

2018-2019

Community Engagement, Design and Research Center (CEDaR) Biennial Report



Affiliated with CU Boulder's Program in Environmental Design



Community Engagement, Design and Research Center
UNIVERSITY OF COLORADO **BOULDER**



Community Engagement, Design and Research Center
UNIVERSITY OF COLORADO BOULDER

Dear Friends and Partners,

I am pleased to share with you CU Boulder's Community Engagement Design and Research Center's (CEDaR's) 2018-2019 Biennial Report.

CEDaR's goal is to build long-term partnerships that engage our students with Colorado communities and address critical priorities of local governments and neighborhoods.

Our work is intended to:

- Create opportunities for CU Boulder students and faculty to take part in community projects.
- Strengthen the voice of communities of color, youth, immigrants and other populations that are underrepresented in planning and design decisions to address social and environmental injustice.
- Develop new approaches to urban problems and stimulate dialogue about the future of Colorado cities.

During 2018-2019, CEDaR partnered with the cities of Boulder, Longmont and Denver, and neighborhoods across Colorado to develop projects that are resource-efficient, healthy and socially inclusive. We worked in six program areas: Community Arts/Design Build, Sustainable Places, City Science, Urban Affordability, Resilient Infrastructure and Children and Youth. CEDaR helped develop studios, seminars and thesis projects that engaged more than 500 undergraduates and graduate students; managed two yearly statewide forums, Community Building Colorado-Style and the Manufactured Housing Summit; hosted the national MetroLab conference on the CU Boulder campus; and initiated research in the areas of community engagement, urban heat and flood, manufactured housing policy and management of green infrastructure. Overall we supported about 50 community projects working with 48 CU Boulder faculty and staff. More than 1,500 community members participated in these activities, and CEDaR directly employed about more than 70 interns and student workers.

Through the pandemic our staff has continued CEDaR's important work including building the Resource Center for Colorado Manufactured Home Residents, which provides information about policy and design and issues such as eviction in mobile home communities; the "Chronicles" project, a collection of narratives of affordable housing residents; and "Virtually There," an platform for local youth and their families to engage online in Growing Up Boulder's current projects.

It is an honor to join forces in this cause with our outstanding friends, partners and grantees across Colorado. To all of you, I extend my deepest thanks.

Brian Muller

Associate Professor, CU Boulder Program in Environmental Design
CEDaR Director

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HISTORY

The University of Colorado Boulder designated CEDaR as a center in May 2016; we became operational in January of 2017. CEDaR is an interdisciplinary center that connects the university and community through partnerships that demonstrate innovative approaches to city design and policy. We are a collaborative of faculty, staff and students, who draw on the knowledge and creativity of both the university and community to create urban places that are resource-efficient, healthy and socially inclusive. CEDaR has a staff of eight, who along with visiting scholars, doctoral and master's students, and many undergraduates, works with more than 30 community partners. CEDaR is housed in CU Boulder's Program in Environmental Design on the second floor of the Environmental Design building. It's a lively office with many staff, interns, professors and student employees working there. This biennial report looks back on CEDaR's work during 2018 and 2019.



Above: Mara Mintzer, director of Growing Up Boulder, receives feedback on the first draft of Boulder's child-friendly city map from two University Hill Elementary students during their Museum of Boulder Bilingual Showcase event in March 2019. This map, which is the nation's first, bilingual, child-friendly city map, is the result of a year-long collaboration between Growing Up Boulder, more than 700 local children and families, and 30+ community partners.

PROGRAM AREAS

Sustainable Places

Much of CEDaR's work, including design and planning for urban redevelopment, place-making and resource-efficient urbanism, falls under "sustainable places," the creation of vital, healthy and sustainable urban places.

Community Arts/ Design Build

CEDaR helps organize a variety of community arts projects ranging from the restoration of the Dushanbe Teahouse in Boulder to design of a plaza in downtown Longmont.

City Science

City science projects are collaborations with cities and neighborhoods to collect information about physical and social environments, uses of the built environment and attitudes. We apply this information to the analysis and monitoring of city and neighborhood conditions. The MetroLab Network frames this work at a national scale.

Urban Affordability

Urban affordability projects address the effects of land-use policy on housing cost, design of low-cost housing, sustainability of mobile home communities and programmatic options for energy conservation. We work in collaboration with cities, nonprofit groups and private firms.

Resilient Infrastructure

CEDaR's integrated approach to resilient infrastructure emphasizes linked problems in management of urban heat, flooding, connectivity, water quality and water supply.

Children and Youth

CEDaR was developed out of the Children, Youth and Environments Center, and the concepts of youth participation and the child-friendly city are at the heart of our work. Its mission is to empower Boulder's young people with opportunities for inclusion, influence and deliberation on local issues that affect their lives.

“CEDaR has been valuable to my growth as a sustainable planning and urban design undergraduate student by allowing me to learn, research and study under the supervision of the CEDaR team. The rain garden assessment position broadened my interest in the application of planning research to field work, rain garden maintenance and community engagement.
- Amy Lacourse, research assistant”

NEW INITIATIVES

The CU-City Design Workshop was developed in 2017 as a partnership between the city of Boulder and CU Boulder and later extended to Boulder County and the cities of Longmont and Lyons. During 2018-2019 we partnered with CU Boulder faculty members on projects including revitalization of the University Hill neighborhood in Boulder; restoration of the Boulder Dushanbe Teahouse; and renewal of the Longmont downtown. Through studios and classes we trained more than 250 students while providing services and supporting community dialogue on neighborhood and downtown revitalization. Growing Up Boulder (GUB) projects during 2018-2019 included creation of the nation's first, printed Child-Friendly City Map. The maps were co-created with more than 1,000 Boulder young people and parents, 50 percent of whom were from underrepresented backgrounds. Other innovative GUB projects for 2018-19 included collecting input from more than 500 local children and families for the city's Transportation Master Plan and Open Space Master Plan. GUB accomplished this work with the involvement of 150 University of Colorado Boulder undergraduate and graduate students.

The Manufactured Housing Initiative, started in 2017, supports research, design and policy discussion on the future of mobile and manufactured home (MH) communities. During 2018-2019, working with partner organizations, we helped engage residents in implementation of the state Mobile Home Park Oversight Act (HB19-1309); hosted two statewide Manufactured Housing Summits (2018 and 2019); organized a Future of Manufactured Housing Design workshop for MH residents in Boulder County; constructed an on-line clearinghouse, including information about state policy COVID-19; and organized a studio focusing on design problems in transition of mobile home communities.

CEDaR organized Colorado MetroLab at CU Boulder to promote development of city-university partnerships that research and deploy new urban technologies and design innovations. Colorado MetroLab is an affiliate of the National MetroLab Network. During 2018-2019, CEDaR held four workshops for university faculty and city staff; hosted the MetroLab Summit in Boulder attended by about 200

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A key theme with CEDaR is community engagement, and I have been able to work with citizens, policy makers and scholars to collaboratively create solutions to pressing problems ranging from affordable housing to urban forestry. Overall, CEDaR has helped me appreciate the complexity of problems facing urban areas, and it has given me a suite of analytical tools to tackle future challenges.

- Michael Szuberla, PhD Candidate/CEDaR Research Affiliate

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city and university representatives nationwide; organized five submittals from city-faculty teams to the NSF-sponsored Civic Innovation Challenge; and supported four on-going city-university research collaborations, including faculty from Earth Lab, information sciences and civil engineering.

CEDaR managed a varied set of **COMMUNITY PLANNING AND DESIGN PROJECTS** during 2018-2019. These projects are taken on in response to community requests and led by groups of faculty, staff and students. We researched walking and pedestrian safety in Denver's Westwood neighborhood; conducted an assessment of the Denver green roof ordinance; surveyed public information needs for the emerald ash borer infestation; surveyed community attitudes in Longmont toward the Old Town district;

Below: Paul Chinowsky, director of CU Boulder's Program in Environmental Design, left, and Jonathan Koehn, regional sustainability coordinator with the city of Boulder, right, interact during the climate change panel at the national MetroLab Summit, held at the University of Colorado Boulder campus on Sept. 19, 2019. Photo by Sarah Manning



and assessed the performance of sample rain gardens. A team of students evaluated community-level outcomes of the state creative district program. We planted three demonstration rain gardens in Denver, supported a design/build project in Boulder's University Hill neighborhood, and developed community green infrastructure plans for three Denver neighborhoods.



Left: Undergraduate environmental design students plant a rain garden in the Park Hill area of Denver on June 2, 2018. Rain gardens provide a low-cost strategy to temporarily store, infiltrate and filter stormwater.

PARTNERS

A partial list of our partners includes:

- The city of Boulder
- The city of Longmont
- The city of Denver
- The city of Lyons
- The city of Silverthorne
- The city of Lafayette
- Boulder County
- Westwood Unidos
- The Trust for Public Lands
- Downtown Colorado, Inc.
- The Urban Land Institute
- Greater Park Hill Community Inc.
- The Colorado Department of Public Health and Environment
- The Colorado Coalition of Manufactured Home Owners
- American Planning Association
- Colorado Creative Communities
- The American Public Health Association
- The National MetroLab Network
- Boulder Housing Partners
- Cool, Connected Westwood
- The Congress for the New Urbanism
- EcoArts Connections
- Boulder Museum of Contemporary Art

STAFF

Louise Chawla, CEDaR Fellow

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Benjamin Hardin, Program Associate

Cathy Hill, Education Coordinator (Growing Up Boulder)

Nastaran Khodaei, Research Assistant

Mara Mintzer, Program Director (Growing Up Boulder)

Brian Muller, CEDaR Director

Sara Tabatabaie, Program Associate

Willem van Vliet, CEDaR Fellow



From left to right, Top: Mara Mintzer, Brian Muller, Sara Tabatabaie, Susan Glairon
Bottom: Cathy Hill, Louise Chawla, Willem van Vliet, Benjamin Hardin, Nastaran Khodaei,

STUDENT INTERNSHIPS, EMPLOYMENT AND AWARDS

Each year, about 40 community engagement internships, mentorships, student employees and capstone/master's projects are developed through CEDaR, providing opportunities for students to assist a faculty member involved in a community engagement project or work directly on a CEDaR/GUB project. The positions can be paid or unpaid, with or without credit.

In addition, we developed two student awards during the 2019-2020 year, the Urban Solutions Award and the new Children and Built Environment Award. These are awarded competitively and presented at our fall conference, Community Building Colorado-Style.



Left: An environmental design student shares with a Longmont resident her design to enhance a downtown Longmont alley at "Help Shape Downtown Longmont," a community discussion and design gallery held May 1, 2019

STUDIOS AND OTHER CLASSES

Each year we help organize or support community engagement-based studios and other classes working with ENVD faculty. This support may include help in identifying the project, recruiting project partners, designing course content, delivering community engagement modules, developing financial support and organizing outreach, community events and media coverage. Examples of classes we have worked with include:

- University Hill Conservation Plan Studio, Stacey Schulte, Instructor, 2018
- City of Boulder Balsam Park Design Build, Marcel deLange, Instructor, 2019
- City of Longmont Downtown Revitalization Studio
- Boulder Dushanbe Teahouse Restoration, Shawhin Roudbari, Instructor, 2019
- Westwood Green Infrastructure Plan, David Kahn and Sara Tabatabaie, Instructors, 2017

CONFERENCES, CONVENINGS AND COMMUNITY EVENTS

During 2018-2019 CEDaR helped convene varied groups from across the region to frame discussions about Colorado planning and design challenges. Our primary fall conference, Community Building Colorado-Style, now has an attendance of more than 150 practitioners and academics. We organized approximately 40 mini-conferences, workshops, trainings and community-engagement events targeted to specific groups, including children and youth, mobile home residents and participants in local design projects. More than 1,000 community members and practitioners participated in CEDaR events.



Left: Approximately 90 participants attended the second annual manufactured housing forum, “Yes We Can! Engaging with Policies for Positive Change in Colorado’s Manufactured Home Communities,” which took place Nov. 9, 2019 at the East Boulder Community Center. Attendees included manufactured home owners and advocates from across the state, as well as state legislators, Department of Local Affairs (DOLA) managers in charge of rule-making and local policymakers.

Conferences and Workshops (organizer or co-organizer)

- Adaptation Workshop with Andrés Duany – Feb. 2020
- Pollinator Summit – Nov. 2019
- Community Building Colorado-Style: Squeezed Out – Oct. 2019
- Manufactured Housing Summit – Oct. 2019
- National MetroLab Summit – Sept. 2019
- Urban Land Institute/CEDaR – March 2018
- Community Building Colorado-Style – Oct. 2018
- Manufactured Housing Summit – Oct. 2018
- Westwood Exhibit at the CU Environmental Design Program Gallery – Dec. 2017
- Green Infrastructure Workshop – Nov. 2017

PhD STUDENTS, FELLOWS AND VISITING SCHOLARS

CEDaR hosts PhD students, fellows and visiting scholars working on urban policy, design and community engagement topics. Visiting scholars from around the world stay for extended, one-to-two semester residencies. Two fellows, Willem van Vliet and Louise Chawla, are professors emeriti and engaged in project work.

During 2018-2019, CEDaR hosted three PhD students:

Sara Tabatabaie, "Understanding Ways in which the Built Environment, Greenness and UV Radiation Affect Physical Activity for Minority and Low-Income Residents and High Risk Skin Cancer Patients in Denver, Colorado."

Michael Szuberla, "Community Gardens Are Good to Think With: An Exploratory Study of the Epistemic Services of Community Gardens."

Jennifer Shelby, "Re-Creating the American West: An Examination of the Impacts of Creative District Policy in Rural Colorado."

Stefania Mitova, "Integration of Electric Vehicles (EV) and Solar Photovoltaics (PV) Using Smart Charging and Storage into Smart Cities: Energy, Economic, and Environmental Comparison between Individually Owned and Shared EV and PV Technologies."

and the following visiting scholars:

- Wafae Bouallala, architect and PhD student, Ministry of Urban and Regional Planning and National Institute of Urban and Regional Planning, Rabat-Morocco, 2019-2020
- Marufjon Mirakhmatov, artisan and architectural historian, Dushanbe, Tajikistan, 2018-2019
- Li Zhiguo, associate professor, University of Xian, China, 2018-2019
- Francesco Moccia, professor, University of Naples, Italy, 2017-2018

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Working with CEDaR has shown me the brainpower and time commitment required for giving resources to the communities who need it most.

- Lauren Oertel, CEDaR Intern

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COMMUNICATIONS, PUBLICATIONS AND PRESENTATIONS

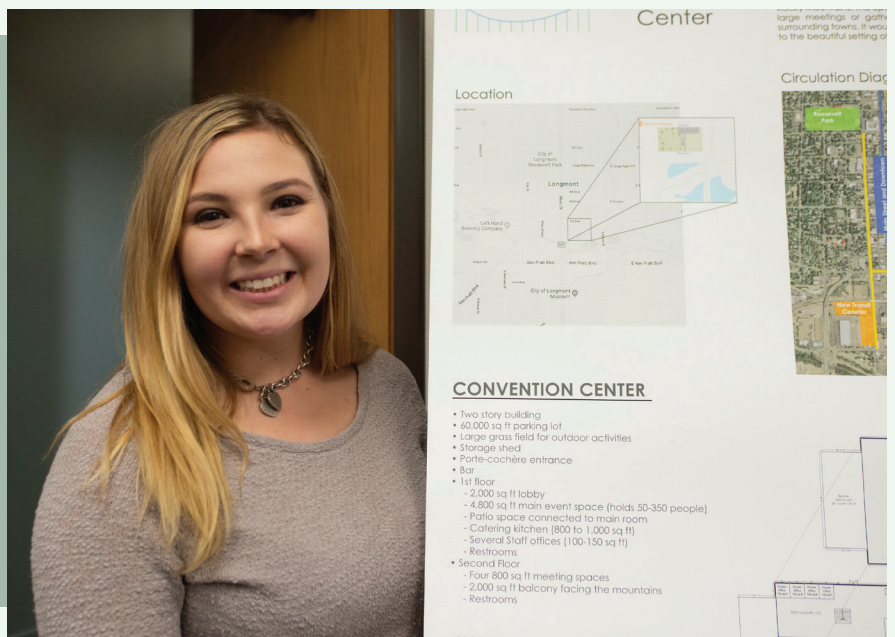
CEDaR has published high-quality stories on its website, with some stories also published in external media, including The Denver Post, Boulder Daily Camera, Longmont Times-Call and CU Boulder Today (CUBT). Stories about CEDaR have also been broadcast on local and state-wide radio programs, including Colorado Public Radio, KGNU Boulder and Boulder CH. 8. Growing Up Boulder's TED Talk, "How Kids Can Help Design Cities", has so far attracted more than 1.6 million views.

Sample news coverage:

- Building child-friendly cities
Colorado Public Radio, 01.23.20
- CEDaR-partner organization helped motivate bill protecting mobile homeowners' rights
Boulder Daily Camera/Colorado Daily, 05.23.2019
- CU Boulder students present ideas for enhancing downtown Longmont
Longmont Times-Call, 04.26.2019
- Planning tool tracks climate change effect on infrastructure
Government Technology, 03.27.2019
- As development eats away at Denver's green space, the "city within a park" is becoming a concrete metropolis, Denver Post, 01.13.2019

The child and youth city maps developed by Growing Up Boulder were featured in numerous media, including Colorado Public Radio and CityLab. Growing Up Boulder's 10th year anniversary was celebrated in a free, community celebration at the Boulder Jewish Community Center and through an exhibit at Boulder Public Library. In addition, CEDaR faculty and staff made numerous presentations at local, national and international conferences and in other settings. Selected academic publications can be found at colorado.edu/cedar/publications

Right: Elizabeth Stagnero, ENVD student and CEDaR undergraduate employee, stands by her poster at "Help Shape Downtown Longmont," a community discussion and design gallery held May 1, 2019 at the Longmont Chamber of Commerce.





FINANCIAL AND OTHER SUPPORT

CEDaR's funders include cities and counties, foundations and the University of Colorado Boulder. CU Boulder's Program in Environmental Design; Office of Outreach and Engagement; and Research and Innovation Office have provided project support. The city of Boulder has been a primary funder of the Growing Up Boulder partnership and other efforts such as the Boulder Dushanbe Teahouse restoration and the University Hill arts initiative. The Colorado Health Foundation supports the Manufactured Housing Initiative. Fundraising generates only a small part of the resources that go into our projects though. We also rely heavily on unfunded contributions, including collaborations with staff of our partner organizations, the efforts of community volunteers and the great work done by students and faculty.

SELECTED PROJECTS

Sustainable Places

- Alpine - Balsam Design Studio, Stacey Schulte, ENVD
- Alpine Balsam Eco-District, Growing Up Boulder, Cathy Hill and Mara Mintzer, GUB
- Alpine-Balsam Planning Issues Seminar, Brian Muller, ENVD
- Community Building Colorado-Style Conferences (2017, 2018, 2019)
- Dushanbe Teahouse Restoration, Shawhin Roudbari and Nate Jones, ENVD; Maruf Mirakhmatov, CEDaR
- Longmont Downtown Revitalization Seminar, Brian Muller, ENVD
- Longmont Downtown Revitalization Studio, Scott VanGenderen, ENVD
- Longmont St. Stephens Plaza Landscape Studio (2020), Jesse Van Horne, ENVD
- Park Hill Green Infrastructure Planning Studio, David Kahn, ENVD
- Park Hill Green Infrastructure Seminar, Brian Muller, ENVD
- Ponderosa Growing Up Boulder, Mara Mintzer, Cathy Hill, GUB
- Ponderosa Mobile Home Architecture Studio, Neal Evers, ENVD
- Ponderosa Mobile Home Landscape Studio, Seth Wilberding, ENVD
- Sustainable Communities Seminar (2016, 2017 and 2018), Susie Strife, Boulder County; Jonathan Koehn, city of Boulder
- University Hill 11th Street Corridor Hill Redevelopment Project, Mara Mintzer, Cathy Hill, GUB
- University Hill Dance Seminar, Nii Armah Sowah, Beth Osnes, Theatre & Dance
- University Hill Arts Design/Build Studio (2019 and 2020), Marcel de Lange, ENVD
- University Hill Intro to Planning and Management (2018), Brian Muller, ENVD
- University Hill Planning History (2017 and 2018), Jota Samper, ENVD
- University Hill Public Art and Community Engagement, Brian Muller, ENVD
- University Hill Urban Design Seminar, Stacey Schulte, ENVD
- Westwood Green Infrastructure Planning Seminar, Sara Tabatabaie, ENVD
- Westwood Green Infrastructure Planning Studio, David Kahn, ENVD

City Science

- Assessing Denver's Smart City Information Architecture, Lucy Van Klunen and Steven Volda, Information Science; Brian Muller, ENVD
- Civic Challenge Ideas Competition, Shawhin Roudbari and Jota Samper, ENVD; Wangda Zuo, CEAS; Alana Wilson and Heidi VanGenderen, CU Boulder Infrastructure & Sustainability
- CU Boulder MetroLab Workshop 2019
- CU Boulder MetroLab Workshop 2018
- Green Infrastructure Planning Tool, Brian Muller, ENVD
- Naples Green Infrastructure Planning Seminar, Francesco Moccia, CEDaR
- National MetroLab Summit 2019
- Remote Sensing and Urban Management: New Data Products, Brian Johnson and Joseph McGlinchy, Earth Lab
- Zoning and Surface Water Run-Off, Benjamin Harden, ENVD

Urban Affordability

- Analysis of Zoning Options for Manufactured Housing
- Bringing School Home, Meredith Banasiak and Willem van Vliet, ENVD; Anirban Pal, CEDaR
- Manufactured Housing Clearinghouse, Sara Tabatabaie and Lauren Oertel, CEDaR
- Manufactured Housing Summit (2017, 2018, and 2019)
- Moving to Work, an affordable housing program evaluation, Brian Muller, ENVD; Anirban Pal and Willem van Vliet, CEDaR
- Municipal On-Bill Finance for Energy Conservation, Brian Muller, ENVD
- Sustainability of Mobile Home Communities, Brian Muller, ENVD
- Trailer Wrap I, Willem VanVliet and Michael Hughes, ENVD
- Transformation of Manufactured Housing, Paul Glasgow, ENVD

Resilient Infrastructure

- Analysis of On-Street Pollutants in Westwood, Aria Dellapiane, CEDaR
- Assessing Opportunities for Tree Planting with Denver Public Schools, Bill Penuel, Education
- Assessment of Raingarden Performance, Emily Greenwood, Deidre Jaeger, Michael Szuberla and Carol Wessman, ENVD
- Denver Community Heat Survey, Paul Glasgow, CEDaR
- Denver Green Roofs Ordinance Assessment, Scott Reza and Alec Sabatini, CEDaR
- Green Infrastructure Decision Tool/Forecast Model, Brian Muller, CEDaR
- Park Hill 16th Avenue Tree Lawn Demonstration Rain Garden, Nastaran Khodaie, CEDaR
- Park Hill Pauline Robinson Branch Library Demonstration Rain Garden, Emily Greenwood, ENVD
- Park Hill Shade Audit Methods Project, Sara Tabatabaie, CEDaR
- Planning for the Emerald Ash Borer, Michael Szuberla, Sara Tabatabaie and Brian Muller, ENVD
- Pollinator Summit, Louise Chawla, ENVD
- Spatial Analysis for Southeast Boulder Neighborhood Planning Process, Nastaran Khodaie, CEDaR
- Westwood Walkability Study, Sara Tabatabaie, CEDaR

Children and Youth

- Child-Friendly City Map, Mara Mintzer and Cathy Hill, GUB
- East Boulder Neighborhood Plan, Mara Mintzer and Cathy Hill, GUB
- North Boulder Subcommunity Plan, Mara Mintzer and Cathy Hill, GUB
- Open Space and Mountain Parks – North Trail Study Area Plan, Mara Mintzer and Cathy Hill, GUB
- Open Space and Mountain Parks – Master Planning Process, Mara Mintzer and Cathy Hill, GUB
- Teen Mother Dialogue, Mara Mintzer and Cathy Hill, GUB

For more detailed descriptions of CEDaR projects, visit colorado.edu/cedar/selected-projects