Woodbridge is an amorphous suburban conglomeration without a clear spatial distinction but has more than 100,000 residents. On the one hand it is the poster child of faceless suburbia, on the other hand it has progressive leadership, taking sustainability and resiliency seriously. Woodbridge is among the oldest townships in New Jersey. 1664 — Gov. Philip Carteret of New Jersey granted English settlers the right to establish a settlement on the lands formerly inhabited by the Lenni-Lenape Indians.

Corona has drawn attention to the public health aspect of open spaces. The need for providing accessible and high-quality open space in close vicinity to residential and commercial developments became obvious during the lockdown. The focus of the studio will be on developing design proposal that link selected downtown areas to existing parks and a proposed greenway. This connection between housing, business, and open space will be explored in partnership with planning students.

Landscape architecture students will analyze urban form and spatial qualities to develop design explorations for high quality open spaces that integrate lessons learned during the pandemic.

The planning master students will research standards for updating post pandemic plans for NJ cities and towns and will develop strategies for economic and social recovery after the pandemic.

This spring 2021 praxis studio is aligned with a real world project of the Center for Urban Environmental Sustainability (CUES), developing and integrated Landscape and Ecosystem Services Plan (L-Plan) for Middlesex County.

Praxis Studio OD Spring 2020, 5 Credits
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Collaboration
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We are the only class in the department of landscape architecture that received a special permission for face-to-face instructions. The following actions are taken to comply with Rutgers policy.

- All class sessions will also be offered online for those who are in quarantine, prefer not to attend, or don’t have easy access to campus.
- Weekly testing is mandatory.
- In case of one participant testing positive, instructions will switch to online until the next round of tests came back negative.
- Mask will be worn at all times.
- All desks will be separated to always maintain a six feet distance.
- At the beginning of class, all students will have access to disinfectants to clean table and other touched surfaces
- No drawing materials will be shared between students. Faculty will bring their own sketch paper and pencil.

The collaborating planning class will be taught online. Working stages of our assignments will be shared on the R-Drive, the final submission of each assignment will be through CANVAS. To support conversations in the digital classroom, we may ask you to upload the same assignment again on a CANVAS class discussion. Throughout the semester, we will utilize a variety of media to support our interdisciplinary collaboration.

Professional work environments, like landscape architecture and urban planning, rely on teamwork. However, teamwork is not easy and must be learned, this class is your opportunity to further develop your team working skills by listening to your team members, valuing each person’s voice, and contributing your share of the work on time. It is perfectly fine to disagree and to utilize the exchange of facts and arguments for a better outcome. Please sign up in canvas for your groups:

Design Groups will have three students. Because we have 13 students enrolled, Design Group # 4 has 4 spots. You will work in the design groups for assignments # 1, 4, 5, and 6.

In order to support the effective communication of information relevant for everybody in the class, the Inventory and Analysis work is organized in a second group setting. It is suggested that the design teams split and reshuffle into new inventory groups. Again, I&A group # 4 will suit 4 students.

The focus of the LA studio will be on open space design, at site scale. For some aspects of the environmental planning work, we will benefit from an ongoing CUES project about a Landscape and Ecosystem Services Plan for Middlesex County (part of the Middlesex County Masterplan 2040 Project). The studio will address three main design question:

- Climate Change
- Post Corona Open Space
- Urbanization/Transit Village
Large sections of Woodbridge were built in the floodplain of Heards Brook and Woodbridge Creek. The flooding problems worsened with the increase of impervious surface and the higher frequency of torrential rain events. To regain floodplain and to reduce flooding impact on residents, Woodbridge Township took the opportunity to participate in the Blue Acres buyout program. This added 32 residential properties to the open space inventory. Broke Maslo Ecologist and Extension specialist at Rutgers Cooperative Extension developed a habitat restoration concept. However, there is still space to develop an innovative design language that goes beyond “ecological design” and provides meaningful places for residents, visitors, and shoppers. The design questions include:

- What is the design language for this new secondhand nature?
- What is the relationship between conservation area and human dominated landscape?
- Fresh design view on the “checkerboard spaces”; how do we deal with the hold outs?
- How to integrate the newly gained areas into an overall open space system.
Corona has drawn attention to the public health aspect of open spaces. The need for providing accessible and high-quality open space in close vicinity to residential and commercial developments became obvious during the lock down. All over New Jersey, restaurants extended seating on the site walk, roads were opened for pedestrians to allow for social distancing. Some roads were completely closed to provide additional space for outdoor dining and entertainment. The questions for the class include:

- How can a permanent re-distribution of public space between cars, pedestrians and bicyclists be designed?
- How can existing open space be improved to be more accessible and provide a user-friendly high quality open space experience?

The focus will be on developing design proposal that link selected downtown areas to existing parks and a proposed greenway. This connection between housing, business, and open space will be explored in partnership with planning students.
Most recently, Woodbridge Township has pushed further the transformation of a sub-urban town into a transit village. The direct access to NYC on the NJ Transit North Jersey Coast Line provides excellent public transportation infrastructure, in addition to the intersection of Parkway and Turnpike. One example for new higher density residential development is the Modera Woodbridge, which consists of 279 apartments (studio, one-, two, and three-bedrooms) next to the train station. Those new six-story developments change the character of the town and will attract tenants with a more urban lifestyle.

The design questions include:

- Does this call for an “urban: park design language?”
- How can open space design provide opportunities for the integration of the newcomers in town?
- What are opportunities for innovative storm water management of the new developments?

Overall, Woodbridge is an example for the post-suburban shift, creating the underlying questions: What is the new cultural landscape in post-suburbia?
The objective of the semester is to analyze urban form and spatial qualities to develop design explorations for high quality open spaces that integrate lessons learned during the pandemic. This will integrate concepts for storm protection, housing, planting design and streetscapes, generating innovative solutions with regards to the existing social, economic, and ecological situation. The collaboration with the Bloustein planning studio will be supported by a strong focus on the methodological relation between survey, analysis, and design decisions.

The design method “Morphological Box” allows evaluating and integrating inventory and analysis of existing conditions as well as planning proposals into the design process. Further it supports an increased number of possible creative solutions. The method is based on the morphological thinking by Fritz Zwicky (1969) and was further developed by Peter Latz (2008) at TU Munich. I have built upon and adapted this methodology for the first part of this semester.

Our studio project is facing the challenge of numerous infrastructure problems, cultural issues and aesthetic questions which are all interrelated to each other. For example, expanding pedestrian space to support post-pandemic social distancing will have a high impact on the streetscape and the indoor-outdoor relation of residential buildings as well as traffic patterns. Woodbridge must become resilient for the future; however, the town should probably not turn into one big infrastructure project. The current residential construction projects will increase the demand for open space and will change open space access patterns.
Your site and context analysis (assignment 1, 2 & 3) will reveal that it will not be possible to combine all identified demands easily on the site. Additionally, it will become obvious that there is not one clear solution for issues like pedestrian, bicycle, and vehicular circulation etc. In order to be able to address these issues properly each group will develop a matrix.

The matrix is composed of 5 to 7 issues. The first step is to define the most relevant issues. Then, each group will develop a problem statement for each issue. The third step is to describe criteria to evaluate possible solutions; what would be a good solution for issue 1 and what aspect would make it a bad solution. You will do these problem statements and criteria for all your 5 to 7 issues. Then you will develop diagrams (assignment 4) that show possible alternative solutions. Of course, the existing conditions are always a possible solution and must also be shown in a diagram.

The next step (assignment 5) is an individual evaluation of each solution according to the developed criteria and select the most appropriate solution for each issue. Then create a drawing overlaying selected solution and develop a first overall design based on overlay. Define obstacles to a felicitous design. Go back to assignment 4 and modify conceptual solutions and overlay.

This methodology supports critical discussions with the client and our collaborators from the planning school about proposed uses to our study area and the developed design solutions. Further it supports the critical step of transforming these urban design proposals into site specific designs in the second half of the semester. This process will reveal how each design scale addresses very specific questions and that solutions deeming appropriate in the masterplan might create problems on a site design scale.

The transparent design method morphological box allows revisiting earlier decisions and making informed revisions in the light of new values or circumstances.

Don’t be stingy with trace!
Assignment 1
Goals and Objectives

Design Group
Given 01/19
Due 01/21

Deliverables:
• Minimum 2 page paper.
• The problems and goals statements have to be in full sentences.
• Please provide a second copy of your map descriptions that can be cut in pieces and used for class discussion.

Evaluation criteria:
• Set of goal statements
• A profound problem statement that identifies your priorities for the project
• Complete list of necessary maps.
• A list of mapping criteria that is comprehensible

Based on discussion in class, you will be requested to address the following:

1. From the perspective of a professional expert, define goals for the site that are important for you as a responsible landscape architect who is aware of future challenges.

2. Having defined this set of goals, outline your objectives and explain what your priorities are: What is most important for you, what second, what third, etc?

3. Define what additional information is needed and develop a program for your inventory and analysis. What do you need to look for at the site? What else will you need to know that is not immediately visible at the site? What resources will you be tapping?

4. Define a list of maps you will require to complete an inventory (assignment #2) and analysis (assignment #3) of the site with a short description of a useful legend for each map. You are not yet expected to produce all these maps, but your contribution will be essential to organize the work of the upcoming assignments in a fair and efficient way.

The outcome will inform problem statement and criteria of your morphological box. We will discuss your short papers and develop a strategy for context and site analysis. The outcome of the discussion will be assignment #2.
Based on the outcome of assignment #1 (design groups) the workload of gathering and documenting information will be split between the inventory & analysis groups. It is strongly advised that you reconfigure the groups! The ideal is that there is no overlap between the membership of the design groups and the inventory & analysis groups. This helps to reduce the loss of information between inventory, analysis, and design.

Each I & A group will gather the relevant data, either from existing files or from on-site investigation. Additional research may be necessary. The findings must be documented in at least two maps and a corresponding text of appropriate length. The goal for you in this phase is to develop an expertise in the aspects you are dealing with.

Identify the proper media to communicate your findings: Existing trees, or sidewalk dimensions work well in a plan, historic facts may be best shown in a timeline.

On more thought: In the planning world, existing proposals must be considered along the existing conditions. In our case, the new housing developments currently under construction and the proposals for future additions are our present conditions.

**Assignment 2**

**Inventory**

I & A groups
Given 1/21
Due 2/11
Pin Up 2/11

**Deliverables:**
- Set of evaluation criteria
- Minimum one analysis map
- Sections/timeline as appropriate
- Corresponding text
- Analytic conclusions

**Evaluation criteria:**
- How well the gathered information is made accessible through text.
- Appropriate key and clear graphic expression
- Comprehensive rational of inventory
Assignment 3
Analysis

I & A groups
Given 1/28
Due 2/11
Pin Up 2/11

Deliverables:
• Set of evaluation criteria
• Minimum one analysis map
• Sections/timeline as appropriate
• Corresponding text
• Analytic conclusions

Evaluation criteria:
• How well the gathered information is made accessible through text.
• Appropriate key and clear graphic expression
• Comprehensive rational of analysis

Inventory shows us how things are and why they are the way they are; that is fact finding. Analysis outlines if any aspect of the existing conditions causes a problem for present or future uses of the site. This is a value driven assessment of the facts.

Design oriented analysis includes qualitative assessment, e.g. important viewsheds, spatial qualities of streetscapes or significant facades. Feelings and impressions are important analysis tools for designers, the challenge is to communicate them appropriately to design partners, clients, or the public.

While inventory provides knowledge about existing conditions, however, it does not reveal deficits or potentials. Analysis requires that you develop evaluation criteria according to your findings. Your expert opinion is needed for providing guidelines for the concept development by the design groups. The rationale behind your expert opinion is very important for the design groups and have to be explained in the text.

Obviously, these findings will inform the problem statement and evaluation criteria of the morphological box (assignments #4 & #5).

The findings must be documented in at least two maps and a corresponding text of appropriate length. The goal for you in this phase is to develop an expertise in the aspects you are dealing with.

Middlesex Open Space Needs Analysis.
Cut out Woodbridge

Criteria
• Indicators of potentially disadvantaged populations (analysis by VTC)
• densely populated
• not within a 10-minute walk of an existing park

Map Created by: CUES
Draft as of 01/04/2021
Projected Coordinate System: NJ State Plane (Feet)

Data sources:
Indicators of potentially disadvantaged populations (analysis by VTC)
US Census
Existing open space used to create walking distance assessment
Assignment 4
Morphological Box

Design Group
Given 2/2
Due 2/25

Deliverables:
• Morphological box
• Definition of 5-7 issues
• Problem statement for each issue
• Evaluation criteria for each issue
• Clearly readable diagrams (trace)

Evaluation criteria:
• Precise wording of problem statements and criteria
• Innovation of alternatives
• Graphic quality of diagrams
• Alternatives are clearly comparable within column

Inventory and analysis (assignment 2 & 3) have given you a solid understanding of relevant issues. For the morphological box of your group, you will pin the relevant issues as headlines on a wall, together with your problem statements and criteria. In the next step, each design group develops 3 to 7 diagrammatic solutions concerning each issue.

For that, it is important that each solution is truly diagrammatic, showing the important aspects of a solution in an abstract diagram that is to scale. It is imperative that each alternative concerning the same issue has the same scale and the same level of abstraction, but that the alternatives are significantly different from each other.

However, the scale or even the representations (diagram, model picture or text) of alternatives of a different issue can be diverse. Diagrams for the issue of vegetation volumes may only consider the site, diagrams about access may consider a larger context and are of a different scale.

Example 2nd year graduate studio fall 2011,
James Bykowski, Davis Hanrahan, Jim Taranto
Deliverables:
- Evaluation system
- Evaluation of each alternative according to criteria
- Test design as graphic expression of evaluation outcome
- Set of revisions

Evaluation criteria:
- Comprehensive application of evaluation criteria
- Transparency of evaluation process
- Transparency of revision process

Evaluation
The status quo will always be treated as one option and is evaluated in the same manner as the other options. The diagram of the status quo is basically the inventory of the existing conditions. The evaluation of the existing conditions is an in-depth analysis with respect to the developed criteria. One major principle of environmental design that will be stressed during the course is that the effort of changing an existing situation has to be justified by a noteworthy benefit. The existing condition is always one option. This process shall lead to one preferred solution with respect to each issue (not to an overall design!) and one red yarn shall visualize the connection between the preferred solutions.

Test Design
All preferred solutions will be transferred to the same scale and will be overlaid. It is very likely that the overlay will show that the different solutions do not match. Now you will have to go back to the matrix, make a new solution that will match and add it to the appropriate column. It is important to note that this is not an arbitrary ‘fixing’, this process creates awareness which aspect of a preferred solution has to be altered in order to develop a comprehensive design, which evolves from an overlay of solutions through several test designs into a final design.
Assignment 6
Conceptual Design

Deliverables:
- One colored print and one digital version that is reproducible (PDF & JPEG file)

Evaluation criteria:
- Green space connection
- Handling of significant elements.
- Urban context
- Vehicular/pedestrian Connections/parking
- Innovation carried through
- Graphics/readability
- Completeness of information

The morphological box leads to a conceptual design that makes suggestions for vegetation, buildings, commerce, circulation, leisure, recreation, and perhaps cultural identity. Each group will define areas of focus for individual designs during the second half of the semester. The discussion at the midterm presentation will confirm these areas and provide you with advice for the next steps.

Format and scale of deliverables for the midterm and final presentation will be discussed in class.

Example senior studio fall 2013,
Alexandra Duro

Example senior studio fall 2013,
Jessie Woods, Michelle Hartmann, Rebecca Cook
Developing an advanced mastery of the design process and improving design skills is a very challenging and demanding process. Design methodology can support the learning experience and can improve the understanding how design works.

Design is the creative, holistic act that turns “problems” into “projects.” It is important to recognize the artistic process involved in developing any design.

Design is not just the application of scientific findings to a specific site (that would be engineering).

Design is the creative act of form finding that draws from cultural experiences and personal abilities.

For landscape architects, the meaning of the physical space is an additional important aspect. Space is not just the outcome of an ecologically and technically appropriate solution; rather it is the product of the human-environment-interaction, which can be improved by the creative act of design.
For the individual designs during the second half of the semester, we will apply a design methodology termed the “Performance Process”. This is a rather holistic approach that integrates all previous understandings of a site and additional analytic work into a contextual program. This analytical process will allow us to evaluate the site and how it performs with respect to the contextual program. Thus, we are no longer thinking of the site as just an object but the site is the performer itself. The evaluation of the performance leads us to a program for a preliminary design as well as a second contextual program. This circular process is repeated several times until the performance of the site is appropriate and convincing.

By now, you have defined the site for your individual design. In the first half of the semester you have developed an informed bias about it by inventory, analysis and conceptual design development—you basically know what is going on. The second half of the semester provides opportunities to explore your individual preferences and design styles. That is to say that the contextual and analytic information developed in the first half will now be re-evaluated by you as an individual in the light of a more detailed look at the site design scale. This will enable you to evaluate the conceptual design as performance from the perspective of your values and the client’s needs and demands. Through this phase you will develop a contextual programmatic model (Context Model 1) which consists of multiple variables. Each of these contextual variables will be applied to the design concept for your site. How does that concept perform with respect to the formulated demands? The outcome of that step is called the Performance Critic 1.

Performance Critic 1 allows you to evaluate the contextual program with reference to the site. This leads you to the design requirements for your preliminary design. Your preliminary design feeds back into the circular performance process. This carousel of creative design, evaluation, and performance needs to happen until the space will provide an appropriate and exciting experience for the user as audience.
Deliverables:
• Illustrations
• Corresponding text
• Oral PPT presentation and leading of class discussion

Evaluation criteria:
• Comprehensive rational of investigation
• How well the gathered information is made accessible through text.
• Quality of oral presentation

By now, you are very familiar with the site and it is very likely that you have studied other examples of suburban public open space projects. It is also very likely that you have discovered questions that appear to be of particular interest for you. They will guide the research and intellectual investigation of this assignment. The outcome of your research is feeding the performance critic in each round of the design method performance. The outcome of this exploration is part of your contribution to the general discussion on resilient, post-pandemic landscapes. We will discuss in class possible topics and the extensiveness of this assignment according to the ongoing design process.

Assignment 8
Site Design

Individual
Given 3/23
Due 4/27
Final presentation 4/29

Deliverables:
• Presentation board hard copy colored print
• Reproducible digital copy (JPEG & PDF file).
• Model

Evaluation criteria:
• Urban design (spatial structure + density)
• Open space program
• Functionality
• Sustainability
• Vehicular/pedestrian connections/parking
• Adjacencies
• Use of vegetation
• Detailed plans &/or sections
• Diagrams
• Model
• Sheet layout
• Graphics/readability
• Completeness of information.

The conceptual design and special topics investigations will guide the individual designs during this phase. Individuals will develop proposals for selected sites at the scales of 1” = 50’, 1”=20’, 1”=10’ (as appropriate). You are strongly encouraged to use a model for design development.

Format and scale of deliverables for the final presentation will be discussed in class.
Assignment 9
Documentation

Individual & Groups
Given 1/19
Due 4/29

Deliverables:
• Superstudio Boards
• Story Map
• Further details TBD

Evaluation criteria:
• Completeness of Information
• Sheet layout
• Graphics/readability
• Digital organization (all files at appropriate location)

Final product will be a Story Map and a set of Superstudio Boards. The Superstudio Boards will include an edited selection of work while the online Story Map includes all acquired data, research papers, design process and reproductions of models and drawings. We will discuss in class the specific documentation requirements as we go along. Please keep in mind that is essential for a successful documentation that you produce and safe your work professionally at every step of the process. Please follow the Chicago Manual of Style for any written document you produce. Layout details (chapters, headlines, font, graphics, etc.) will be discussed in class. For a professional appearance, consistency is essential.

Readings

Hauck, Thomas; Keller, Regine; Kleinekort, Volker (ed.) 2011: Infrastructural Urbanism. Adressing the In-between. DOM publishers. Berlin

De Roo, Michelle 2011: The Green City Guidelines. Techniques for a healthy livable city. Wageningen


It is expected that you research additional literature according to your group and individual approaches!

WWW

http://www.fema.gov/risk-mapping-assessment-planning

* Date changes may occur due to group process and availability of project partners.
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.

If you encounter any personal circumstances that inhibit your ability to fulfill the requirements of this course, you should immediately contact the instructor. In addition, any student with a special need, circumstance, or disability, should make an appointment to see me during the first week of classes. Studios provide a very effective but also very intense learning environment and all of us need to feel encouraged to support a studio culture that provides space for every individual to unfold his or her creativity.

Studio sessions, lectures, and the common lectures all count as individual class sessions for this course. 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. Content missed due to an excused absence will be made available however, any missed quizzes or in-class assignments will not. In addition, an excused absence does not prolong an assigned due date for any assignment.

All equipment must be use appropriately according to the student handbook. 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.

If there is a plotting problem, PDF files can be placed on the appropriate folder in the R-Drive and the assignment will not be considered late. However, a printed version is due by the following class period and the late penalty will be assessed thereafter.

It is requested that you will give proper reference to all sources (text and image) quoted in every drawing or text.

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 submissions must follow the department guidelines because they will be retained in its archives for exhibition and accreditation purposes.

All information in this syllabus and course schedule is subject to change throughout the semester and will be announced in the scheduled class periods. It is your responsibility to stay informed!

A Outstanding — This not only means fulfilling the requirements, but impressing and going beyond the initial expectations of the project. The student has demonstrated a superior grasp of the subject matter coupled with a high degree of creative or logical expression, and strong ability to present these ideas in an organized and analytical manner.

B Very Good — The student has demonstrated a solid grasp of the material with an ability to organize and examine the material in an organized, critical, and constructive manner. The projects and in class performance reveal a solid understanding of the issues and related theories or literature.

C Acceptable — The student has shown a moderate ability to grasp concepts and theories for the class, producing work that, while basically adequate, is not in any way exceptional. This performance in class display a basic familiarity with the relevant literature and techniques.

D Unacceptable — The work demonstrates a minimal understanding of the fundamental nature of the material or the assignment with a performance that does not adequately examine the course material critically or constructively. Students cannot graduate from the Landscape Architecture program with 2 D's in required 550-classes.

F Failure — The student has demonstrated a lack of understanding or familiarity with course concepts and materials. Their performance has been inadequate. Failure is often the result of limited effort and poor attendance which may indicate that the student is not in the proper field of study.