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Rust2Green (R2G): Restoring Prosperity by “Restorying” the Rustbelt¹

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What is R2G?

The Rust to Green NY Action Research Initiative (R2G) interlinks design and planning education and research with community-driven, place-based efforts to foster sustainable development and urban resilience in NY’s post-industrial rust belt cities. R2G’s action- and future-oriented “rust-to-green” moniker consciously builds on the “restoring prosperity” message of a 2007 Brookings’ Institute report². R2G aims to be a proactive contributor to *rescripting* the dominant public narrative of place branding that ‘rust belt’ cities and communities endure³. Instead of loss, decline and neglect, R2G espouses a narrative of hope, possibility, resilience, renewal, and rebound for NY’s post-industrial cities.

This “green” public narrative is enabled by R2G’s process of forging university-community partnerships to identify and take actionable steps to “grow” greener, resilient 21st-century communities in Upstate New York. R2G interconnects academic and community knowledge networks inclusive of university students and faculty, community members, professionals, extension educators, and others. It considers each of these knowledge networks to be knowledge assets contributing to place-specific community-driven change. By leveraging these knowledge networks and cultivating their ability to co-learn and act together, R2G hopes to generate knowledge and actions fostering sustainable development and resilience in New York’s post-industrial cities. R2G’s approach strives to achieve genuine reciprocity – shared authority and power with its partners. This means that both university and community participants engage in transformation and co-evolution resulting from their work together and the exchanging of mutually beneficial knowledge and resources between them⁴.



Urban resilience and sustainable development

In early 2010, when it launched into action at Cornell, R2G set out to adopt and foster design and planning education, research, and practice approaches that would directly contribute to community change and reflect the fundamental principles of urban resilience and sustainable development. Urban resilience and sustainable development emphasize whole system interdependency as well as whole system change, fostering greater resilience and sustainability over time⁵. Resilience theory suggests that instead of being on the verge of death, post-industrial cities are in a period of post-disturbance reorganizing and entering a new phase of development. This reorganizing period is ripe with potential and primes a city for new learning and

transformation. This moment is the time to innovate, learn and acquire knowledge and capacities—in governance, networking, infrastructure, development, policies, etc – that will cultivate resilience and the ability to “bounce back” in disturbance’s wake regardless of the cause—economic, social or environmental.

More resilient and sustainable cities are going to look, perform and behave altogether differently than their 19th and 20th century forbears and be better places to live, as suggested by the authors of *Resilient Cities: Responding to Peak Oil and Climate Change*:

The many benefits of a resilient city include greater overall physical and emotional health; ease of movement in higher density, mixed-use communities that are walkable and have accessible transit options; better food that is produced locally and is therefore fresher; efficiency of energy resources, greater affordability, healthier indoor environments; easier access to natural environments; and more awareness of the local urban area and its bioregion enabling us to have a greater sense of place and identity⁷.

Resilient cities will engage in activating inclusive, interdependent, smart social networks and using ecological infrastructure to connect the quality and character of the built environment with their urban metabolism, or how they are using and regenerating resources. Resilient cities will use existing resources with minimal external inputs to intensify flows of energy, matter, and/or information and increase their overall productivity and resilience.

The transformative thinking required to foster sustainable and resilient cities and communities demands equally transformative modes of thinking and behaviors for citizens, governments, leaders, and universities. For R2G, this means turning to participatory action research and project-based research models and methods⁸ civic engagement⁹, and the pedagogy of academic service-learning¹⁰. It means emphasizing placemaking¹¹, ecological democracy¹², and democratic professionalism¹³ as approaches compatible with sustainable development and resilience. It means emphasizing local context, assets, relationships, systems, slow knowledge, wholeness, and connectivity¹⁴.

R2G in ACTION in Utica, NY

Since its beginnings in 2010, R2G has been guided by the foregoing principles and approaches also embodied in the integrated and overlapping objectives initially articulated in its USDA Hatch grant titled “From Rust-to-Green Places and Networks: Mapping a Sustainable Future for Upstate New York”¹⁵:

- advancing green futures through dialogue
- identifying and evaluating green places and networks
- undertaking collaborative projects and initiatives and taking collective actions that result in tangible community changes and benefits

While limited Hatch seed monies necessitated starting small, a continuing goal involves activating an R2G network of NY's post-industrial cities in partnership with Cornell Cooperative Extension (CCE) and other campus-based partners such as the Atkinson Center for a Sustainable Future (ACSF). In 2010, Utica became R2G's first partner community at a moment when the city was on the verge of wrapping up its first master planning process in more than 50 years. In February that year, R2G's trio of Cornell landscape architecture faculty (Horrigan, Vanucchi, Ruggeri) began meeting with a group of community partners crossing sectors of Utica's government, nonprofits, businesses, and education, to name a few. This initial group, and others who would later join them, became known as the R2G Utica Core. They were particularly keen to work with Cornell on a joint university-community project that they viewed as being the "action phase" of their city's new comprehensive master plan.

R2G Utica has co-evolved in the city of Utica with an on-campus integrated community-based education and research program. Thirty students from varied environmental fields joined the inaugural R2G Workshop which launched R2G Utica. Cornell R2G service-learning courses, summer fellowships and thesis research have supported projects with Utica's ever-enlarging local R2G network of community partners. From the outset, R2G Utica partners were particularly eager to make R2G go "viral" in their community. They wanted it to become highly visible, promote sustainability education and awareness, and focus on being about more than talk, with action and evidence of tangible changes and results – sooner rather than later. More broadly, they were eager to begin promoting a "green" narrative of possibility and promise to counter the negativity that was at the forefront of people's minds and being fostered by the local press's focus on stories of blight, crime, and economic decline.

R2G Engaging Students

An inaugural service-learning R2G Workshop (Spring 2010) played a pivotal role in launching R2G Utica. It was followed in fall 2010, by the Water and Land Course (taught by Vanucchi) engaging landscape architecture students in a project working with the City of Utica's planning department to provide mapping for its 2011 New York Department of State-funded Local Waterfront Access Plan. That same semester students in Community Education and Development (taught by Peters in Education) conducted narrative profile interviews with many of R2G Utica's Core to understand their project expectations and aspirations. Finally, the R2G Capstone Studio (taught by Horrigan) to upper-level graduate and undergraduate students, emerged to become R2G's principal community engaged course. This service-learning capstone emphasizes integration and application of skills and knowledge – including sustainable design theories and practices – learned in the landscape architecture major. It also introduces students to placemaking, participatory community design, and democratic professionalism in sync with its corollary emphasis on sustainable development and resilience. These combined approaches enable students to work collaboratively *with* community partners on community-identified projects connecting to R2G Utica.

Since 2010, approximately 40 Rust to Green Civic Fellowships have been awarded to university students working with community partners on R2G Utica projects over the summer months. These fellowships have provided important continuity and support in step with R2G Utica's quick-paced unfolding and a growing number of associated projects and networks. For example, early on in 2010, R2G Utica identified food security and food system sustainability as a key concern. This led to the formation of a local food system network with more than 30 local partners coming together around a USDA Hunger

Free Communities Grant to assess and rethink the local food system. At Cornell, R2G's efforts by faculty and students turned to supporting this participatory action research project with grant writing, data collection, mapping, and project facilitation.

R2G Utica Projects & Outcomes

R2G Utica Projects involve Cornell's R2G faculty, CCE Educators, and students working together with various networks of community partners from agency, non-profit, neighborhood, and government sectors. For example, R2G Utica's food system project is now known as the *Mohawk Valley Food Action Network* (MVFAN). For this project, CCE Oneida County, which now includes a R2G Utica Program Area, provided key leadership. It has led to the recent formation of a *Food Policy Advisory Council* to promote healthy people, environment, and economy in Utica and its local food system. This successful sustainable development effort has resulted in significant community change. The *Kemble Park Project* and *MLK School's I Have a DREAMscape* are two R2G Utica projects hoping to contribute to Cornhill's renewal and the overall health and well-being of those living in the city's most diverse neighborhood. The One World Garden aims to promote the resilience and community integration of refugees comprising more than one sixth of Utica's current population. Green infrastructure design projects have been implemented at Utica City Hall, the Oneida Square Roundabout, and downtown's Liberty Bell Park while community-driven planning projects are currently underway in both the Baggs and Oneida Square districts.

R2G Learning and Evolving

Challenges and evolving dynamics are as much a part of R2G's narrative as are its successes and achievements. Both obstacles and successes reveal the gaps and capabilities – of community and university knowledge networks – to work together and participate in the sustainable development of communities. Cities, like Utica, need to gain in capacity, be receptive to reinventing themselves, and act boldly in adopting policies, behaviors, and attitudes supporting sustainable development goals tailored to their identity, assets, and potential. Universities need to seize on approaches to education and research that model and promote sustainable development, encourage trans-disciplinary thinking and complex problem solving, foster citizenship and democratic professionalism, and link slow knowledge understanding – of local people, places, and contexts – to technology, invention, and innovation. It is by university, CCE, and community partners working and learning together that R2G transforms from a project *about* communities to an action-oriented community building and sustainable development effort unfolding *in* and *with* communities.

For more information on Rust2Green, please visit our website at: <http://www.rust2green.org/>

¹ Full references are available accompanying this publication on the CaRDI website at www.cardi.cornell.edu

² Vey, Brookings, 2007

³ High, 1997

⁴ Saltmarsh et al., 2009

⁵ Resilience Alliance, 2010

⁶ Holling, 1973; Tainter, 1990

⁷ Newman, Beatley, and Boyer, 2009, p. 11

⁸ Greenwood and Levin, 2007; Reason and Bradbury, 2001; Stoeker, 2005

⁹ Jacoby and Associates, 2009

¹⁰ Eyler and Giles, 1999

¹¹ Schneekloth and Shibley, 1995

¹² Hester, 2006

¹³ Dzur, 2008

¹⁴ Orr, 2002; Sterling, 2001

¹⁵ (USDA Hatch, CSREESNYC-146455):

