

T H E S U B S T A N T I V E

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Master of Architecture

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A F O N T E P U R O P U R A D E F L U I T A Q U A

<u>item</u>	<u>part of speech and form</u>	<u>syntactic information</u>	<u>cummulative metaphor</u>
a fonte	preposition + substantive in ablative	adverbial modifier	_____s +/- _____ from a spring.
puro	adjective; ablative	adjectival modifier	_____s +/- _____ from a pure spring.
pura	adjective; nominative	adjectival modifier	Pure _____s +/- _____ from a pure spring.
defluit	verb; present active indicative	intransitive verb	Pure _____ flows from a pure spring.
aqua	substantive in nominative	subject	Pure water flows from a pure spring.

substo, substare, substavi, substatus: stand firm

adicio, adicere, adieci, adiectum: throw to, apply, add

verbum, verbi; n.: word

ad; preposition: to, towards

In order to understand a sentence fully, one must understand its parts and the way they work. A complete sentence, in its most simple form, is a substantive with a verb in agreement. Additions to this sentence may include other substantives and verbs, but most additions are modifiers, either adjectival or adverbial. These modifiers should enhance the substantive and its verb, elevating their existence within the sentence. However, modifiers may also detract from the substantive and verb. This occurs when the substantive and verb become lost among the additions.

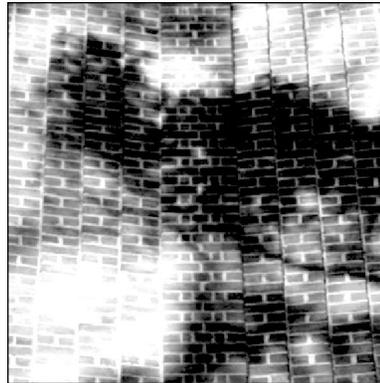
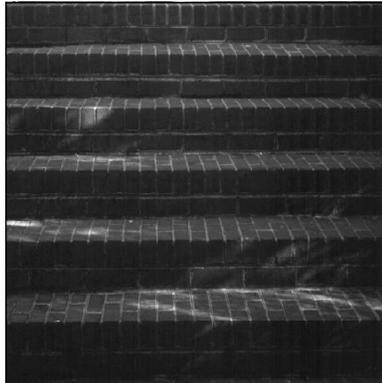
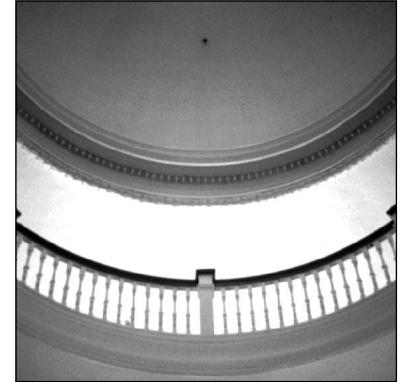
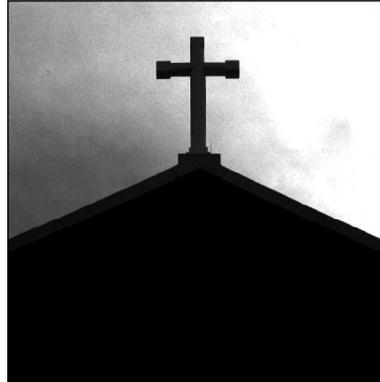
A simple, easily understood complete sentence, i.e. a sentence containing only a substantive with a verb in agreement, becomes with the addition of too many modifiers that are not really necessary a foudryant expression that is difficult, although not impossible to diagram for the purpose of grasping the relationships between words that are, in their present state, convoluted by the addition of modifiers within and without clauses, to decipher. In other words, too many modifiers make a sentence difficult to understand.

While the simple complete sentence is concise by its very nature, a concise sentence may contain much more than a substantive with verb. A concise sentence contains the essential and whatever else, if anything, to elevate the essential. Modifiers are not bad per se, but modifiers must remain just that: modifiers. They must be chosen carefully and remain secondary to the essential (provided that their primacy is not the intent). Modifiers and their use within a sentence are distinguishing factors between carefully crafted prose or poetry and misleading verbosity. The beauty of the concise sentence is its ability to express the most while using the least. The same can be true for architecture.

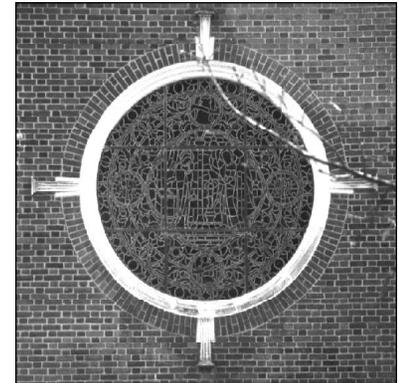
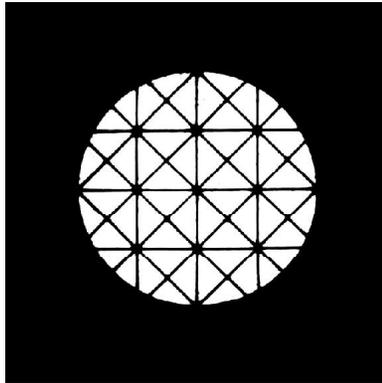
For this thesis I looked to the substantive for establishing a connection between a project and the existing architecture of its site.



Chatham Hall is an Episcopal private preparatory boarding school for girls. The campus is located in the small town of Chatham in southern Virginia. It is a place for more than students and faculty. Alumnae, trustees, parents, former faculty, speakers, visiting teams, performers, potential students with their families, interviewing faculty, and others make frequent visits to the school. They have a place on campus, but not a physically defined place they can call their own. The campus needs this tangible place where people with varying relationships to the school can stay for short periods of time. The complex would function as either a relatively closed society or one that is an active part of campus life. It would be a hospitality center in the truest Latin sense of the word: a place for guest and host, the hospites.



There is a celebratory aspect to the architecture of the campus. It makes a generous, hospitable place for both students and teachers, and supports a life of worship and learning.

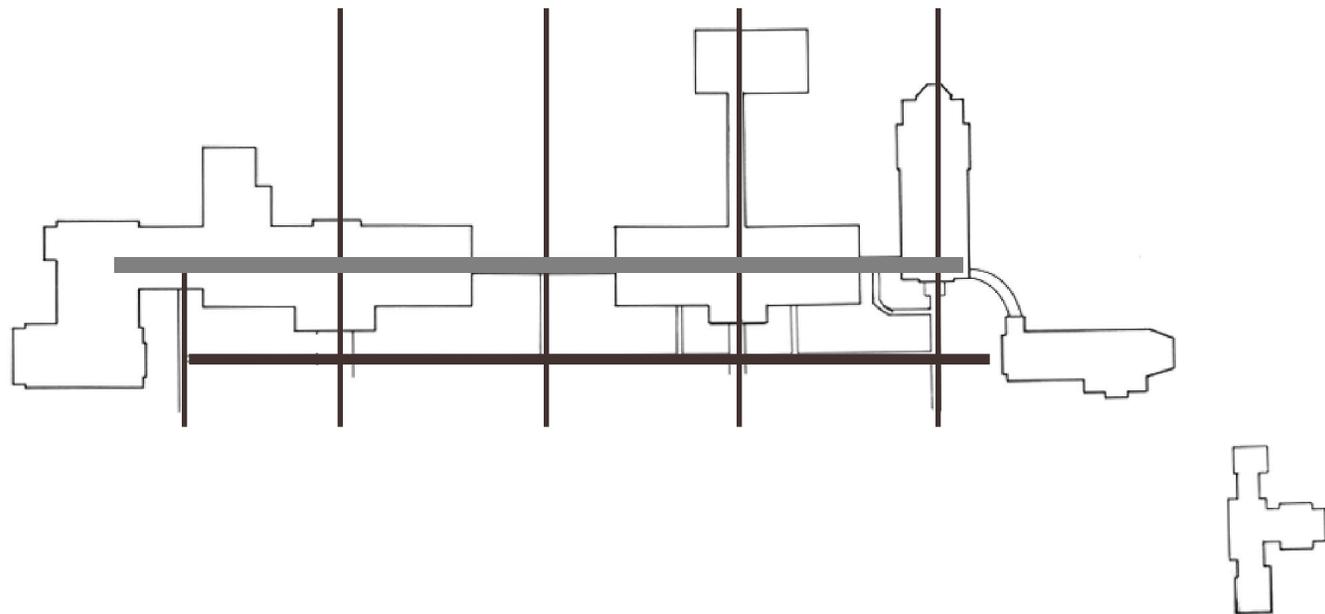


Georgian and classical detailing is evident in the older buildings, but the substantive remains primary. It is a field supporting a graphic, a wall housing a portal, or a plane with an opening. There is a generous and justified extravagance in celebrating the essential.



1. Yardley Hall 2. Pruden Hall 3. Dabney Hall 4. Lee Library 5. St. Mary's Chapel 6. Rectory 7. Lacrosse Field

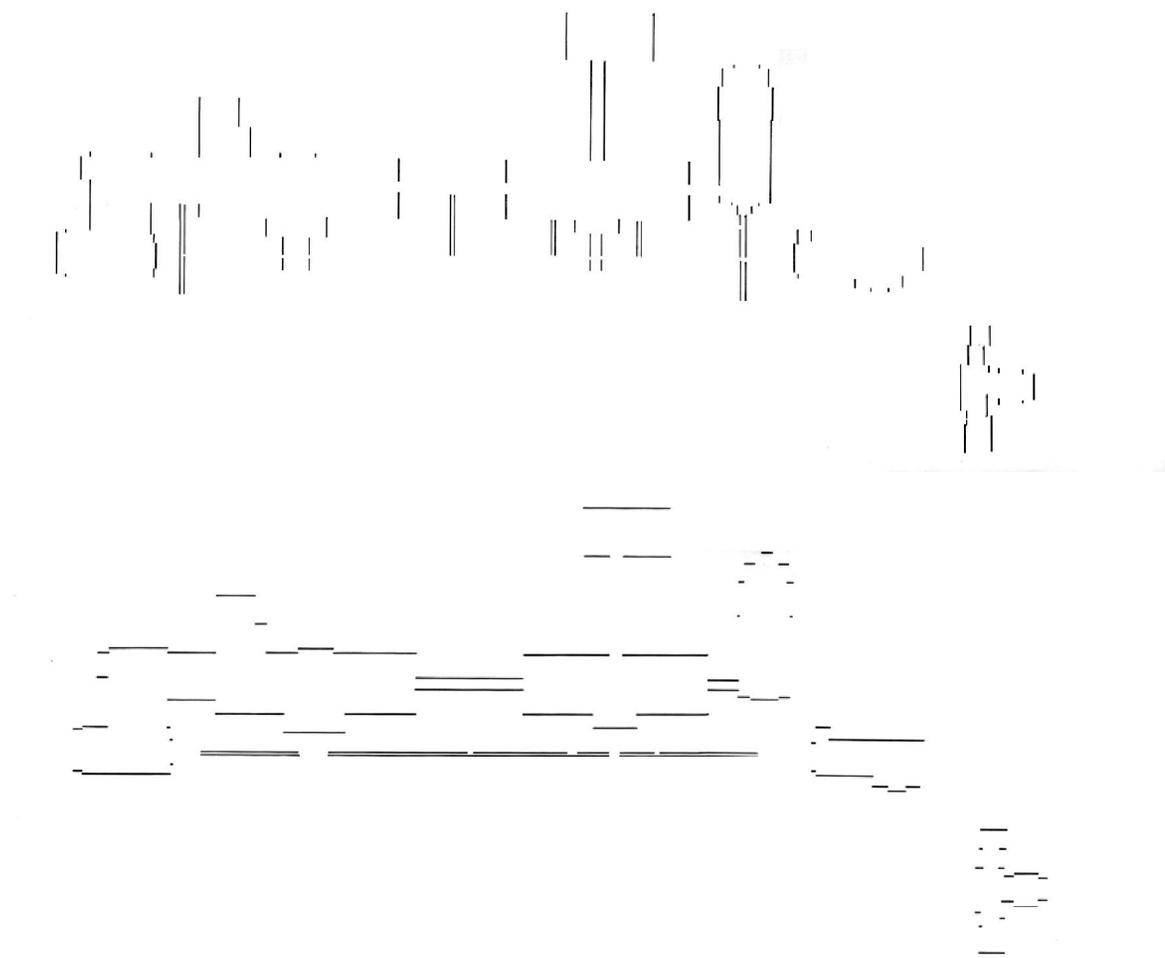
The oldest campus buildings align on a north-south axis that also provides the major path for circulation. The axis, followed by the main sidewalk, is bounded on the north by Yardley Dining Hall and on the south by St. Mary's Chapel. Along this axis is nourishment for the body, mind, and spirit.



A system of arcades running parallel to the north-south main sidewalk connects major campus buildings. This system of arcades is the hallway for the campus. The connections are both physical and symbolic; the majority of the buildings have some type of connection to St. Mary's chapel.



St. Mary's chapel is the only building that is centered on the main axis. The axis is a path to and from the chapel, the focus of living and learning at the school. Yardley Dining Hall crosses the axis, but its bay window frames the view of the chapel, recognizing its place of honor.



It is possible to view the buildings and their connectors as planes that route circulation. The axis and those lines parallel to it show primary routes of circulation. Lines perpendicular to the axis show secondary circulation. It is along and on this axis and its related paths that the people on campus lead their lives.

8/30: Idea of guest facility and the guest/host relationship; hospes - one word for both guest and host in Latin and Greek. A boarding school where faculty and students live on same campus. Who is host, who is guest? The rector and faculty host the students, and yet the students and their parents pay the salaries, in effect hosting the faculty. The trustees visit the school regularly. Are they guests or hosts? They have authority over what takes place. What about alumnae whose donations help finance the school? Then there are scholars in residence, interviewing faculty, prospective students, former parents and faculty. All have ties to the campus. All have very different roles, but all need a place. Think of the Aeneid and its guest/host relationships gone bad.

- 9/1: Guest quarters; peripheral vs. central; for viewing vs. for being viewed; for experiencing vs. for reliving; a resource vs/ a parasite.
- 9/4: Placement on campus; Overlooking lacrosse field, On main axis, Residential area, Close to Chapel, Library and Rectory, Part of school, but does not interfere with daily school life. Firmitas, Utilitas, Venustas.
- 9/9: A villa approach? Estate in Indian Summer. Generic voids with exceptional details? An arcade? Extension of hallways? Appropriate place for parties too. Maintain the axis with spaces as offshoots?
- 9/23: More than one unit? Two or more buildings create a place in between. Separation of meeting and living. Avoid long hall with long line of doors. A structure that recognizes the different grids of the area? Axis vs. lacrosse field.
- 9/27: A built up line of sight? Platform architecture? Shift or hinge in axis to respond to field and hill?
- 10/4: Stuck with problem of axis on the site. Do not want to block the line of the chapel. Possible to block line in meaningful way? Fireplace important to idea of hospitality at the school. The hearth.
- 10/8: Roof remains a problem. Incorporate drainage into entry covering? Roof remains a problem. Treat walls as true curtain walls that hide a shed roof? Make routes of water "events"?
- 10/15: Place: physical environment, indefinite region, proper niche, place setting, position of figure in relation to others in a row or series, plaza, suitable environment. Locus: neighborhood or position
- 10/24: Talked with Hans. Suggested making the place hospitable in all seasons. Precipitation could make the outdoor areas just as enjoyable.
- 11/1: The site is chosen based on relation to existing school buildings and its topographical opportunities. The building complex accentuates the existing axis of the campus and the path of entry gives the axis high definition. The complex crowns the brow of the hill with an overview of the lacrosse field and campus meadows. The proposal does not diminish the significance of the chapel's prominence in the back approach to the campus.
- 11/7: Working on making the place one which would be of interest in all seasons, rain or shine. The project already offered generous outdoor areas, and water drainage was an issue. Treating the water as an event lends a different life to the outdoor area. The spaces would change due to weather, but always remain hospitable. Materials become even more of an issue. Suggestion to use combinations that would age graciously to match the detailing the existing buildings which are celebratory in nature. The event of water aids in this process.
- 11/15: Remark at a thesis defense: entry is place for elbow, toes, to sit.
- 11/18: HCR Loos lecture. Raumplan. Possibility of bounding space for purpose of living. Loos is dealing with tradition and intellect. Things not rooted in necessity or tradition an excess.
- 12/12: Openings - functional. Inhabitable wall. Dissolves on interior. Arrangements. Distinct spaces without furnishings. Generous and celebratory. Planes vs. massive blocks. Light vs. water on the roof. Where does the wall end?
- 1/14: Guest rooms, fenestration, joint conditions, major wall.
- 1/23: The project has progressed beyond the locus hospitibus. This was the generator for the project. The project as it is makes no historical reference to the existing buildings. It recognizes only that they exist. Its placement and axis of circulation accomplish that. Early on in the project, HCR remarked that the campus is celebratory. I later added generous. Could the project be dealing with how to make a building generous and even celebratory by using commonplace materials and regular builders - contrast to the specialized craftsmen that built the older structures. The older buildings on campus have substance. They are load-bearing masonry. What you see is what you get. The project should be of substance and force. It should do what the older buildings do. The gym is a decorated shed. This project will not be like the gym, a Morton building with a shell.
- 1/28: Dealing with individual rooms and individual baths. Noise an issue. Idea of monasticism. The sense of belonging is accomplished not through style - Georgian, Colonial, etc., but rather through substance. Personal and group spaces - their use, material, treatment. There is a justified extravagance. Can appreciate the older buildings for what they are and do. It should be true for the new project. It should do what the others are doing, but it does not need to look like them.
- 2/2: The form. No historical reference as far as style or appearance. Celebratory to match campus. Of interest. Generous. Beyond the necessary - ARCHITECTURE vs. building. Will it belong to the campus? Existing buildings. Celebratory - materials, purpose, craftsmanship. Substantial - materials, load-bearing masonry rather than appliqué, permanence. Precedents. Plane with a portal - surface with a graphic. A mass and subtraction; front chapel window, library window. Benches and other seating.

The place for the hospites at Chatham Hall should address the existing campus as well as be part of it. The attempt is an architecture that is like the existing buildings in substance and use, although one that may possibly be unlike them in appearance. The project is to be something complete and concise.



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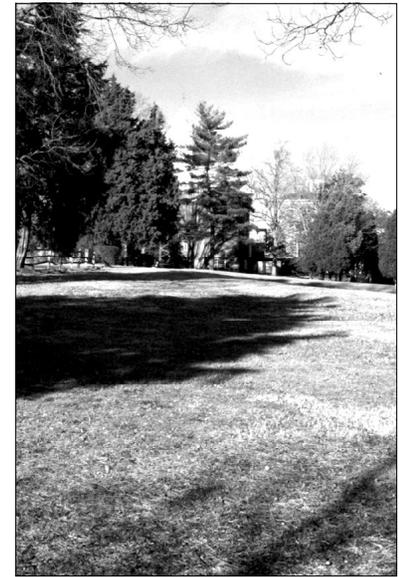
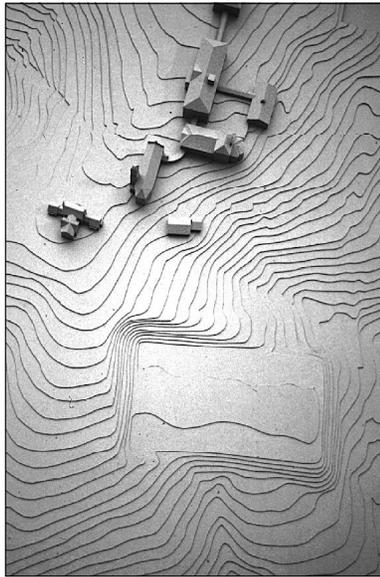
The location for the project creates a tangible extension of the school's main axis and gives the campus a greater presence from the back entry, located off a state highway leading west into the town of Chatham. The location will enable visitors to be close to their major destinations: St. Mary's Chapel, Lee Library, and the Rectory. At the same time, the location is outside the realm of daily school life, and therefore does not intrude on the students and teachers. The extended axis is to be an enclosed axis, bounded on each end, just like the existing main sidewalk, making entry occur perpendicular to the axis. With the placement of the project and treatment of the axis, there is a clear connection to the school, yet a separation.



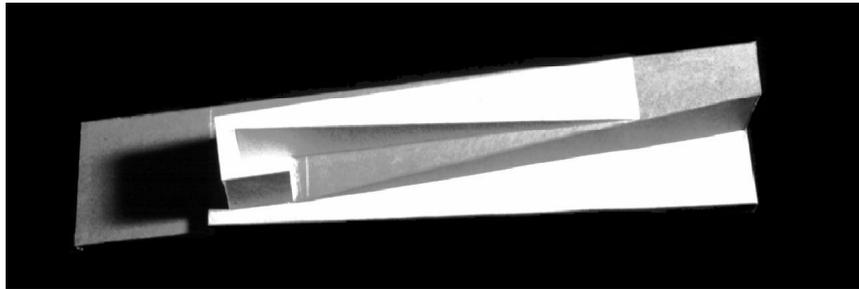
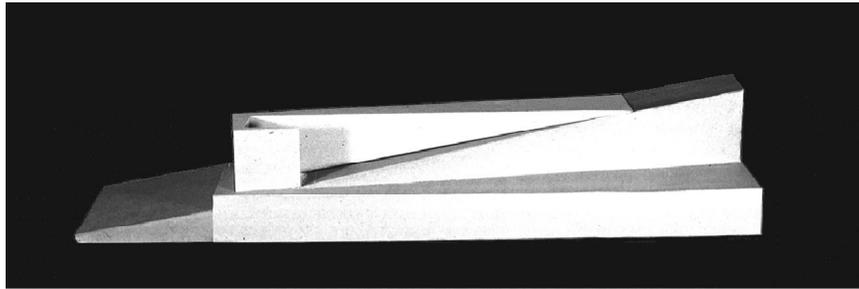
The back entry to campus provides a view of the hunter-jumper course and the lacrosse field, which is set into the hillside and rests on what was removed from the hillside. The project is to preside over this combination of natural and artificial contours.



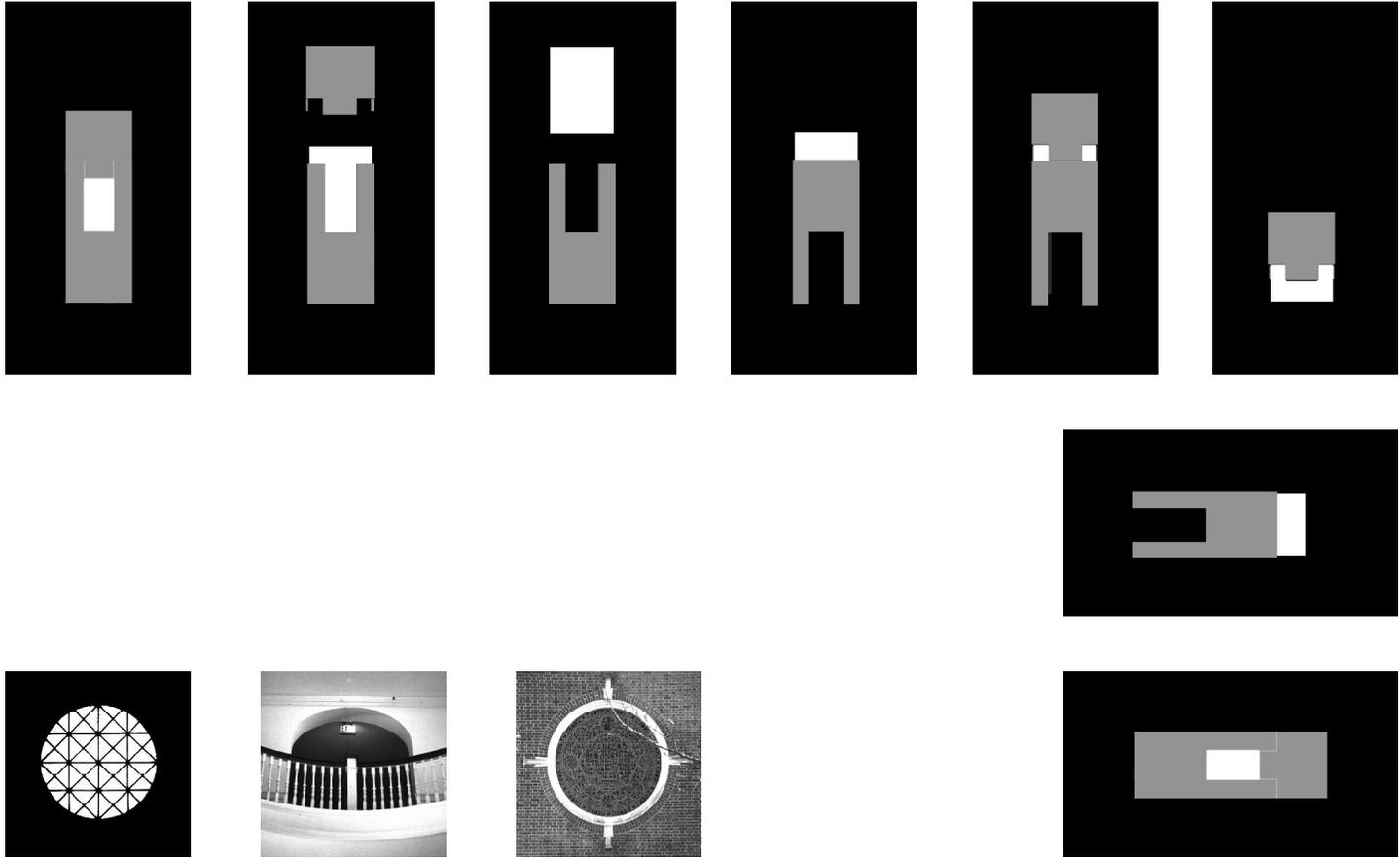
The hillside location along the lacrosse field offers generous views of the school property to the east and south regardless of the season. Outside areas would offer a place from which spectators could observe both athletic and riding events.



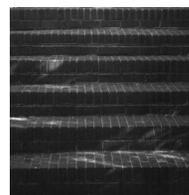
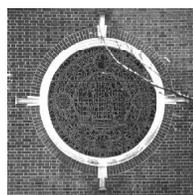
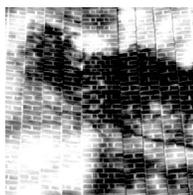
Use of this location requires a resolution between the school axis, the skewed placement of the lacrosse field, and the slope of the hill. Of equal importance is maintaining the prominence of the chapel and its place on the axis while designing a moderately sized building that still has a presence on its dramatic site.



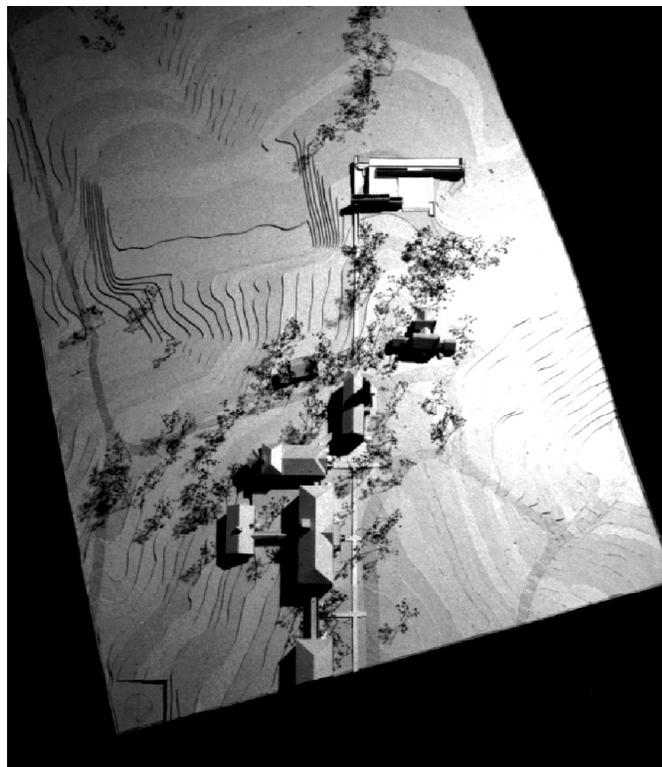
The site conditions are similar to the form of an earlier studio project in which a monolithic element extends from a slope to mark a place.



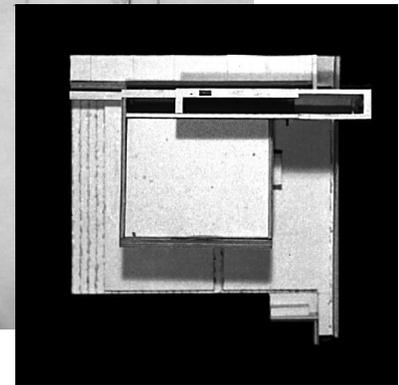
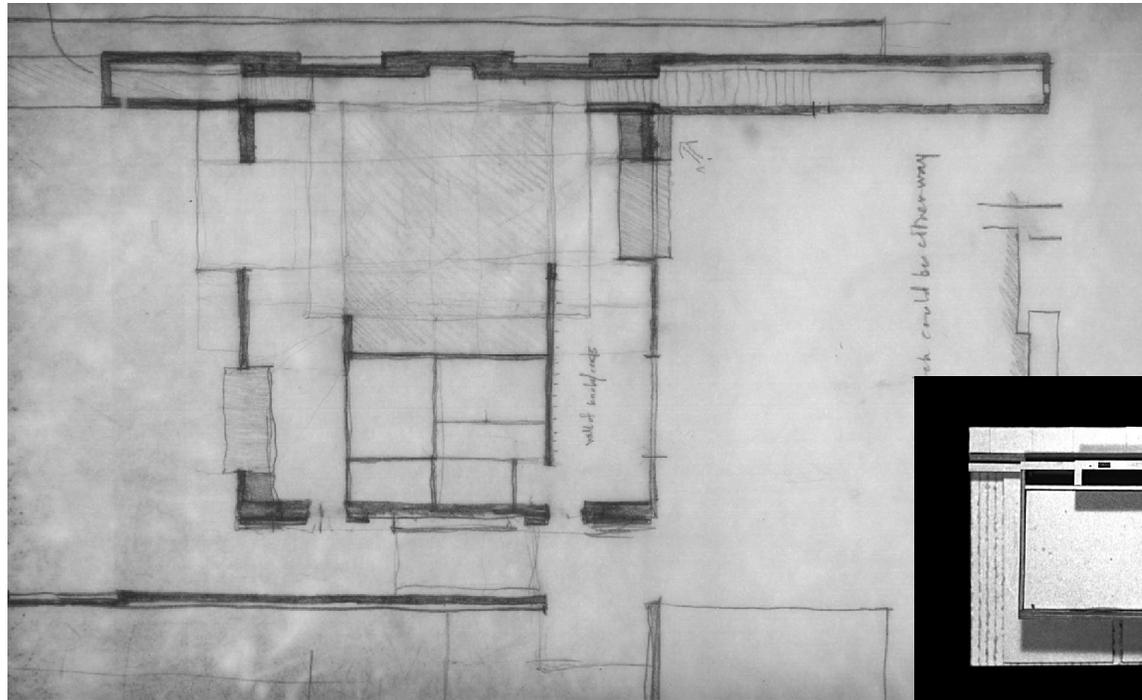
The substance of the existing campus buildings has strong connections to a seemingly unrelated display stand. The elevations of this simple plywood stand can be viewed as a field supporting a graphic, a wall containing a portal, or a plane with an opening. Although the stand has none of the same modifiers, the substance is the same.



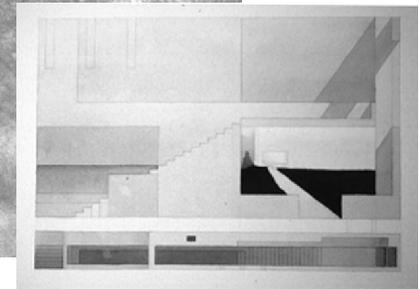
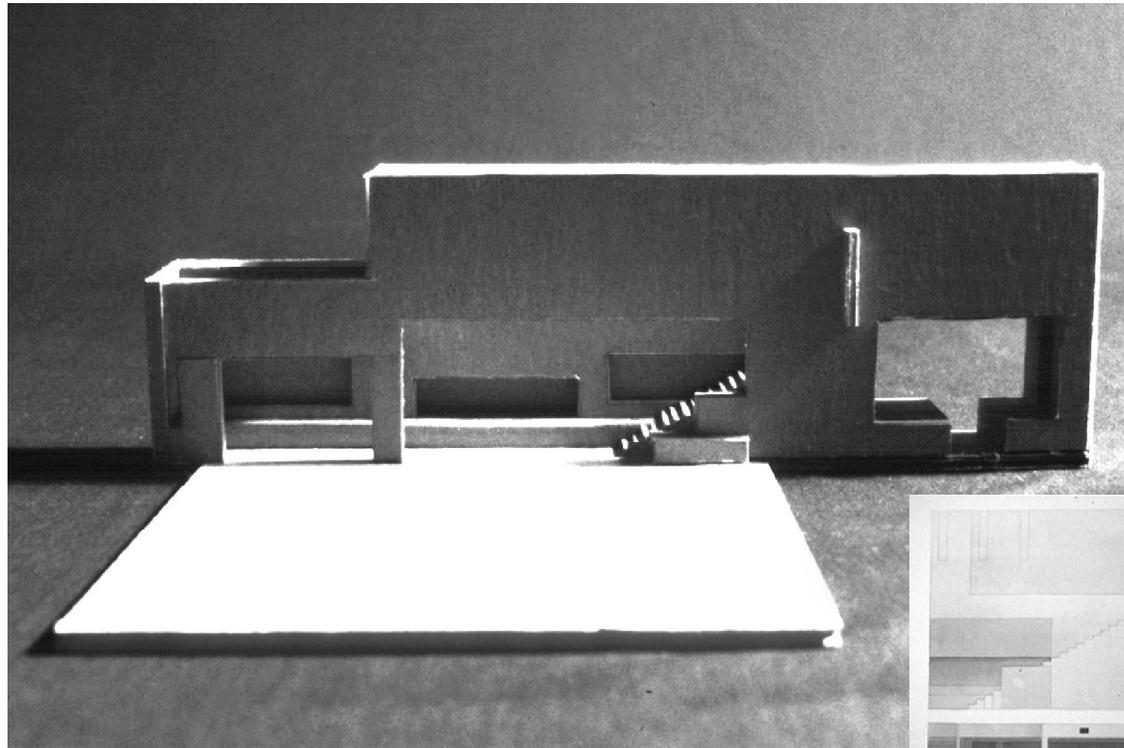
A civic project for the Swiss Ticino town of Riva San Vitale introduces a new structure in close proximity to the historic church of Santa Croce. The neutral planes of the project form a backdrop for the existing structure. The planes of both buildings respond to the needs of their programs. In the older structure, the responses receive extra ornament. What goes beyond the necessary here is for the glory of God. In the new structure, the responses go unadorned. The town already has the historic church and does not need to glorify itself. A similar approach could be taken toward Chatham Hall's place for hospitality.



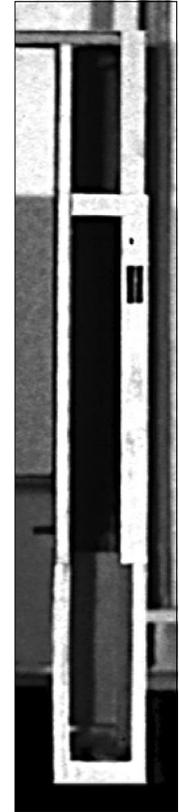
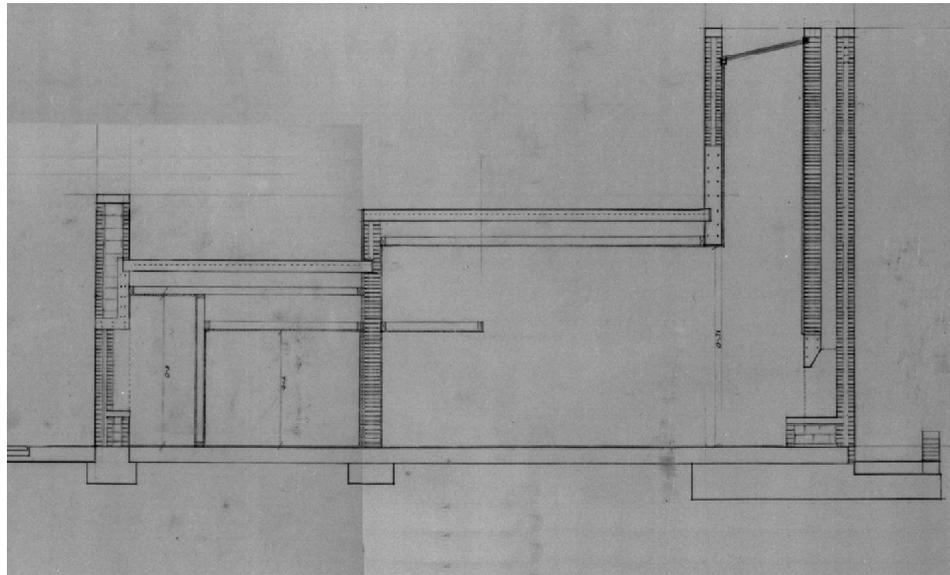
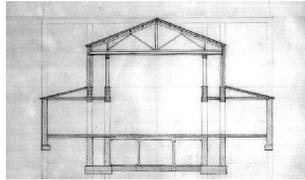
In response to the existing buildings, axis, and the site, the buildings of the project come to rest along, rather than on, an extension of the school axis. This maintains the chapel's prominence with respect to its place on the school axis. Extending a wall across the axis, in effect violating it, creates a point of entry to this new place as well as draws attention to the axis, and thus to the chapel as well. In crossing the axis, the extension brings the project that much closer to the lacrosse field, giving the project a greater presence over the expansive field. A monolithic wall that extends out of the slope of the hill while supporting the newly extended axis provides the backdrop upon which the orthogonal grid of the campus meets the skewed lacrosse field.



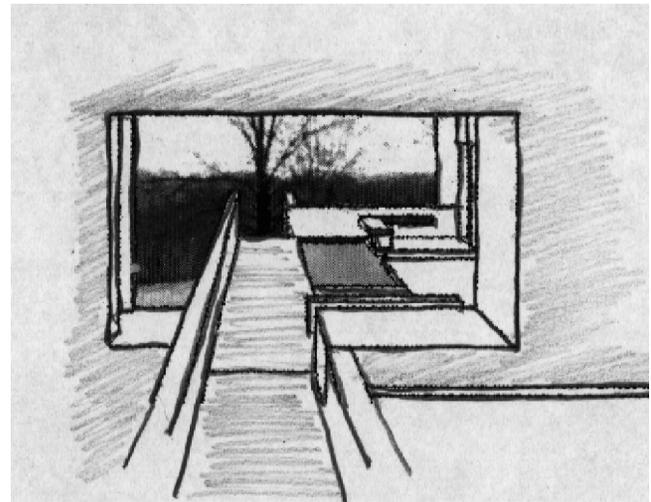
For the wall to have any sort of presence on the site, it requires a certain magnitude in thickness and height. The addition of mass to the wall allows for subsequent removal of various layers. The wall then becomes inhabitable, absorbing several functions. Subtractions from the wall's mass create a fireplace, seating, shelving, and an upper level over the portal that can serve as a lookout over the lacrosse field.



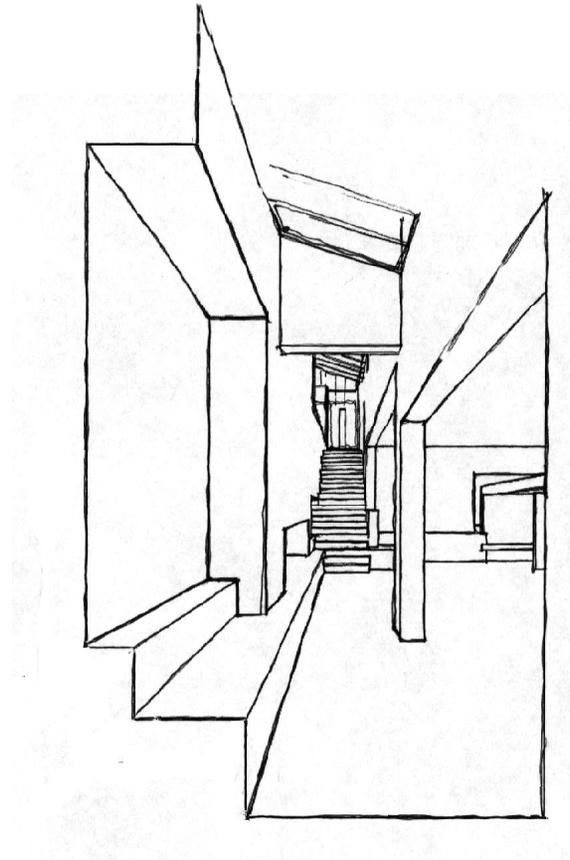
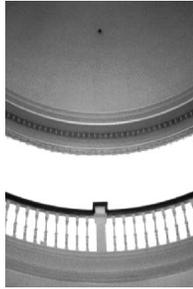
A somewhat non-traditional wall becomes a very traditional place, an inglenook. The establishment of this wall as the prominent feature makes it a point of reference for further development of the project.



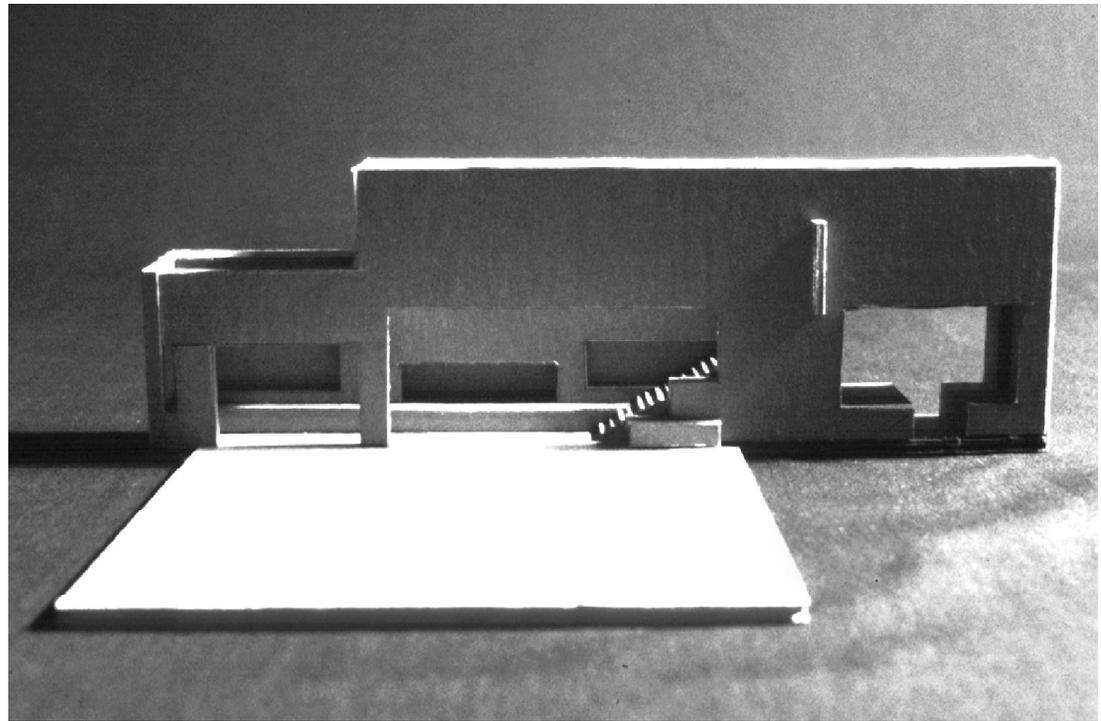
The vertical increase in the wall's dimensions provides a structural solution for spanning the open areas. The top of the wall is in effect a deep beam, much like the ones Plecnik developed for use in his Heiliggeist Kirche in Vienna, Austria.



The wall's extension across the axis allows for the creation of a portal that frames the view. This portal acts similarly to the porches that extend from other buildings toward the axis. Both mark a place of arrival or departure and offer elevated views of the surroundings.

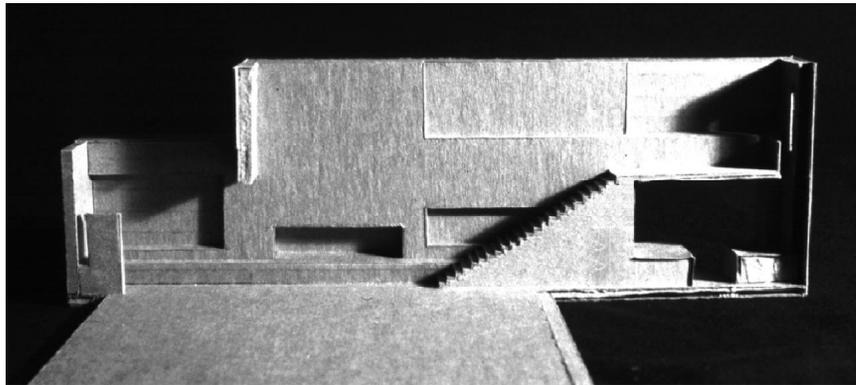
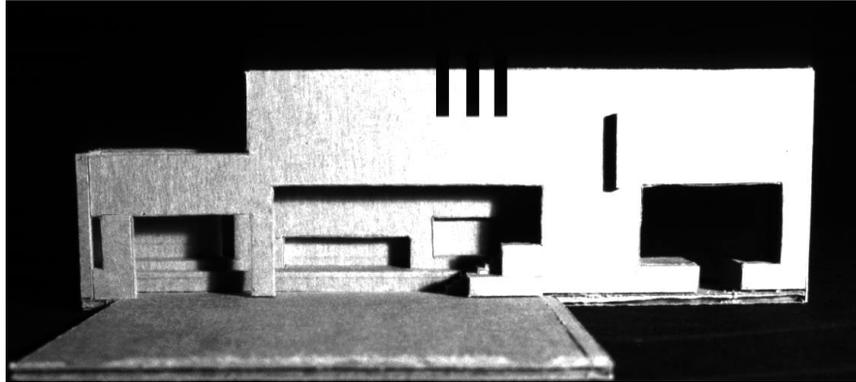


The interior of the inhabitable wall calls to mind the school's main arcade. Openings within the planes offer places on which to rest and watch the surrounding activities. A gathering place open to the sky is also seen in Pruden Hall's Well, a three storey vertical space under a domed skylight.

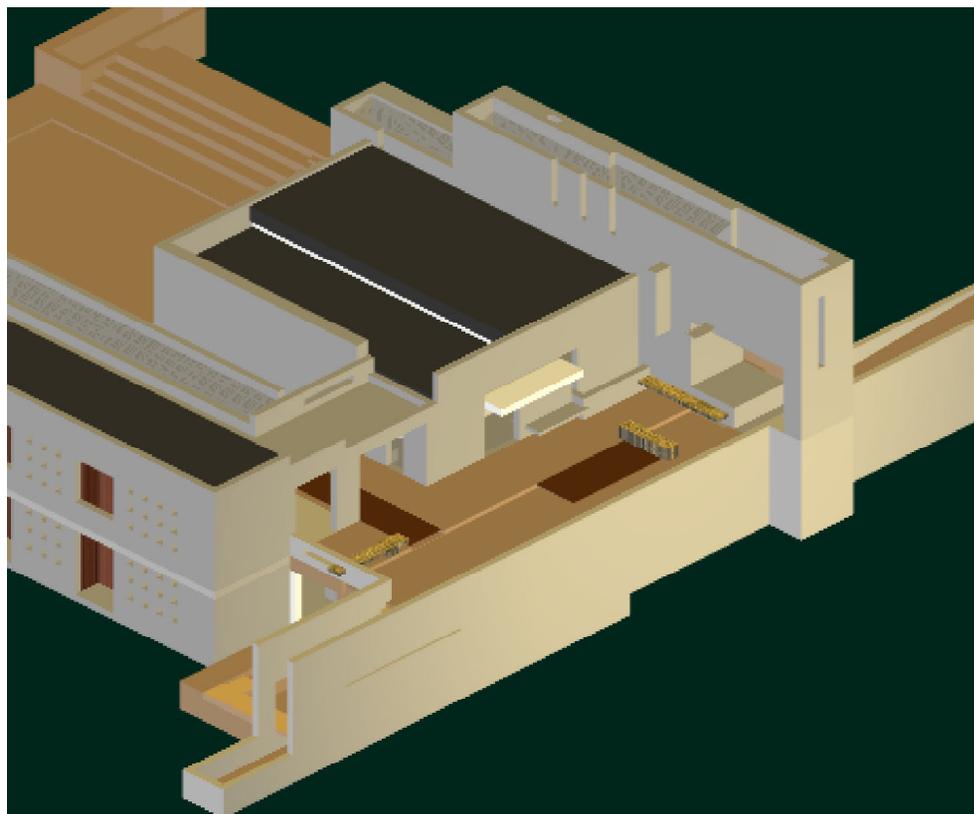


The wall provides its own furnishings for the inhabitants. The column, helping to support the deep beam of the wall, also provides a boundary for more intimate spaces within the whole. The space within the wall changes in relationship to the viewer's position. The space is both part of and separate from the larger room into which it opens.

The articulation of the wall comes as a response to problems. Addressing the problems yields moments that are more than solutions; the results celebrate the essential.

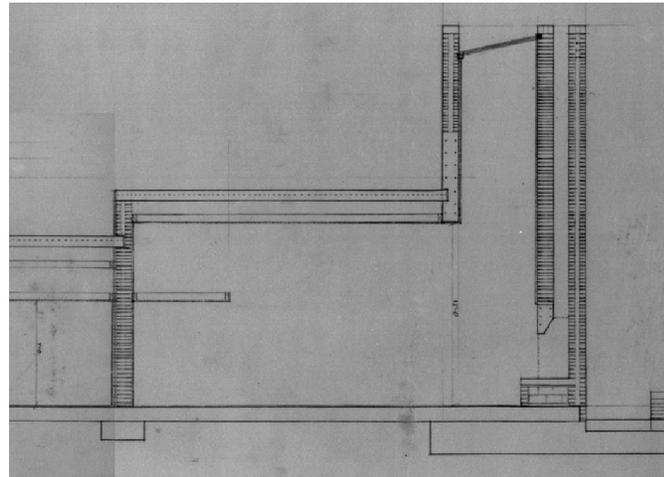
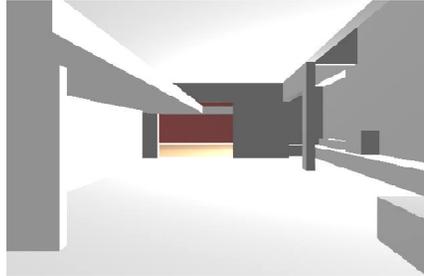


Cuts into the wall provide drainage for the glass roof and invite shafts of light into the wall as the sun moves across the sky. The proportions of the wall's east end require that the slotted opening extend below the floor of the upper level. Moving the floor away from the wall to accommodate the length of the opening allows the portal to receive a shaft of light from above.

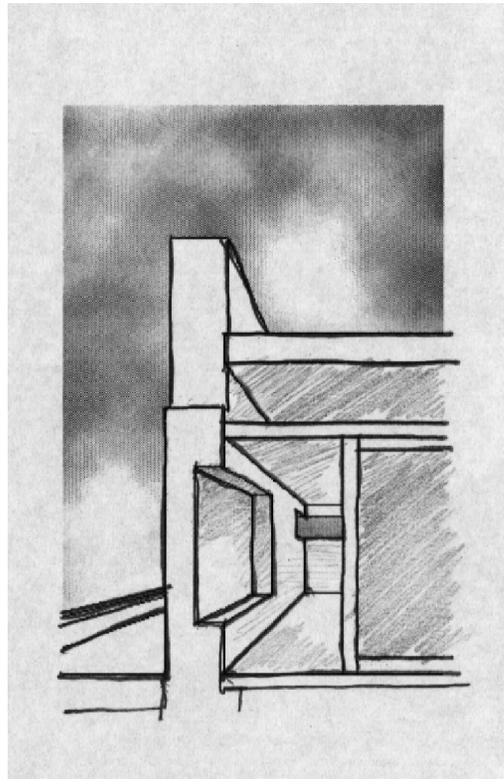


Because the upper level over the portal is not enclosed, there is the need for a door between it and the covered stair. Space restrictions prompt the development of a door that slides into its own enclosure extending out of the wall. Getting rain water from this level to an appropriate place on the plaza provides an additional element for the wall: a scupper aimed into a plaza channel directing water running off of the slope and the walkway.

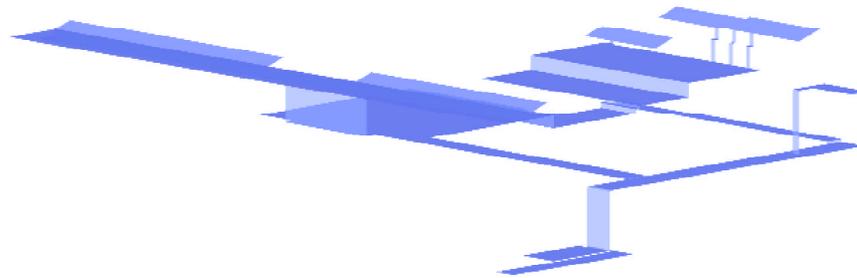
The inhabitable wall opens into a meeting space. The meeting space then opens westward onto a plaza. Natural lighting is received from this opening, a smaller east opening, and the vertically open inhabitable wall.



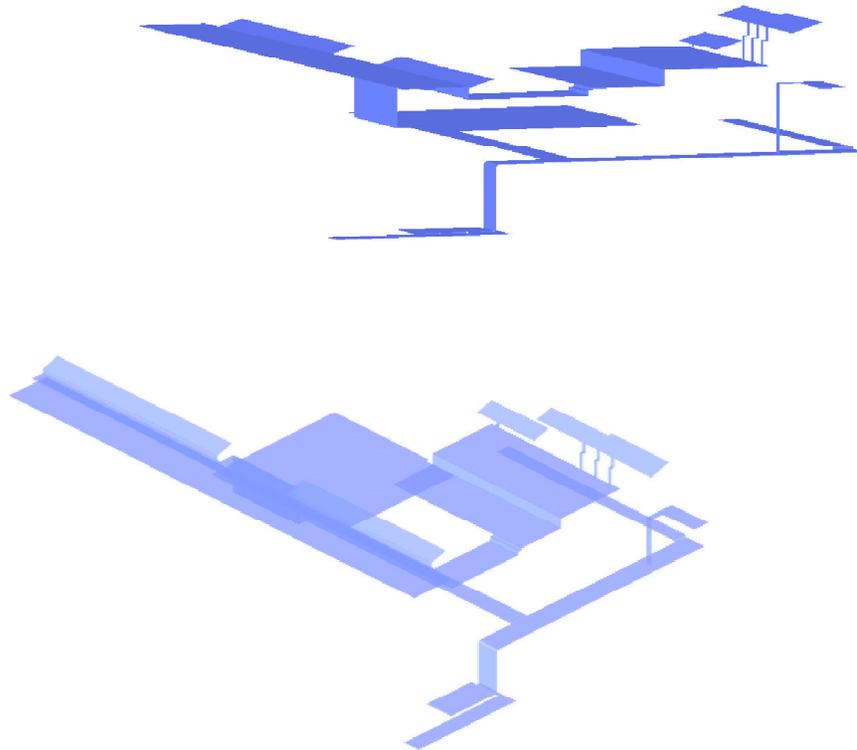
The entry canopy extends into the interior and back out over the west doors. Inside, the canopy becomes a shelf for artificial lighting and a screen for mechanicals.



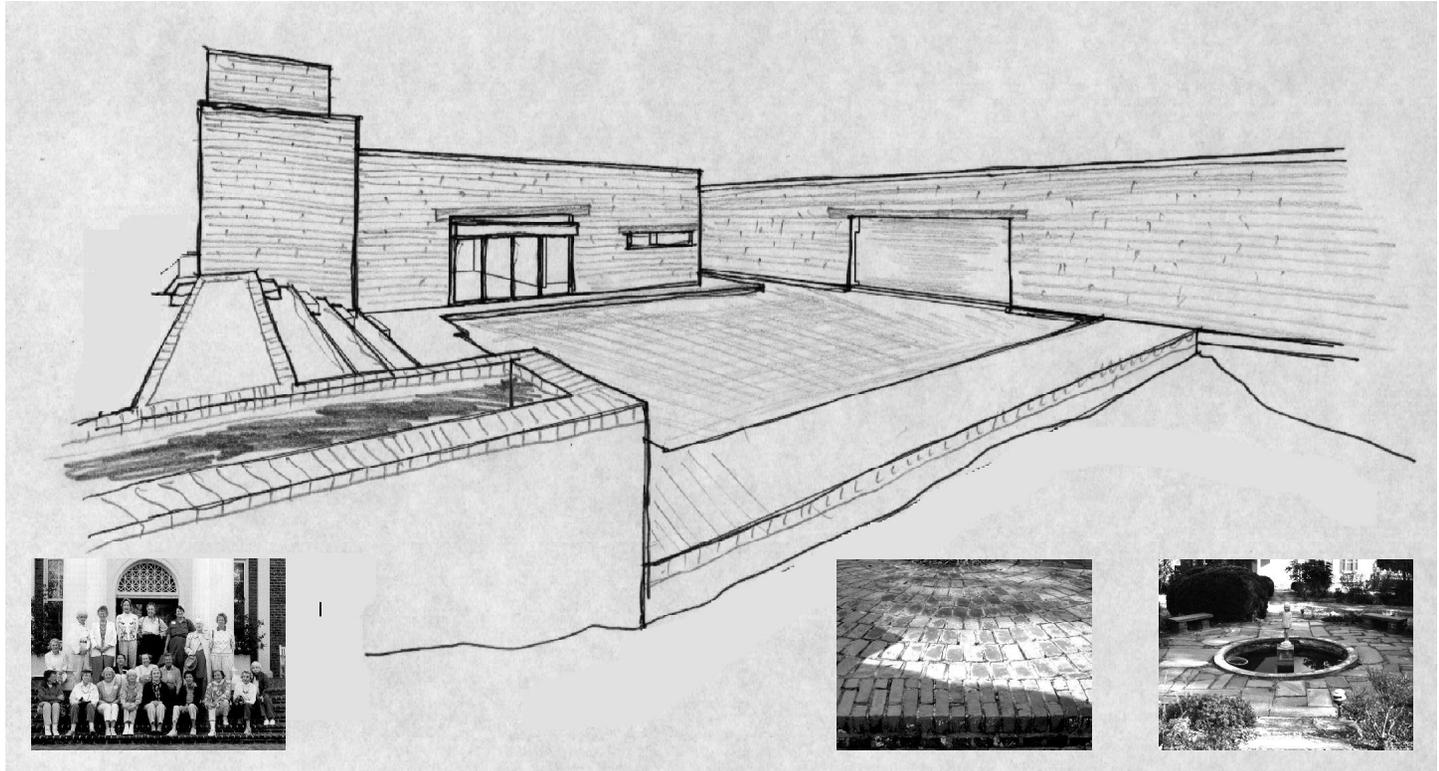
An exterior wall parallel to the inhabitable wall is also generous enough to absorb some hallway seating and shelving. This recession along the restroom corridor can be used for coats and places of rest. The ribbon window at the end of the hallway opens into the kitchen area. The generous depth of the window sill offers temporary resting places for reception plates and glasses.



A walkway canopy serves as both a covering between buildings and as a channel for moving water from the roof of the buildings to a place where its deposit becomes an event. A slot in this canopy serves as an emergency overflow and a portal that directs a beam of morning sun onto the plaza.



The circulation of rain waters is as controlled as the axis of the school. All water, regardless of whether it falls from the sky or washes down from the slope to the inhabitable wall, continues until it pools at the end of the axis.

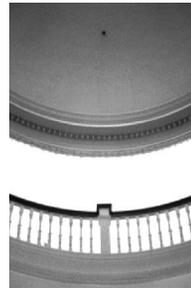


All roof water emerges from a recession in the residential building and falls onto the west plaza. The sides of this recession also offer an opportunity to insert narrow windows into the atrium of the building. During the day the windows allow soft north light into the space. During the night, the windows bathe the recession with reflected light. This western plaza provides a larger, more formal outdoor gathering place. Risers serve as a plaza boundary on the north and provide seating for outdoor performances. During heavier rains, this plaza becomes a sheet of water. During the winter, the same area serves as a place for ice skating.

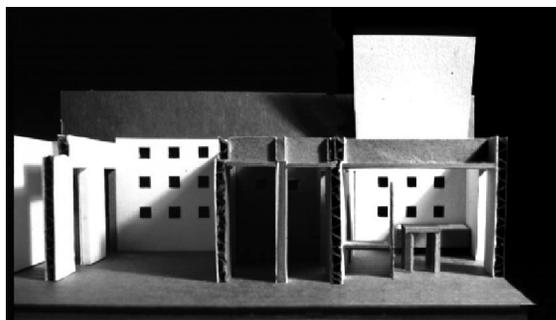


The stair along the axis leading from the upper east plaza to the lower level is bounded by a pool. Exit off the axis is through an opening in the planes that contain and support the stair.

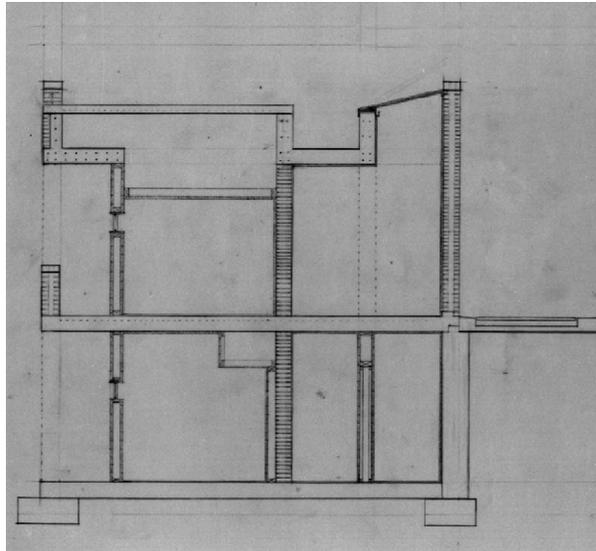
In a recession under the plaza is something similar to a grotto. It serves as an exterior entry to the residential building and offers covered seating along the wall. A pool collects all the water draining from the plaza. The open stair, with its planks resting in the wall and a slotted opening to the east, allows more light into this quiet area away from the main places of gathering.



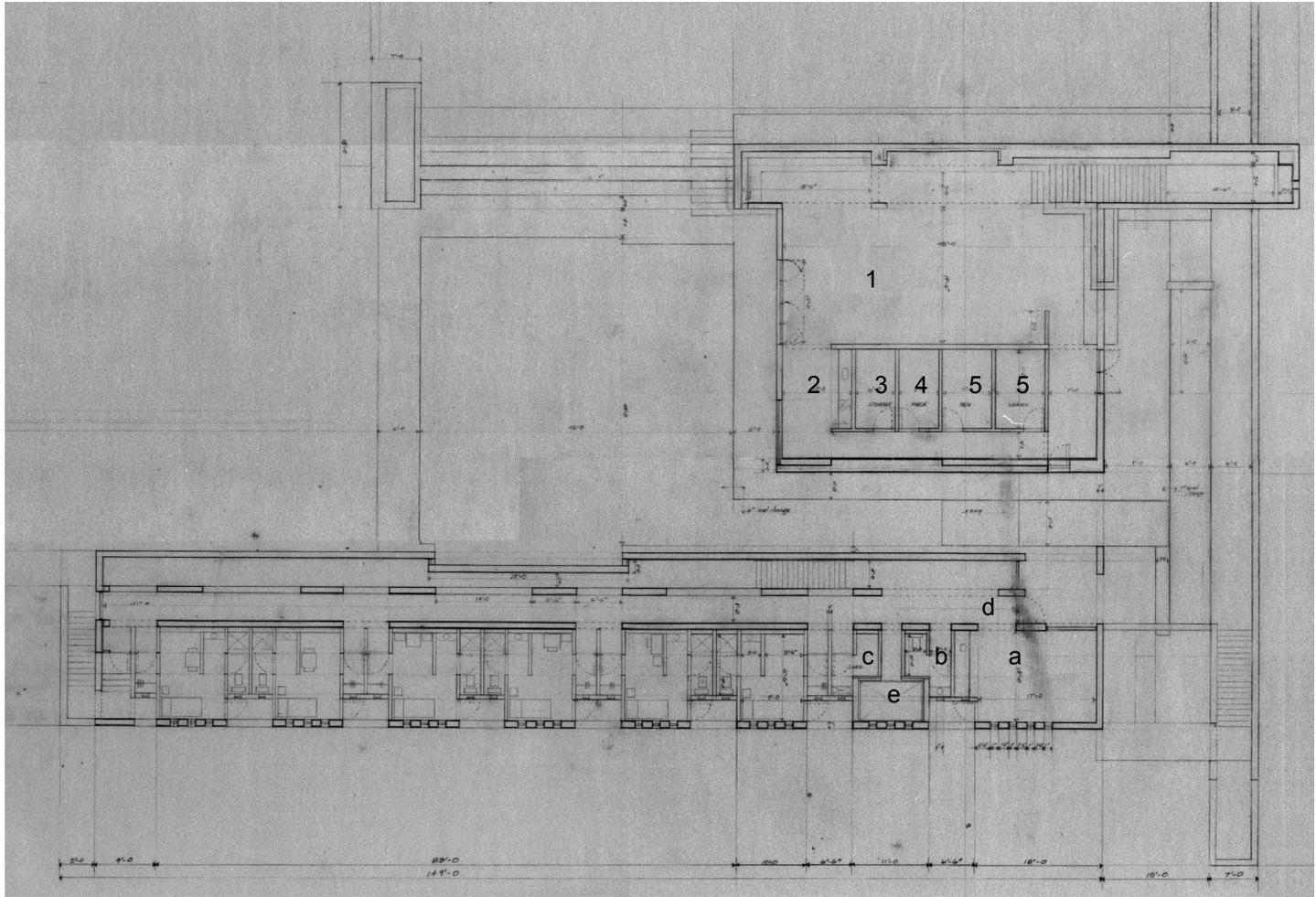
A double arcade routes the circulation in the residential building. One arcade offers horizontal circulation within the level and is open to the outside on both ends. The other arcade offers vertical circulation between the two levels and is open to the sky.



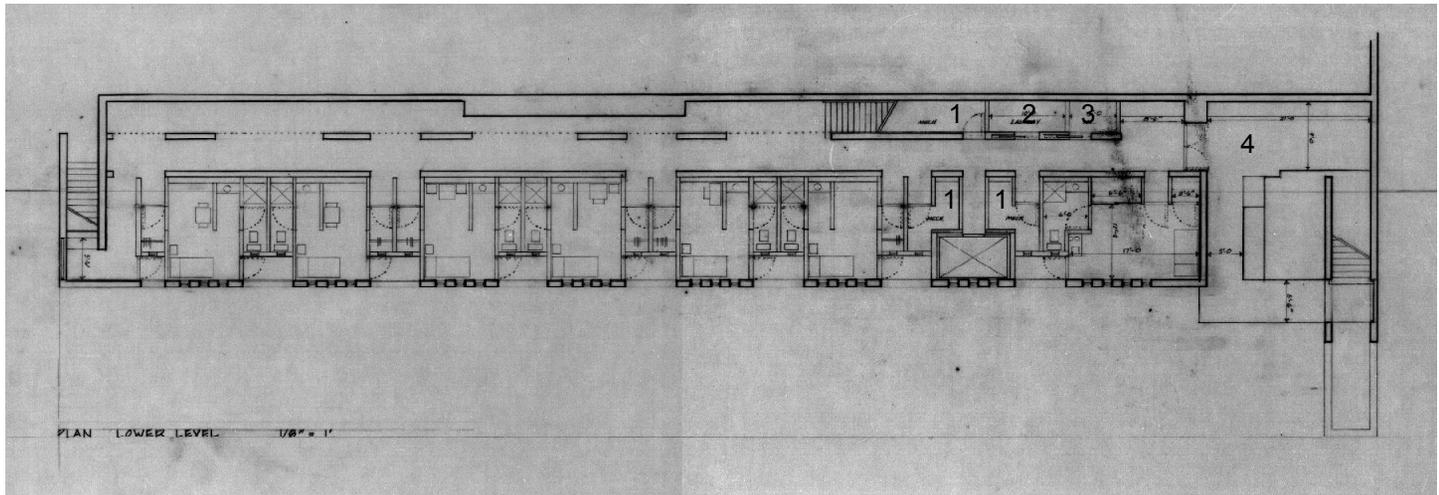
The individual rooms offer private baths and balconies. The organization of rooms separated by these baths and balconies generates privacy and reduces noise between individual spaces. Small windows in the exterior wall make a screen of light and offer miniature views of the campus. The balcony allows reflected light to enter the room from the side. A chase along one wall contains mechanicals and helps make an alcove area for a table and chairs.



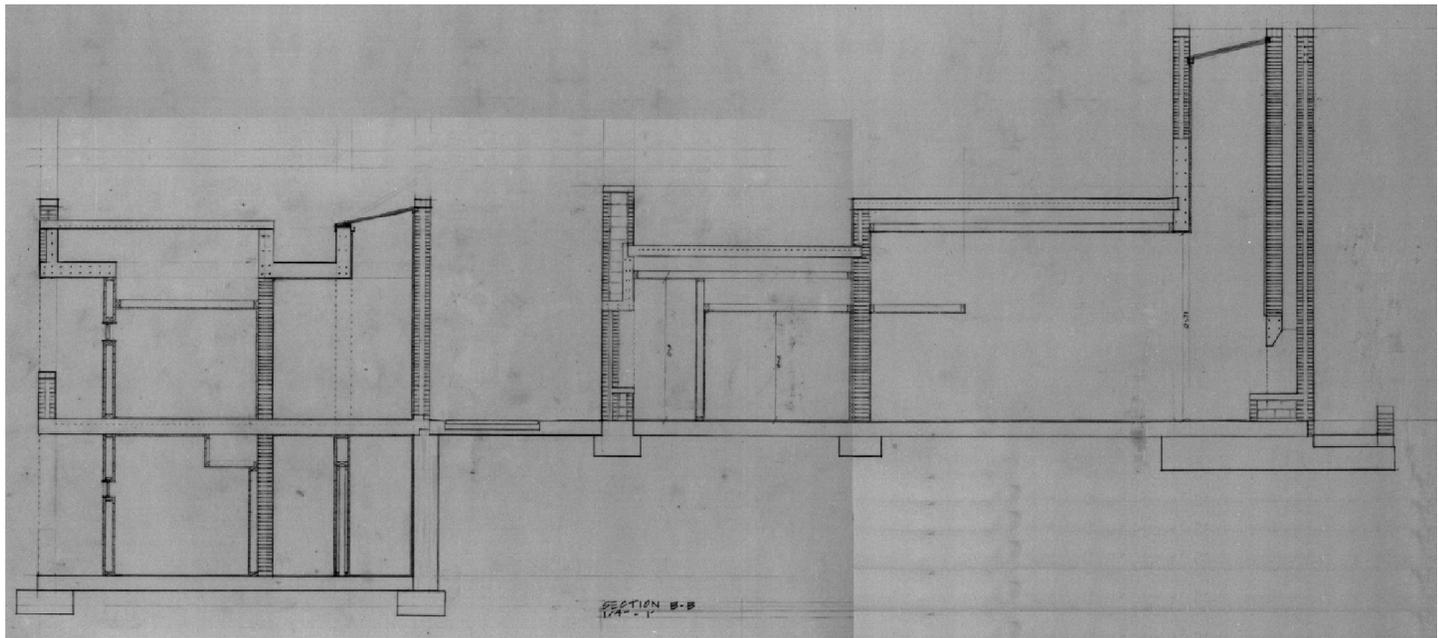
A chase and accompanying utility wall along the corridor side of the rooms are clad in wood panels for easy access. This condition is present in St. Mary's Chapel. The places where people gather are clad in wood, which at the same time hides the mechanicals in the building. The parallel walls on the balconies receive the same treatment. The remaining wall surfaces and ceilings are plastered. A wooden surround frames the miniature windows.



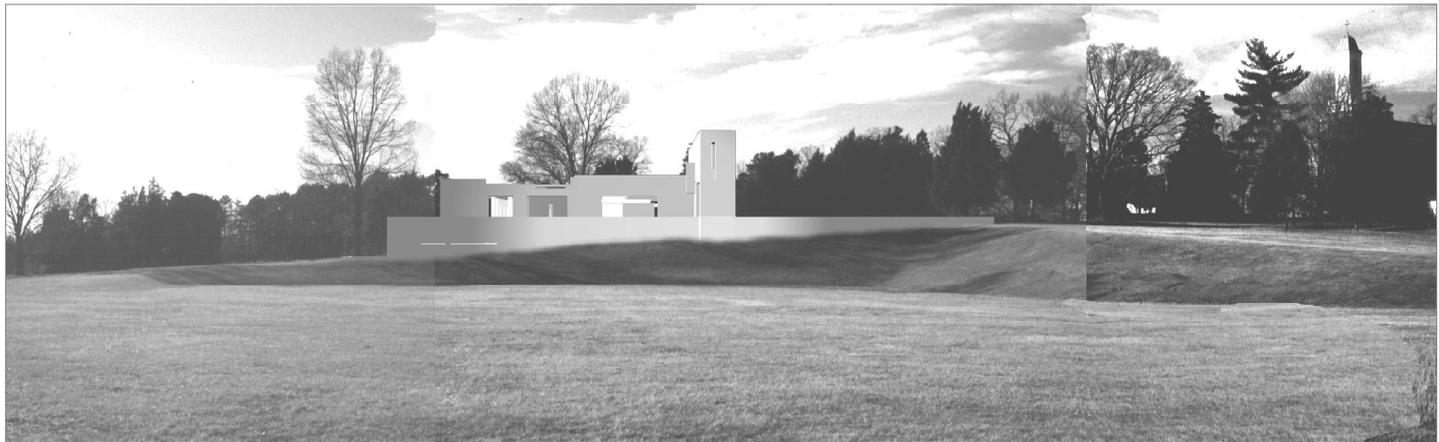
The gathering facility contains (1) meeting space, (2) a kitchen area, (3) storage, (4) mechanicals, and (5) restrooms. The twelve-foot wide doorway onto the western plaza allows for easy expansion of the meeting space during mild weather. The upper level of the housing facility contains six sets of chambers with private baths and balconies. The (a) drawing room, (b) restroom, and (c) mechanical room are located near the (d) entry and (e) elevator.



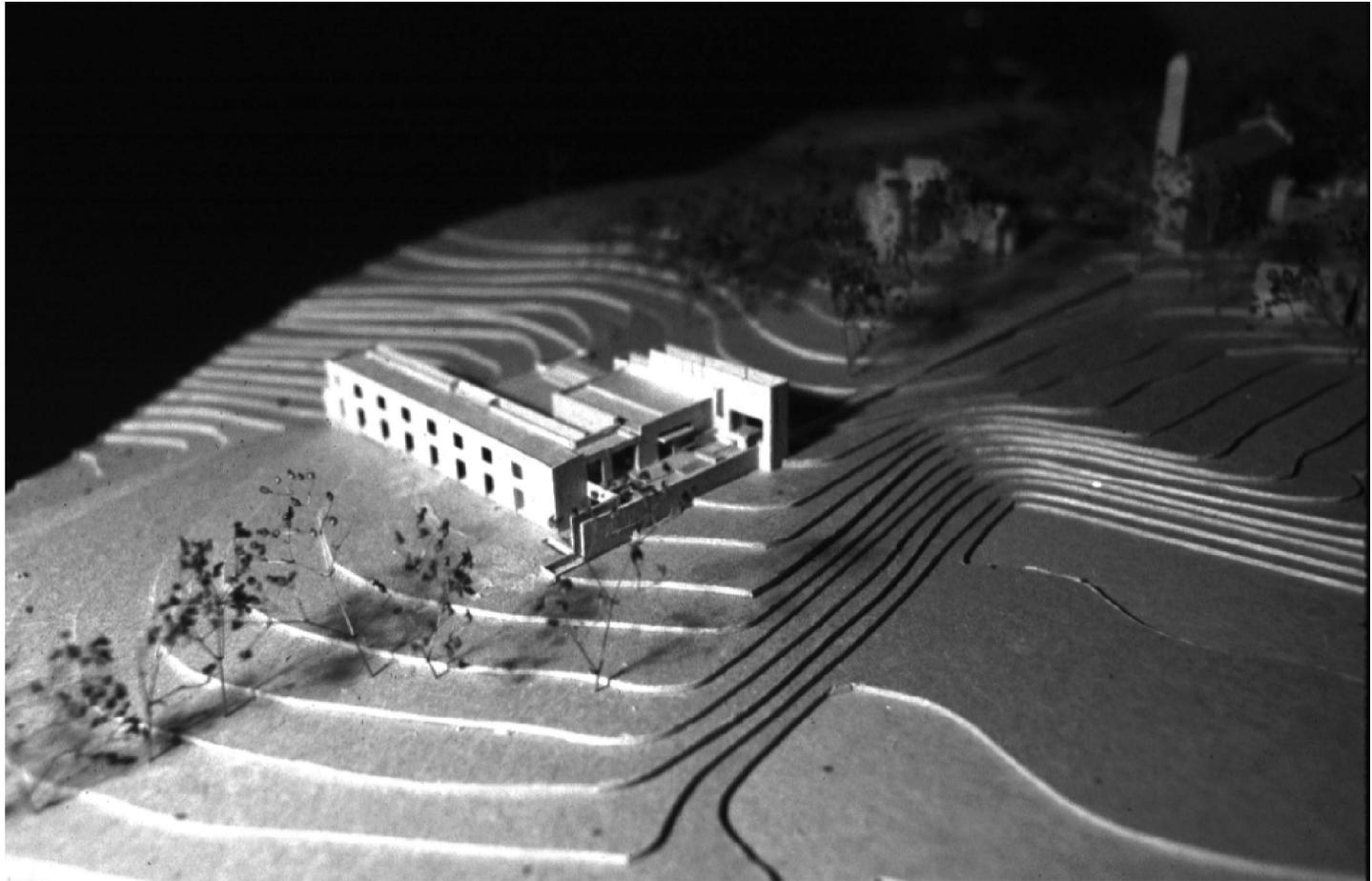
The lower level level of the housing facility contains six more chambers, a small apartment for a possible “houseparent,” (1) mechanical rooms, (2) a laundry room, and (3) telephone room. The open atrium area provides additional space for reading or sitting. This lower level opens to the (4) grotto area overlooking a pool and the stairs up to the plaza.



The inhabitable wall, plaza and retaining walls are of brick with concrete spanning elements. Interior surfaces are plastered except when hiding mechanicals. These surfaces are covered with panels of a water-durable wood such as redwood or teak. The interior balcony walls are of the same wood. Floors of the individual rooms and gathering spaces are of a light colored hard wood. Hallways, balconies, and bathroom floors will be of polished slate.



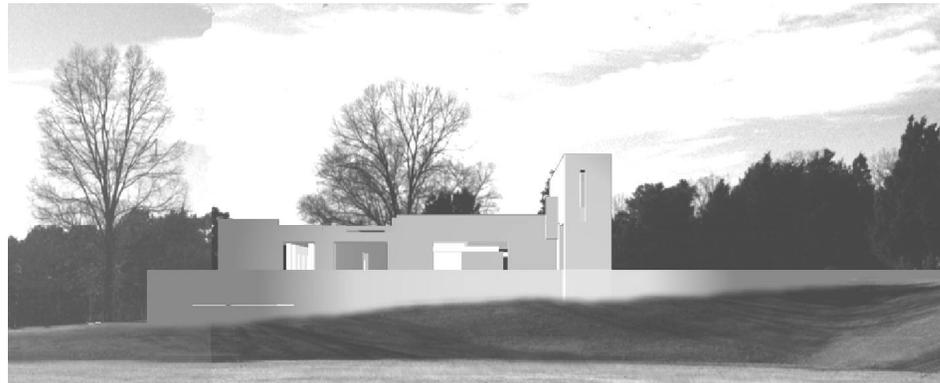
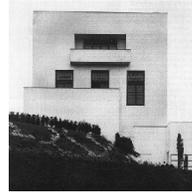
An evening view of the facility from the lacrosse field on the east: accent lighting hidden in the slope to the field draws attention to this back entry to campus.



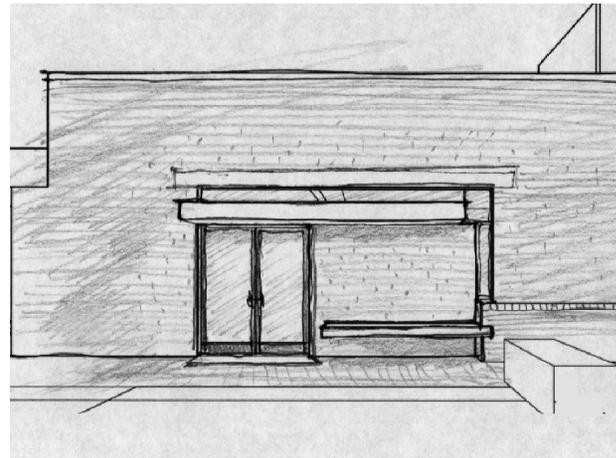
An aerial view of the facility from the south-east as it catches the afternoon sun: the west plaza offers an escape from the heat of the day, while the east plaza offers a place for basking.



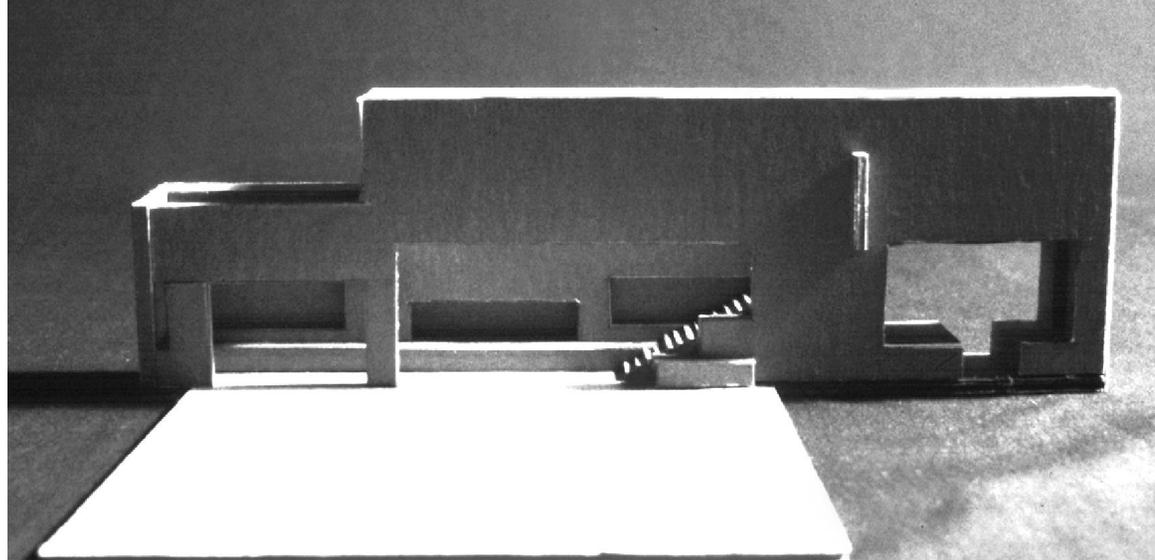
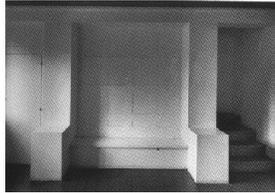
A view of the facility from the west: a space occurs between it and the Rectory. This space between the two places is ideal for the traditional picnics and parties hosted outside the Rectory. The project's placement down the slope of the hill maintains what views are possible from the Rectory through the trees.



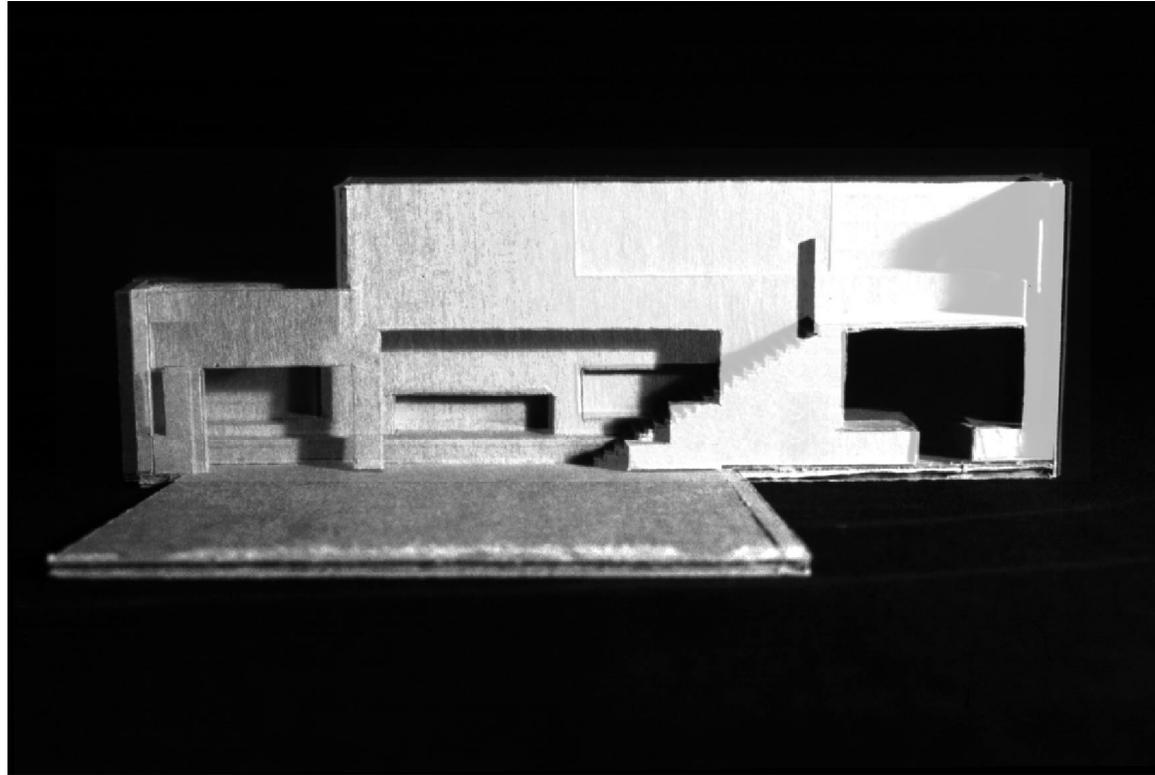
Thoughts about Adolf Loos and the Raumplan came early in the project, but the goal of having a substantive, concise architecture guided the project more than any case studies of Loos's work.



When the project reached a certain stage, case studies helped in refining the design. A generous and hospitable entry required a covering, as did the entry to Loos's Müller House.



According to Loos, "The walls of a building belong to the architect. There he rules at will. And with walls so with any furniture that is not movable." In this place for hospitality, the inhabitable wall ruled the development of the project.



A concise piece of architecture in which the modifiers elevate the
s u b s t a n t i v e



The E. Jeanne Wagoner alcove and the steps up to the lookout over her lacrosse field.

The identification of photography by page is listed from left to right, top to bottom. Unless otherwise noted, photography is by the author.

- 6 Fall 1992 Latin I Class • Spring 1993 Faculty Reunion: Lisa Richmond • Class of 1945 50 Year Reunion: Chatham Chat
- 7 Pruden entry • St. Mary's Chapel • Pruden Well • Arcade steps • St. Mary's Chapel south wall • "Girl Sanctuary"
- 8 Pruden skylight • Pruden Well • St. Mary's Chapel
- 11 Looking south to St. Mary's Chapel • Looking north to St. Mary's Chapel • Looking north to Yardley Hall
- 15 Back entrance to campus • Hunter-jumper course • Bank down to lacrosse field • Lacrosse field from east
- 16 Seasonal montage of the lacrosse field from hill
- 17 Site model • Bank up from lacrosse field • Looking north to St. Mary's Chapel
- 25 Dabney porch • Dabney porch • Looking south to St. Mary's Chapel
- 26 Arcade • Pruden Well
- 27 Dabney main stair • Pruden Small Drawing Room
- 36 Class of 1945 50 Year Reunion: Chatham Chat • "Girl Sanctuary" • Goldfish pond
- 37 Steps from courtyard of St. Mary's Chapel • Arcade steps
- 39 Arcade • Arcade • Pruden Well
- 48 Müller House, Adolf Loos, Prague, northeast view: Albertina Loos Archive
- 49 Müller House, Adolf Loos, Prague, entry with bench: Pavel Stecha
- 50 Müller House, Adolf Loos, Prague, anteroom seating: Pavel Stecha • Scheu House, Adolf Loos, Vienna, inglenook: not credited • Loos's Flat, Adolf Loos, Vienna, inglenook: not credited • Müller House, Adolf Loos, Prague, boudoir sitting area: Albertina Loos Archive • Müller House, Adolf Loos, Prague, living room: Collection Slapeta

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Family

Chatham friends and colleagues, with special thanks to Margaret D. Haverstic, Rector Jerry Van Voorhis, and frequent host Frank Young

Chatham mentor and friend, E. Jeanne Wagoner, who enabled me to know the Chatham Hall she knew and knows

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Studio professors: William Brown, Joseph Mashburn, Hunter Pittman, Hans Rott, Pia Sarpaneva, and Heinrich Schnödt

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