

"The center must combine the maximum of congestion with the maximum of light and space."
- Koolhaas, p.178

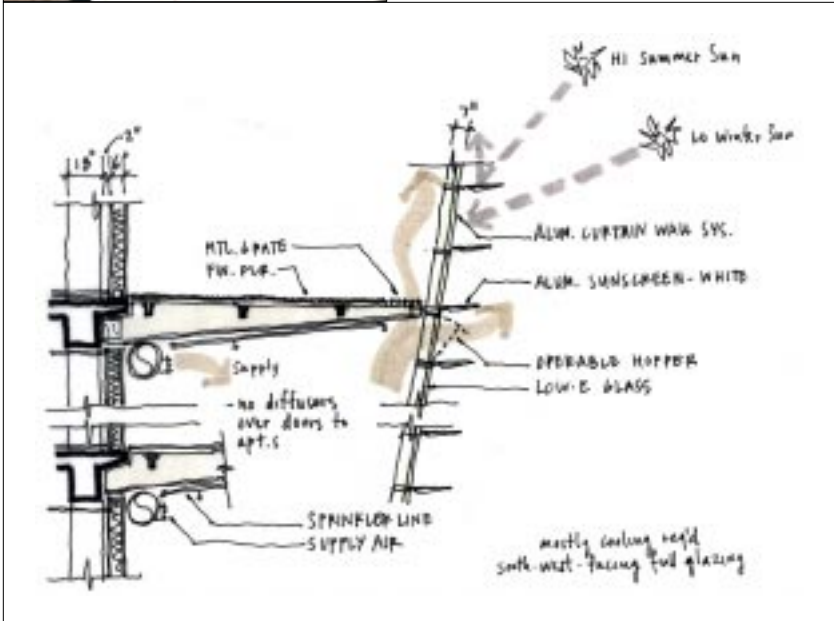
COMMERCIAL



Image of the walkways in Washington DC: The World Bank's glass curtain wall is opaque during the day, translucent at night

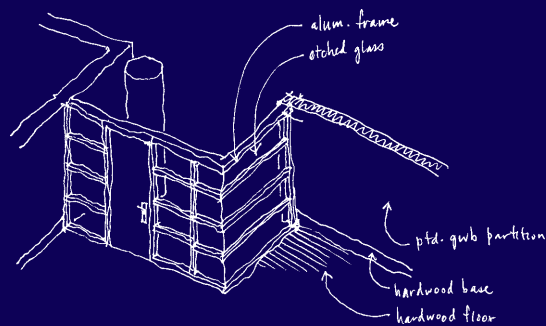


Natural ventilation patterns must be considered at every scale from the urban to the domestic as an alternative to artificial climate control.
- McDonough, p.8



Stacked walkways form a zone of semi-private space between units, offices and the street: Ventilated, permeable membrane - west wall section

Front entry vestibule: Wall niche is a transition between private dwelling and semi-private hallway



DWELLING

OPEN BUILDING

The flexibility in the "open building" model is characteristic of the semi-lattice. Residential open building - design of a residential base building - allows design options for tenants and lays out a framework for future renovation and reuse in an effort toward solving problems of sustainable design. "Open building offers a solution by distinguishing the more enduring, common part of a building from the more individualized part."⁴ Over time, outdated and inefficient infill components, like windows and doors, can be replaced without having to demolish base building elements, like columns and exterior walls. This is a relief on the wallet, the environment and the community, for the cost of tearing down is expensive and disruptive to the fabric of nature and society. As a result, providing for a diversity of lifestyles and changing technologies is no longer more costly than for uniformity. 4. Dr. Kendall, "Open Building," June 1997

CORE ELEMENTS

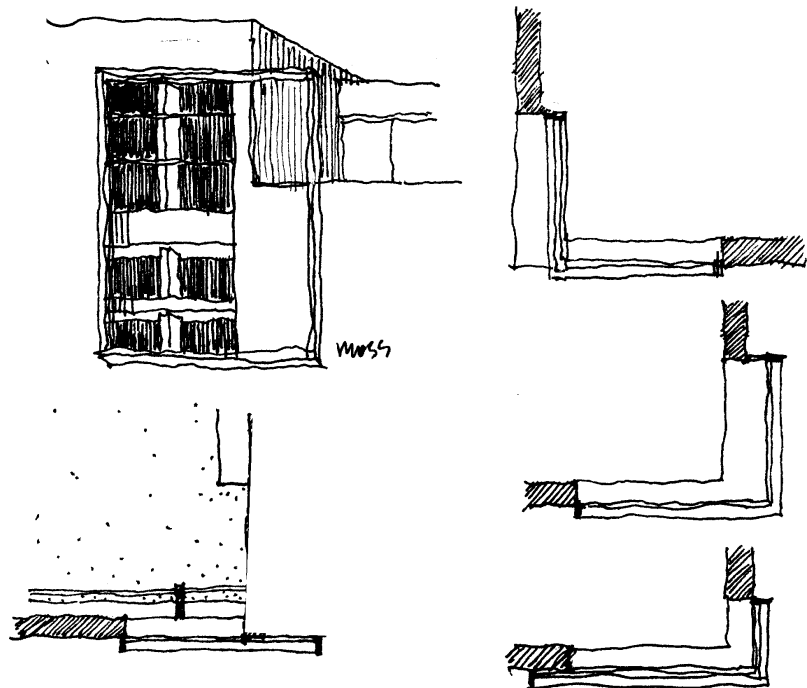
In the housing bar, an open floor plan 40 feet wide is provided for the length of the second floor and in 80 foot modules on the upper 5 floors. The building shell is a concrete structure enclosed with stucco exterior. Beyond this, design is focused in two areas, called *Core elements* and *Transitional elements*. Core elements include vertical circulation, horizontal circulation, and building service. Plumbing, mechanical and electrical services run in shafts adjacent to stairs and elevators for access to all units. This frees up the two long sides of the housing bar to remain open. In a sense these sides act as semipermeable membranes letting in light, air and people while protecting from wind and weather.

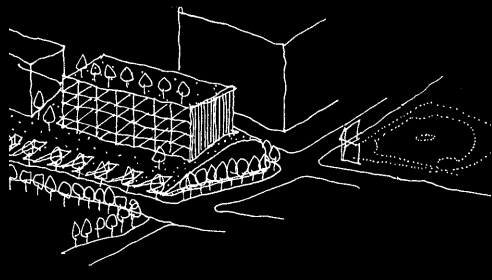
TRANSITIONAL ELEMENTS

Transitional elements are points where light, air and people pass through, crossing layers of space. The four transitional elements here - the window, front vestibule, rear vestibule, and balcony - represent an overlapping of public and private, of in-between space. Here some of either side is pushed back to allow for a small celebration of the transition. It takes on the form of the eroded corner, the disengaged window, and the wall niche. It is expressed in the change of materials, lowered ceiling height and operable components.

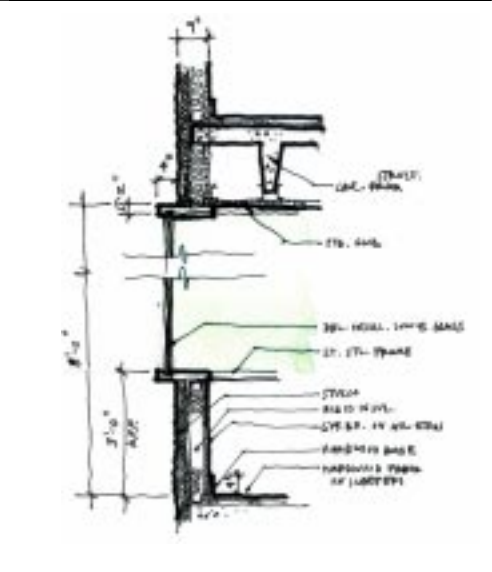
Where the individual is highly valued, and where it is difficult to predict the desire of the site users, it is common to set a goal of choice... Such an objective is rarely served by laissez-faire, or random order.
- Lynch, p. 12

Building elements overlap and create their own layers on an intimate scale, appropriate for dwelling: Corner window details

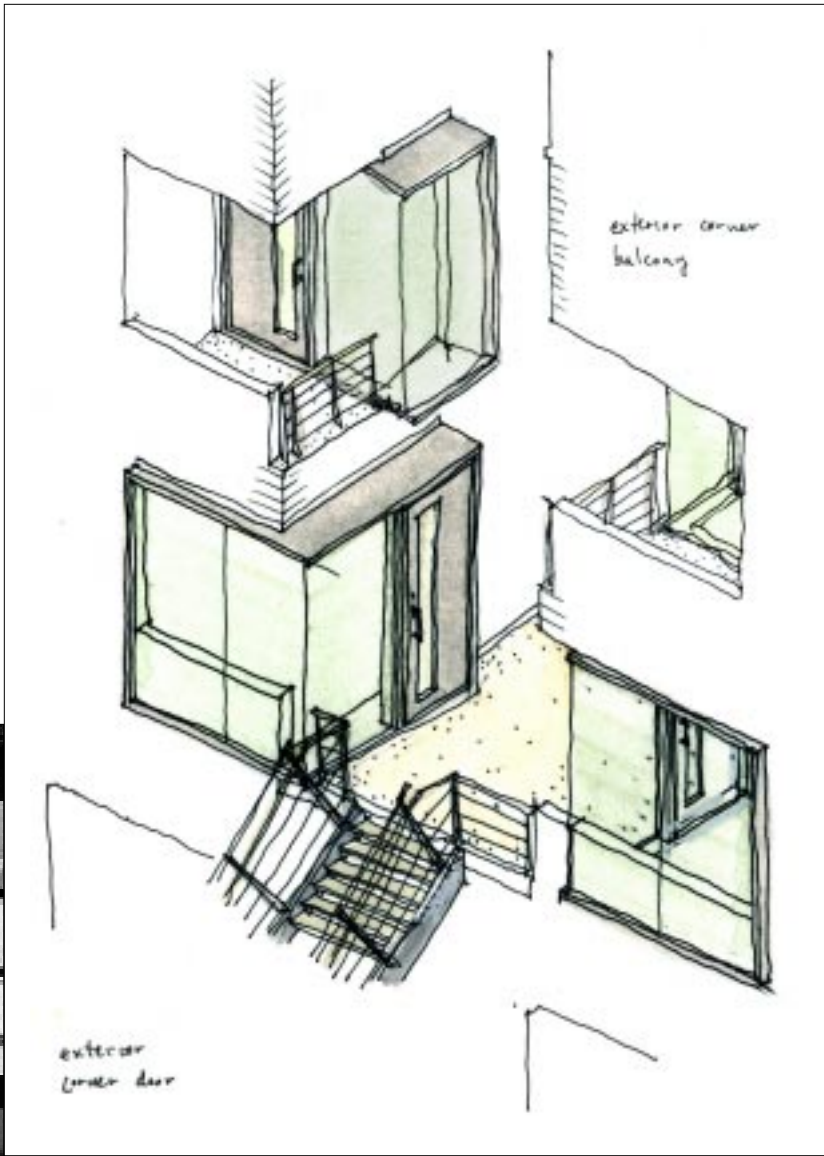




Living in sustainable architecture is nothing less than an appeal to accept our place in the world, mediated between human and natural purposes.
- McDonough, p.11

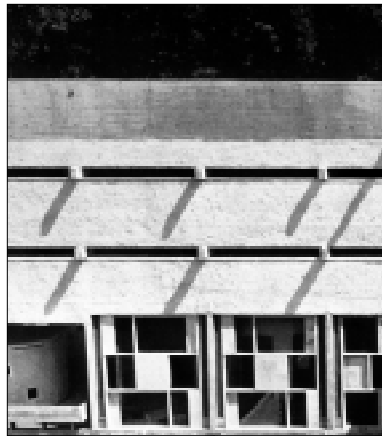


Stucco, brushed metal and low-e glass:
East wall section detail

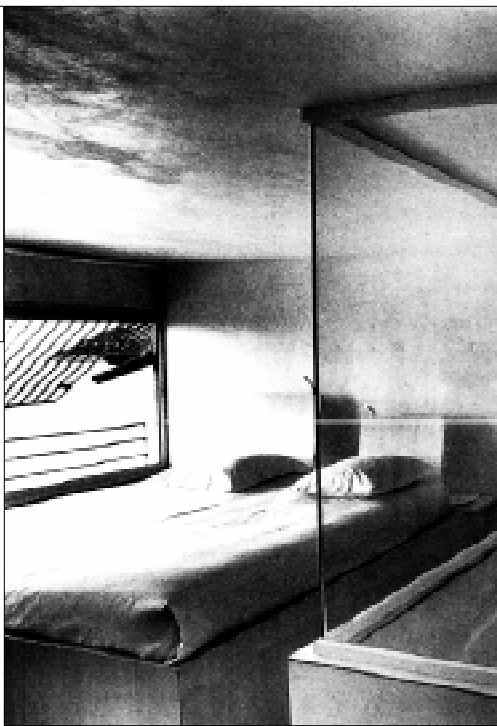
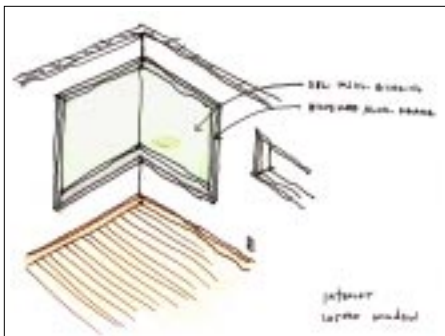


Eroded corners and disengaged windows create in-between space:
Balconies and Rear Entries for the residential units

Long horizontal windows and mullion blocks: East wing of LeCorbusier's La Villette



*Poetry speaks in images,
poetry is what lets us dwell.*
- Heidegger

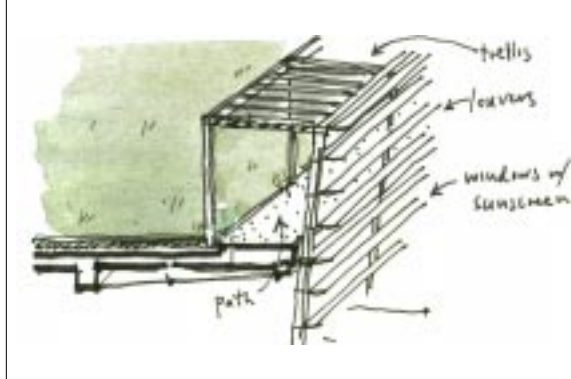


Sunlight comes into the bedroom through long windows: Living space by Jean Nouvel

Rooftop elements: LeCorbusier's Villa de Monzie

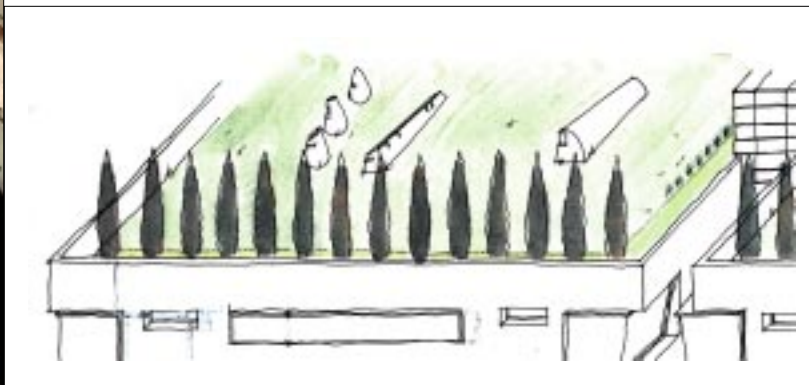
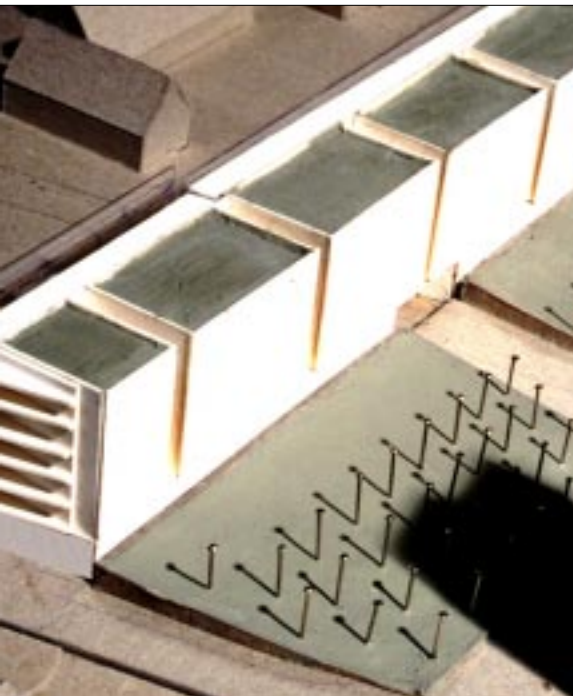


Pedestrians and bicyclists must be permitted to move easily and safely across arterials if an environment that is not reliant on the automobile is to be created.
- Calthorpe, p. 102



Transition between building and sky:
Roof top walkway with sunshade connects the roof yards

Multi-level green space: Roof yards and backyards on the Residential side



Shared outdoor space: Roof yards are sprinkled with light monitors

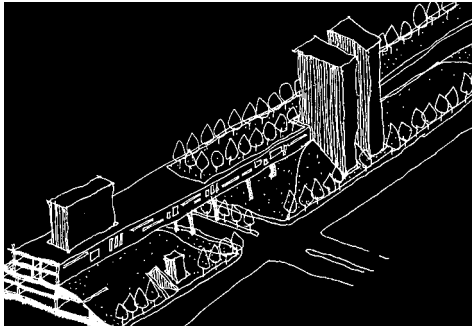
Indigenous species...create a unique identity and carry forward the history of a place at a scale that is recognizable. [They] make identifiable landmarks within the larger community and serve to establish character for newly developing areas.
- Calthorpe, p. 75

SHARED SPACE

Dwelling typically takes place over different zones and conditions. Living in the closer conditions of more urban areas is relieved by a kind of dwelling that spreads out into private center. Residents of the housing bar all have access to outdoor space in the form of balconies, patios and yards. The roof is a place where people gather and enjoy residents to take possession of a place often underutilized, a benefit where land value is at a premium. Stairs and elevators help to solve such issues as accessibility for connects the housing blocks and provides a stunning place for a morning jog. Units on the lower floors, typically four per housing block, share patios with walkout adjacency tend gardens and let children play under the eaves of the apple trees in the orchard.

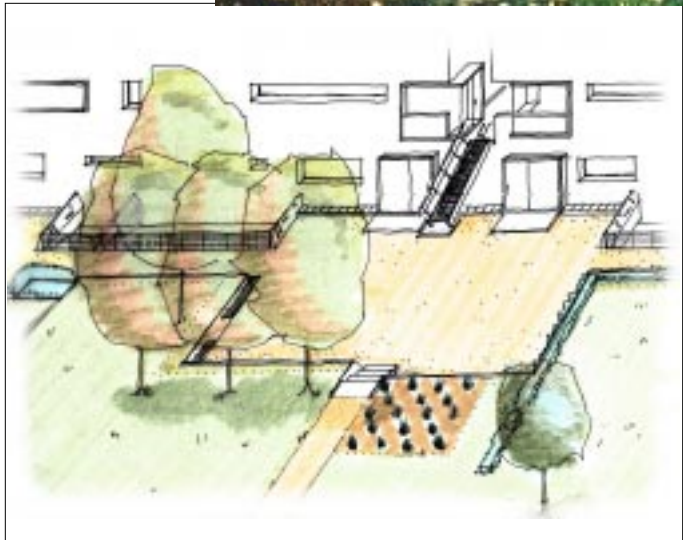
OUTDOOR LAYERS

The orchard itself extends the length of the development here and ties current neighborhood identity to the history of the place, Ballston. The cycle of the fruit trees serves shape a community, like the harvest and use of the apples. The trees act as a buffer or filter between the semiprivate shared space of the patios and the public realm along public layer by paths that pass beneath the trees and step down to the sidewalk over low walls. These visual elements are outdoor thresholds that signify ownership and At the end of each of these tree-lined walks is the wide path that runs north and south through the Virginia Square neighborhood. The path has extended corners at the beside the path and joins with the network of bike paths that crisscross Arlington county. This thoroughfare provides an important bike route across major high traffic station, another link in the chain of alternative transportation.



RESIDENTIAL

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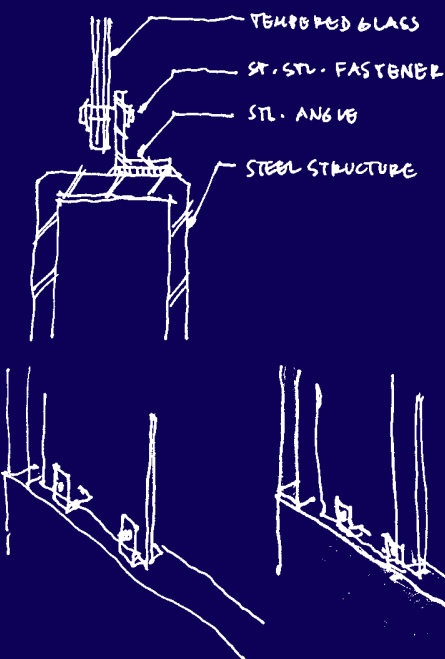
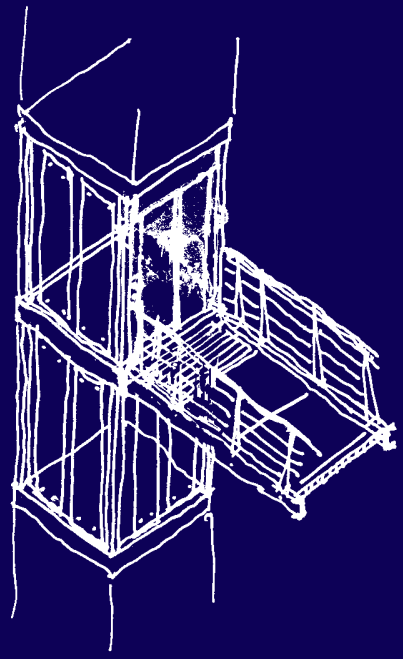
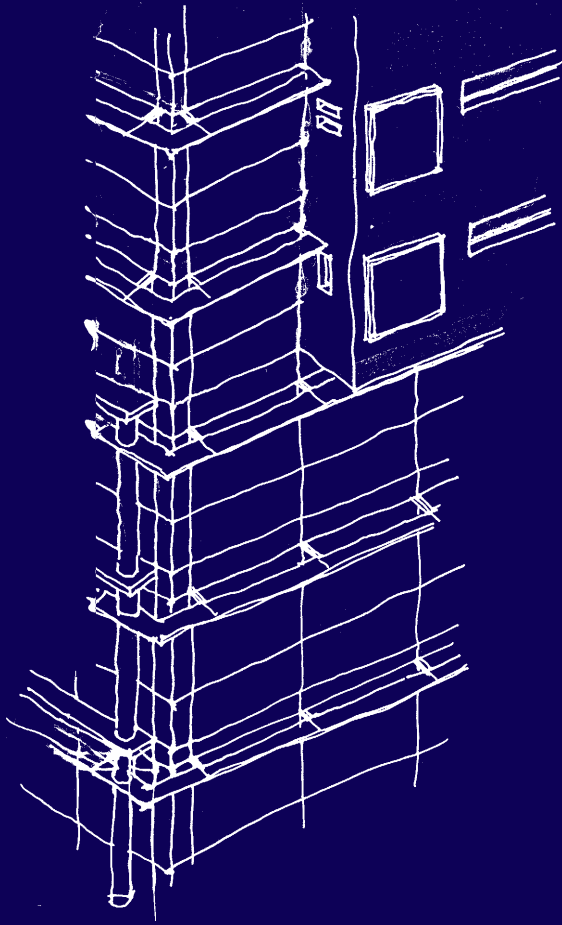
Semi-private space beneath the apple trees:
Patios are shared by walk-out apartments

successively more public shared spaces, often outside, with the necessary being outside - on top of things - with a vantage point. The roof yard allows use and maintenance by opening directly on the roof. A rooftop walkway reminiscent of urban garden apartments. Here neighbors have barbecues,

as a tangible calendar and provides an opportunity for events that help to the pedestrian way and Monroe Street. Each housing block connects to this provide some necessary separation for tenants to have their place in the world. streets to shorten crossing distance. A bike lane is designated in the street roads, Fairfax Drive, Wilson and Washington Boulevards. It leads to the metro

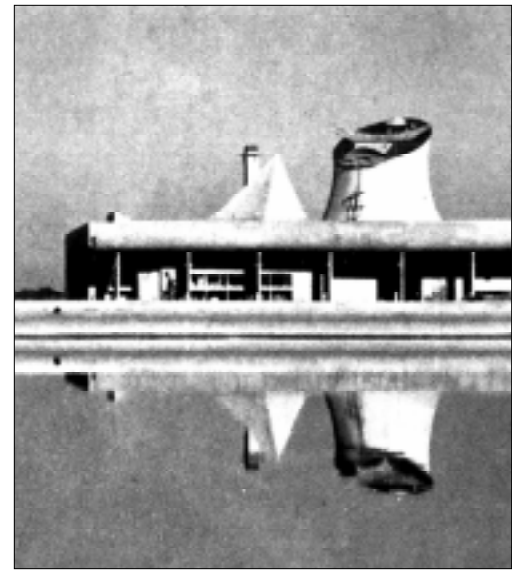


Sketch detail of tower facade



Sketch details of metro elevator housing

Transportation requirements will be considered in terms of their impact on overall energy consumption. Pedestrians and bicyclists should have priority. Mass transit should be efficient and available, and private automobiles should be discouraged. - McDonough, p.9



Figures on the horizon: Chandigarh, India, Le Corbusier



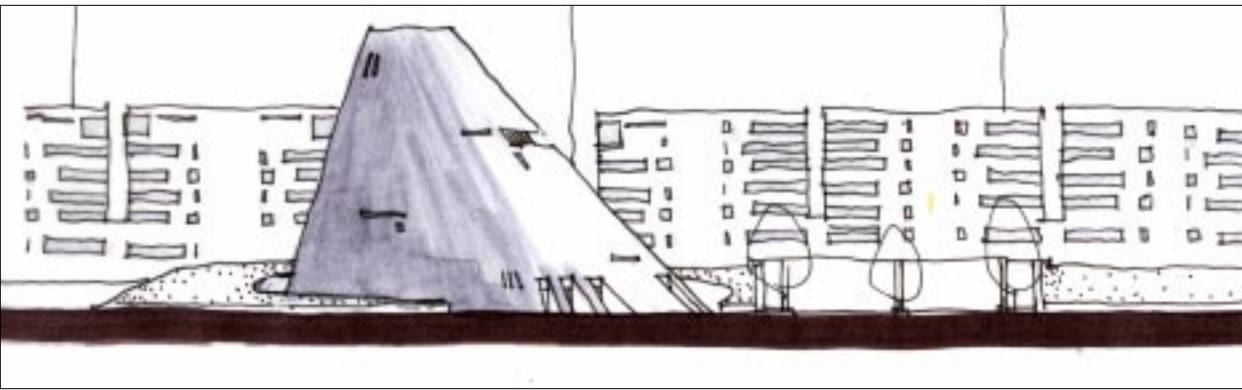
Development focal point and neighborhood identity: Metro volcano plug-in



Half the gateway to the Rosslyn-Ballston corridor: Mixed-use tower plug-in

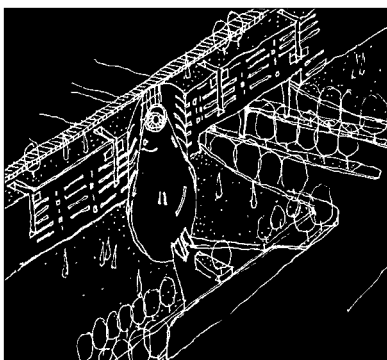


Flexibility in the housing bar system: VEPCO transformer yard as plug-in



Boundary and orientation: Virginia Square metro station makes its presence known from a distance

A boundary is not that at which something stops, but as the Greeks recognized, the boundary is that from which something begins its presencing.
- Heidegger



PLUG - I N S

OTHER INCIDENTS

Across Fairfax Drive from the metro volcano is the other gatepost at the entry to the Rosslyn-Ballston corridor. This plug-in stacks and mixes uses in a tower. The ground floor is ideal for shops, a bar and a grand lobby. Above are floors of office space and apartments. They have access to the roof of the housing bar and contain their own integrated green spaces as well. Development follows models of retail shell, spec office and residential open building or more traditional unit layout. Parking is below and entry is off of Monroe Street. The tower is a typical plug-in for the prototypical concept in other locations.

The VEPCO yard, however, is more site specific. The transformer yard remains as a reminder of what supply of electricity entails, but places it behind coated walls for safety. It fits in a standard way by displacing housing blocks in the housing bar while horizontal circulation continues above stores that front Nelson Street. The plan also provides space for future development of an outdoor market place located on the triangular block at the intersection of Monroe Street and Washington Boulevard. This is ideal for the sale of locally produced items, such as apples and other produce, in conjunction with the existing supermarket.

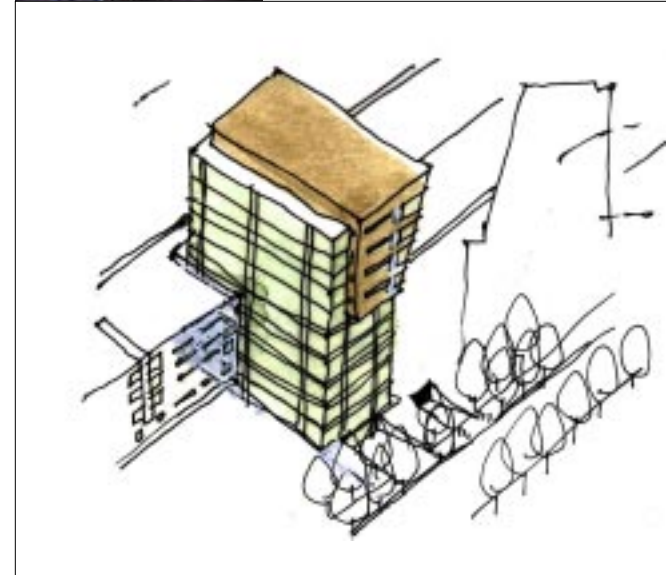
METRO

A central feature in the neighborhood and focal point for the area plan, the Virginia Square metro station offers mass transit conveniently to those living nearby. The metro volcano is a plug-in that helps define the development and the community by its distinctive presence and function. Its concrete form is markedly different from other more rectilinear constructions. It can be seen from the rooftops and along the boulevards from a distance, acting as a device of orientation. The station has the transitional position of funneling people from the wide outdoors to the underground realm of the subway. Its dynamic interior is enhanced by the play of light across elliptical surfaces from varied piercings of the shell. Here the skeletal conveyance elements of bridges, elevators and escalators stand as sculptural moving vantage points. A grand stair wraps its way around the inside of the base cantilevered off the concrete. On the floor of the volcano, a commuter can buy a paper and a cup of coffee or have shoes shined while looking up into space through the oculus above - a great way to begin a trip to the office, or the museums downtown, or the movies, or the mall at Pentagon City.

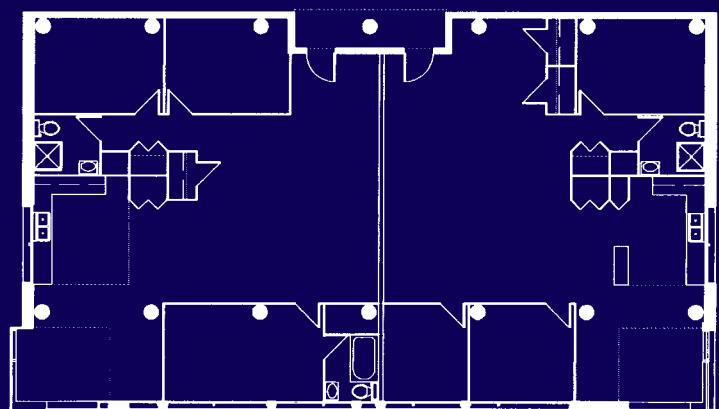
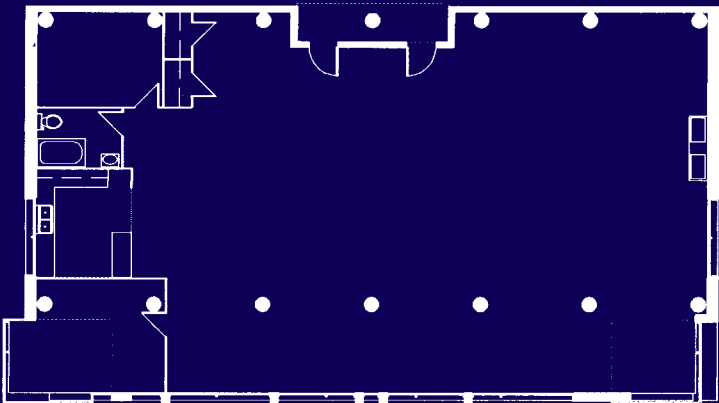


Our role is not to retreat back to the catacombs, but to become more human in skyscrapers...
- Regional Plan Association of New York

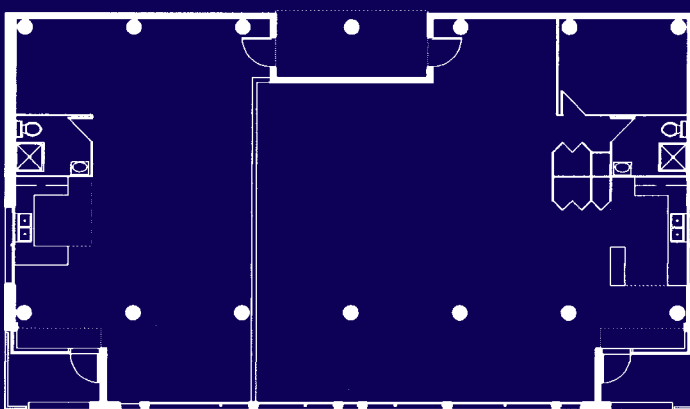
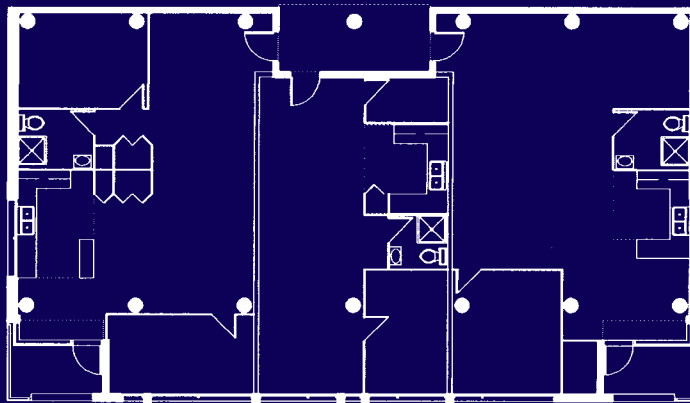
Stacked uses and plug-in density: Mixed-use tower at Fairfax Drive and in Hong Kong "Mid-levels"



Test fits for the two upper floors: An open studio plan and typical split plan



Test fits for the middle two floors: Three-way and unequal bisected split plans



UNITS

UNIT LAYOUT

The long sides of the housing bar are open and notched at the vertical circulation elements giving most units an outside corner. The location of core and transitional elements suggests certain optimal choices in unit layout. Bedrooms would be located along the outer wall as building codes require. Primary living spaces (i.e. living and/or dining) would be adjacent to the outside corner for light, air and circulation. Secondary living spaces would line the inner wall gaining light and ventilation through hallway clerestory windows. Standard layout is for two units per housing block (1400 sf). Other options include unequal bisection splits, the full block (2800 sf), and three-way dorm-style units (+/-900 sf). Location of units accommodates lifestyle preferences, especially in the vertical dimension. While more active households (i.e. families with children) will find lower floors with immediate outdoor access convenient, others such the elderly have a place on upper floors away from the commotion.

*A city is a place where a
small boy, as he walks
through it, may see
something that will tell him
what he wants to do his
whole life.*
- Louis Kahn

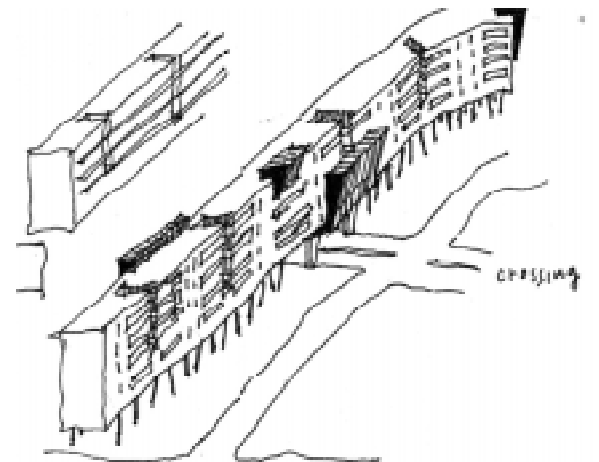
CONCLUSION

CITY OF POSSIBILITY

We cannot lay down the perfect city in one sitting. It doesn't all come from one mind or one group. The stuff of a vibrant city grows with time and ends up in forms the original authors never dreamed or anticipated, and that is good. So it is the intention of this project to lay the groundwork for a city of life and complexity for the people in Virginia Square. This is done by courting possibility; by allowing for the myriad permutations of the new urban condition at this location by mixing things up a bit; and by promoting a mix of uses, overlap in location, vertical and three-dimensional zoning, and some clear underlying hierarchies upon which to build. This is a hybrid approach.

The semi-lattice is built by opening up the rules of the tree to allow for additional combinations and overlap. The City of Possibility is built by opening up the rules of development within certain parameters. Virginia Square can contain the positive "congestion" Koolhaas refers to in his analysis of New York City and be all the better for it.

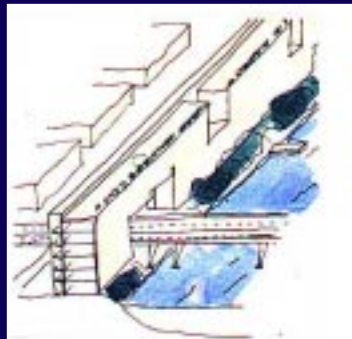
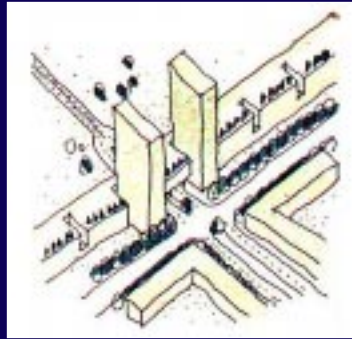
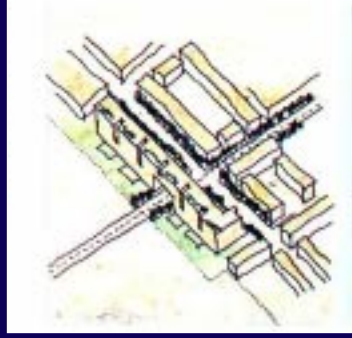
Housing bar on legs lets the city grid pass beneath



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Options for a housing bar with various plug-ins in different urban conditions



TECHNOLOGY AND TOOLS

This document was layed out and published or translated to PDF using Adobe Pagemaker 6.5 on a Windows 95 platform. Text was written using Microsoft Word 7.0. Graphics were manipulated with Adobe Photoshop 4.0. CAD base drawings were scanned on a flatbed scanner and then translated to dxf to be used in AutoCad. CAD drawings were made using AutoCad release 12 and 14, and plotted using an HP750C inkjet roll plotter. They, along with all flat art, were then scanned using a Umax Vista S-12 flatbed scanner. Some photo images are from slides scanned using a Ricoh slide scanner.

DRAWINGS

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