

Geodesign Studio 2015

Healthy regions through geodesign

David Tulloch

Blake 220

848.932.3611

dtulloch@crssa.rutgers.edu

Lecture: Tuesday 12:35 PM - 1:55 BL-245

Studio: Tuesday 2:15 PM - 5:15 BL-228

Studio: Thursday 2:15 PM - 5:15 BL-228

Common Lecture: Wednesday 3:55 PM - 5:15 CDL-110

Office Hours: Thursday, 10-12 noon, Blake 220

(Other days/times by appointment or just dropping in)

Urban health is a major issue in Central New Jersey and around the world. The world has become increasingly urban and GIS as a tool and science is an unprecedented innovation that can help us understand how these cities impact the health of their residents.

Today more than half of the planet's residents live in cities. There are already 33 cities with over 10 million residents. To house the growing population some cities are being built so quickly as to be called Instant Cities. Even in the US, where citizens often went to Disneyland if they wanted to enjoy urban living, cities have made a remarkable recovery. But today even young Americans are embracing urban life as the newest generation of adults, Millennials, are moving back into cities rather than buying suburban homes.

But cities can be home to some troubling health trends and concerns. Living in close quarters comes at a cost. The fear that swept the country about catching ebola on the subway was evidence of the concerns, regardless of whether they are well founded. Asthma is a global urban epidemic. Here in the US Asthma affects 21 million Americans, including nearly 9 million children.

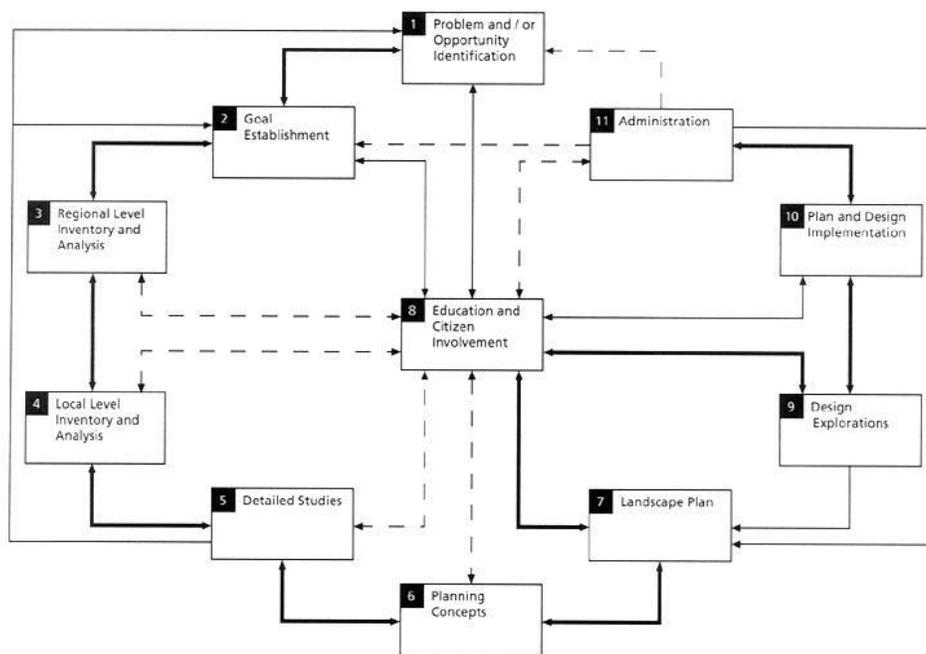
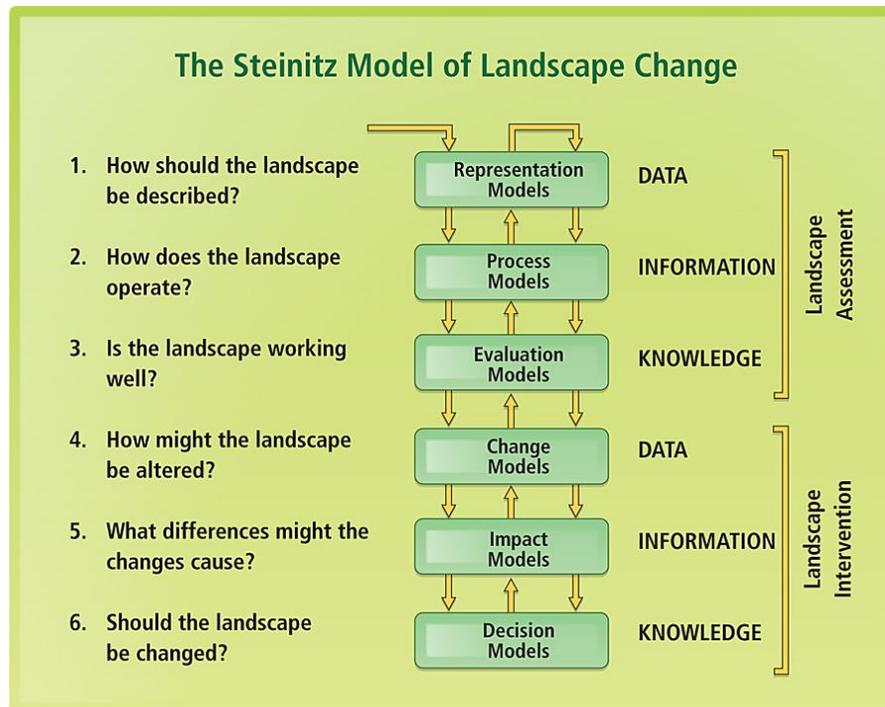
Nationwide, 1/3 of all children born in the US after 2000 will have diabetes. In the US, minority neighborhoods in cities have particularly high rates of childhood obesity. Limited healthy food offerings in many neighborhoods make chips more accessible than produce. American auto manufacturers have started using a second crash test dummy. Today, obesity is our biggest killer.

This semester we will explore how design can shape a community in ways that impact the health of its residents. Our studies will include looking at literature and design precedence, and then apply lessons from those materials to neighborhood and regional landscapes here in Central New Jersey.

By the end of the semester we will be thinking regionally and locally simultaneously. Science will inform in defensible design decisions throughout the process. And GIS will be a key tool to make those happen.

PROCESS

Thinking and acting regionally is tough. But it helps if we can build on the backs of giants.



An important theme of the semester is finding a process that we can use to guide our work. While we might need to make changes to existing models, our job is easier if we can trust in the past work of leaders in regional design. Two models that we will investigate are Steiner's model for ecological design and the framework model for landscape change by Steinitz.

Building Complexity:

Project 1 – We will undertake some rapid healthy design interventions for sites and neighborhoods in the City of Elizabeth, New Jersey. This short-term project will analyze geospatial data generated by a summer GeoHealth Workshop to describe the health conditions of Elizabeth, NJ. The proposed interventions will be chosen to demonstrate the variety of basic tools that designers can employ to shape a community for healthier life patterns. (Approx. 2.5 weeks)

Project 2 – Focusing on Northeastern Middlesex County, the class will interrogate the emerging concept of prescription parks using GeoHealth practices (particularly GIS analysis) to identify potential sites and audiences of greater need. The idea is one that emphasizes physical activity in parks as something that can be prescribed by a doctor for the health of their patients. It requires coupling parks and their support of activities with a user community actively receiving medical care that specifies park use. (Approx. 4 weeks)

Project 3 – This project will couple a regional approach with a comprehensive set of design tools for building a healthier community. Each tool used will be a tool that can be used in a variety of settings but tested with a site-specific design. As a whole, the toolkit will address a variety of health problems including inactivity, access to healthy food (including gardens and farmers markets), and access to health care. Tentatively we will plan for the regional site to be all of Middlesex County. (Approx. 8 weeks)

Learning Goals

Goal 1: Students will demonstrate ability to apply geospatial technologies in a studio context. (Labs)

Goal 2: Students will show mastery of basic principles of public speaking to effectively communicate their designs and design principles and apply them to studio presentations with a professional audience. (Presentations)

Goal 3: Students will be able to craft designs at the regional scale responding directly to data and information at multiple scales. (Project 1)

Goal 4: Students will demonstrate understanding of GIS analysis be able to analyze existing conditions and processes in order to substantively inform their design decisions. (Project 2)

Goal 5: Students will understand and apply regional design principles to craft designs at the regional scale that simultaneously address multiple project goals with a single coherent solution that is explicitly based on data and analyses. (Project 3)

CLASS POLICIES

Academic Integrity Policy and Copyright:

It is expected that you give proper credit to all sources (text and image) quoted in every drawing or text. That includes the use of photography taken by others.

Rutgers has an academic integrity policy that emphasizes the importance of staying beyond reproach. You should never take inappropriate credit for the work of others, either your classmates, roommates, siblings, famous authors or obscure Internet sources. A huge percentage of academic integrity cases could simply be resolved by giving credit to the source of the data, idea or wording. (That is why quotation marks are so valuable)

Since some of the work in this class will almost certainly end up being published online or in print, your personal reputation and that of the program both depend on giving proper credit for the basis of any work. They also depend on not using photos, data, or other materials for which you do not have permission. Use of copyrighted materials on a publicly posted publication, without permission, is both a violation of the class rules and violation Federal and International law. Any project that is turned in that uses photography or images from outside sources without giving credit will be penalized.

If you ever have any question about whether something requires credit, please check with me. Once you turn in a problematic assignment, it can be very hard to undo the damage.

Work Becomes Department Property

Submitted drawings, models, photographs, or written papers for any project assigned in Landscape Architecture courses are considered the property of the Department and may be retained in its archives for exhibition and accreditation purposes.

All projects will be graded and returned to the student at a location designated by the instructor. Should your drawings be retained by the Department, you will be given the opportunity to obtain a print or photographic record of your work. Department files are **OFF LIMITS** to students.

Use of Facilities

Studio cannot be taught without reliable facilities. But your use of the facilities is dependent upon responsible use with particular regard to the clearly established rules about their use as specified in the student handbook:

http://landarch.rutgers.edu/current_students/student%20handbook/StudentHandbook_web_Sect1.pdf

These rules cover access to studio and vandalism, table assignments, personalization of work space, smoking and drinking, use of the lockers, access to the reference collection, and basic rules governing the use of the computer lab. Failure to observe rules may result in loss of access. Access to the

fabrication lab is granted after successfully passing the safety instructions. Access is monitored and can be revoked if students use tools they are not qualified for or if students do not clean after themselves.

Equipment

The student handbook also includes a section governing the use of equipment

http://landarch.rutgers.edu/current_students/student%20handbook/StudentHandbook_web_SectII.pdf

This section includes rules specifying use department equipment including of projection equipment, department cameras, and drafting equipment.

Submitted drawings, models, photographs, or written papers for any project assigned in Landscape Architecture courses are considered the property of the Department. The formatting of all digital submission must follow the department guidelines because they will be retained in its archives for exhibition and accreditation purposes.

All projects will be graded and returned to the student at a location designated by the instructor. Should your drawings be retained by the Department, you will be given the opportunity to obtain a print or photographic record of your work. Department files are OFF LIMITS to students.

"By 2030, the global cancer burden is expected to nearly double, growing to 21.4 million cases and 13.2 million deaths. And while that increase is the result of demographic changes – a growing and aging population – it may be compounded by the adoption of unhealthy lifestyles and behaviors related to economic development, such as smoking, poor diet, and physical inactivity."

- American Cancer Society

Attendance:

Studio attendance is mandatory. The Department of Landscape Architecture requires attendance in all of its classes. The individual student's development as a landscape architect is largely dependent upon two aspects of education. First is the exposure to and assimilation of a body of information which relates to the field. Second is the application of this knowledge through studio projects and problem-solving skills developed through critiques, reviews and interactions during each project.

The Rutgers Landscape Architecture curriculum is designed to develop both areas. Attendance and participation in all lectures and studios are essential if the student is to achieve his/her maximum potential. Unless a more strict policy is in place by the individual instructor, more than three unexcused absences will result in a step reduction in your semester grade. Each additional three absences will result in another step reduction. Since the common lecture is part of the studio, missing that would count as an additional absence.

A minimum level of participation is defined as being in attendance for the entire duration of a class session. It is the student's responsibility to be in attendance at all required classes and all personal plans should be made in accordance with the schedule.

Your attendance at juries or special seminars scheduled in your design course is mandatory for the entire duration of the session.

Tardiness is absence. If class starts at 12:35, it does not mean that 12:45 is close enough. Since Common Lecture is part of studio, we meet 4 times a week – that means that skipping a week of school is sufficient cause for lowering a grade. Rutgers does *not* count extended family vacations, work (which pays for school), lunch, or the Tuesday before Thanksgiving as excused absences. If you have questions about the policy, please refer to the online handbook:

http://landarch.rutgers.edu/current_students/policies_st.html

Due Dates

Except for circumstances truly beyond the student's control, all assignments are due at the dates and times specified throughout the semester. Projects that are incomplete on the due date should still be submitted on the date it is due to receive at least partial credit. Any work submitted late will be penalized a letter grade for each day past due. Working beyond a due date is both unrealistic in a professional setting and unfair to your classmates in this course.

Disabilities: Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Studio Expectations: Studio time is very limited, so you are expected to be here for the whole thing unless we are working in the field or doing library work, etc.

Keeping Up is Key. As we teach you new skills/techniques, we expect you to know them and be able to use them. A GIS lab today might lead to a GIS project on Friday. If you fall behind, you will drag down others.

Be Prepared. Bring your laptop and have your drawing equipment at the ready. I like surprise drawing or rapid research projects.

Time is precious. When we suggest that your team should look into something, we don't mean that you should wait a few weeks until we tell you who to call. We mean that you should immediately send emails, make calls, drive to that county's library, or ask us exactly who to contact.

Time is precious. In order to squeeze in as much information about regional analysis and design as possible, we are going to move fast. That means that when we go TOO fast, you have to be willing to let us know, and you sometimes you may have to be willing to do a little extra work to keep up.

Stay until the end! 10 minutes before studio ends is a great time for wrap up or reassessment...unless you've already left. In which case it is a great time for the world's easiest pop-quiz.

Reviews are Special. As new design students, just getting something done in time for a review was a challenge. You probably faced the review with dread and hoped no one caught (or mentioned) all of your shortcuts and problems. Now, as more advanced design students, we want to encourage you to look forward to design reviews and pin-ups. These are unique opportunities for you to grow as a designer, and you should really work towards them as a moment of triumph. We encourage you to come in with work that you simply can't imagine improving on. Think to yourself, "I dare you to find something wrong with this design." And then savor the moment when the critics point out things that you didn't think of. Don't bother saying, "But, they told us that wasn't part of the problem" or "We haven't covered that yet." Just spend every minute of the review trying to learn as much as you can about what you didn't see before and milk any visitors for every ounce of information and advice.

Deadlines Matter: I want you to learn about how to make good decisions when time is limited. So, we are strictly enforcing deadlines. Late projects and assignments will be docked, generally 10%, when turned in late. An hour late is late.

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- More than 2 in 3 adults are considered to be overweight or obese.
 - More than 1 in 3 adults are considered to be obese.
 - More than 1 in 20 adults are considered to have extreme obesity.
 - About one-third of children and adolescents ages 6 to 19 are considered to be overweight or obese.
 - More than 1 in 6 children and adolescents ages 6 to 19 are considered to be obese.

- National Health and Nutrition Examination Survey, 2009–2010

LOGISTICS

Key dates:

09.1.15	First day of class	12.10.15	Last day of studio
12.17.15	Final Presentation at Blake Hall (Tentative)		

Flexibility:

For this studio to succeed, flexibility will be necessary. This applies to scheduling as well as other solutions. As 3rd year graduate students, I like to respect your ability to think creatively about the flow of the project. That might mean changing the number of small projects or shifting the grading emphasis to reflect an altered path. Also, since the regional work benefits greatly from group contributions, we will all benefit if you are able to anticipate some flexibility as part of the class structure.

Assignments and Grades:

This studio will employ a wild variety of techniques for evaluating your work and assimilation of the material. Since we've never done this project before, I have to ask you to be flexible as we adjust the schedule and grading to fit both the work and the learning.

These techniques may include (but not be limited to): Lab assignments, Preliminary studio projects, Final studio projects, and Quizzes and pop quizzes.

Because we don't know how the semester will flow, it is hard to say precisely what the final grade will look like. But, it might end up something like this:

Labs, assignments, quizzes, pop quizzes	15%
First design project	10%
Second design project	20%
Preliminary designs – final project	10%
Spatial analysis – final project	10%
Final designs and presentation materials – final project	20%
Final presentation and in-class exercises about public speaking	5%
Final report – final project	10%

Data logistics

Generic geospatial data for New Jersey and its environs can generally be found here: S:\GISdata

Geospatial data that is meant only for the graduate geodesign studio will be stored in R:\ 533_Geodesign_Geohealth