



Unmaking Waste 2015 Conference Proceedings
22 – 24 May 2015
Adelaide, South Australia

The Medium is the Message: Reinvesting in Environments and Communities Changes Habits – Station North Arts and Entertainment District Case Study

Lori RUBELING, Inna ALESINA

Stevenson University and Maryland Institute College of Art, USA

Design thinking, systems-based design, human-centered design approaches

“Environments are invisible. Their ground rules, pervasive structure, and overall patterns elude easy perception.” (McLuhan 2001, 83–84).

The title of this paper is inspired by McLuhan’s aphorism “the medium is the message.” McLuhan reminds us that our environments include symbols and codes that simultaneously contextualize the past, present, and future. And, most importantly, progress/change is usually defined with antiquated metaphors, language, and symbols. It is in this language game that designers engage with change and are challenged to offer models and ideas to transform production and consumption habits.

In response to the Unmaking Waste 2015 conference theme “Transforming Production and Consumption in Time and Place,” Design professors Inna Alesina and Lori Rubeling present several design projects where the Station North Arts and Entertainment District, known as Station North, is a primary subject for addressing how systems-based approaches create change.

To give structural context to their discussion of systems-based approaches, Alesina and Rubeling invert the excess consumption model in order to mirror an opposite proposition: How do we stimulate and envision sustainable and healthy environments in disinvested urban spaces? Alesina and Rubeling contend that behind excess consumption is the specter of inherent waste. And at the scale of urban environments, waste takes on the form of a loss of constructive space, as voids or waste scenarios within the environment. The waste scenarios of Station North include: a border vacuum defined by three transportation corridors and a sixty-acre cemetery; a food desert; under populated residential neighborhoods; and anemic economic and demographic diversity.

Since 2003, Alesina and Rubeling have conducted design studio course curriculum that incorporates Station North as a locale and subject to explore human-centered approaches to solving design problems. Design students from the Maryland Institute College of Art (MICA) and Stevenson University (SU) were challenged to consider emergent sustainable values in their practice of designing messages, objects and environments. Several design scenarios asked students to utilize design thinking methodologies as they partnered with community stakeholders, helping them re-imagine their environment. This paper presents a variety of systems-based approaches that have been tested to re-imagine production and consumption assumptions, behaviors and opportunities for actualizing change.

Keywords: systems-based design; human-centered design; 100-Mile Challenge; Slow Food Movement; Station North Arts and Entertainment District

Part 1: Introducing the Station North “Saddle” Footprint

[insert figure 1: Station North Arts and Entertainment District 100-acre footprint.]

Figure 1. Station North Arts and Entertainment District 100-acre footprint.

Station North is one of 22 State of Maryland (USA) arts and entertainment districts. These districts are an economic legislative initiative established by the State of Maryland in 2001. The most current economic data concludes that in 2013, Maryland's 22 arts districts generated 458 million dollars in state GDP (Maryland State Arts Council 2013).

The primary transportation corridor intersecting Station North is Charles Street and North Avenue. On workdays, the primary north/south commuter-traffic demographic is white-collar professionals who live in the wealthiest Baltimore neighborhoods. They are commuting to and from the city's downtown business districts. The primary east/west commuter-traffic demographic is laborers and service workers who live in West Baltimore City and Baltimore County. They are commuting, mostly on the public transit, back and forth to the city's major employer, the Johns Hopkins Hospital campus.

Station North's 100-acre footprint comprises three neighborhoods: Barclay, Greenmount West, and Charles North. A large portion of Station North is included in the Baltimore's Heritage Area, an area of special historic and cultural significance. Its primary business corridor is located in Charles North. Greenmount West and Barclay are primarily residential neighborhoods.

Systems-based design questions Alesina asked:

The intention of Inna Alesina's systems-based design methodology is to engage design students with wicked design problems. Design students need to understand the true social and ecological footprint of designs they propose, and therefore, footprint considerations are where Alesina begins to apply systems-based design processes.

Alesina requires students to map entire product's lifecycle. She requires students to consider policies and laws that inform production systems and she encourages students to perceive, analyze and incorporate social concerns in their design thinking processes.

This maximalist point of view also considers this principle: To create real change requires designers' to consider changing the very systems in which they design. Alesina's systems-based hypothesis explores the dialectic between production and consumption waste, asking how can we consume things without creating waste?

Alesina's product manufacturing model integrates and nests consumer communities within manufacturing communities envisioning the shortest distance between the two. Design briefs where she has tested this model include: 100-mile ecological-based design challenge; Test Kitchen for Change; and the Bread Zoo.

Systems-based design questions Rubeling asked:

Rubeling's systems-based approach integrates Charles and Ray Eames's design process methodology (Eames 1969) with human-centered design practices. The Eames's design process recognizes that there needs to be common interests shared between the designer and client. Additionally, the concerns of society are also integrated in the process. The premise of this model: "of overlapping interest and concern that the designer can work with conviction and enthusiasm" (1969). The validity of this model is verified in practice: "putting more than one client in the model, builds the relationship – in a positive and constructive way" (1969).

Rubeling has tested this designer, client and society practice-led model by utilizing Station North Arts and Entertainment District (SNAED) designation as a case study.

The participants in her model are: undergraduate visual communication design students learning and applying the habits of design thinking (Brown 2009, 35-38), several SNAED stakeholders who desire to create social change in their communities, and social capitol propositions that add resources to project budgets. Rubeling also applies transactional communication theory: sender – message – receiver feedback loops to evaluate client needs, values and goals.

Lori Rubeling’s case studies are organized into three phases: 2003-2006 practice-led pedagogy experiments and Progression(s) Exhibition; Station North Friday Market; and 2012-2015 Station North stakeholder collaborations.

Part 2: Systems-based design case studies

2003-2006 practice-led pedagogy experiments and the Progression(s) Exhibition

[insert figure 2: “Discovering Station North” two-page magazine spread designed by Shannon Young.]

Figure 2. “Discovering Station North” two-page magazine spread designed by Shannon Young.

In 2002, Lori Rubeling recognized that the Station North Arts and Entertainment District designation offered an opportunity to integrate an urban environment as a subject in visual communication design studio projects. Between 2003 and 2006, Stevenson University design students documented Station North’s progress of transformation from urban blight to a relatively clean and safe environment. This 2003-2006-student cohort also participated in a *Community Service Design Studios*, collaborating with several SNAED non-profit organizations.

What SU design students learned in these practice-led research design studios was how to discover conceptual inspiration in unfamiliar environments and how to incorporate a specific environment in their design solutions. By placing students in unfamiliar environments, they were also challenged to analyze their personal assumptions about consumption and production, and the contexts and application of visual communication design. The students’ social design projects synergistically verified the State of Maryland propositions for attracting the “creative class” demographic to live and work in Baltimore City.

[insert figure 3: Progression(s) Exhibition installation process.]

Figure 3. Progression(s) Exhibition installation process.

An additional project during this period was the *Progression(s)* Exhibition. Sixty-five Station North social design propositions and projects were exhibited in the Portraits & Exhibits Galleries in the State of Maryland Senate Office complex. The exhibit design team comprised of three seniors and five VCD alumni. Over the course of six months, this team organized these propositions and projects into three connective ideas: exploring SNAED’s environmental conditions; identifying the communities who live and work in the district; and conveying underlying economic segregation. The exhibition included eight panel groupings. The themes in each grouping ranged from futuristic business concepts that could improve the district’s economic offerings to ideas on how to engage SNAED youth. The exhibit display panels were designed to capture the experience of walking in the Station North environment. This exhibit was on display for six months during the 2006 legislative session.

Ecological-based design: 100-Mile Challenge

As we prepare students in their role as designer-citizens, we should remind them, as John Thackara said, to “design people in and not out” (Thackara 2005, 190) of the

design process. He summarizes the principles of sustainability as to “minimize the waste of matter and energy, reduce the movement and distribution of goods, use more people and less matter” (190). The 100-Mile ecological-based design challenge addresses the need for designers to manufacture tangible things responsibly. It also challenges designers to reclaim local manufacturing processes and to integrate locally resourced materials into their methodology.

Alesina’s 100-Mile ecological-based design challenge project, was first conceived in 2010 as collaboration between students majoring in Environmental Design at MICA and students majoring in Industrial Design at The University of Washington (UW), Seattle campus.

Being located on opposite coasts of the United States, some of the materials students used were remarkably similar. For example, bamboo was invasive in both locations, introduced as ornamental plants in 1880s (USDA, National Agricultural Library).

But experimental designs were different from both groups evoking the natural and cultural environments of Seattle and Baltimore. Seattle based group experimented with rosin glues, molding bio plastic and making the rain gear. Baltimore group explored weaving, crafts, and embroidery. This could have been influenced by the instructors, but the environment of each school and locale surely have played a role.

[insert figure 4: Oyster shell gardening tools designed by Cindy Jian.]

Figure 4. Oyster shell gardening tools designed by Cindy Jian.

To start their material exploration, MICA students received help from the Conservation Department at The National Aquarium, Baltimore and the Weed Warriors program. Students collected and researched materials in Baltimore City public parks contiguous to the Chesapeake Bay watershed. Invasive plant species such as bamboo, Phragmites Atlantis, and vines were studied. Students also collected abundant natural materials (such as driftwood, local clays) and industrial waste materials (such as oyster shells and cloth). Their fabrication explorations took place in various MICA fabrication studios.

In this ecological-based design project, students apprehended how materials, methods of production, human behaviors, artifacts, and spaces work together as nested systems. In subsequent years, the 100-Mile ecological-based design challenge evolved to include a social design perspective: artifacts produced were designed as experiments to be replicated elsewhere and used as examples for sustainable and affordable materials that can be manipulated without use of energy-heavy processes.

[insert figure 5: BAMBAM prosthetic by Nick Richardson.]

Figure 5. BAMBAM prosthetic by Nick Richardson at the display at the “beautiful users” exhibit and the Cooper Hewitt National Design Museum.

From our experience, in the beginning of this type of ecological projects, students usually respond to the esthetic qualities of the given materials. Things like fasteners, glues, bonding methods become an afterthought. We found that it is helpful to remind students to see the big picture. According to the authors of “The Upcycle” William McDonough and Michael Braungart we “always be asking what next?”. “We want you to think of every component of your design as being borrowed. It will be returned one day to the biosphere or technosphere” (McDonough, Braungart, 2013 212, 213). This framework helped students to move beyond artifact and propose service substitution of the product all-together.

When using off-the-shelf components, students need to provide research on long-term sustainable solutions for that particular application.

This project has evolved over the 5 years it has been conducted but here are some takeaways for design educators:

Questions students asked: where can they get the data to support their proposals. We found that Life Cycle Calculators can be useful for traditional product design, but for non-traditional scenarios, students can only approximate the impact. While scenarios can start the conversation, students had to reach outside the area of their expertise and collaborate with experts and sometimes with science and business students.

Another tangible outcome was that a group of students petitioned the department chair to move sustainability class earlier in the curriculum, so students get to practice this type of thinking in other classes they take.

We found it useful to get students to sample the key texts on this subject and provide links and tools to refer to when needed.

Station North's Friday Market

In 2010, Stevenson University design students collaborated with the Charles North Business Committee (CNBC) to facilitate several visual communication design and demographic research projects. In the first iteration of this design brief, design students addressed ways to help the CNBC promote a farmers' market. The CNBC's goal was to advance SNAED's brand as a place to work, play, and learn.

The farmers' market activity was envisioned to build upon several established community offerings: a monthly flea market; a monthly *Second Saturdays* event that promoted arts and entertainment venues; and a bi-annual music festival. The addition of the farmers' market venue was to target commuters who pass through the District main transportation corridor between 3-8pm on Fridays.

A human-centered design methodology was used to facilitate the design process and to define the farmers' market concept. In initial CNBC meetings, it became apparent that the CNBC's real goal was not to simply add another event venue. With this confirmation, a systems-based design approach was initiated, and through practicing transactional communication processes, the design team led all of the stakeholders to expand the design brief to include: demographic research; a promotional concept and publicity plan; and to test the farmers' market prototype before it became a weekly event.

A brand analysis was written to help CNBC focus the market's goals and objectives. This tool was also used to name the farmers' market: *Station North Friday Market*. Design students collected demographic data from afternoon commuter traffic, at several *Second Saturday* venues, and at the 2010 October music festival. This data greatly informed the concepts for the Friday Market logo identity and the creation of a twelve-month publicity campaign. Because the systems-process was incorporated in envisioning the market, it became self-evident to the CNBC stakeholders that it did not have the funding or personnel in place to realize this project. This conclusion greatly disappointed the design team, however, the outcome proved the value of systems-based approach to solving design problems.

Test Kitchen for Change Workshops and The Bread Zoo

[insert figure 6: Test Kitchen For Change]

Figure 6. Test Kitchen For Change breadmaking class in a local church.

The *Test Kitchen for Change*¹ (TKFC) design brief investigates how to engage community around the subject of healthy bread. It also applies the tools and knowledge of the design process to facilitate healthier relationships between humans and nature.

What and how we eat affects our health, culture, ecology, and opinions about governmental policies that shape and restrict urban agriculture. It comes as no surprise that industrial food production has detrimental effects on people's health and the health of the planet.

TKFC was inspired by the Slow Design movement and the writings of Ezio Manzini and [Alastair Fuad-Luke](#), both empowering the grass-roots social innovations and creative communities. Creating experiences, not artifacts, is a paradigm shift in thinking for many (product) designers. "In this new context, professional designers can also play an important role by operating in two main ways: designing with and designing for communities". (Making Things Happen: Social Innovation and Design. Ezio Manzini)

[insert figure 7: Containers for sourdough starter culture inspired by the shape of budding yeast cells.]

Figure 7. Containers for sourdough starter culture inspired by the shape of budding yeast cells.

During the initial research, it became apparent that both the taste and the health qualities of sourdough bread are appealing to many people. Even-though the process of sourdough breadmaking seems too complex for some, it is very forgiving and can be modified to fit an individual's schedule. The breadmaking process consists of short tasks performed between longer stretches of time during which fermentation happens, the process is hard to achieve with fast industrial system. The main goal of the TKFC workshop is to engage participants in the hands-on experience of crafting a loaf of bread, feeding sourdough starter, and learning specific baking techniques.

The TKFC integrates the manufacturing and consumption puzzle calling attention to the goal of unmaking waste. TKFC attempts to create communities; to teach people to integrate different tempos in their lives; to become self-sufficient; to revive old traditional crafts; to connect to nature; and to regain control over the food system.

Initially Inna Alesina investigated non-traditional food services, such as a mobile kneading service or a community-supported bakery, however, her design solution changed as she began to iterate TKFC instruction-performances. From the feedback she gathered she learned that participants preferred to make bread at home, at the time that works with their schedules and what they needed was the live instructions (opposite to already available myriad of books and videos) and support, rather than a special place. In order to make an impact on that particular community, Alesina started to conduct more of educational hands-on events. Small-group breadmaking classes can be conducted without a special kitchen space, large equipment, or health department permits, factors that complicated other scenarios.

Each TKFC breadmaking event is a "prototype." Alesina adapts the TKFC experience for every group, space, and audience. By providing the main ingredients—flour, special yeast culture, and instructions— TKFC inspires participants to use what they already have to make bread. Kitchen chemistry, wild foraged and sprouted ingredients, cooking with fermented foods are additional topics covered in TKFC.

¹ TKFC is Inna Alesina's 2013 Maryland Institute College of Art MFA graduate design thesis project.

[insert figure 8: Test Kitchen For Change Bread Zoo.]

Figure 7. Test Kitchen For Change Bread Zoo.

The primary feedback loop that occurs at TKFC events is that participants are very eager to learn and try new things. Inspired by that, Alesina has begun to curate and design a collection of educational kitchen objects. These objects have multiple functions. Alesina also uses TKFC events to test these objects and with each iteration making improvements to their form, this kitchen object collection is titled *The Bread Zoo*. It is comprised of hand-held tools and vessels, along with books, videos, and jars of sprouted grains— all of these objects comprise a small bread museum. Bread zoo is a teaching tool to engage different people. It reminds some participants of their family rituals and makes the experience more meaningful for them.

There are usually two kinds of participants: some who interested in the taste of sourdough bread, not readily available at local supermarkets; and people interested in healthier and slower food systems because of the health reasons. One of the takeaways for design students is the realization that designers can be creatively satisfied, without producing tangible artifacts. Sometimes ephemeral or edible things can be even more satisfying and no less creative. Some students who participated in the events observed that, hands-on workshop is an important element that helps people make behavioral changes. Experiences and scenarios, rather than artifacts can be considered a shift from traditional (maker) approach for many designers. Instead of proposing “solution”, Alesina now asks her students to envision and prototype scenarios where people will be engaged and behave differently.

2012-2015 Station North Stakeholder Collaborations

Between 2012-2014, Stevenson University design students continued to collaborate with SNAED stakeholders: collecting demographic information during *Final Friday* programming; researching Community Sourced Art (CSA) Share cohorts and models; and sharing Station North demographic research with Dr. Meghan Rich as she researched her paper titled “Murals and Art Spaces: Artist-led Revitalization Without Gentrification?”

Additionally during the 2013-2015 timeframe, Rubeling continued her systems-based research as the curator-in-residence for The Gallery@Case [werks]. Curating an exhibition space shifted Rubeling’s previous systems-based design problems from products and services to examining Baltimore’s creative commerce and locating creative coalitions and partnerships.

Station North partnered with Case [werks] Showroom and Gallery when it submitted its 2012 National Endowment for the Arts *Our Town Grant* proposal, in which it commissioned The Gallery@Case [werks] to generate:

“...from within the Baltimore area arts & cultural community with content adhering to general themes specific to the arts, design, urban place making culture and Baltimore at-large.”

During her curatorial residency, Rubeling contributed to attaining these goals by producing nine exhibitions, eighteen additional discussions and events, and initiating partnerships with the Art Connection in the Capital Region, Artscape, Baltimore Design Soiree, Greater Baltimore Cultural Alliance, Smith College Book Fair, and the Society for History and Graphics.

The systems-based approach in creating gallery programming that Rubeling explored juxtaposed 19th and 20th century art and design history with contemporary creative

culture and place making. By offering a historical precedence, this juxtaposition framed deep-rooted connections and narratives to discuss creativity and social change.

[insert figure 9: The Gallery@Case[werks] September 2014 exhibition: “Product Lines II: Prototypes”.]

Figure 8. The Gallery@Case[werks] September 2014 exhibition: “Product Lines II: Prototypes.”

Rubeling’s curatorial goals were to make visible environments where creative coalitions can be suggested, tested and realized. Over a hundred people were invited to exhibit. Works from architects; artists; bookmakers; graphic, furniture, product, and textile designers; filmmakers; photographers; and poets were featured. The Eames’s design methodology was in play: the curator’s vision was triangulated with The Gallery@Case[werks] as the client, and with Station North as the social context where creative agency was explored and documented.

Many outcomes were achieved during this curatorial residency: works were sold; poems were written; design commissions requested; commercial partnerships made; emergent technical and creative processes compared and critiqued; and most importantly, civic and commercial coalitions established. Curation is an iterative process and Lori Rubeling came to realize that gallery environments and curated spaces are powerful tools to introduce, inform, and provide structure to sustain creative markets and civic partnerships.

Part 3: Systems-based Outcomes and Next Steps

As designer-educators, Alesina and Rubeling continually examine the assumptions and methodologies that designers’ use to create and produce messages, objects, and environments. It becomes self-evident in many of the case studies presented in this paper the experimental nature of human-centered design methodologies and systems-based processes. What is also revealed in these case studies is how an environment establishes a narrative that informs the design process.

Station North’s evolution as a cultural district continues to be a dynamic environment to test and apply systems-based design processes because of the diversity of design problems that address change, the constituencies engaged with change, and the civic coalitions that are supporting change. And by focusing on nested environments, (in this specific case of Station North) the possibility for transforming production and consumption in time and place becomes a model to evoke the range of opportunities where change can take place.

Reference List

- Brown, Tim. 2009. “How Using Real Spaces Helps the Process.” In *Change By Design*, 35–38. New York: Harper Business.
- Candy, Lynda. 2006. “Practice-based Research: A Guide.” *Creativity and Cognition Studios*. <http://www.creativityandcognition.com/resources/PBR%20Guide-1.1-2006.pdf>.
- Eames, Charles. *Charles Eames design process diagram*. Diagram. 1969. *Eames Office*, <http://www.eamesoffice.com/the-work/charles-eames-design-process-diagram>.
- Maryland State Arts Council. 2013. “Advancing the Arts Across Maryland: Arts & Entertainment Districts.” *Maryland State Arts Council*. <http://www.msac.org/programs/arts-entertainment-districts>.
- McLuhan, Marshall. 2001. *The Medium is the Massage: An Inventory of Effects*. Berkeley: Gingko Press.

Rich, M. A. and W. Tsitsos. 2014. "Murals and Art Spaces: Artist-led Revitalization without Gentrification?" Paper presented at the Eastern Sociological Society Annual Meeting, Baltimore, MD, 2014. <http://www.essnet.org/>.

Thackara, John. 2005. "Smartness." In *In The Bubble: Designing in a Complex World*, 185-211. Cambridge, Massachusetts: MIT Press.

Witt, Becky. 2013. "The Urban Agriculture Law Project." *Community Law Center*. <http://communitylaw.org/urbanagriculturelawprojectupdated-explanation-of-the-adopt-a-lotpower-in-dirt-program>.

McDounah William, Braungart, Michael, 2013. *The Upcycle: Beyond Sustainability-- Designing for Abundance 212-213*. North Point Press

Manzini Ezio Making Things Happen: Social Innovation and Design © 2013
Massachusetts Institute of Technology
DesignIssues: Volume 30, Number 1 Winter 2014

Biographies

Lori L. Rubeling, Professor of Art +Visual Communication Design, teaches at Stevenson University School of Design in Baltimore, MD (USA). Between 2003 and 2014, she conducted practice-led research in the City of Baltimore Station North Arts and Entertainment District. She is also completing a two-year curatorial residency at The Gallery@Case[werks] and is a board member for D Center Baltimore.

Multidisciplinary designer Inna Alesina was born in Kharkov, Ukraine, where she studied industrial design. Her work spans many disciplines including object design, performance wear, ergonomics, communication design, and most recently food systems. Alesina co-authored a book with Ellen Lupton, "Exploring Materials: Creative Designs for Everyday Objects" (PAPress 2010). Inna is a design faculty at the Maryland Institute College and a Visiting Assistant Professor of Art at Stevenson University.