

New Middles: House-Scale Housing as Sophomore Design Problem

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Figure 1. New Middles Neighborhood Block Strategy. Alex Pina, Student.

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THE SOPHOMORE STUDIO DESIGN PROBLEM

During Spring 2020 and Spring 2021 semesters I taught a section of Architectural Design 2, the final foundation level undergraduate studio course at Texas A&M University. Occupying an “in-between” position within the curriculum sequence—it is studio four of eight—I wrestled with how much the course should reinforce conventions, abstract formal experimentation, part-to-whole relationships, and other common concerns of beginning design, versus tackle more advanced topics and workflows, theoretical and practical. The studio undoubtedly lives within a liminal space, a middle ground, and so it seemed appropriate to craft and situate the design problem within a complimentary framework, both in concept and in bringing to the table some very immediate challenges that exist in micro-politan and metropolitan parts of the Texas Triangle.

PREVIOUS EXPERIENCE

Most students enter this course with core competencies in ability and understanding of formal methods and visual communication. The previous studios, particularly Architectural

Design 1 the prior semester, doubles down on the making of building-like and landscape-like objects that have “interesting” architectural qualities. That work is largely generated and evaluated based on students demonstrating a facility to make design decisions informed through clear design moves—operational techniques and formal analysis of precedents. While these self-referential contained processes lead to students being able to act on a design problem creatively, many struggle in advanced studios that engage urbanism, program, or technical questions beyond purely formal considerations.

MULTI-SCALAR APPROACH AND AGGREGATION

This led me to consider how a design exercise could better build upon the generative methods our students possess confidence and control of after three semesters. After some reflection, what stood out were problems that could address design at different scales of intervention, and aggregation strategies that encouraged inconsistent multiples. How could these be applied to design problem the majority could relate to in direct way? The conclusion was to present “house-scale housing” as an opportunity and challenge.

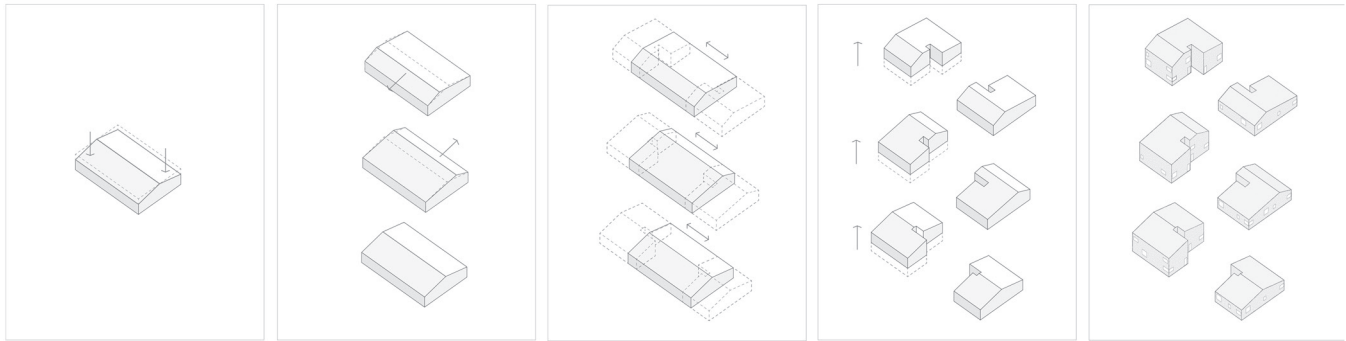


Figure 2. Formal development methods introduced in previous studios were combined with housing unit program requirements to produce three-dimensional strategies with the aim of creating inconsistent multiples or part-to-part adjacencies. Patricia Rocha de Murga, Student

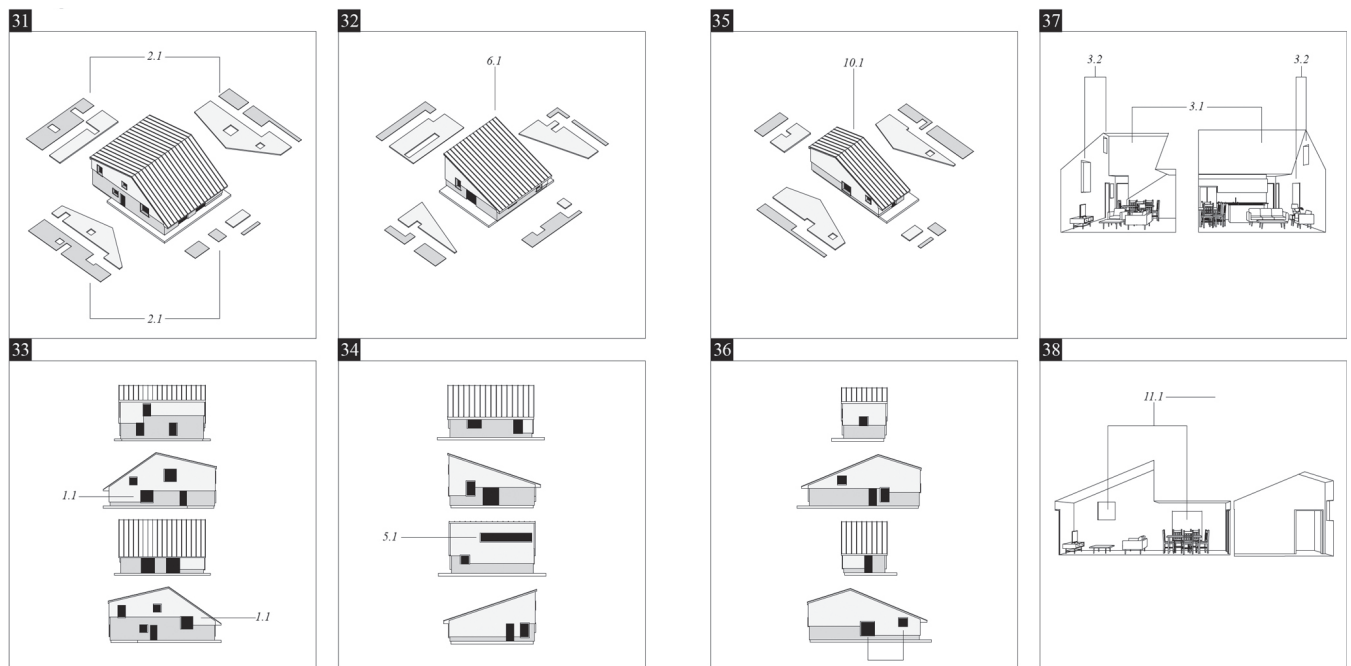


Figure 3. Strategy of producing different unit types using families of wall components. Stormy Hall, Student

GENTLE PROVOCATION

Single family detached houses on subdivided lots dominates housing development in Texas. It’s deeply engrained physically and in the mindset of Texans. While I floated the idea of larger multi-story, multi-unit housing, it seemed simultaneously more plausible and a subtle provocation to ask students to imagine how different something slightly unfamiliar than the situation they are all too familiar with could be.

In the first 2020 iteration of the studio, students were encouraged to identify and explore housing strategies that question property boundaries, separation, car dependence, setbacks; or uniformity of size-zoning; and similar suburban tendencies that lend themselves toward exclusionary practices. As the studio started before the March 2020 shift to remote, students worked collaboratively at room, unit, and urban scales on ideas about

the negotiation of individual and collective lives. What was exciting about that iteration of the studio is that students were able to think through the programmatic activities and rituals of house spaces in ways that reinforced or questioned assumed behaviors. In the second iteration of the studio in 2021, delivered entirely remote, the studio continued to encourage students to explore similar ideas, particularly in the production of micro-urbanism strategies, but did so within the boundaries of a typical block in Bryan-College Station, Texas. Additionally, the second iteration of the studio introduced and encouraged students to begin understanding the relationship between design and construction methods in a more substantial way. Connecting formal aggregation to kit-of-part assembly strategies, students began to work through strategies that consider ways of addressing the material and economic realities of such proposals.

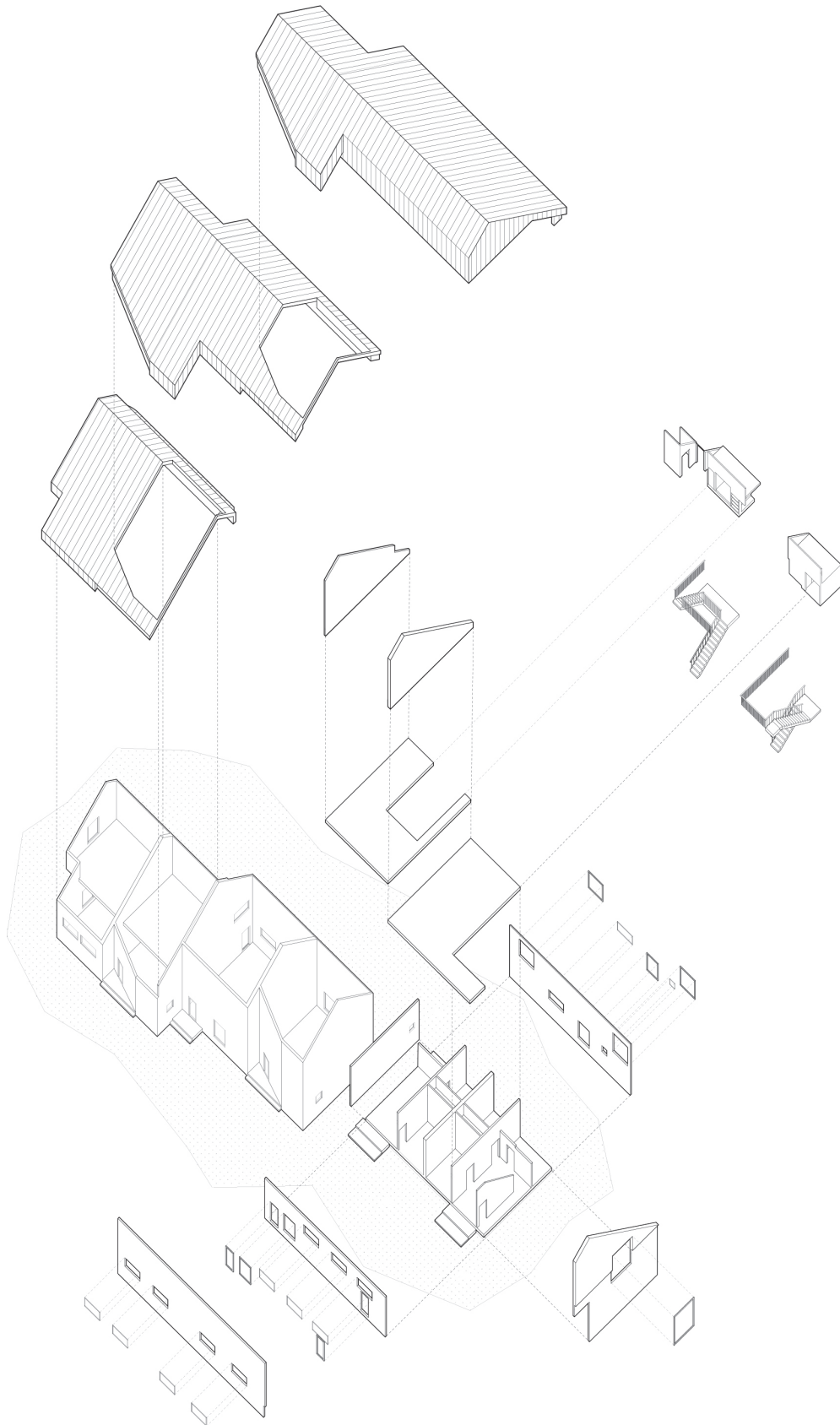


Figure 4. Students in 2021 were introduced to Mass Timber building systems as well as other offsite advanced manufacturing processes that produce building components. At an introductory level, students were allowed to use this to inform design decisions. Ruthy Zuniga, Student



Figure 5. The studio places an emphasis on a multi-scalar approach. Each week students move between material, room, building, and urban scale considerations. This is introduced to them as complimentary to the part-to-whole relationships introduced in the previous studio courses. Maggie Martin, Student.

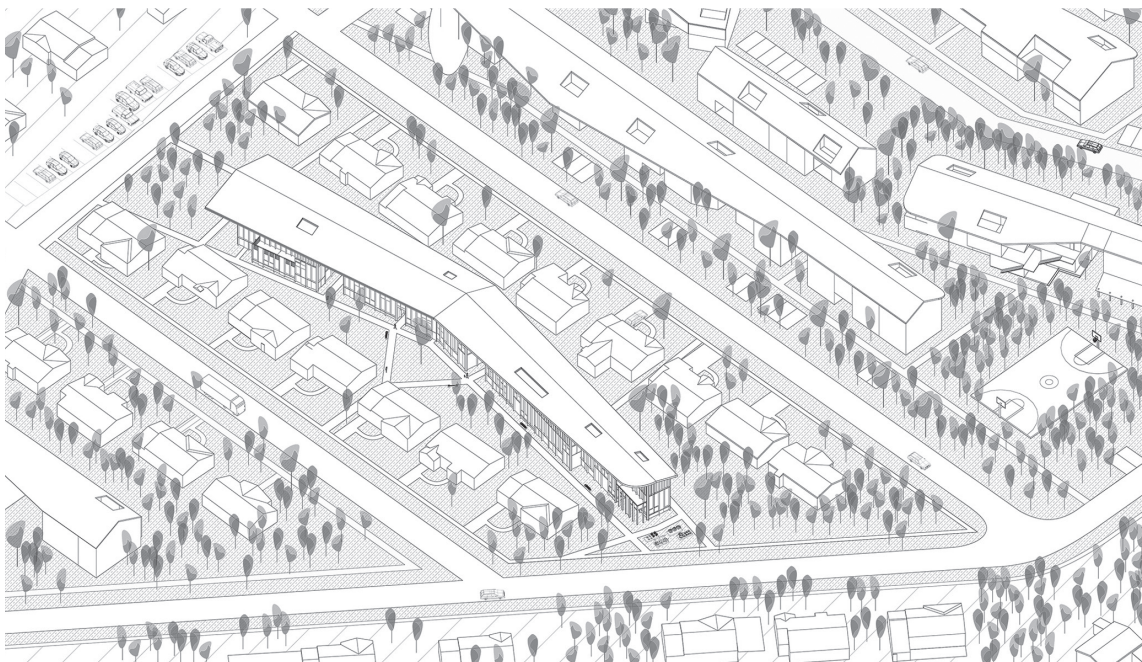


Figure 6. Students in 2020 and 2021 versions of the studio were introduced to typologies that are not common, and even not currently permitted in Texas metropolitan areas. This includes Accessory Dwelling Units which in 2020 were not allowed for residential use in Bryan-College Station, Texas. This pair of students explored potential ways large houses can integrate accessory units in their backyards, and small houses on large lots could collectively common the backyards and introduce larger structures in the rear. Hannah Lansford and Jesus Frias.

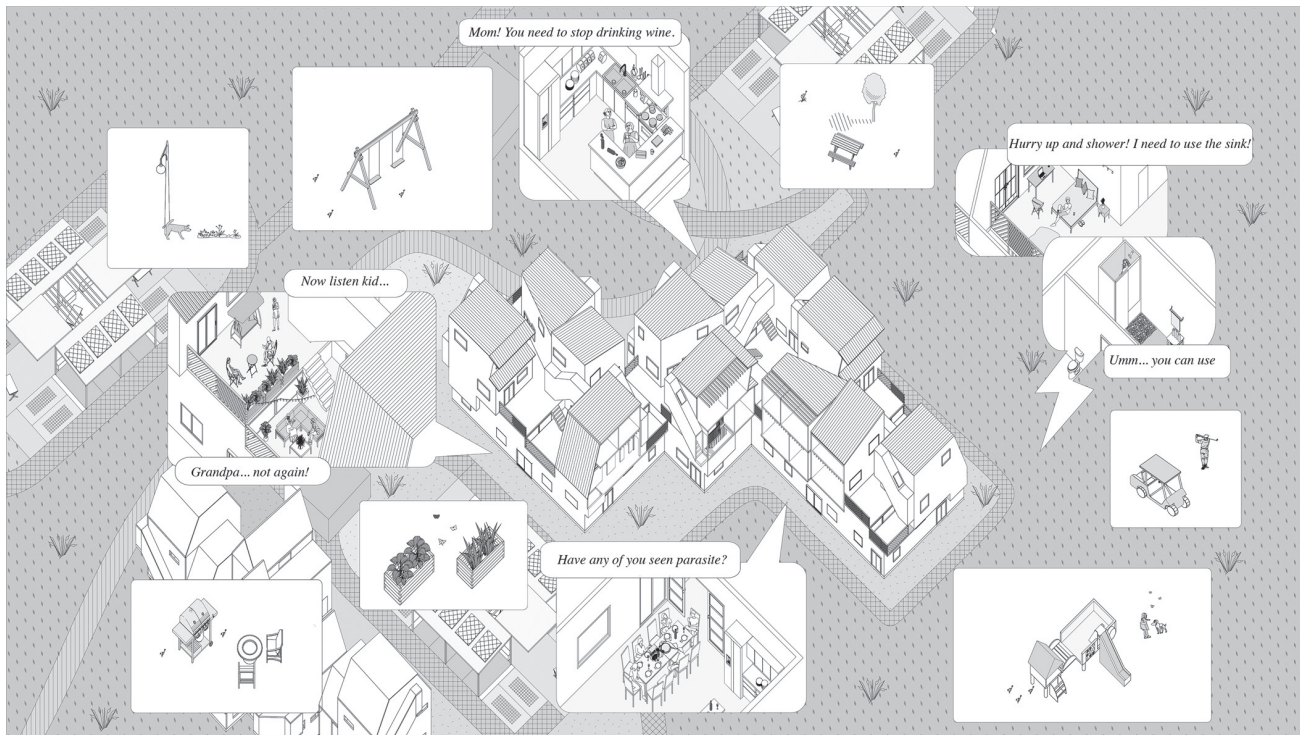


Figure 7. For many students, this is the first studio that encourages familiar objects and life activities into the design project. Students create entourage and vignettes that explore what everyday life could be like within the project. Ryan Jacovetty and Maria Cruz.



Figure 8. In the 2020 studio, students worked on one of six infill sites around Bryan-College Station, Texas. In contrast, and largely due to the pandemic, the 2021 studio worked on a typical block scenario. Some took on an approach of slightly reworking or recalibrating the city's subdivided lots and setback requirements. Patricia Rocha de Murga, Student.



Figure 9 and 10. In response to comments from housing providers in the region, the 2021 iteration of the studio aimed to be more precise about the defining and programming of shared/common outdoor spaces. The 2020 studio may have produced provocative ideas about property boundaries, individual-collective relationships, but the proposals didn't meet people within a realm of where they could imagine wanting to live. So while more familiar, the 2021 housing clusters still encourage more neighborly adjacencies and the integration of wrap around services than is typical of affordable housing in the region. Additionally, the 2020 proposals tend to be primarily plan driven with few strategies that activate the section and volumetric qualities. Students in 2021 were required to have at least one space in each unit that was taller than the others. This definitely produced a challenge for students because while the previous year was able to accomplish efficient compact layouts, the emphasis on section in 2021 produced a certain amount of excess that from a construction cost standpoint would likely not be feasible. In the 2022 version of the studio we will learn from what was successful and what wasn't in the previous iterations. Alex Pina, Student.

NEXT STEP

Having taught the studio twice at Texas A&M to undergraduates, in 2022 I am teaching a comparable studio course in the Master of Architecture program. Over the past two years, the undergraduate studios were critical establishing relationships with nonprofit housing providers in the region, and the public and private forestry sector of the state. Those partnerships help demonstrate the range of project stakeholders involved in the creation of affordable housing in Texas. The previous studios established a foundation unto which the studio in 2022 will place even more of an emphasis on the realities of producing quality affordable housing and the role architects have in it as a design problem. The aim in 2022 is to produce a series of designs that can be developed over the summer and potentially realized as affordable housing projects in Bryan-College Station or Lufkin, Texas in 2023 contingent on the ongoing pandemic.

All of the work in recent years addresses the fact that our prevailing approaches and models of housing aren't equipped to empower those who call it home. When I started working on house-scale housing I debated if it was radical enough. It seemed as if I was complicit with the status quo of twentieth century suburban subdivisions and the proliferation of single family detached houses. I came to realize, however, that mindset is perhaps a result of what I've been exposed to understand as innovative housing under the banner of architectural design. We need a more diverse cross section of housing options, and thinking through questions of housing at the scale of groups of house-scale interventions needs to be part of that conversation. This is particularly a reality in Texas where there is almost no intermediate or middle scale despite projected growth of its metro areas in the coming decade.