by the Goldstein Museum of Design at the dean's request.
Fall 2022	Alanna served on the search committee for the new humanities and design librarian.
November 11, 2022	Alanna presented an overview of KDI to the College of Design Advisory Board.
January 2023	Carol, Alanna, Allen, and Chief Development Officer Adam Buhr traveled to Petaluma, California, to meet with collaborators at the Eames Ranch, home of the Eames Institute of Infinite Curiosity.
January 24, 2023	Carol, Alanna, and Allen met with Franklin University Switzerland faculty members Fabio Ferrari and Chrisanta Marin to discuss methods for successful interdisciplinary programming and collaboration.
February 13, 2023	Alanna met with a research team curating a Goldstein Museum of Design exhibition about designed surfaces to consider potential connections to KDI. This discussion led to an Exchange session later in the semester.
Spring 2023	Alanna served on the search committee for the new assistant to the dean.
March–April 2023	Alanna provided organizational and communications support for a series of four gallery talks for the exhibition, <i>Biophilia + Well-being + Design</i> , curated by the Center for Sustainable Building Research and Goldstein Museum of Design.
May 2023	Taking inspiration from a past Exchange session, Alanna and Carlye partnered with fabrication shop staff to launch a collaborative design/build project utilizing repurposed materials, which resulted in a mini-golf hole that was part of a larger set of installations across the University.
May 11, 2023	Graduating members of the KDI student cohort were recognized during the College of Design Graduation Celebration.



The Eames Ranch in Petaluma, California, home of the Eames Institute of Infinite Curiosity. Since our visit, the facility has been cleared for renovations. The collection is being catalogued and will be reassembled in the renovated space in a couple of years.

Supports

Canopy

Last year, the KDI core team and collaborators implemented a version 1.0 of Canopy as a collection of digital tools and media to connect the KDI cohort and collaborators with each other and with interested colleagues across the College of Design and our larger communities.

At the heart of version 1.0 are the initial pages of the [KDI website](#), which provide basic information about the initiative, profiles of participants, and an event calendar. This instantiation also houses the [overview video](#) we produced in 2021, which describes KDI in the words of faculty, staff, and students. The College of Design's [YouTube](#) channel, accessible via the KDI website, houses a video archive including all Exchange sessions and other KDI event recordings. In addition, we initiated the [Hortus component](#) of Canopy using Airtable database software as a temporary system. Our database now contains nearly 750 resources, including articles, books, videos, podcasts, and listings of labs and collections.

We continued to maintain the KDI site and build our database of resources as we pushed forward toward Canopy 2.0. This new version of Canopy will be based on a mobile-responsive website, which will allow for access across a range of devices (phones, tablets, and computers) without requiring users to download an app. It will both envelop and expand upon the functionality currently being provided, ensuring a cohesive user experience with an innovative visual and UX design. This new responsive site will house key Canopy features, including an advanced Hortus database, while integrating third-party tools such as social media and YouTube. These functions can generate traffic organically, enabling people otherwise unfamiliar with KDI to discover our content and programming.

KDI Co-Principal Eugene Park and KDI Coordinator Alanna Nissen initiated the University-mandated RFP process with UMN Purchasing Services to identify a design firm for designing and implementing the site. The RFP closed in September 2022, and the Canopy Advisory Group conducted a comprehensive review of the responding proposals in October and November. We received proposals from firms all across the country with a range of creative and technical visions for the project. We identified four finalists: two local to the Twin Cities and two based on the coasts. These finalists gave presentations to the advisory group, co-principals, and dean.

Following this review, KDI collaborators selected [View Source](#), a Brooklyn-based agency noted for their innovative aesthetic and integrated approach to online design and digital implementation. Working in partnership with the KDI core team and collaborators in collegiate IT and communications units, View Source has undertaken content strategy, visual branding, UX/UI design, and technical development. The team at View Source understands the KDI ethos (they refer to themselves as a “transdisciplinary creative agency”), and they have been excellent collaborators on this unique and ambitious project. We are grateful to Eugene Park for his continued leadership of the project, even after the end of his term as co-principal.

In Spring 2023, the team completed a discovery phase before focusing on the branding and visual identity for KDI and the new site. View Source presented multiple directions for the visual identity, from which our team selected an option focused on the metaphor of a tree canopy. The imagery includes abstracted natural forms and a color palette suggestive of outdoor scenes. This visual approach builds on existing KDI brand assets by retaining key elements such as typefaces and signature colors.



Woodland treetops space naturally so as to allow gaps that help to prevent spread of disease and maximize leaf exposure to nourishing sunlight. This “crown shyness” in the forest canopy is the inspiration for the screen layout of information panels, in hues relating to the natural environment.

With the base imagery in place and the technical and user-experience discovery phases completed, we began work on the user interface. The designers at View Source developed a visual metaphor for “canopy shyness” or “crown shyness”—a phenomenon in which growing trees naturally space themselves, creating gaps for light to shine through and around the leaves down to the ground. The Japanese word “komorebi” describes this phenomenon of changing light, roughly translating as “the scattered light that filters through when sunlight shines through trees.” The “crown shyness” metaphor guides both the visual design of the site and strategies for the user experience. The site will make content available to viewers through a range of presentation modes, with emphasis on providing access to varying perspectives, inviting moments of serendipitous discovery, and reflecting a sense of the interconnected networks of ideas and people that comprise KDI.



Canopy opens with an animation that introduces the initiative by cycling through prominent programs including the Exchange, Burst, Vista, and Canopy. Letterforms emerge from imagery resembling the cellular structure of wood and naturally occurring networks such as those in rhizomes and mycelia. We hope to eventually incorporate a soundtrack with KDI's audio signature.

Work during May and June involved completing the interface design and running and evaluating a focus group of students, staff, faculty, and friends of KDI. Primary development of the site is scheduled to be complete in October, with accessibility and quality-assurance testing to follow. We anticipate the launch of Canopy version 2.0 at the end of calendar year 2023.

Vista

During the 2022–2023 academic year we presented a number of Vista installations, ranging from relatively formal mini-exhibitions to pop-up displays of individual projects.

In Fall 2022, we featured a Vista display of research by our faculty co-principals and graduate assistants in the deans office display window at Rapson Hall (adjacent to the HGA Gallery). This display included a wide breadth of scholarly inquiry: an experimental framework for generating data visualizations from recordings of video conferences (applied here to the KDI Exchange), “low-tech” land-based infrastructure interventions to address climate change, and an examination of prototype fidelity and stakeholder feedback. Projects included:

- **KDI Identity Concept + Visualization of KDI Exchange Topics**
Eugene Park, Associate Professor of Graphic Design
Assisted by Valeria Lopez Torres (graphic design) and Paith Philemon (human factors & ergonomics)
- **Land-Based Interventions for Climate Change Infrastructure**
Jessica Rossi-Mastracci, Assistant Professor of Landscape Architecture
Assisted by Marla Brown, Aubrey Olson, and Torey Erin (landscape architecture)
- **Prototype Fidelity for Testing Products for Children**
Carlye Lauff, Assistant Professor and Graduate Program Director, Product Design
Assisted by Andria Banker Codner (product design)

Further details on these projects and additional co-principal research inquiries are included in the Co-Principal Research section of this report.

During the winter, KDI Coordinator Alanna Nissen and graduate student administrative assistant Torey Erin (landscape architecture) installed a display of student-generated work in a display window associated with the Goldstein Museum of Design (GMD) at McNeal Hall. The exhibit featured results of exploratory research and experimentation with bio-based materials—including bioplastics, mycelium, and rammed earth—generated by members of the KDI student cohort and participants in the [2022 KDI Burst + Architecture as Catalyst: Materi\(e\)ality](#) workshops. Outstanding work included bioplastics experiments and light fixtures by Kusske Scholar Angelica Valencia (interior design) and mycelium research by Kusske Fellow Ashani Trinh (architecture). Ashani initiated her research in last year’s KDI course and continued it through a KDI-supported directed study with Associate Professor of Architecture Malini Srivastava, who curated last year’s KDI Burst + Catalyst and is a member of the Biomaterials Lab Advisory Group.

For this collaboration with the Goldstein, Torey and Alanna worked together to select samples representing a range of student projects. They also wrote didactic materials introducing the material types and their relevance to design, being sure to credit the student researchers. In addition to planning the display and writing accompanying explanations, Torey arranged to have pedestals built for the exhibit area. After the end of the exhibit we donated these pedestals to GMD for ongoing use.



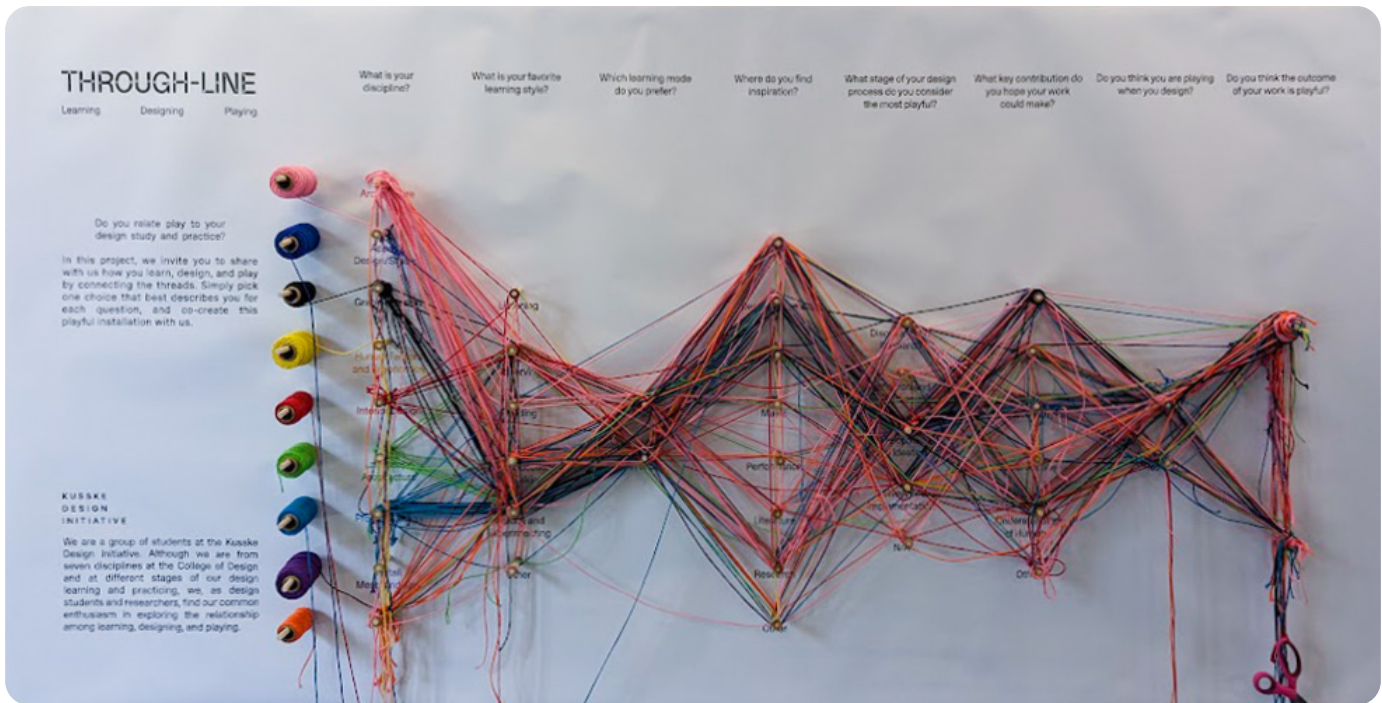
Vista exhibition of student-generated biomaterials presented in the Goldstein Museum of Design window, including work by Kusske Scholar Angelica Valencia (interior design) and Kusske Fellow Ashani Trinh (architecture).

This installation was one of several collaborations between KDI and the Goldstein this year. Alanna served on the search committee for the museum's new registrar and exhibition coordinator. She also participated in a collegiate working group assessing the HGA gallery space for adjustments that could improve exhibition opportunities within the college. Alanna has also worked with the Goldstein Museum's associate curator and interim director, Jean McElvain, along with faculty members planning exhibitions, to support collaborative programming like gallery talks relevant to KDI themes. We anticipate increased collaborations with the museum, as KDI visibility continues to grow and the initiative becomes increasingly entwined in CDes DNA.

We also used pop-up formats for Spring 2023 Vista displays, presenting projects by KDI students and collaborators. As shared in the Cohort Convenings & Special Events section earlier in this report, the Kusske Scholars, Fellows, and Assistants discovered a shared interest in connections between learning and play. They chose to spend much of their time together during the spring semester exploring learning and play styles and developing an interactive data-collection installation. They invited fellow students to connect data points with color-coded threads to share how they learn, design, and play.

The installation asked passers-by to consider their learning style and preferred modality for learning, sources of inspiration, approaches to play, and areas for desired impacts of their designs. Data collection through interactive engagement with the exhibit continued through

commencement in mid-May. The cohort looks forward to analyzing the collected data this fall, and hopes this overall effort will provide insights and inspiration for future cohort projects.



In the cohort's installation, colored strings represent the different CDes disciplines, and each string represents one student's response to the set of questions. Student response to the installation was impressive, as demonstrated by the density of data strings. Members of the KDI student cohort will analyze this dataset in the fall of 2023.

Throughout the 2022–2023 academic year, KDI Coordinator Alanna Nissen and KDI Co-Principal Carlye Lauff prepared for another Vista installation by collaborating with fabrication shop staff to collect and sort models and prototypes that were discarded from students' work. In May, fabrication technicians used these discards to create a multi-story mini-golf hole, which became part of a broader University-wide mini-golf course.

The mini-golf hole was located in the hallway between the wood shop and digital/metal shops at Rapson Hall, adjacent to the courtyard. Its base was constructed from waste materials, members of the college community were encouraged to upcycle the materials from models and prototypes to create obstacles altering the gameplay of the hole. Players teed off from the second floor, where the ball traveled through a funnel into a tube that carried it to the first floor. After exiting the tube, the ball traveled through a plinko board to a putting green with additional creative obstacles.

The collection of these materials was prompted by an August 2022 Exchange session about prototyping practices across disciplines, which was co-led by Carlye and Fabrication Director Molly Sanford. In that session, participants considered what counts as a "prototype," what vocabulary describes processes similar to prototyping in disciplines where the term is not commonly used, and concerns about waste and re-use of prototyping materials. The conversation generated an idea for an "exquisite corpse"-inspired workshop, where attendees would use discarded prototypes collected from the fabrication shop as both material and inspiration for generating new product ideas, freed from the objects' original context.



Two-story mini-golf hole collaboratively constructed with upcycled materials reclaimed from CDes student prototypes and models and fabrication shop waste.

This idea emerged in tandem with the discovery of the cohort's shared interest in play and an initiative to develop a temporary campus-wide mini-golf course led by the FLASH (Fabrication Leaders and Shop Heads) collective of makerspaces and fabrication spaces throughout the University. Ultimately, CDes collaborators combined these efforts to create a collaboratively built, ever-evolving mini-golf hole that allowed students to explore course design while upcycling materials that otherwise would have been discarded. KDI values of environmental stewardship and broad collaboration guided the development of and engagement with this exhibit.

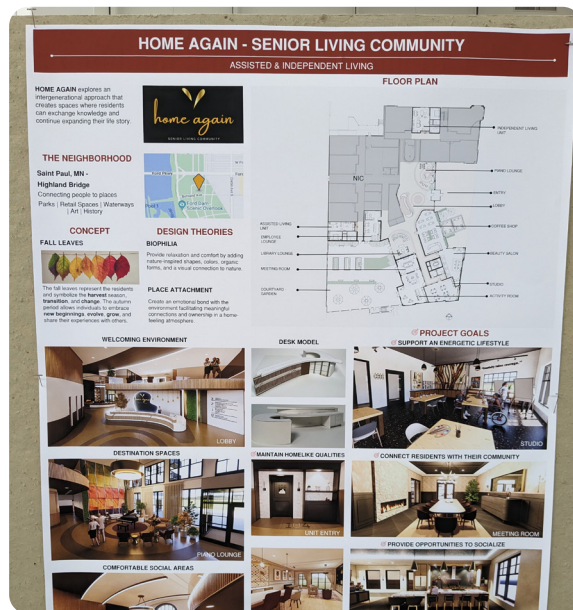
As the semester came to an end, KDI students were also featured in the College of Design Showcase, organized by the academic degree programs. This college-wide exhibition featured presentations, final projects, and other culminating work by spring graduates from CDes undergraduate and graduate-level programs. Elements of the Showcase appeared throughout Rapson Hall, with each academic program selecting two to three top students to highlight in the center of the exhibition at Rapson Courtyard, including Kusske Scholars Noah Hertel (product design) and Angelica Valencia (interior design).

Noah and Angelica's projects both showed influence from their time as Kusske Scholars. Noah's final project, a line of upcycled paddling equipment called "Recirculate," sought to bring the boating industry into the circular economy using repeatable and scalable methods. His 3-in-1 pack design was created from 95% upcycled materials, including recycled kayak fabric, straps, and hardware; mesh from retired billboards; and bias tape and storm strips fabricated from old bike tubes. Angelica's design for a senior-living community incorporated biophilic and topophilic design strategies to provide relaxation and comfort for residents, while engendering an emotional bond with the environment, facilitating meaningful connections among residents, and nurturing their sense of belonging in the community.

Looking ahead to next year, we are excited about the emerging opportunities to expand Vista into the digital realm through Canopy 2.0. The new site will include an online gallery with expansive functionality for sharing creative and scholarly projects in a media-rich format. Additional details on progress in further realizing this KDI support are included in the Canopy section earlier in this report.



The Rapson Courtyard featured specially selected projects by graduating CDes students as part of the larger college Showcase, which extended throughout Rapson Hall.



Senior projects by graduating Kusske Scholars Angelica Valencia (interior design) and Noah Hertel (product design) featured in the College of Design Showcase in May 2023.

BioLab

Guided by themes of interdisciplinary dialogue and collaboration, biophilic design, and circular economy, the KDI core team and collaborators have made strides toward developing an experimental biomaterials collection and makerspace. This site will be based in the Architecture and Landscape Architecture Library at Rapson Hall to serve the entire College of Design. As part of the KDI pilot, this initial, modest facility will instantiate key ideas that we hope one day could expand to support the realization of a larger BioLab.

In July 2022, we received a large donation of material samples from [Aveda](#) to help initiate the BioLab collection. In keeping with Aveda's focus on environmental and social responsibility, these product samples are bio-based and/or hold various sustainability-related certifications (e.g., Cradle to Cradle Certification).

The Aveda retail design team provided hundreds of samples of flooring, wallcoverings, hard surfaces, fabrics, and other materials; the retail merchandising team gifted a range of natural pigments, botanicals, and other items students will use in hands-on workshops as they explore creating their own bioplastics and other DIY bio-based materials. In combination with the [bioplastic samples students created during the Burst workshops in March](#), we are now developing an initial collection that comprises a range of raw materials, DIY materials and recipes, and commercially available product samples as recommended by the Biomaterials Lab Advisory Group.

KDI Coordinator Alanna Nissen and Kusske Administrative Assistant Torey Erin (landscape architecture) have been working with collaborators to inventory and catalogue all these samples. Collaborators include library staff; Malini Srivastava, the faculty member who curated last spring's Burst + Catalyst workshops; and her research assistant, Mady Gulon (architecture). The data structure of the inventory is a simplified version of the cataloging schema of [Material Order](#), which we hope to adopt as the BioLab becomes established. In addition to helping us follow best practices for material cataloging, this approach will allow for easier integration of our initial sample inventory with that online system in the future. We became familiar with [Material Order](#) through our visit to RISD last spring.

As of the end of fiscal year 2023, photography and cataloging of all the Burst + Catalyst-generated samples have been completed, resulting in a detailed inventory that includes physical characteristics of the materials, recipes and instructions to produce the plastics, and photographs. Inventory and documentation of the Aveda sample collection is continuing this summer.

Transitions in both the College of Design liaison librarian role and UMN Libraries leadership have somewhat slowed progress on discussions of potential future changes in the Rapson library space for accommodating the BioLab; however, new staff are now settling into their roles, and we are excited to be steadily developing this important partnership.

The University Libraries recently welcomed Aubree Tillett as the new liaison librarian for the College of Design. Former Arts and Design Librarian Deborah Ultan, who chaired the Biomaterials Lab Advisory Group, will remain with the University in a new role and has helped to onboard



Bioplastic samples with recipes and instructions generated during the 2022 KDI Burst + Catalyst workshops form part of the initial biomaterials collection.

“I want to continue learning about the natural world, how to incorporate its best features into design, and make products that work with our environment, not against it.”

Nicolas Donoso, product design
Kusske Scholar (2023–2025)

Aubree. In April, Alanna met with Deborah, Aubree, and their supervisor, Kristi Jensen, director for arts, humanities, and area studies, to discuss the advisory group’s recommendations and begin to involve Aubree as a KDI collaborator.

In May, Alanna, Aubree, and Kristi developed a plan to site the initial biomaterials collection within the library, using an alcove area adjacent to the circulation desk to highlight the KDI collection as a special resource. This area also includes a computer station where students and faculty will be able to explore a digital catalogue of the collection. Tables and seating will encourage browsing and handling the materials. Aubree will be developing a research guide to help students and faculty find more traditional library resources that could aid in their work with biomaterials. This collaborating group hopes to have the remaining materials cataloged and the space set up early in the fall semester.

We also continue to explore opportunities to create a makerspace associated with the biomaterials collection. In April, Carol met with Evangela Oates, the associate university librarian for student success, whose work includes oversight of the library-based makerspaces on campus. Carol showed Evangela highlights of Rapson Hall, including the fabrication shop. Fabrication Director Molly Sanford explained the many tools and materials available to students and introduced some of the knowledgeable staff who provide caring support for students’ hands-on learning. The college has abundant expertise in providing support for this sort of engagement, which will be helpful as we develop new protocols for working with biomaterials.

As we enter the final year of the KDI pilot and project plans for phase two, we are anticipating efforts toward supplemental fundraising that could enable further growth of the BioLab collection, facility, and collaborators. Short-term potentials include acquisition of a 3D printer that outputs in clay and other eco-friendly materials. Longer-term aspirations include assembly of an array of networked electron microscopes to support students’ explorations of multi-scale architectures.

Design Inquiries

Convening Site

In the spring of 2022, we began conversations with special collaborator Rebecca Krinke (professor of landscape architecture) to initiate development of a potential “third place” connecting the St. Paul and Minneapolis locations of the Twin Cities campus. The objective of this in-between location is to create a space that encourages dialogue among people throughout the college's distributed sites, while reflecting KDI values and methods of respect for the natural world and synthesis of diverse perspectives. Having developed an initial design concept, Rebecca and collaborators are now exploring potentials for a future site that could be realized when space and funding can be secured.



KDI collaborator Rebecca Krinke's concept design for a convening site for the College of Design, inspired by KDI themes and the values of Chris Kusske.

Last summer, Rebecca worked with Kusske Research Assistants Torey Erin and Christine Flauta (who became a Kusske Fellow in the fall of 2023) to research and articulate concepts for this site, developing ideas in conjunction with the KDI core team. Rebecca continued this work through the 2022–2023 academic year, ultimately generating conceptual sketches for a primary space located outside Rapson Hall in Minneapolis with a connecting site at McNeal Hall in St. Paul.

The conceptual design for Rapson Hall's exterior east courtyard creates a place of seating, meeting, studying, conversing, and enjoying being outside in a meadow. The form of an orrery—a model of the planets of our solar system and their orbits—inspired the social space that you see in the rendering. It reflects the idea, method, and importance of scale-shifting that is central to many KDI conversations. The landscape architecture incorporates black Mesabi granite (also seen in the completed design for the west courtyard) in the forms of the central table and surrounding gravel. Mesabi granite is quarried in Ely, Minnesota, to which Rapson Hall is connected by an ancient volcanic rift system. This rift is located deep beneath the building and rises gradually to the surface in northern Minnesota.

The local stone and native vegetation incorporated into Rebecca's planting design add to conditions for conveners' development of a strongly grounded, deeply connected sense of place. This objective reflects Chris Kusske's design aspiration of topophilia. The site overall supports KDI's purpose to advance dialogue and the initiative's emphasis on exchanging diverse views and creative ideas. The convening site is a place for nurturing global thinkers in every sense of the term. It offers space for dialogue and reflection; gatherings large and small, formal and informal; and connection to the natural world and each other.

This design and the steadily emerging BioLab are intriguing components of our imagined "design district" on the East Bank of the Twin Cities campus. The college already has classroom, studio, and meeting spaces in and around Rapson Hall. We need more space to achieve the dream of uniting the college on one campus. We are delighted that members of University administration are now acknowledging potentials in buildings along Church Street. We hope to engage concerted discussion of possibilities for including CDes in a renovation of 10 Church Street, the former site of the Bell Museum of Natural History (which is now located in a new facility in St. Paul).

Audio Signature

Throughout the year, the KDI core team engaged in conversation with musician and composer Fred Kennedy (assistant professor of sound design in the Department of Theater Arts and Dance in the College of Liberal Arts) to explore creation of a "sonic logo" or "audio signature" for KDI. Conversations about this audible element have included explorations of environmental field recordings, musicalized speech, and tuning forks sounding the sacred frequencies of the Secret Solfeggio (which Chris Kusske's father, an otolaryngologist, had used).

As we continue to develop the new KDI site, Canopy 2.0, we hope to integrate the audio signature in a "splash page" that users will see upon their first visit to the site. As described above in the Canopy section of this report, the opening splash page will establish the KDI brand and include an animation with abstracted representations of nature, inspired by canopy shyness and root and mycelial growth.

Co-Principal Research

KDI funding enables our co-principals to advance knowledge by pursuing studies and explorations of timely issues and of methods that have relevance to many design disciplines. These contexts provide employment for Kusske Assistants and help in building community across the college, as people discuss the wide-ranging ideas and results.

Linsey Griffin

KDI Co-Principal Linsey Griffin specializes in the development of wearable health and safety products, and her research lies at the intersection of design, ergonomics, and technology. She aims to improve human safety and wellbeing through applied wearable design research, data integration, systems understanding, and interdisciplinary collaboration. Linsey's multi-scale design research is inspired by the gaps and space between topics and disciplines: the body-product scale, the product-population scale, and the product-systems scale. This research produces comprehensive data and methods that address basic human-factor needs. Her research also facilitates the translation of complex data into the development of human-centered wearable products that are rooted in need and aimed at improving the safety and wellbeing of the users.

In the 2022–2023 academic year, Linsey worked with Kusske Research Assistants Vanessa Segura Duque, Julianne Bur, and Emily Seifert (all human factors & ergonomics). Their work supported:

- circular design research for the KDI Burst workshop;
- development of a circular design tool, which was presented at the Fashion & Circularity conference;
- hospital gown systems understanding, also presented at the Fashion & Circularity Conference; and
- customized pediatric CPAP mask development.

Their work was disseminated in journals including *Ergonomics in Design*, *Applied Ergonomics*, *Fashion & Textiles*, the *Journal of Medical Devices*, and the *Aerosol and Air Quality Research Journal*; through a chapter in the upcoming book *Compression Textiles for Medical, Sports, and Allied Applications*; and through presentations at and published proceedings of the *Fashion & Circular Design Conference*, among others.

Linsey is engaged in a number of interdisciplinary research teams with collaborators at the University of Minnesota and beyond in relation to these projects. In collaboration with William Durfee of the College of Science and Engineering and Susan Arnold of the School of Public Health, team members tested half-mask respirator fit and 3D-scanned faces at the Driven to Discover building at the Minnesota State Fair. They aimed to understand the relationship between mask fit and face shape.

In addition, Linsey and her circular design tool research team are beginning to collaborate with faculty at North Carolina State University, Kansas State University, and the University of Delaware to further develop the design tool and develop a game to support undergraduate and graduate learning about circular design strategies.

Linsey is also working in collaboration with Pediatric Device Innovation Consortium Director Gwenyth Fischer of the University of Minnesota Medical School Department of Pediatrics on the customized pediatric CPAP mask project. Hospital stays are prolonged for a small percentage of pediatric patients and patients because the traditional commercial respiratory masks do not fit and function on their faces. There is a need to develop a pediatric respiratory mask solution for patients that provides functional fit, adjustability, and comfort for the wearer. Common problems with pediatric respiratory masks include:

- significant leakage around the nose, cheeks, and chin,
- head strap placement is not positioned correctly for anatomy of some faces,
- head straps must be pulled so tight that the pressure causes injury to baby or child, and
- prolonged wear of masks causes injury to the face and delicate skin.

Linsey, Vanessa, Julianne, and Emily have been testing the feasibility of 3D-scanning pediatric patients (6–8 months old) in a hospital environment and are now expanding this method to a larger population of pediatric patients. In addition to developing a 3D-scanning method, the team is in the process of designing and testing a customized pediatric mask manufacturing process with input from MHealth. The goal of this project is to develop a viable solution that can be created within 48 hours of a patient being admitted to the hospital.

This year, Linsey was recognized for her impactful research on personal protective equipment (PPE) by the National Institute of Occupational Safety and Health (NIOSH). She has been hired by NIOSH as a senior scientist and will work in the National Personal Protection Technology Laboratory (NPPTL) to develop strategies to improve equity in PPE. Related awards and recognition included:

- Second place in the NIOSH Protective Clothing Challenge: Leaving No Body Unprotected, including an award of \$15,000, in collaboration with Susan Sokolowski of the University of Oregon
- Invited speaker at the NPPTL and NIOSH Roadmap for Equitable PPE two-day workshop with more than 500 attendees from industry, academia, and government
- Invited speaker at the National Academies of Sciences, Engineering, and Medicine's Committee on Personal Protective Equipment for Workplace Safety and Health

Carlye Lauff

KDI Co-Principal Carlye Lauff's research centers around studying people, process, and prototypes, and the interactions between them during design work. She considers common design methods used across disciplines, such as ethnographic interviewing and low-fidelity prototyping, to understand how they may help designers create ideal solutions to problems they face. In the 2022–2023 academic year, Carlye worked with Kusske Research Assistants Micki Grover

and Andria Banker Codner (both product design). Micki’s research is related to ethnographic research methods used with cross-disciplinary teams, specifically developing and validating metrics for evaluating high-quality design ethnography interviews and impact of cross-cultural teams on eliciting new information. Andria’s research is related to physical prototype evolution during the design process and how prototype fidelity impacts obtaining feedback from different stakeholders. Micki and Andria both collected data for their research projects during the 2021–2022 academic year and analyzed the data during the 2022–2023 academic year.



Kusske Research Assistant Andria Banker Codner (product design) studied the evolution of prototypes and their impact on stakeholder feedback, using ten toy prototypes with ten teams. Each team/prototype pairing was given a fruit name for identification in the summary image above.

Carlye, Micki, and Andria’s research was disseminated through publications including the American Society of Mechanical Engineers (ASME) *Journal of Mechanical Design’s* special issue on design artifacts, the proceedings of the [ASME International Design Engineering Design Theory and Methodology Conference](#) and [Design Automation Conference](#), the [International Conference on Engineering Design](#), the journal *Design Studies*, and a chapter in the *Medical Device Innovation Handbook*.

Additionally, Carlye has worked on multiple interdisciplinary research projects with faculty from across the University of Minnesota. In collaboration with [Amr El-Bokl](#) and [Gurumurthy Hiremath](#) of the University of Minnesota Medical School Department of Pediatrics, Carlye was part of a team that developed an educational and interactive companion toy called Octo. The toy is designed to support children with congenital heart disease. The team was awarded a grant as part of the [MIN-CORPS MVP Challenge](#). The grant funds will be used to explore extending augmented reality experiences and animation with the toy and to perform additional

usability testing. The Octo project was recently featured on [KARE 11 news](#).

In addition, Carlye and her collaborator [Natasha Wright](#), the Richard and Barbara Nelson Assistant Professor of Mechanical Engineering in the College of Science and Engineering, were recently awarded a \$20,000 [SDG Research Grant](#) through the University’s [Global Programs and Strategies Alliance](#). Projects funded by this program address known local and/or global needs and contribute to [United Nations Sustainable Development Goals](#), a globally recognized integrated framework for addressing major social and environmental challenges of the 21st century. Their project, which builds upon Carlye’s KDI-funded research with Kusske Assistant Micki Grover, is entitled “Understanding impacts of cross-cultural interviews for eliciting needs and requirements for projects related to the sustainable development goals.”

Carlye gave a number of talks and workshops related to her research on ethnographic research, prototyping, and design process and methodology in the 2022–2023 academic/fiscal year, including:

July 2022	Invited workshop for more than 100 undergraduate and graduate students at Lehigh University’s Office of Creative Inquiry Mountaintop Initiative, focused on use of ethnographic research methods to drive insights for innovation
November 2022	Invited talk on prototyping strategies for services for more than 100 professionals in the governmental sector at the Service Design in Government conference
April 2023	Invited talk on early-stage medical device prototyping at the Design of Medical Devices Conference ’s One Day Innovation Workshop
February 2023	Invited presentation on improving childhood education through product design, delivered to more than 65 medical fellows, residents, and faculty in the Department of Pediatrics at the University of Minnesota

Eugene Park

KDI Co-Principal Eugene Park studies issues of racial and cultural representation in anthropomorphic data visualizations. He examines both historic and current practices in representing such data and provides recommendations for a decolonized approach to data visualization.

This year, Eugene continued development of an experimental framework for generating data visualizations from recordings of videoconferences using Python programming augmented with an API for machine learning. He was assisted by Kusske Research Assistants Paith Philemon (human factors & ergonomics) and Valeria Lopez Torres (graphic design) as well as undergraduate computer science major Abdul Rahman. He disseminated this research through a conference presentation entitled “Visualization Methods Across Videoconferencing Transcripts and Design Journals” at the March 2023

Seventeenth International Conference on Design Principles & Practices. In his presentation, Eugene presented two case studies in applying visualization methods using text-based data, one of which derived from KDI Exchange sessions.

In addition, Eugene conducted interdisciplinary collaborative research with fellow KDI Co-Principals Jessica Rossi-Mastracci (landscape architecture) and Carlye Lauff (product design), through two projects supported by CDes Collaborative Research Grants. In 2022, Eugene, Carlye, and collaborating investigator Cecilia Wang (graphic design) were awarded \$15,000 for their project “Human-centered Design Approach to Training Medical Residents and Fellows: An Immersive, Multimodal, and Interactive Platform for Learning Cardiac Anesthesia.” In 2023, Eugene, Jessica, and Matthew Tierney of the Center for Sustainable Building Research were awarded \$15,000 in support of their project “Drawing Water: Collaborative Tools to Represent Hydrological Systems.”

Jessica Rossi-Mastracci

In 2023, KDI Co-Principal Jessica Rossi-Mastracci continued her work on land-based interventions for climate change infrastructure, supported by Kusske Research Assistant Torey Erin (landscape architecture). This research is premised on the idea that “low-tech” land-based interventions hold promise as components of and inspiration for new, sustainable infrastructures to address climate change.

Land-based interventions use simple construction techniques, such as digging, stacking, and piling. Generally they are more cost-effective and easier to install than hard concrete infrastructure, provide multiple benefits, respond to resource availability, and are adaptable in changing and unpredictable climates. Because they rely on the land, these in-situ interventions hold embedded information and knowledge generated through thousands of years of use. They can be adapted for new landscape and urban forms that support vegetation and animal habitat. These methods deploy materials differently, manage water locally, and increase human engagement with the environment.

This research investigates a series of questions: What can we learn from how land-based infrastructures function at a micro/material scale as well as a larger ecological scale, and change through time or achieve permanence? How can these understandings inform both the form and function of our landscape, from typological forms to materials to a terrain strategy? Jessica is exploring these questions in KDI-supported research inquiries, course development, and other creative work such as competition entries and journal articles.

The KDI-supported research is organized into three parts. The first part, “RESEARCH / CATALOG / DIAGRAM,” was completed Fall 2021 and involved collecting, organizing, and diagramming land-based infrastructural typologies to visualize and describe formal characteristics, materials, and performance. The second part, “ANALYZE / DISSECT / INSERT,” was completed Summer 2022 and examined typologies from Step 1 to determine the simplest form(s) or components. The goal was to understand and “dissect” how specific typologies function on a material and formal level, including material assemblies, scale/dimensions, change over time, performance, and response to different water conditions, including scarcity and inundation/flood. The third part, which continues beyond the end of Jessica’s term as a

KDI co-principal, “TRANSFORM / SPECULATE / ITERATE,” iterates from these components in response to site-specific scenarios—specifically, one in the Arid West and one in the Midwest—through drawing, modeling, and in-situ installations.

This year, outputs from Jessica’s research included articles accepted for publication in the *Journal of Landscape Architecture* and *_SCAPE MN*, the Minnesota Chapter of the American Society of Landscape Architecture (ASLA)’s quarterly publication.

Jessica is also a member of an interdisciplinary, cross-institutional research team that was selected for a \$500,000 subaward of a larger \$14.5 million cross-institutional Templeton Foundation grant entitled, “Agency, Directionality, and Function: Foundations for a Science of Purpose.” This project focuses on the roles and processes of biological functions in bio-inspired design. The team also includes frequent KDI collaborators [Emilie Snell-Rood](#) of the College of Biological Sciences and Professor of Architecture [Mary Guzowski](#), both of whom are members of KDI’s Biomaterials Lab Advisory Group.

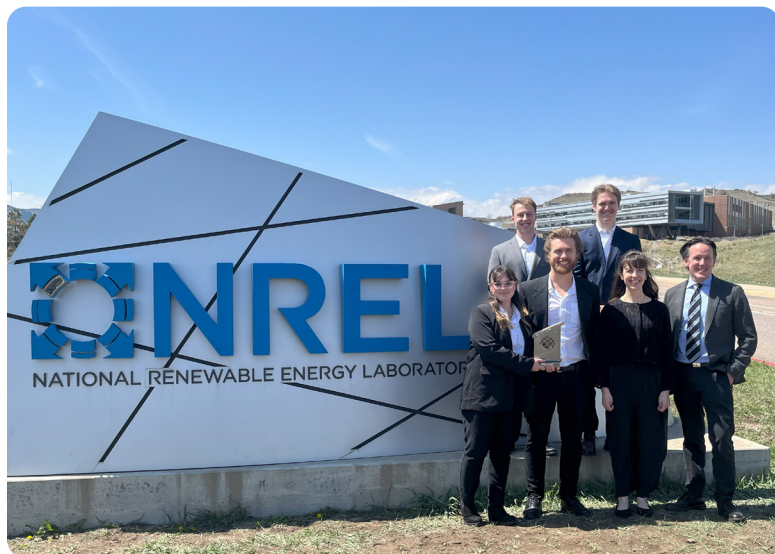
Through their research, the team seeks to develop a new conceptual framework for understanding function in biology. This framework will articulate with bio-inspired design approaches by including perspectives of architecture and engineering. In particular, the researchers are challenging the limiting framework of immediate, optimal adaptive function. They are moving beyond this framework by building a set of interdisciplinary tools that encourage a more systematic exploration of the diversity of biological function across environmental and phylogenetic contexts and scales. This more rigorous approach has potential to revolutionize methods for conceptualizing purposive phenomena in the natural world. A key output of this analysis will be theoretical resources for both designers and engineers as they seek to understand multifunctionality. The resources will also support designers’ collaboration with biologists as they seek to discern explanatory principles of function in living systems.

Student Accolades & Publications

Members of the KDI student cohort exhibit excellence in their academic and extracurricular endeavors. Below is a list of selected accolades, publications, and presentations by our Kusske Scholars, Fellows, and Assistants during the 2022–2023 academic year.

November 2022	Kusske Research Assistant Valeria Lopez Torres (graphic design) presented preliminary results from her doctoral research at the interdisciplinary conference Encountering Non-Humans: On Methodologies for the Post-Anthropocene in Brno, Czech Republic.
February 2023	Kusske Research Assistant Andria Banker Codner (product design) had a full-length, peer-reviewed conference paper accepted to ICED23—the 24th International Conference on Engineering Design . KDI Co-Principal Carlye Lauff was a co-author for the paper: “Prototyping for Children: Understanding How Fidelity Affects Children’s Comprehension of Prototypes.”

March 2023	Kusske Research Assistant Micki Grover (product design) had two full-length, peer-reviewed conference papers accepted to ASME's International Design Engineering Technical Conference . KDI Co-Principal Carlye Lauff was a co-author for the papers: "Towards Quantifying Interviews: Comparing Techniques to Evaluate the Quality of Design Interviews" and "Design Interviews Conducted by Intra- and Intercultural Teams: A Case Study on Dialysis in Zimbabwe."
April 2023	Kusske Fellow Christine Flauta (landscape architecture) and adjunct professor Dan Shaw (landscape architecture) had a project selected for the Landscape Architecture Foundation's (LAF) 2023 Case Study Investigation Program .
April 2023	Kusske Scholar Jacob Dommer-Koch (architecture) co-led a project team that took second place in the Multifamily Division of the 2023 Solar Decathlon Design Challenge , a program of the US Department of Energy . The team also received a College of Design Environmental Action Award. They were featured in a story on KSTP News , and Jacob authored a blog post for the CDes website.
May 2023	Kusske Research Assistant Valeria Lopez Torres (graphic design) was selected as a 2023 MnDRIVE Human in the Data fellow this summer at the University of Minnesota's Institute for Advanced Study .



"The [Solar Decathlon] was both inspiring and deeply validating for all of us who are committed to radically changing the way we design the built environment. More than anything, it galvanized a sense of hope for a more sustainable future."

Jacob Dommer-Koch, architecture
Kusske Scholar (2022–2024)

Kusske Scholar Jacob Dommer-Koch (front row, second from left) with members of his Solar Decathlon team. The team took second place in the Multifamily Division of the Department of Energy's 2023 Solar Decathlon Design Challenge.

Published by the University of Minnesota College of Design

Typefaces in use: Pangea Light, Regular Text, and SemiBold
IBM Plex Serif Regular

Pangea is a typeface born out of the collaborative vision of Christoph Koeberlin. Working with type designers across the world, Christoph was able to design a functional and sophisticated typeface that can extend itself to Cyrillic, Greek, and Vietnamese. Arabic and Hebrew languages are planned for future release.

Christoph also donates 25% of his income made from Pangea licensing to rain forest preservation and reforestation projects.

The collaborative effort behind the typeface's design, along with its financial support towards environmental stewardship, makes Pangea as the ideal typeface for KDI.

Cover: The cover image is based on the phenomenon of canopy shyness, with natural forms abstracted to color fields and texturized.

We are grateful to Manitou Fund for enabling us to create the Kusske Design Initiative.

Thanks to colleagues throughout the College of Design for additional support through involvements making KDI integral to our culture.