Civic Care in Place: Exploring Human and Environmental Bonds through Subtle Technologies

Led by Anna Carter, PhD

Sarah Braunstein, Isabel Edwards, Chi Chi Okezie, Thomas Fenno

Project Overview

Context and Motivation

- Recurring floods in Stanley have led to efforts towards community resilience and environmental stewardship
- Anna's collaboration with Wear Rivers Trust (Mark) and local organisations who have been working in this space for 10+ years

Research Question:

- Is there a connection between how we care for each other and how we care for our shared environment?

Approach

- Participatory design and fieldwork to understand this space, and provide guidance for future digital interventions
- Foster every day, often invisible acts of care in both civic and environmental contexts

Themes & Directions

Key Themes

- **Environmental Civic Engagement:** Community gardening, flood mitigation, green infrastructure stewardship.

- **Implicit Care:** Neighbourly acts (checking drains, planting pollinator spaces) that sustain the commons.

- **Citizen-Centred Design:** Ambient, respectful technologies that encourage long-term and intergenerational participation.

- **AI in the Background:** Light-touch tools (nudges, reminders) that support—rather than monitor or replace—caring behaviours.

Overview

Our friend Mark from Wear Rivers Trust! ↑

Over the span of 6 weeks, IRES students were able to:

- Participate in a diary study

- Investigate literature about civic care and existing work occurring in Stanley.

- Perform three rounds of thematic analysis.

- Collaborate with faculty from Geography (Eleanor Starkey!) as well as community partners (Mark, Wear Rivers Trust).

- Performed leaflet dropping and conducted on-site interviews in Stanley.

- Share our experiences in Stanley for a blog post on the community website.

- Removed invasive plant species in Stanley to engage in on-the-ground service and care for the space.

Diary Study

- Examines implicit care—those subtle, often-overlooked actions that support sustainable drainage systems (SuDS).

- Participants record their everyday stewardship, revealing quiet labour, emotional investments, and shared responsibilities.

- Insights will inform new understandings for civic care, long-term maintenance, and co-created design interventions.

- 14 days conducted via Slack
- Pre-crafted prompts that we could preview, differing from the original method of Anna messaging daily in WhatsApp.

Civic Care Diary Study Prompts

Day 1: Self-Care and Observation

Take a moment to notice you surroundings the next time you are outdoors today and take a few minutes to reflect on the guiding thoughts of the day, before answering today's question.

Today's guiding thoughts

Take a moment to think about where you are right now. It could be your home, a park, near a water drain, or any place you often visit. Look around and notice the details - what do you see? Is there anything different about the space today? Pay attention to what you can hear, smell or feel. Are there sounds, like birds or people? Can you feel the weather or notice anything about the place that stands out?

Now, think about how being in this space makes you feel. Are you calm, happy or perhaps a bit distracted? Do you feel connected to this place or more distant from it today?
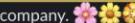
Question for the Day
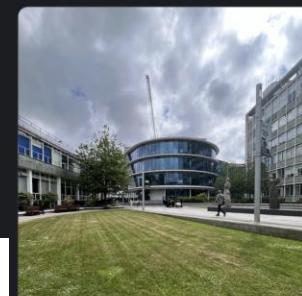
Where are you today, and what do you notice about this place?

Take a moment to describe where you are and what stands out to you. How do you feel in this space right now?

Feel free to share photos, voice notes, emojis or written text.

TF - Today I am out in the courtyard next to the CIS building. As I sit on one of the benches facing the big circular windows that makes-up the CIS building, I can feel the sun beating down on my face and it is welcome as a chilly breeze is still blowing through my clothes and causing a chill. This is not a busy space, but there is a consistent string of people passing through. This seems to be a transitional space, as most people who are in it are using it as a transition from what they were doing to whatever it is they are doing next. Our group (and the gardener) seem to be the only ones who are stationary in this place for any length of time. In the distance, out of eyesight, there are constant mechanical sounds coming from the area where they are constructing a new building. The loud racket juxtaposes the otherwise serene and calm views of the courtyard. Sitting here I am mostly at peace, however there is a slight nag that I should be doing something else.

IE-Today we spent time in the courtyard outside the CIS building. It is a very nice area that many students walk through to go from the business building to all the other buildings on campus. It was noticeably windy and a bit chillier than the weather last week. I saw that a lot of the flowers planted on the sides were dying and not a lot of people were stopping to rest on the benches. What stands out to me is how the grassy areas feel like they should be a water fixture to me. This might be a personal preference because I think a fountain area makes a space very calming. It does make sense that it is grass instead as a fountain would likely be higher maintenance and have electricity costs. It was still a very calming space even without the water. I felt like it gave me space to remove myself from work and just enjoy my own and my friends' company. 🌸🌼🌸

SB - Today I am in the CIS building area courtyard and enjoying the sunshine outside on the bench. There is a breeze flowing through -- likely half-inspired by nature and half-inspired by the tunnel created by buildings surrounding the area. Birds are chirping and students are chatting in the distance. I feel very peaceful and connected to campus. It is fun to be in such a beautiful space and to see life happening all around me. I've always loved college campuses for this reason; however, this resembles more of a sense of calm I feel than a typical day on IU's campus. I think this is because it isn't as packed as a campus regularly would be due to the term being over and being in such a beautiful and naturey space.

CO - I found myself in the courtyard between/around the CIS building and Ellison Buildings (same spot as Sarah actually! crazy coincidence), this place was super new and cool. I found it to be a really interesting place full of busy people on their way to...something for sure. I found the daisies in the grass to be my favorite little thing about the spot, there is a lot of maintenance and "cultural significance" (I don't know how true that specific term is to what I mean, but) surrounding American lawn and green spaces that I didn't find present in the lawn with the daisies and I really like that. Prairie lawns are one of my favorite types of greenery in that they are more natural than the traditional manicured lawn albeit both forms of "nature" and the little patches of sparse daisies reminded me of this-- that nature is natural and doesn't have to be manicured and maintained in the way that I am accustomed to. I like this space! It feels peaceful, I love the surrounding nature, wind and sunlight in this space. It feels very free, and calm. I feel very close to home / school in this space, as I try to situate myself in open spaces with sunlight (when possible) at school and so this feels very natural for me.

Diary Study

IRES Student Diary Study Learnings

- Opened a new lens with which to see a space that we recently walked into
    - Better understanding perspective of locals
    - Deepened learning – Made connections between our learnings and those observed by the participants in diary study
- Intentionality and consideration within public space

Learning through Literature

Thematic Analysis

- Across 4 sets of diary studies (3 individual, 1 group), we:
  - Generated 151 initial codes
  - Crafted 9 preliminary themes
  - Each did an initial first round pass of coding, created a code book, a second round of coding with the new codes, and peer checked the second round, then grouped these into themes.

Thematic Analysis Takeaways

- Thematic analysis is a very interesting analysis that cause us to have to work into smaller codes and work into larger themes in very scaffolded ways that a lot of us weren't used to.

- Flexibility and consistency are two characteristics we observed are important to this process.

- TA isn't a linear process.

- Overall themes we noticed:
  - Many responses were centered around upkeep and maintenance.
  - Citizens were very concerned about how the budget was being used.
  - All more citizens feel they might help if they were given the skills/tools to do so.

Collaborated with others!

Did some field work...

- Leaflet dropping

- Site visit

- Door-to-door surveys

- Engaged with construction site workers and heard their perspectives

- Met with community members

- Interacted with a lot of Stanley the rain drop promo items
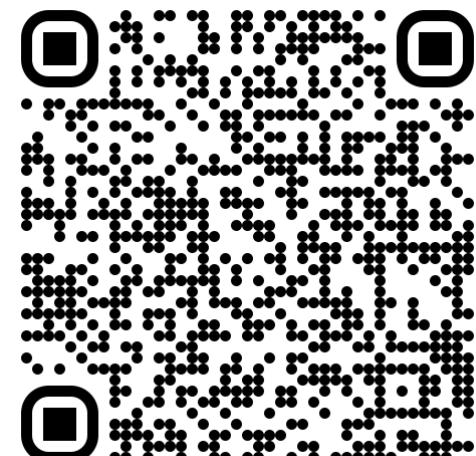
NEWS

Exchange Students Visit SuDS+ In Stanley

By Mark Davinson

A group of American students on an exchange visit with Northumbria University recently visited our study area. A brief report written by Isabel Edwards (Beloit College, Wisconsin), Sarah Braunstein (Indiana University Bloomington), Thomas Fenno (University of Utah), Chi Chi Okezie (Macalester College, Minnesota) is below.

On 29/05/25 we, the International Research Experiences for Students (IRES) group from Northumbria University, visited Stanley to take part in a SuDS+ community survey on the new development on site F at Cleveland/Cheviot Terrace in South Stanley. We greatly appreciated how everyone involved in the project and the community members were welcoming towards us. It was wonderful to experience the space and interact with community members. The students also stopped to chat with the contractors completing work on the site.

Invasive Plant Removal at Stanley

Overall Takeaways

- Intentional participatory design, while time consuming, is incredibly rewarding and impactful.

- A sense of place can be a powerful tool in gathering community affinity for care.

- Thematic analysis is a very interesting process and has allowed us to be both creative and critical when understanding qualitative data.

- Branding is a critical component in creating community buy-in (see Stanley the Rain Drop).

Future Involvement

- Anna and Austin – Will continue preparations for the analysis we've conducted and analysis on additional data to be compiled into a paper (hopefully!) headed to CHI.

- Anna and Eleanor – Will continue their work to make policy/practical recommendations on behalf of the co-designed with Stanley and work to install greater community education and care resources.

- Isabel – Will be continuing work throughout the summer and will work to bring potential on-the-ground deployments to life.

- Sarah, ChiChi and Tom – Will continue on remotely through the summer and beyond to continue to assist in analysis and paper writing, and may join forces with Isabel to participate in the CHI student design challenge to design a technological solution/prototype to some of the needs we noticed this summer.

Acknowledgments

- Thank you to...
  - Our sponsor, Anna Carter, PhD who worked tirelessly to give us a very robust experience.
  - The CDT for letting us use their space.
  - Kyle Montague and Eleanor Starkey for their overall support.
  - Austin Toombs and Colin Gray for organizing this opportunity and giving us tools for success.
  - Wear Rivers Trust for hosting us onsite and allowing us to be active in this project. A special shout out to #radicalmark for his knowledge and sense of humor.

Stanley! What? The Rainy City

https://iu.mediaspace.kaltura.com/media/t/1_2n1mrjoo