ACSA Distinguished Professor

2014-2015 Winner: Submission Materials

JULIA WILLIAMS ROBINSON
University of Minnesota

Portfolio

Julia Williams Robinson, PhD, FAIA
Professor of Architecture
University of Minnesota
September 2014

Julia Robinson, Ph.D., FAIA, has contributed to the architectural profession in three areas:
1) social concern,
2) knowledge-based design and
3) the development of a globally-oriented profession.

Robinson's life's work has not only influenced the making of socially appropriate and innovative environments, but has played a significant and central role in transforming the field of architecture to the international knowledge-based profession and discipline that it is today.

Social Concern

1 - ***Institution & Home*** 3
Book: Delft, Netherlands: Techne Press, 2006

2 –***Environmental Design & the Sociocultural Context*** 5
Large Lecture Class, Fall 2008 & 2009

Knowledge Based Design

3 - ***The Discipline of Architecture*** 6
Book: Minneapolis, MN: University of Minnesota Press, 2001

4 - ***Programming as Design*** 7
Monograph: School of Architecture., University of Minnesota, 1984

5 –***Programming as Design*** 8
Design Studio, Spring 2011

6 – ***Ingenuity in New Consumer Community (Mexico)*** 10
Thesis Project: Whitney Parks, 2008 (Thesis Award)

Globally-Oriented Profession

7 – ***Dutch Complex Housing*** 11
Book in manuscript preparation, (anticipated publication 2014)

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Study Abroad M-Term Trip, Spring, 2007-9, 2012

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Design Studio, Fall 2008

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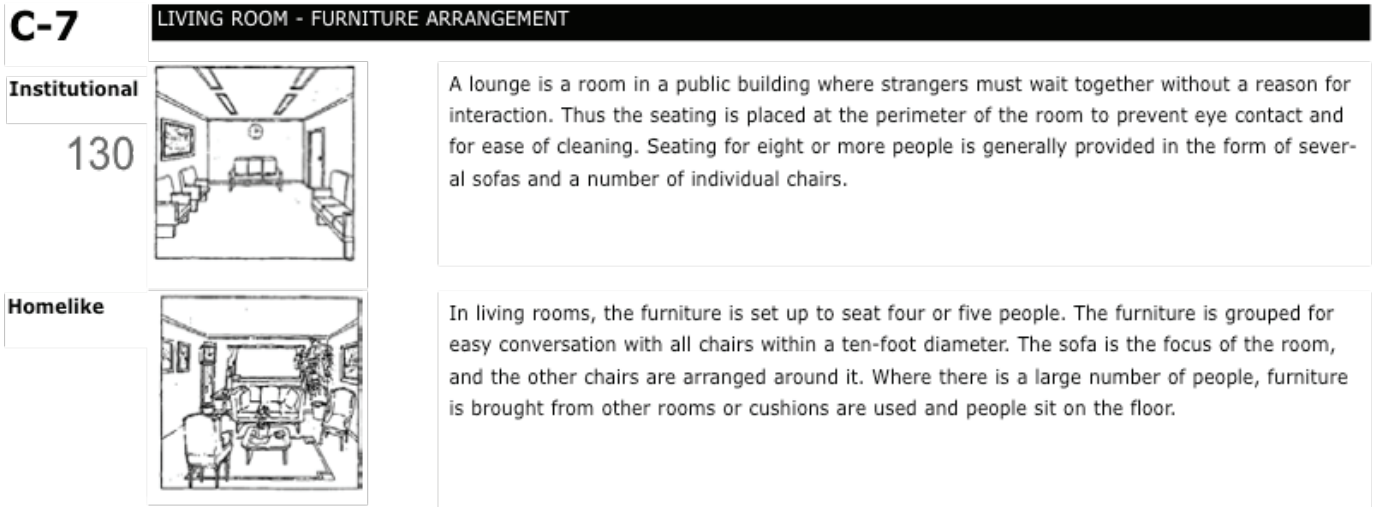
11 – ***Community Design for Density*** 19
Design Studio, Spring 2014

1 Institution & Home: Architecture as Cultural Medium

Book: Delft, Netherlands: Techne Press, 2006

Institution and Home: Architecture as a Cultural Medium explores the concepts of institutionality and domesticity, comparing various institutional and home environments. It explores the attitudes and behaviors associated with and communicated by the design features of housing settings. Beginning with the concept of opposition between institution and home, the research reveals similarity between housing forms of domestic settings (single family housing, row housing, apartments) and great differences between non-domestic housing perceived by study participants as institutional (student housing, rooming houses, group homes, nursing homes, hospitals).

It examines the differences in the institutional buildings, including differences in the manifestation of the territorial gradient, the book concludes with a table that defines different degrees of institutionality associated with different types of housing.



Paired Annotated Images represent a dialectic of stereotypic ideas of institution and home. (Institution & Home:Architecture as a Cultural Medium page 200)

1 Institution & Home: Architecture as Cultural Medium (Cont.)

Book: Delft, Netherlands: Techne Press, 2006

House (Domestic)

Apartment Building (Domestic with Institutional Characteristics

Dormitory (Partial Institution)

Hospital (Complete Institution)

Prison (Oppressive Institution)

Degree of Institutionality	Presence of Territorial Gradient	Transience	Level of Surveillance	Control by Social Role
Domestic Housing	Complete gradient Public territory exterior	Long-term	Informal observation	Resident controls bldg Resident controls access by visitor and worker
Domestic with Institutional Characteristics	Complete gradient Public territory in interior corridor	Long-term	Informal observation, sometimes supervision of public territory	Resident controls unit Resident or worker control bldg
Partial Institutions	Incomplete gradient Intimate realm present, juxtaposed to public realm No Private territory Public interior corridor may intervene with intimate territory	Limited term	Formal supervision	Resident controls intimate territory Worker controls building, territory primarily at bldg entrance Visitor controlled by resident
Complete Institutions	Incomplete gradient, Intimate realm juxtaposed to public realm, No Private territory Public interior corridor	Limited term or temporary	Surveillance	Resident has territory but no control Worker controls bldg and unit, territory is located throughout bldg Visitor controlled by worker and has access to whole bldg
Oppressive Institutions	No gradient, Only public territory, No Intimate territory No Private territory	Long term	Surveillance	Resident has minimal territory & no control Worker controls bldg Visitors kept at exterior by workers

Diagram showing degrees of Institutionality (*Institution & Home* page 204)

2 Environmental Design & the Sociocultural Context

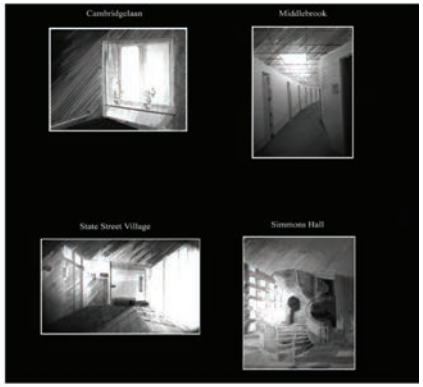
Large Lecture, Arch 3711, 2007-09, 2012

Architecture 3711 is a large lecture course with 2 lecture classes taught be Professor Robinson and one recitation class taught by Teaching Assistants (Robinson teaches the Honors recitation class). The primary assignment is a team project: comparative analysis of two to four environments. In the past this has been either student housing or schools. These have typically included a local example that students could visit as well as projects of an international reputation. In addition to the comparative analysis students do weekly reading, for which they post insightful questions online and write 3-4 critical papers. Each lecture includes an in-class exercise on the topic of the day.

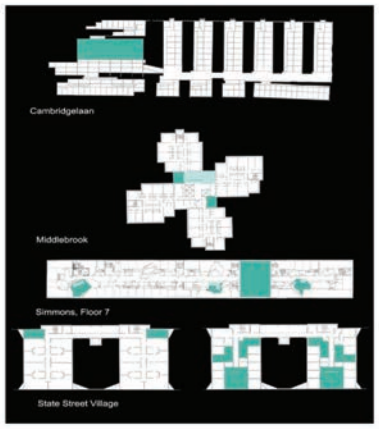
Projects are reviewed twice during the semester with guests from the architectural and academic community participating. Graduate Teaching Assistants invite classmates to review their students well.. Reviews take place in the courtyard or balcony of the architecture building, Rapson Hall, which makes it a public event for the school.

Analytic drawings comparing 4 student housing projects by honors students Bridget Ayers-Lobby, Claire Antlemann, Davidson Ward, Julia Hill & Sarah Steadland, Fall, 2008

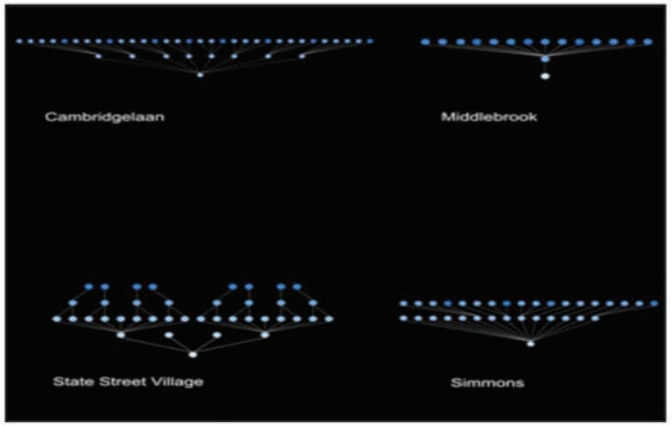
Exterior Image



Lighting



Social Spaces



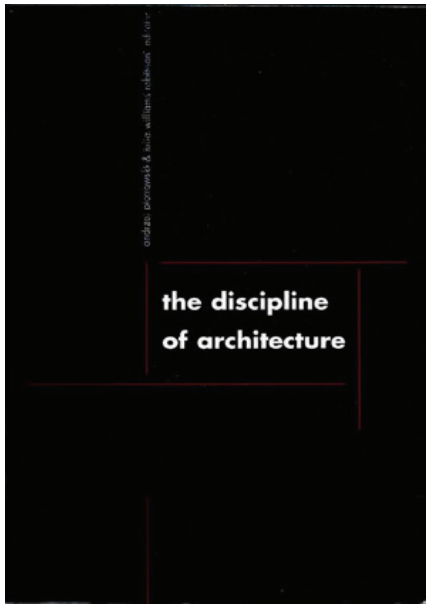
Space Syntax Diagrams of Plans

3 THE DISCIPLINE OF ARCHITECTURE (CO-EDITED WITH ANDRZEJ PIOTROWSKI)

Book: University of Minnesota Press, 2001

In the book, The Discipline of Architecture (co-edited with Andrzej Piotrowski), Robinson argues for envisioning the field of architecture as both a discipline and a practice. The ways in which architectural knowledge is actually taught, debated and understood is often ignored in the literature of architectural theory and practice. Collected in this volume are essays that address the current state of architecture as an academic and professional discipline.

A variety of issues are considered such as the form and content of architectural education, the social and environmental obligations of architects and the emergence of new ideas. The essays challenge accepted assumptions about the production, dissemination and reception of architectural knowledge. Robinson's chapter argues for the envisioning of architecture as a cultural medium, and expanding the traditional boundaries of the field to allow the inclusion of explicit knowledge as well as the traditional tacit knowledge in mainstream architectural theory and design.



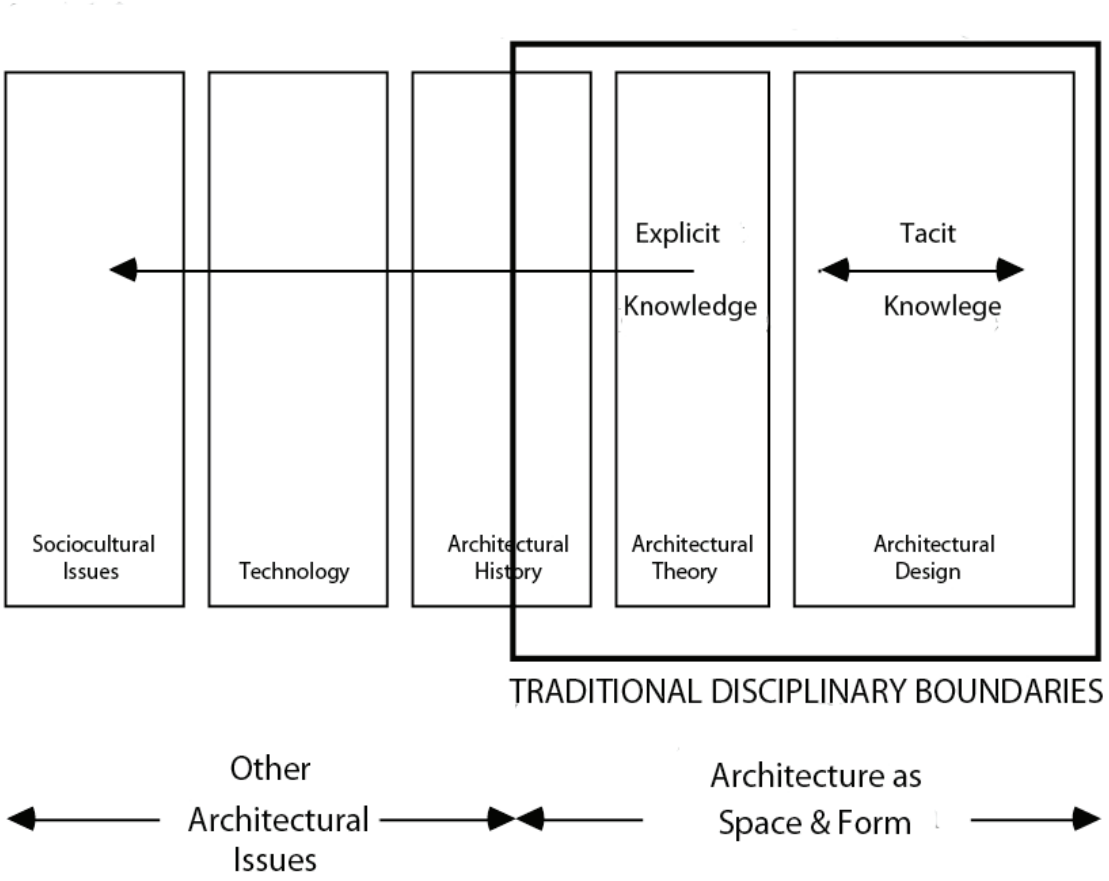


Diagram that shows how the traditional boundary of the discipline of architecture limits architectural theory to the making of form and space, thus locating ost research-based architectural knowledge outside the boundary of the discipline from The Discipline of Architecture, p 69.

4 PROGRAMMING AS DESIGN (WITH J. STEPHEN WEEKS)

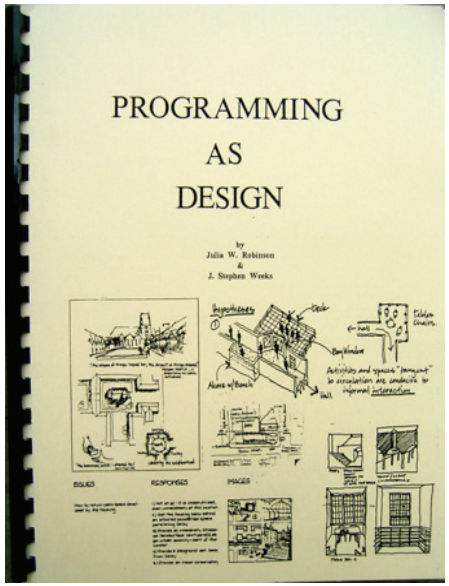
Monograph: School of Architecture., Univ of Minnesota, 1984

Intended for an academic context, the monograph presents a series of exercises that prepare a student to design a building on a site. Although written in 1984, the monograph continues to be used by a number of faculty members throughout the United States. Professor Robinson has just returned to the text after a 15 year hiatus, and has been using it in design studios for the past few years.

The approach taken in this text,
•Integrates programming with design decision-making

•Combines exploration of form with written text

•Employs assumptions, hypotheses and design directives in each exercise.



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5 PROGRAMMING AS DESIGN

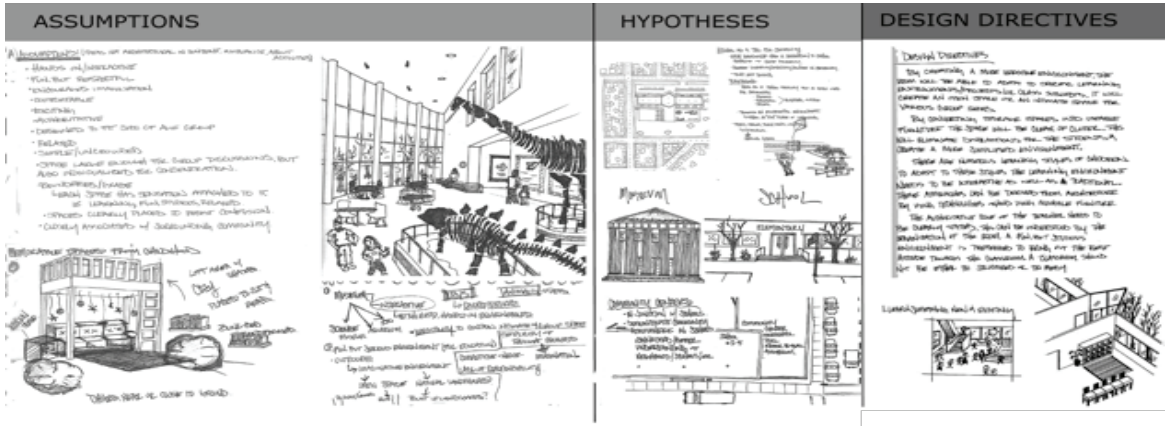
Design Studio, Arch 3282, Spring 2011

Sequence of Exercises Part I (Program-No Site)

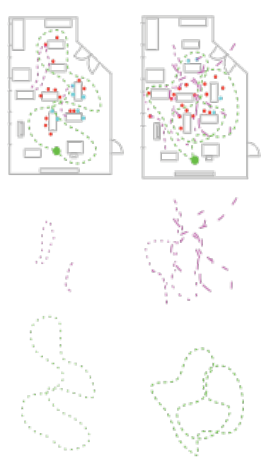
A..Preconceptions
B. Site Visits
C. Observation of Schools
D. Sketch Models of Montessori & Waldorf learning places
E. Precedent Analysis
F. One Program, Two Analogies

In 2011 and 2012 Robinson taught a second semester architectural design studio on program, revisiting the 1984 monograph ***Programming as Design***. Previously taught as a lecture class, the new studio format allowed for different techniques of design exploration (sketch models, digital drawings, web research, etc.)

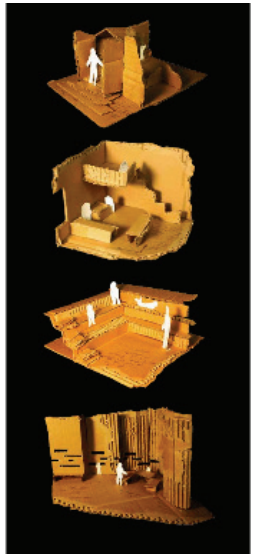
As a way to see the effects of program on design students were asked to explore two contrasting educational approaches to K-6 education: Montessori and Waldorf.



EXAMINING PRECONCEPTIONS



Classroom Observation



Sketch models

Precedent Analysis

5 Programming as Design

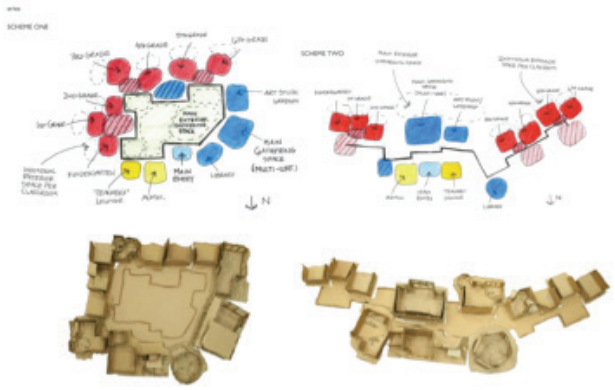
Design Studio, Arch 3282, Spring 2011

Sequence of Exercise Part 2 (Site & Schematic Design)

A. Two sites Two analogies
B. Codes, Regulations Ecology
C. 4 Alternatives on one site
D. Details: the Transitional Wall
E. Final Schematic Design

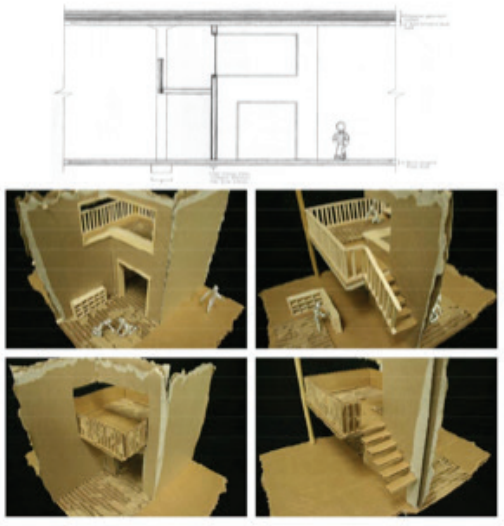
Part 1 ended with a single program that was developed from the precedent and observation studies. The program was applied as two designs using contrasting analogies.

Students were introduced to the site through a series of exercises that explored alternative designs, first responding to two alternative sites, and then once a site was chosen, making alternatives that solve for single issues (daylight, building skin, accessibility, view, etc.). Completing the site study, they combine these ideas in a single schematic design on the site and go back to the ideas about human activity in the form of a detail.

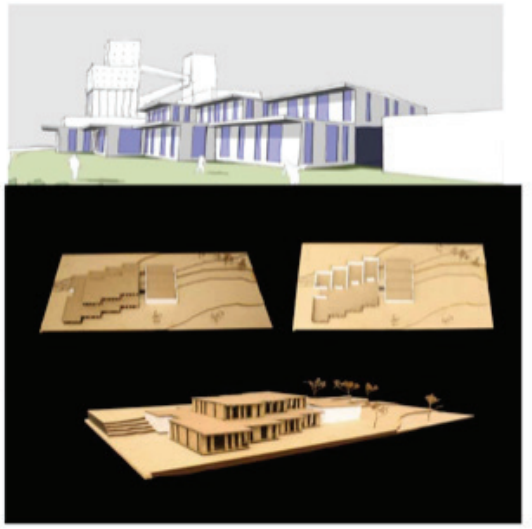


Two Analogies

One Site-4 alternatives



Detail: transitional wall

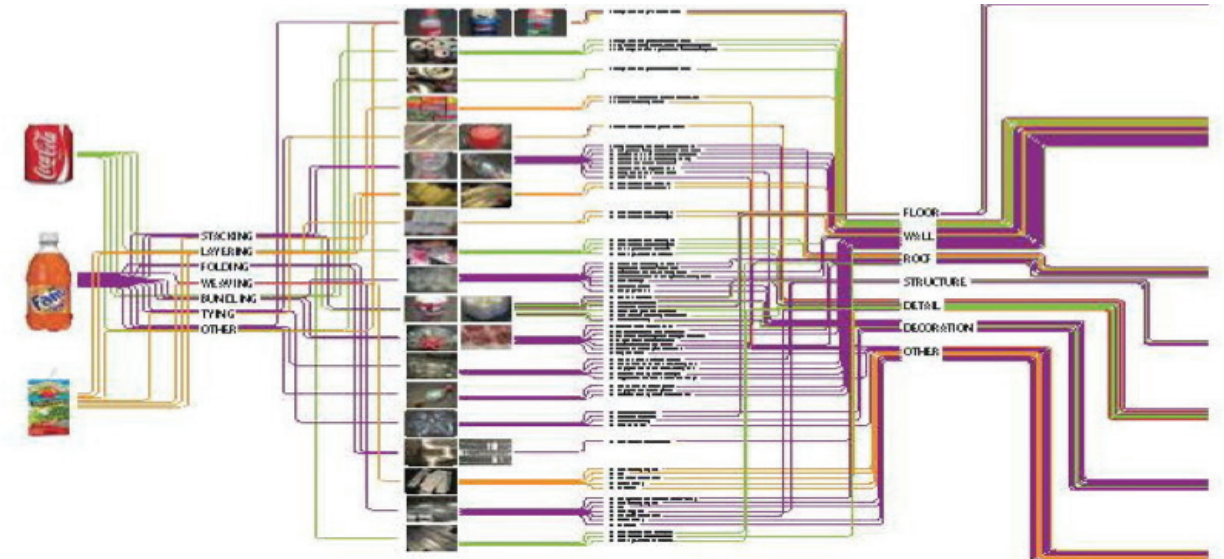


Final Schematic Design

6 INGENUITY IN NEW CONSUMER COMMUNITY (MEXICO)

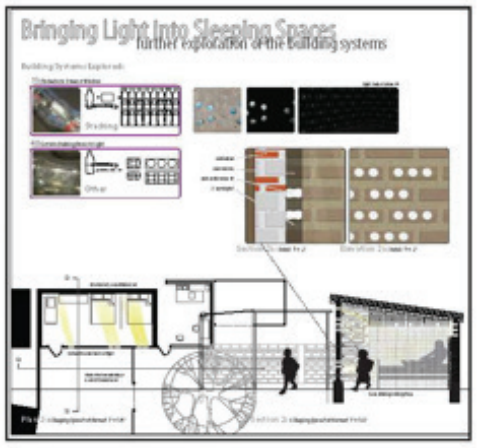
Thesis Project: Arch 8777 Whitney Parks, 2008 (Thesis Award)

Whitney Parks thesis project derived from her experience in Mexico where she observed that indigenous people were burning their trash and suffering from breathing the polluted air. Her thesis explored how this refuse could be recycled rather than seen as trash. She developed a systematic way to manipulate the materials and to see how to use them in construction, developing a typology for formal exploration: stacking, layering, folding, weaving, bundling and tying, and a typology for construction: floor, wall, roof structure, detail & decoration



The key to the project is this diagram illustrating how materials can be recycled using the typologies of exploration

Materials in the Mexican village



Using new materials in home construction

Exploring materials: 3 waste products

7 DUTCH COMPLEX HOUSING

Book in manuscript preparation, (anticipated publication 2014)

The origins of this book are in the travel program Robinson directed between 1999 and 2008, Innovative Dutch Housing and Urbanism in the Netherlands. From field trips and seminars with architects, landscape architects, urban designers, developers and theoreticians, began to develop an American perspective on the Dutch approach to the design of housing, and a desire to communicate my ideas to others, both inside and outside the Netherlands.

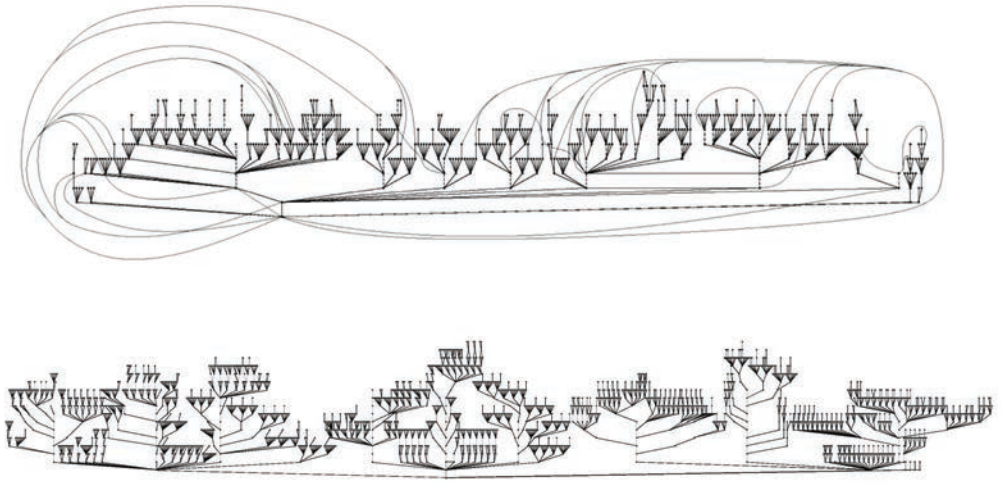
Rather than investigate all forms of housing, which would be an enormous task, this project analyzes nine examples of what is here called complex housing, a type of large and dense form of architecture, that is especially fascinating, and particularly Dutch. What is defined here as Complex Housing incorporates in one project, typically a block or part of a block:
•Functions in addition to housing (typically commercial or civic as well as parking)
•Diverse types of housing serving diverse residents (housing for families, disabled, live-work, etc.)
•Variety in organization of the units (access, open space, site placement, etc.)
•Different forms of occupancy (rental, ownership)
•Low, moderate and high resident income levels
•Density of 23 units per acre to over 100 units per acre

7 DUTCH COMPLEX HOUSING

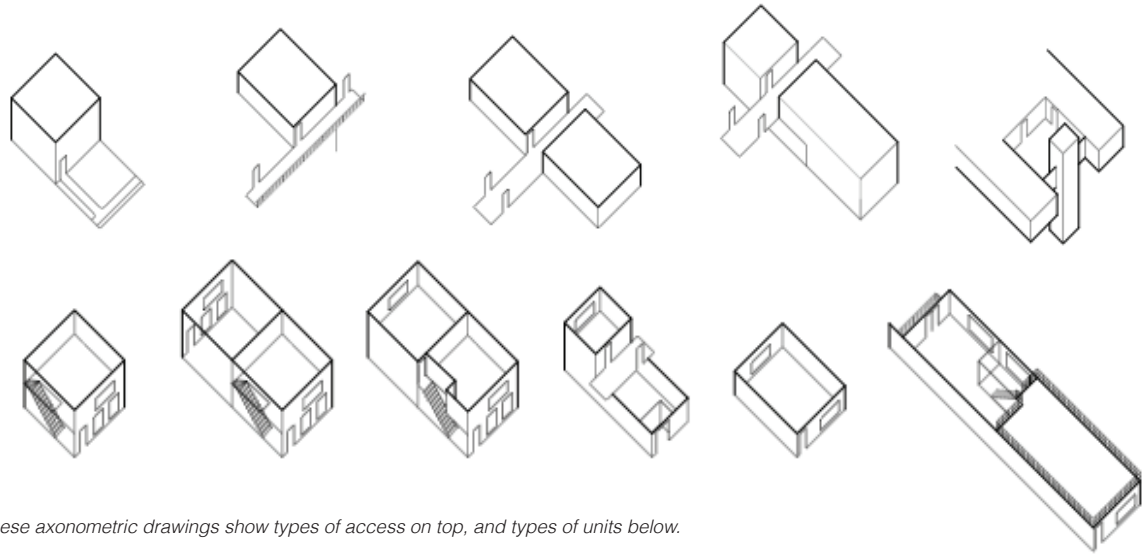
Book in manuscript preparation, (anticipated publication 2014)

A typological analysis is employed with the goal of elucidating design strategies. For example, examination of the housing types and their placement in the projects in relation to types of access revealed that vestibule or cluster access apartments are typically found in the corners of projects, while, single-loaded corridor and skip-stop arrangements of apartments and maisonettes typically form edges or walls of courtyards or housing wings. In these projects it is common to find row houses at the base, under other housing with direct access off the street or courtyard.

Four of the nine projects investigated by Robinson.



Two space syntax diagrams of projects show that, while the top example, La Grande Cour has more units, more layers, and larger clusters of units, Vrijburcht is more accessible to and from the street.



These axonometric drawings show types of access on top, and types of units below.

8 Innovative Dutch & Urbanism in the Netherlands

Study Abroad M-Term Trip Arch 5750, Spring, 2007-8

Ria ven Dijk, urban designer for the city of Almere leads a visit to ecological housing

1999 Professor Robinson organized her first travel program to the Netherlands. The first three trips (1999, 2002, 2004), co-taught with Dutch colleague Richard Stolzenburg, were quarter or semester long and included two weeks each spent in another country (variously Spain, England, France and Germany). The last two trips (2007, 2008) were three intensive weeks, exclusively in the Netherlands, organized by Robinson alone.

Beginning with the first trip practicing architects, urban designers, landscape architects and developers led field trips, gave lectures, and participated in seminars. Another key element of the trips was the series of field trips, led by Dutch professionals that covered:

- An Introduction to the Netherlands in tems of Land, Sea and Transportation,
- Issues on Dutch urbanism
- Issues on Dutch housing.

The trip in 2007 was special in that in addition to the 10 students, it included four young practicing professionals: an architect, a landscape architect and two developers. While the student trip was three weeks, the professionals joined us for one intense week when we had three seminars with Dutch designers, theorists and developers.

Seminar with Developers, architects, urban designers and landscape architects

Field Trip to Almere led by Jan-Wouter Bruggenkamp

8 INNOVATIVE DUTCH & URBANISM IN THE NETHERLANDS

Study Abroad M-Term Trip Arch 5750, Spring, 2007-8

The 2009 Netherlands trip was three weeks in length. During the week students took part in field trips, and on
Saturday charettes they applied their new understanding of the Dutch approach to the redesign of Minneapolis's
Mill City district. The first week they developed design ideas for land, water and transportation, for the second week for urban design and the third week they incorporated housing in their schemes. The charettes took place in the office of SCALA architects in the Hague.

DESIGN CHARETTE & URBAN ANALYSIS SKETCHES

The design charettes took place on Saturdays at the office of SCALA with architects joining the critique at the end of the day.

Drawings from the charette showing Dutch design principles applied to the Mill City district of Minneapolis

9 New Orleans Studio

Design Studio, Arch 8255, Fall 2008

In Fall 2008, as part of the final year architecture curriculum at the School of Architecture at the University of Minnesota, the research-based, New Orleans studio focused on housing and its relation to urban design for New Orleans Lower 9th Ward. Informed by contemporary Dutch housing and urbanism the class developed urban schemes that included both commercial and housing (for ownership and rental) on a 4-block site in the Lower 9th Ward.

In addition to the design objectives, the studio sought to work as much as possible with preferences and ideas from the community. This was achieved in two ways. First the students reviewed all of the plans that had been put forth for the Lower 9th Ward and tried to take the best ideas from each. Second, after preparing three alternative initial urban plans, the studio group spent a week in New Orleans studying the special context, doing volunteer work and presenting their plans to the community for feedback.

Volunteering: Site Clean-up

Community Presentation

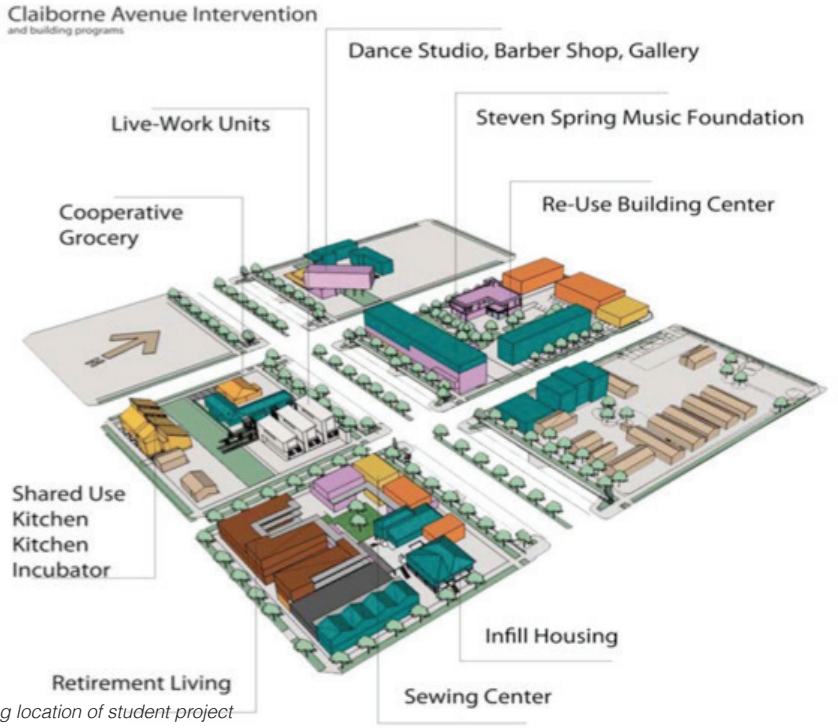
Meeting with the Lower Ninth Ward Community

9 NEW ORLEANS STUDIO

Design Studio, Arch 8255, Fall 2008

The Kitchen Incubator (above) and the Steven Spring Music Foundation (below) illustrate how the buildings are part of the urban design

Perspective rendering of the design



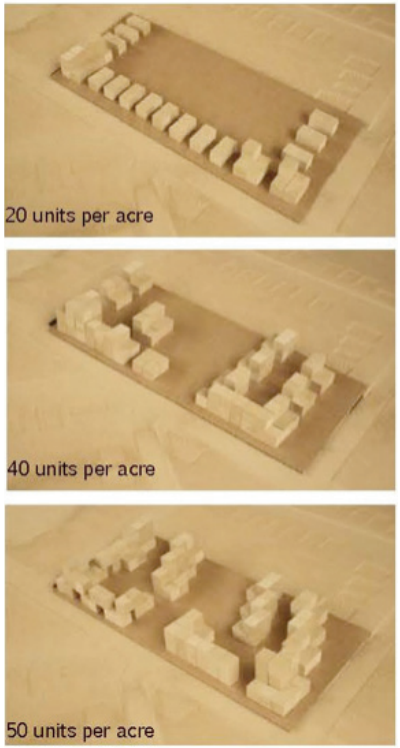
Showing location of student project

Section of Claiborne Avenue

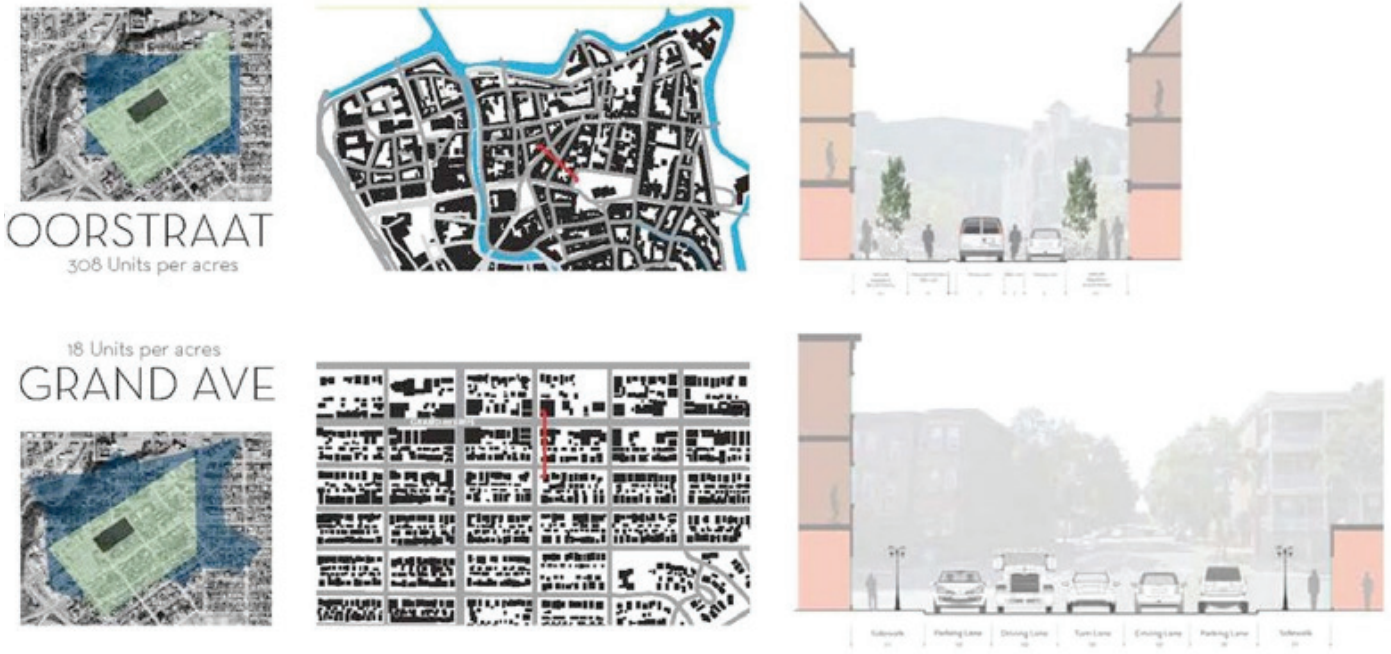
10 SITE / DENSITY / HOUSING

Design Studio, Fall 2010, Arch 4283

This second undergraduate studio in our program focuses on site. The studio worked with a neighborhood group to develop a 2 ó acre sloping open block in the historic Dayton's Bluff area of the City of St Paul. The question we asked "Could the students design a dense housing scheme that would be appreciated by the neighbors?" We worked at a density of 60 units per acre or 180 units per hectare and students had to incorporate a deli, a child care center, parking and at least 5 different types of housing on the site. The students met with the neighborhood group twice during the semester to get feedback on their work.
Students were asked to:
- gather and analyze complex site information
- study Dutch and other housing and urban precedents
- explore housing density
- create alternative site and neighborhood designs
- select and develop site designs in teams at least 5
- different types of housing, parking and commercial space
- individually create designs for the housing on a portion of the site



Site studies investigate the implications of housing at different densities to create urban places

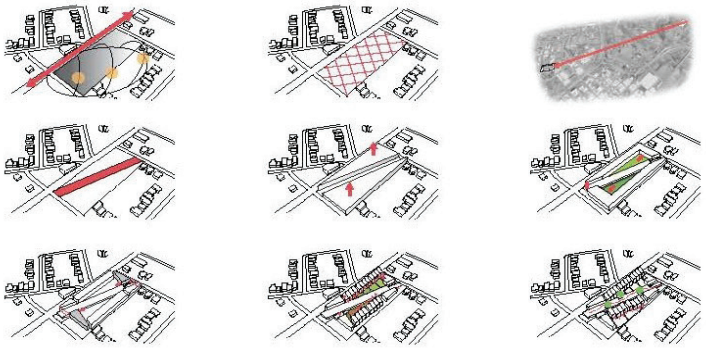


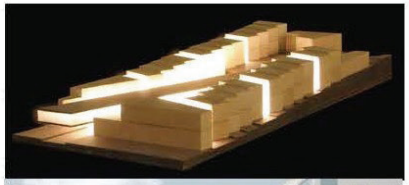
Student drawings compare Dutch urban patterns to local patterns using figure-ground drawings and street sections

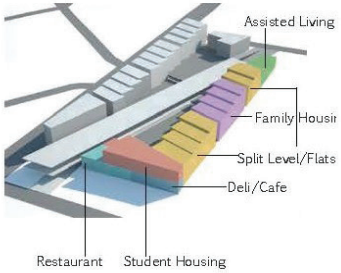
10 SITE / DENSITY / HOUSING

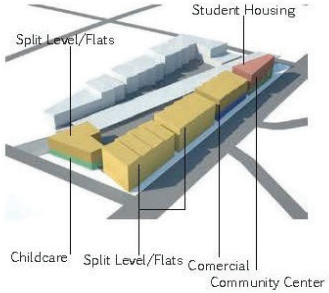
Design Studio, Fall 2010, Arch 4283

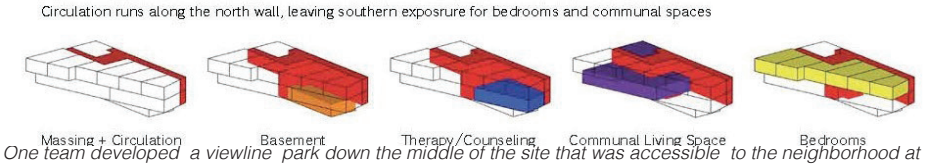
In the middle of the semester and at the end students met with the community to present their designs. The community was interested in the designs but had mixed response to the density.











One team developed a viewline park down the middle of the site that was accessible to the neighborhood at the North end and due to the slope raised up 2 stories at the South. The housing ringed the park with parking located underneath it.

11 COMMUNITY DESIGN FOR DENSITY

Design Studio, Spring 2014, Arch 5750

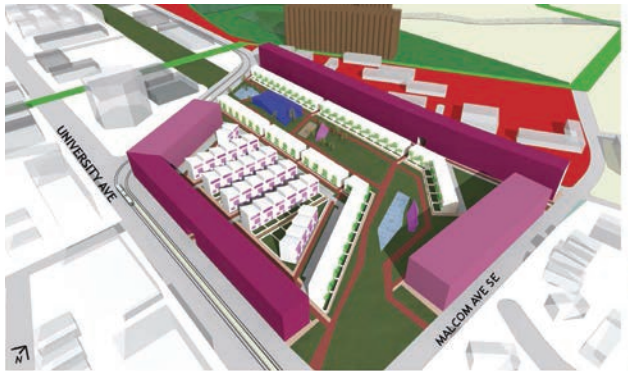
In the spring semester the University of Minnesota graduate programs offers several 7-week, 4-credit design modules, studio courses on a special topic, in this case the creation of a sustainable community with dense housing. The course objectives were a) to understand density: its related issues and how it affects urban form, b) to become familiar with the relation between housing and urban design, c) to appreciate the relationship between social issues, economic issues, environmental issues and density, and d) to discover the challenges and implications of proposing new forms in an existing urban context.

Given a four-block site, Prospect Park North at a light rail stop along University Avenue, a short bus ride from the school, student teams:
•Studied dense housing precedents from Europe and the Twin Cities area.
•Researched the site, urban geological and ecological context,
•Explored the implications of different densities of development on the site and
•Developed a mixed-use design proposal at a housing density of approximately 40 units per acre.

Each of the four team proposals emphasized different things.

Territorial Scheme (40 units/ acre) develops a territorial gradient from the commercial edge along University Avenue to the South to the more private area with exclusively housing along a bus link on the North part of the site, creating some innovative housing designs.

Bridal Veil Scheme (32 units/ acre) emphasizes water and the importance of returning to the natural site drainage. This design developed a field within which housing was placed to maximize access to sun and to protect from winter wind,



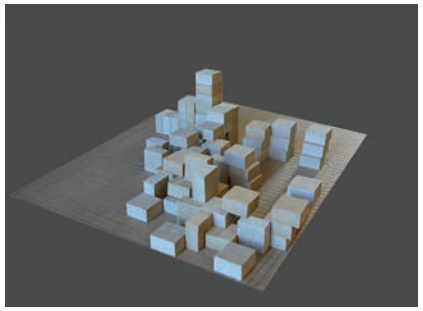
Corridor Scheme (40 units/ acre) develops the central street as a natural water collection area and pedestrian and bicyle link that connected the adjacent neighborhoods to the University Campus.

The Gateway Scheme (50 units per acre), observing that this is the closest light rail stop to St Paul creates an entrance. This scheme develops the site as visible gateway within a long housing block that links the light rail and the internal green corridor to the Minneapolis city-wide Grand Rounds park system.

Gateway design Students: Tyler Macneal, Matthew Enos, Yujing Su

11 COMMUNITY DESIGN FOR DENSITY

Design Studio, Spring 2014, Arch 5750

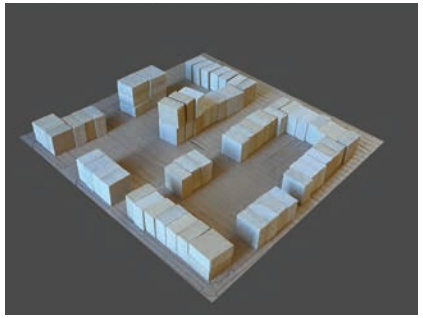


30 units/acre

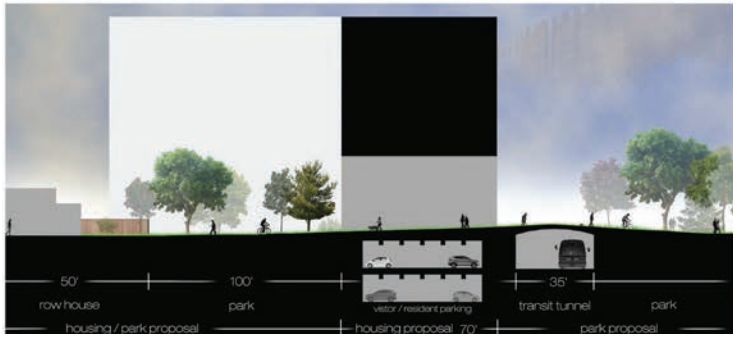
Sketch of the initial idea

Rendering of Northwest side of the buidling

The gateway design links the Grand Rounds park system

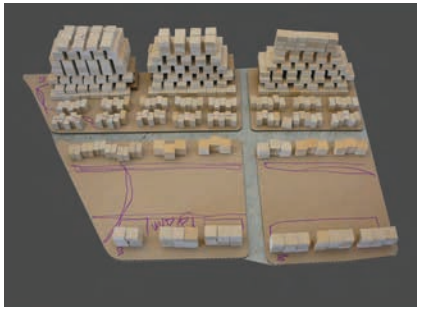


30 units/acre



Section of the underground parking

Site Model



45 units/acre

Exploration of Density: Teams Place housing on the site at various densities

Diagram of the green land and mix-used

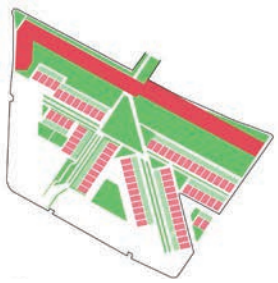


Diagram of the green land and residential

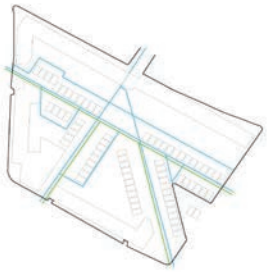


Diagram of the traffic pattern

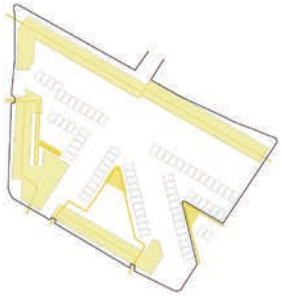


Diagram of the parking