

Horizontalism - Housing the Next 100,000

ANTJE K. STEINMULLER

California College of the Arts

CHRISTOPHER AUSTIN ROACH

California College of the Arts

San Francisco has become a victim of its own success. The need for new housing has overwhelmed the city's highly constrained urban form and pushed its social relations to the breaking point. This crisis of housing affordability has become impossible to ignore, and short of a massive influx of public money, a dramatic increase in the supply of housing units has been seen as the only workable solution to meet demand and make housing more affordable. In early 2014, the City's Chief Economist estimated that it would be necessary to build 100,000 units of housing to begin to have a stabilizing effect on median rents. But under the current physical and political constraints on the city's built form, finding the space to create this radical supply of housing would make it necessary to, in the words of Supervisor David Campos, "build another city on top of the city."

This project showcases the outcome of a design research studio in collaboration with the San Francisco Planning Department's efforts to develop its Affordable Housing Bonus Program (AHBP). This program lays the

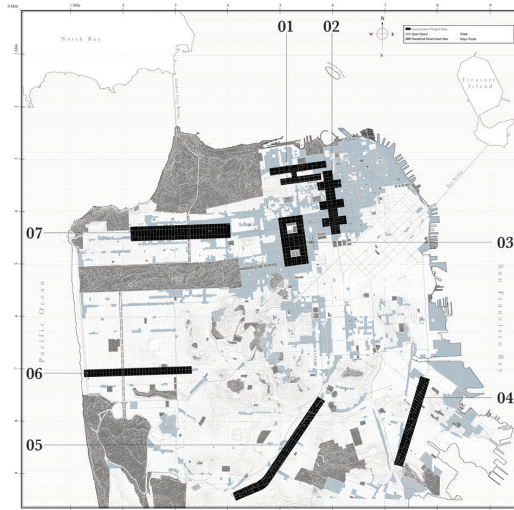
groundwork for a diffuse horizontal densification of entire neighborhoods in the outer districts of the city, presenting a form of density that is an alternative to the incremental "Manhattanization" of Downtown, and SoMa. Specifically, it expands the zoning envelope by 2-3 stories for projects that offer affordable housing. The design projects speculate on provocative ways of interpreting the AHBP and other zoning policies, especially in relation to underutilized air rights and the creation of new capacity in the air. The research focused on seven land-locked neighborhood commercial districts as sites for new forms of "horizontal" density.

To begin, the space between the existing building heights and the top of the zoning envelope - the "unbuilt city" of unexploited zoning - was visualized, showing the volume of buildable space above each neighborhood as it exists, and as it expands through the additional building height allowable under the AHBP. To develop design strategies for this "unbuilt city" in the sky, the research drew on global case studies outside of the specific

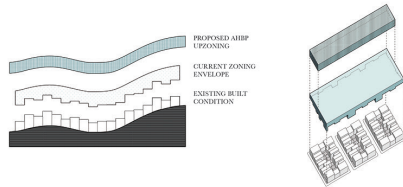
context of San Francisco that demonstrate alternative ways of dealing with topography, pedestrian and other traffic layers, and typological and programmatic relationships in conditions of high density. The subsequent design propositions apply infrastructural operations that multiply the public space of the city and produce novel three-dimensional public space conditions. The resulting projects inhabit, intensify, and at times, restructure the envelope of the 'unbuilt city' in ways that allow for larger collective forms to be developed in close dialog with San Francisco's unique topographic conditions. The final development of the projects draws from a menu of formal strategies (bridging, tunneling, linking, stacking) and development mechanisms (privately funded 'catalysts' on soft sites, infrastructural public works projects) that are used singly or in combination to develop projects that provide capacity for housing, new levels of public space, and access to this new real estate above the existing city.

HORIZONTALISM - Housing the Next 100,000

Christopher Roach / Antje Steinmuller, California College of the Arts



Test Sites: City map showing the seven neighborhoods (in black), overlaid over sites affected by the AHBP zoning (in light blue)



i Unbuilt City Section

ii Unbuilt City Plan Oblique

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Density and City Form in San Francisco

The studio emerged from a collaboration with the San Francisco Planning Department during the development of its Affordable Housing Bonus Program (AHBP). This program lays the groundwork for a diffuse horizontal densification of entire neighborhoods in the outer districts of the city, presenting a form of density that is an alternative to the incremental "Manhattanization" of Downtown, and SoMa. Specifically, it expands the zoning envelope by 2-3 stories for projects that offer affordable housing. The design projects speculate on provocative ways of interpreting the AHBP and other zoning policies, especially in relation to underutilized air rights and the creation of new types of public space in the air. The research focused on seven land-locked neighborhood commercial districts as sites for new forms of "horizontal" density.

Developing the "Unbuilt City"

To begin, the space between the existing building heights and the top of the zoning envelope - the "unbuilt city" of unexploited zoning - was visualized, showing the volume of buildable space above each neighborhood as it exists, and as it expands through the additional building height allowable under the AHBP. To develop design strategies for this "unbuilt city" in the sky, the research drew on global case studies outside of the specific context of San Francisco that demonstrate alternative ways of dealing with topography, pedestrian and other traffic layers, and typological and programmatic relationships in conditions of high density. The subsequent design propositions apply infrastructural operations that multiply the public space of the city and produce novel three-dimensional public space conditions. The resulting projects inhabit, intensify, and at times, restructure the envelope of the "unbuilt city" in ways that allow for larger collective forms to be developed in close dialog with San Francisco's unique topographic conditions. The final development of the projects draws from a menu of formal strategies (bridging, tunneling, linking, stacking) and development mechanisms (privately funded "catalysts" on soft sites, infrastructural public works projects) that are used singly or in combination to develop projects that provide capacity for housing, new levels of public space, and access to this new real estate above the existing city.

Research Lead: Antje Steinmuller & Christopher Roach, California College of the Arts - The Urban Works Agency

Student Research / Design Team: Felipe Zene-Motta, Fabiana Possamai, Fernanda Bernardes, Jonathan Frederick, Anh Vu, De Hogen, Kurt Stubbins, Eman Barnawi, Frederico Leite Goncalves, Lovisa Sward, David Ormrod, Juan Mayer Goynecho Nieto, Jamie Ling, Melody Villavicencio

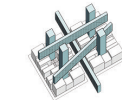
Final Graphics: Cesar Lopez, Anesta Iwan



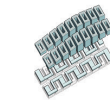
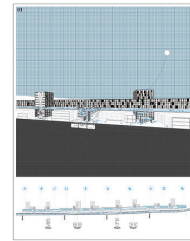
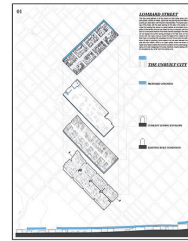
THE CITY & THE UNBUILT CITY



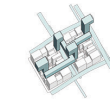
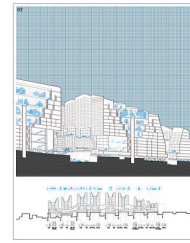
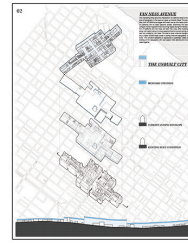
Exhibition Graphic: The City and the Unbuilt City



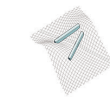
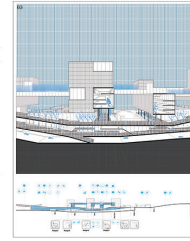
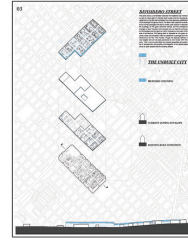
01 Link City



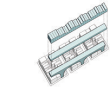
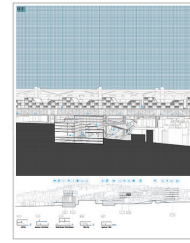
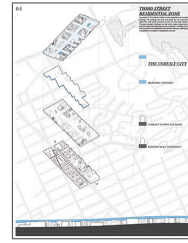
02 Van Ness Heights



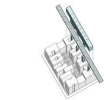
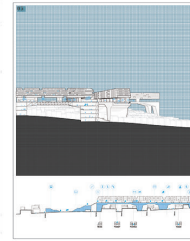
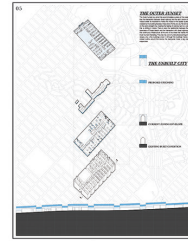
03 The Tower Patch



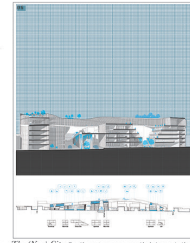
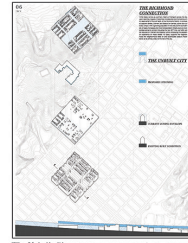
04 Bridge City



05 Sunset Boardwalk



06 The High Road



Strategies Per Neighborhood

The Unbuilt City: Chassis projections of unbuilt zoning

The (New) City: Sections + programmatic interpretations