

Discover. Reveal. Educate.

Making A School for Bluegrass Music in Floyd, VA

BY: REBECCA MARIE STUECKER

Thesis submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture.

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Abstract

Architecture can facilitate the learning process. This book outlines a design exploration of this fundamental premise. The architectural platform for this exploration is a music conservatory dedicated to teaching the traditional mountain music of Appalachia. The rich history of mountain music and its centuries-old conversational method of conveyance remain the underlying premise of this thesis.

A successful bluegrass conservatory must provide places for its students to engage in three occasions: Discovery, Revelation, and Education. Architectural form is significant to these occasions in that it not only allows, but promotes their occurrence. The discovery of inspirational material can occur in a formal stage-and-seat configuration as in the auditorium, or in an informal environment such as the street. The moment in which a musician reveals or explores this inspirational material can be a private one, most likely to take place in the individual rooms of the residential buildings. The most important occasion, education, takes place as it has for centuries - within conversation. Learning the language of bluegrass music is most likely when two or more students sit together to play, share their knowledge, and build on it. These conversations are key to the learning process and can take place on the benches lining the streets, in the indoor gathering rooms, on balconies and porches overlooking the streets, etc. The discovery, revelational, and educational processes are not chronological and must all happen coincidentally within the school grounds.

I have set out to build an architectural language whose meaning is derived by conventional pragmatic parameters. This system of rules or notions governs all aspects of this school's design from stair to stage. The parameters are set according to the intrinsic requirements of placing a building on the land that must promote the occurrence of discovery, revelation, and education.

For Grandpa



Happy Days

METHOD

Introduction

Inspiration

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- 4_The Town
- 6_The Site

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- 12_Turning Point
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In order to best illustrate my thesis, this book is written as a narration of discovery. The method by which I worked through my thesis is retold in this narration. Looking back on the year-and-a-half I devoted to this project, I find it significant that the process did not begin with a hypothesis, but instead began with design. As the architecture developed, so did the thesis argument.

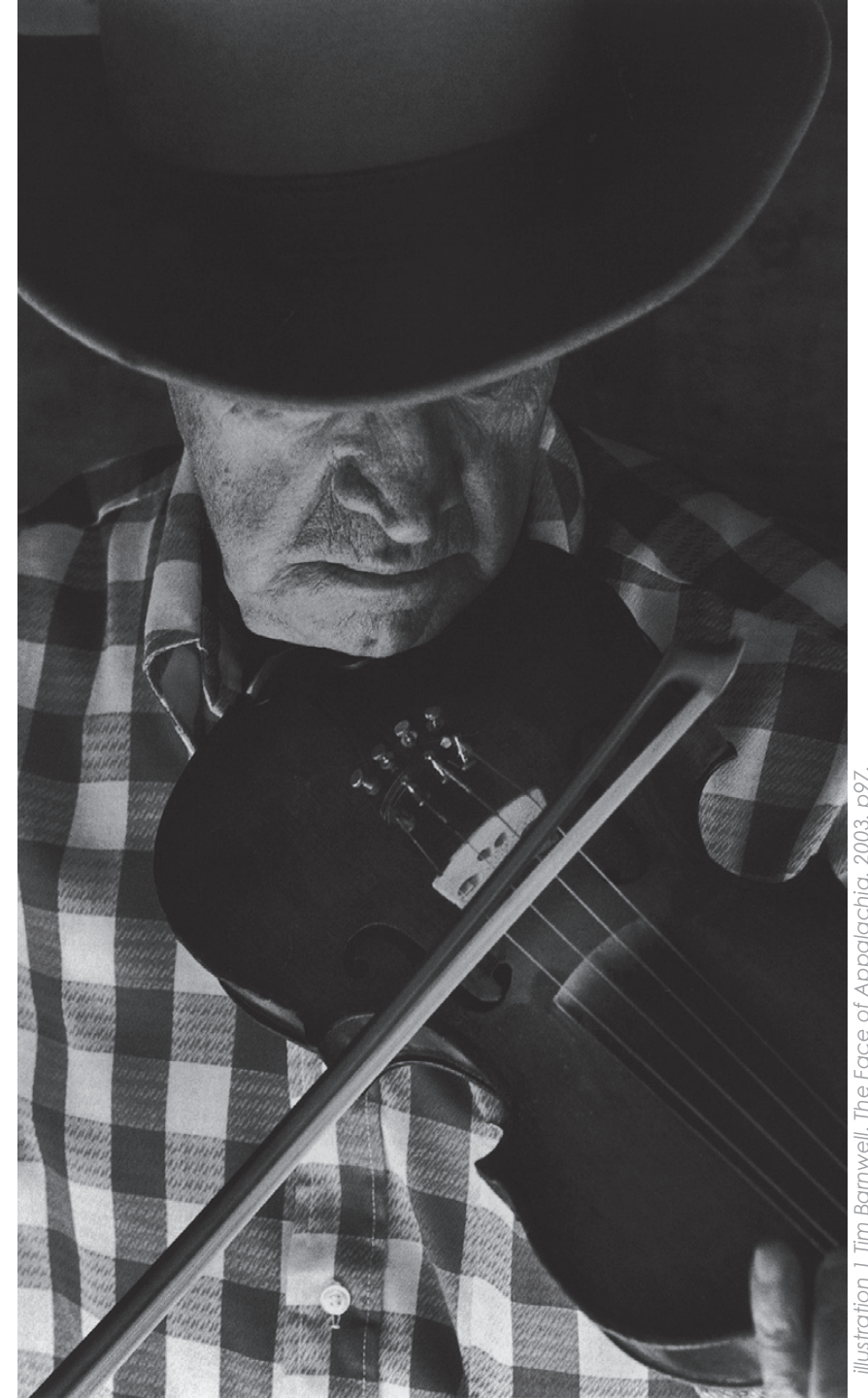
On its face, my thesis argument is based on social exploration with the architecture present only to support the social needs outlined. But in time, I realized that architectural form-making in which meaning is found by the explicit relationship to human and environmental requirements is in itself my hypothesis, argument, and conclusion.

The learning of traditional mountain music has always depended on conversation between musicians, just as a child learning his native language. It is the charge of the architect to provide beautiful places to support occasions such as these. The following outlines my response to this challenge.

"My home's in old Virginia among the lovely hills
The memory of my birthplace lies in my bosom still.

But now upon my scaffold my time's not very long
You may forget the singer but don't forget this song."

"Don't Forget This Song"
The Carter Family recording Feb.15, 1929



iii. 2 Mark Zwonitzer. *Will You Miss Me When I'm Gone?*. 2002. Album Cover Image.



Songs of Southwest Virginia date back to the late 18th century. The written accounts of these songs generally include four measures of a simple tune, a chorus line, and several verses. The music tells a story of mountain life and includes work songs, songs for barn dances, religious music, etc.

In the 1900's recording abilities arrive in the south bringing rural music to a much wider audience and a change to mountain songs. Songs are played to a wide audience for entertainment instead of within a community of shared experiences. In this new medium, vocal and instrumental virtuosity come to the forefront, while vernacular tales and familial stories are pushed to the background. Today many bluegrass songs don't even include a vocal line, a great deviation from the original tunes. The term "bluegrass" isn't applied until the 1930's when the term is coined by Kentucky group "Bill Monroe and the Blue Grass Boys".

Musical Roots

The fiddle, mandolin, guitar, and banjo are the common stringed instruments of bluegrass. A typical tune has players picking out a strong 4/4 rhythm with a simple base line hitting the root and 5th note on the first and third beats. The pentatonic roots of mountain music and instrumentation originate from German, Irish, Scottish, and later African tradition. These were the first settlers in the Appalachian Mountains of Virginia, West Virginia, Kentucky, and Tennessee, bringing their music and instruments with them, as in the African-originated banjo seen here.



iii. 3 Cecilia Conway. *African Banjo Echos in Appalachia*. 1955. p.79.

ill. 4 Rebecca Stuecker, 2004



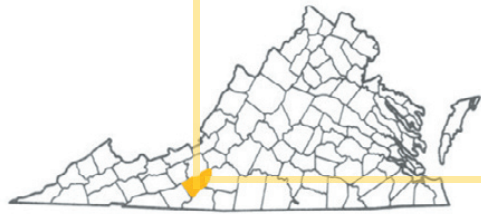
The Town

The 'Friday Nite Jamboree' (lower right) held in The Floyd Country Store is just one reason to visit Floyd if you're a music lover. The town today is a mix of overalls and tie-dyes; a little bluegrass, a little jazz, and a thriving music community. Within its few blocks one can find several live music venues, music stores (sheet and recorded), and a local fiddle craftsman.

The mix of old and new found in Floyd mirrors the trend in modern bluegrass music today. There is still a place for the traditional mountain ballads as seen in the country store, but one can find jazz, Latin, and African music performed live in a town with only one stop light. As trends in the music broaden, so does the audience. There is a growing need for more conventional (non-traditional) learning environments for this music. This town has found a balance between traditional and modern culture and is the perfect location for a conservatory dedicated to the study of bluegrass music.



ill. 5 Rebecca Stuecker, 2005, ill. 6, Jean Haskell. *The Appalachian Photographs of Earl Palmer*. 1984. p15. ill. 7 Rebecca Stuecker 2004

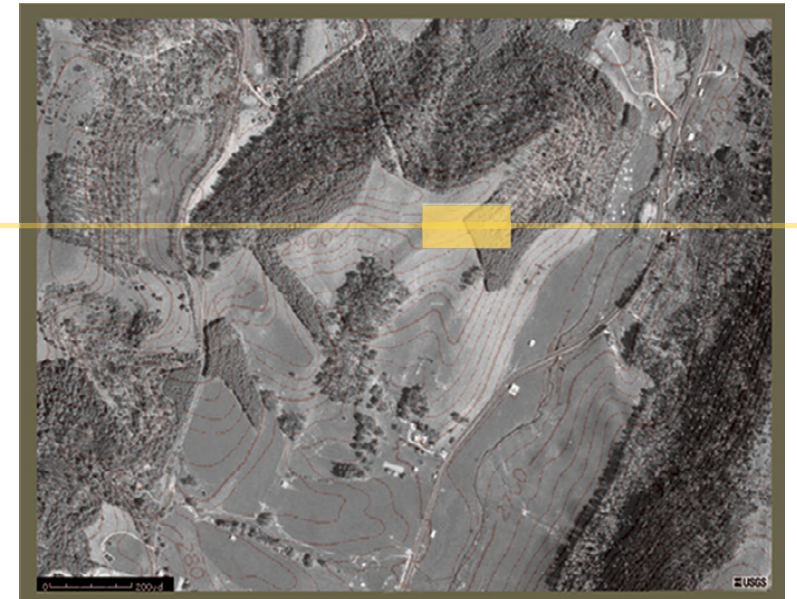


Floyd County, VA



Town of Floyd

Proposed Site



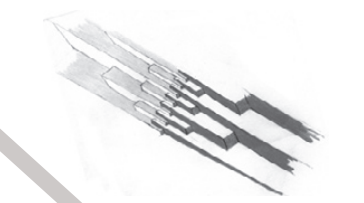
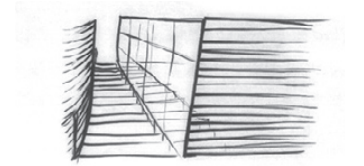
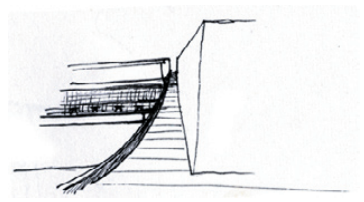
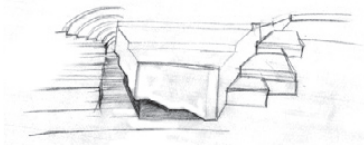
ill. 8 United States Geological Survey, 2001

ill. 9 Rebecca Stuecker, 2004



Panoramic view from the site

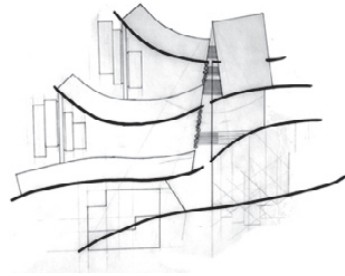
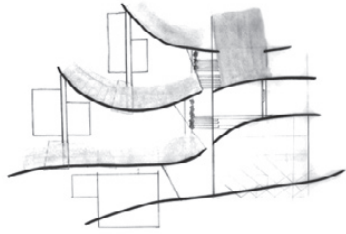
The site is located on beautiful Floyd farmland 7 miles south-west of town. The school will sit on a southern-facing slope with a view of the Black Ridge to the east as seen in the image above.



“Stairs are man's answer to a hill”
-Alvar Aalto

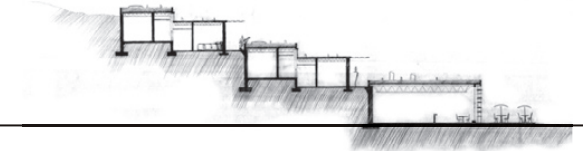
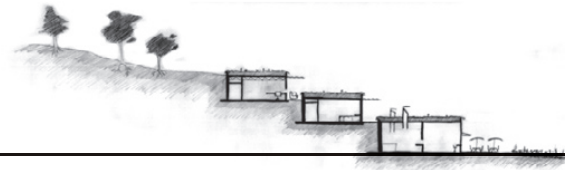
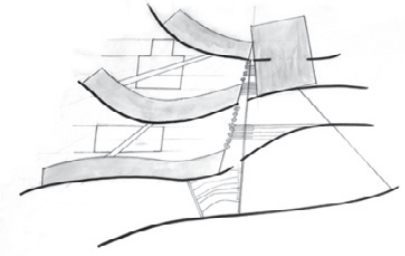
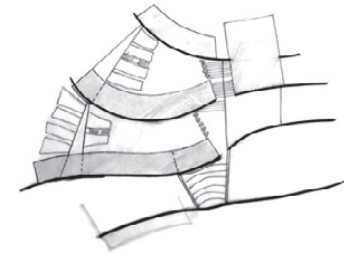
My approach to finding an appropriate architectural form began with an exploration of site parameters. The earliest sketches, as seen here, are various depictions of a staircase. In some, the staircase is a narrow corridor between larger masses. In others, the abstraction of the staircase leaves all sense of proportion and scale behind. Risers become walls, treads become floors. Here, the first architectural thoughts in response to the site are formed, using both digital and hand-drawn sketches.





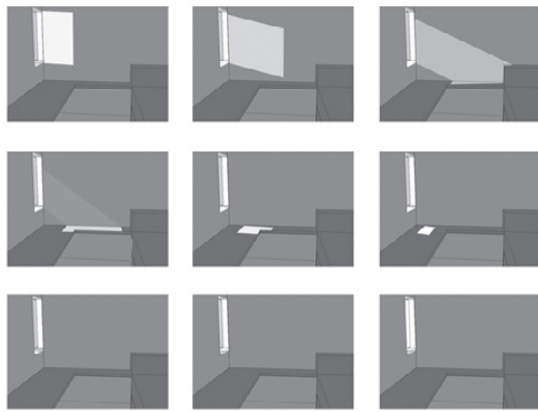
Programming in Plan

In these early sketches, the topography becomes a point of reference from which the buildings grow. The staircase present in earlier sketches takes shape as an axis dividing the East and West ends of the site. Similar to Virginia Tech's drill field, the staircase will divide campus functions between academic and residential, becoming the main point of reference for the campus. Thoughts of programmatic needs for auditorium, residential wings, amphitheater, and practice rooms start to take shape.



Programming in Section

Bermed buildings will take advantage of beneficial geothermal heating in the winter and cooling in the summer. The site is located on the brow of the hill, avoiding the high winter winds of the top, and the settling fogs of the bottom. At the same time, the pastoral views from the hillside are a key factor in determining building height and closeness.

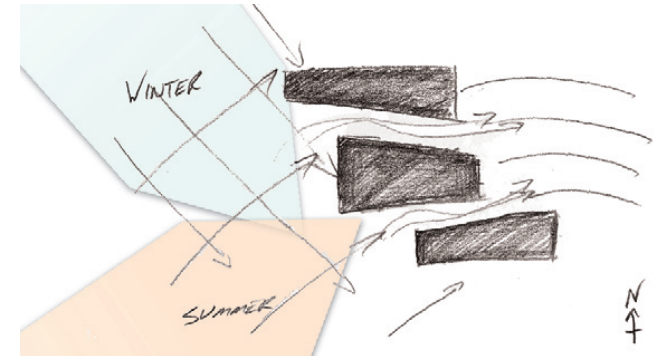


Interior Spaces

Early thoughts of East-facing bedrooms prompt the solar study above. In this early window study, I am able to determine the distance the sun will travel in the summer months and utilize this natural alarm clock as well as angle the reflective walls (later designed as doors) to bring afternoon light into the room.

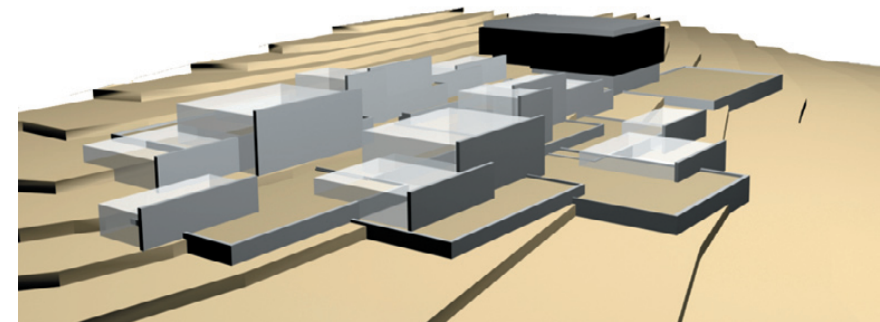
Building Placement

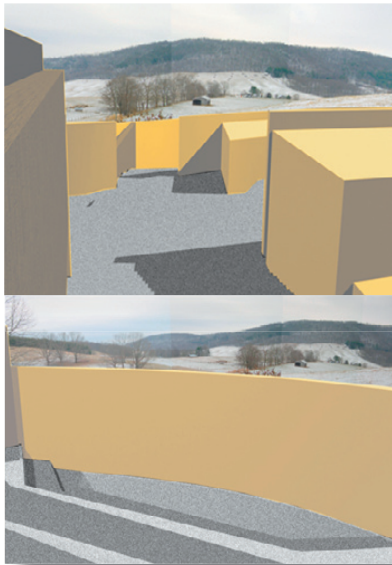
In this sketch, a basic layout of the residential buildings is determined. The winter winds in Floyd originate from the Northwest, while the summer winds come from the Southwest. Arranging the buildings to step westward as they step up the hill make it possible to block the winter winds while funneling the beneficial summer breezes between.



Indigenous Materials

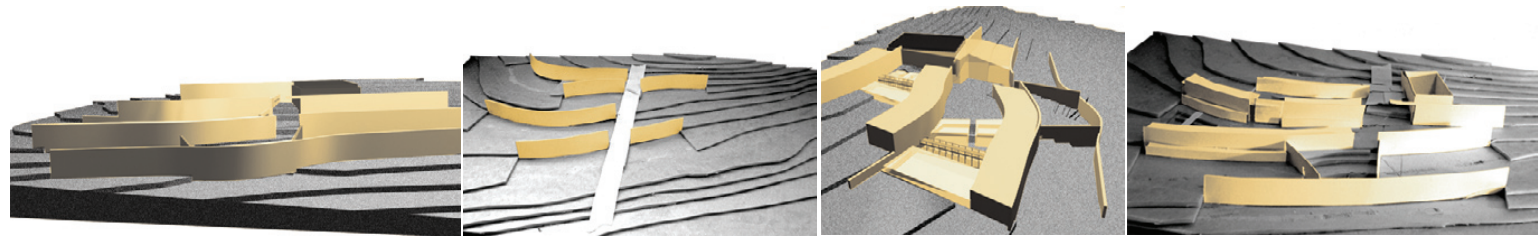
The soapstone naturally quarried in Floyd is a dark, dense stone, able to retain heat for long periods of time. Many homes in the county have soapstone hearths for this reason. The southern-facing walls of this school are all clad in this stone, soaking up the sun's heat and radiating it within the buildings at night. An early sketch study of these dark walls is shown here.





Inspirational Views

The creative inspiration that is given by the beautiful views of appalachian hills is an occurrence the architectural form must promote. At a very early stage in design, I prioritized framed views according to the placement of a main staircase and building masses.



The Terraced Form

As the notion of terraced buildings takes shape, it becomes evident the buildings are not only steps, but retaining walls set into the site. The grade of the slope is key in determining the depth of each building and what outdoor space is created between. The steeper the slope, the taller the buildings could be, and the tighter the level space between them. A more gentle slope requires shorter terraced masses with large expanses of level ground between. In order to gracefully berm these buildings and integrate them with the hillside, a great deal of physical and digital model exploration takes place.

iii. 10 Herman Herzberger, *Lessons For Students in Architecture*, 1991, p. 5-6.



“Whatever space and time mean, place and occasion mean more, for space in the image of man is place and time in the image of man is occasion... Since man is both subject and object of architecture, it follows that its primary job is to provide the former for the sake of the later.”

- Aldo Van Eyck *The Medicine of Reciprocity Tentatively Illustrated*

Dutch Inspiration

I read these words of Van Eyck's at a critical moment in my thesis development. I had established a rough design language in response to the environmental parameters and was in need of a deeper understanding of place within this school. In addition to Van Eyck's essay, reading Herman Herzberger's *Lessons for Students in Architecture* at this stage clarified my aspirations for the direction of this project. Herman Herzberger's words encouraged me to think in terms of human parameters. The above picture, taken by Herzberger, does well to illustrate the call for the built environment to respond to the needs of social occasions. The distance between two parked cars is perfectly suited for the two women to share a meal at this cafe. Had the cars not been there, neither would there be a table setting. The development of a thesis requires that I make design decisions based on an argument and have that argument be manifest within the physical elements of the architectural environment I create. My task, therefore, is to find a similar set of spacial criteria to facilitate the learning of bluegrass music. It is not enough to simply provide a design language of steps and slopes, but this language must promote music education specifically.

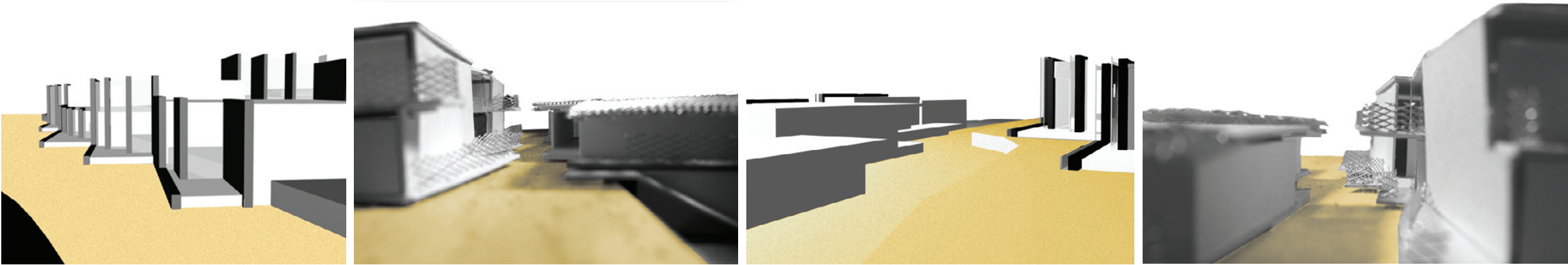
Music = Language

A closer look at bluegrass music and my own experience with music education led me to the very obvious fact that music is a language. The next logical question, therefore, is “How do we learn language?”. Historically, bluegrass was taught in the home: around the fire in cold Appalachian winters, sitting on the porch during hot summer days, at harvest celebrations, etc. In other words, this language was learned as all of us learned our native language - socially. This school must provide places for conversation. A minimum of formal structured academic space is provided, but the greater part of learning will occur in conversation where each student challenges the other to harmoniously increase fluency. This realization, along with the prompting of my committee, led me back to Floyd. As I drove around the town, countryside, and my chosen site, I wrote down the thoughts as they came and recorded them in this book...



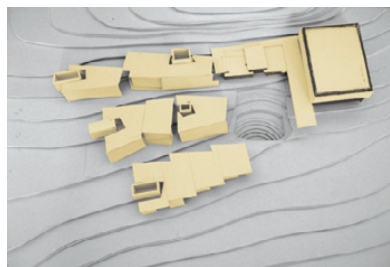
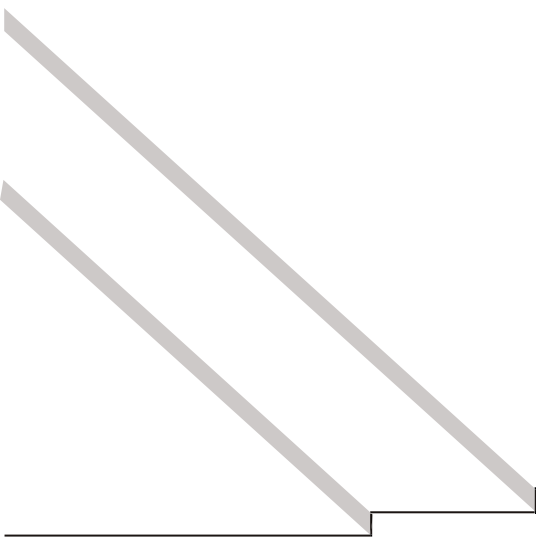
Streaming Consciousness.....

Where will music be played? More driving around Floyd, new houses, old mansions. Grande porches not for music. Storefront with benches – old men rocking, chewing, whittling, picking, moaning. This is where music will be played. Incidental space, natural gathering, unplanned, un-built-for. Woven into community, the places people naturally converge – the store, the church, the home. Music is conversation. Where will conversations take place? Cowgill stairwell. Running into. Hot lazy day, telling stories with strings under the fingertips. Claw-hammer, saw-toothed, slack-jawed. Moaning, rejoicing, educating, sharing, embellishing. The home = the wedding chapel, the funeral home, the cemetery, the restaurant, the school, the grocery, the hospital. There once was a use for the parlor! Now a sad dust-laden room with oriental rug and unplayed piano. Fancy. Useless. No more marriages, no more funerals, no more neighborhood gatherings. Useless. The fire: when the work outside ends, two feet of snow fall, no baseboard heating, gather around the fire. Tell stories, play games, pick the guitar. This is where music was played. Summer heat: hard work, long days, breezy shaded porch. This is where music was played. Porch, fire, community paths converging, incidental and natural. Unplanned. Time of day, time of year, time in lifespan. Where do the young play, where do the old play? Learning, educating. History recorded in song. “Where will music be played?” – the thought while driving around Floyd. Sunny day, no clouds, the first day of sun in many. Green green grass. Wind rocks the car on the road, leaves dance in choreographed order in the forest, scramble individually across the road – at a glance like an animal. Blue Ridge Parkway – views from the top of the world. Old mountain ridge, still here, still being looked at, still being worn away by wind and water, still being cast in light and shadow, another winter over. Mabry Mill – a sad place, a joyful place, a hard-worn place. Waterways weave through the trees and under bridges to converge at the mill. Gentle slopes, carefully constructed paths take the water, carry the water overhead, underfoot. Dark inner rooms made by layers of wood, layers of bark less trees – a blacksmith. The mill, intricate, multi-layered, water powers multiple belts in all directions, gears of all sizes, stones grind corn while trees are ripped apart in cartoon fashion with damsel tied down, villain stroking his mustache. Noise. Grist. Saw. The “home”, uphill, old cedar shades the yard blanketed in needles. A box, dark, cold, one tiny window upstairs, one front and one back door – symmetry. Smells old, mildew, death, history unreal, living in a tiny box. Back side two more windows, under trees, the box held together with strange overlapping Lincoln Logs, angled cuts cannot be pulled apart, no nails. The time before nails. Pre-nail, Post-nail, One-penny nail. Where will music be played? In this quiet museum – no life. Remnants of Life recorded in the cuts of a tree, the cuts of a stone, the cut of a record. Blue-Ridge Parkway – new buds, new seeds, same view. Chimney – came back for a closer look. The cheese stands alone. Cheese – colored grout, stone, two fires in this once, now vines crawl up and prevent the stones from finding their own path back down. Bound and gagged by weeds, vines, no home to heat, no fires to make, just sculpture. Nice picture – blue sky, green grassy hills,. This is where music is played.



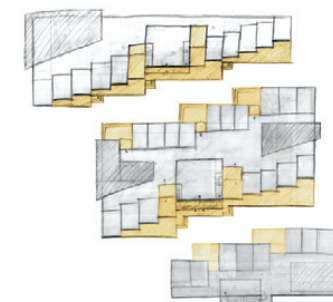
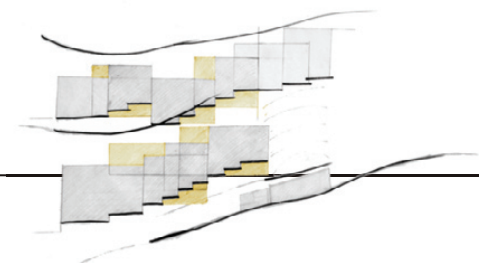
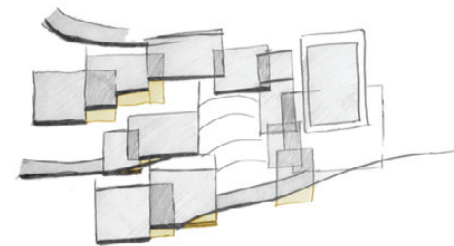
The Street

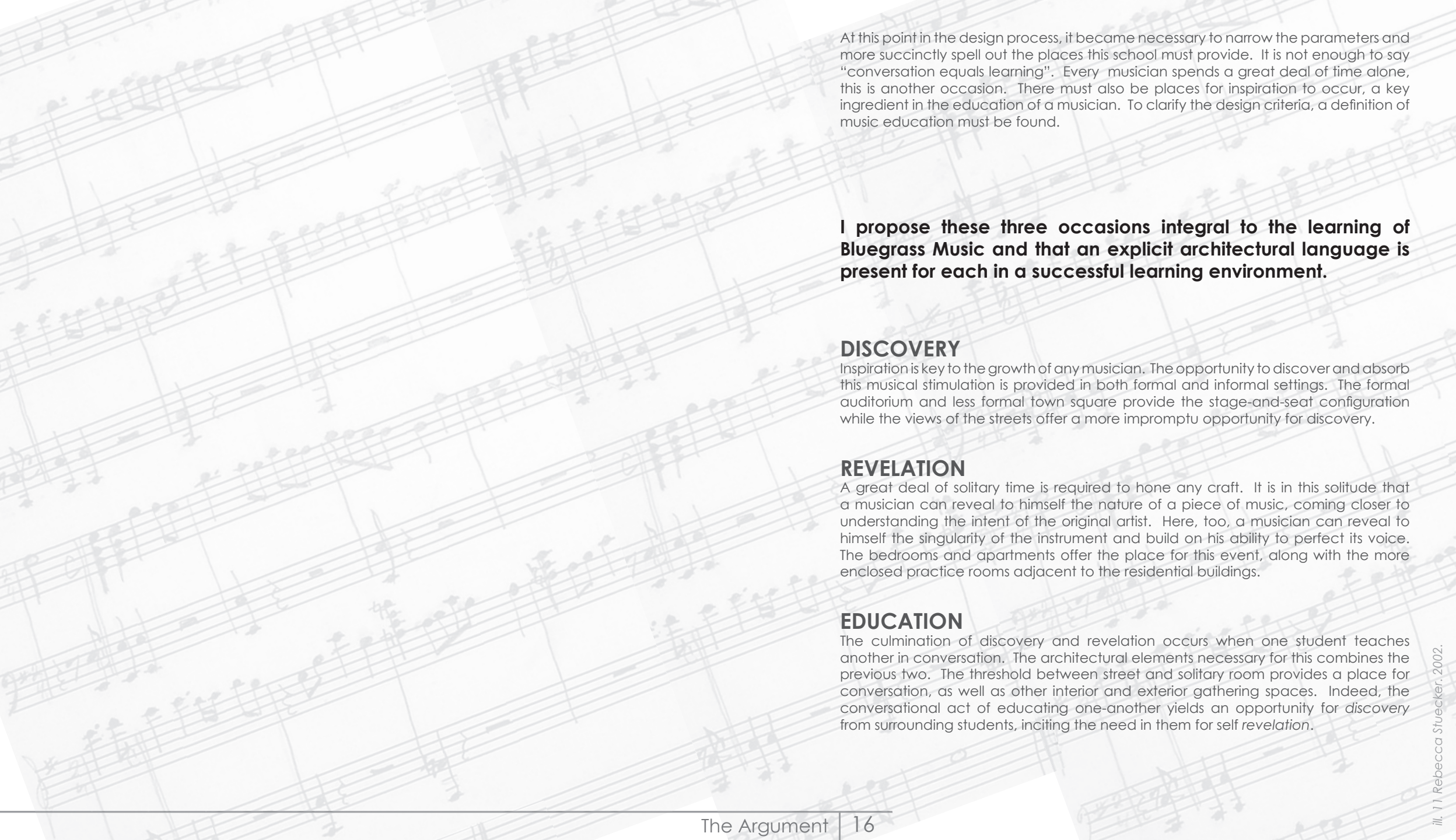
The turning point for this school begins when it is thought of in urban terms. As the terracing of buildings on the site takes shape, it is evident that the level areas of land created between the buildings can be described as streets. Streets provide a unique opportunity to create the musically stimulating interactions of an urban environment within this school.



In-Betweens

Two thresholds become a critical staging area for conversation: those between the streets and residential buildings, and those between social gathering spaces and the individual room. Staggering the exterior face of the buildings increases the surface area, thereby maximizing the critical threshold areas. The buildings themselves become servants to the creation of engaging in-between places throughout the site.





At this point in the design process, it became necessary to narrow the parameters and more succinctly spell out the places this school must provide. It is not enough to say “conversation equals learning”. Every musician spends a great deal of time alone, this is another occasion. There must also be places for inspiration to occur, a key ingredient in the education of a musician. To clarify the design criteria, a definition of music education must be found.

I propose these three occasions integral to the learning of Bluegrass Music and that an explicit architectural language is present for each in a successful learning environment.

DISCOVERY

Inspiration is key to the growth of any musician. The opportunity to discover and absorb this musical stimulation is provided in both formal and informal settings. The formal auditorium and less formal town square provide the stage-and-seat configuration while the views of the streets offer a more impromptu opportunity for discovery.

REVELATION

A great deal of solitary time is required to hone any craft. It is in this solitude that a musician can reveal to himself the nature of a piece of music, coming closer to understanding the intent of the original artist. Here, too, a musician can reveal to himself the singularity of the instrument and build on his ability to perfect its voice. The bedrooms and apartments offer the place for this event, along with the more enclosed practice rooms adjacent to the residential buildings.

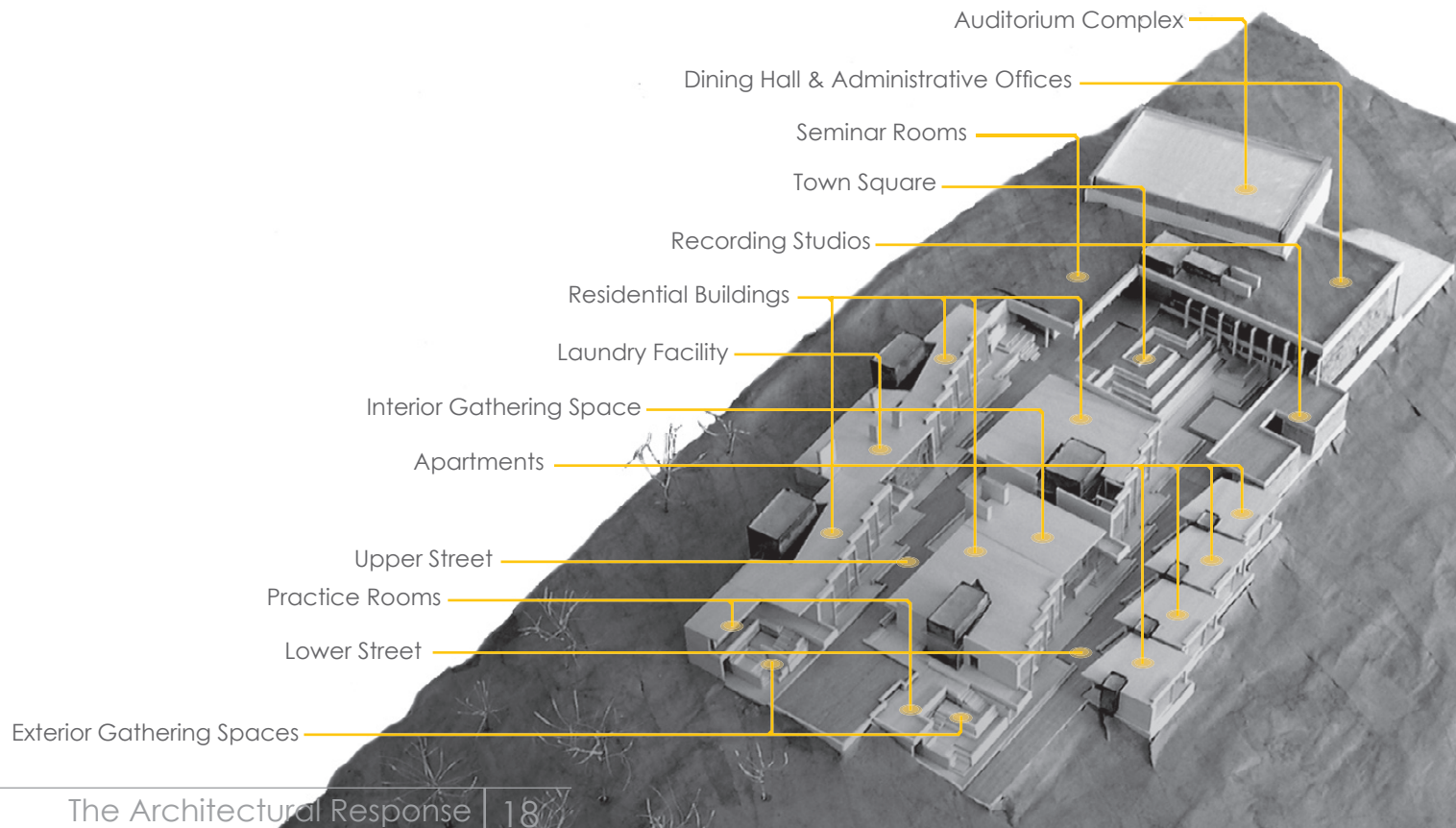
EDUCATION

The culmination of discovery and revelation occurs when one student teaches another in conversation. The architectural elements necessary for this combines the previous two. The threshold between street and solitary room provides a place for conversation, as well as other interior and exterior gathering spaces. Indeed, the conversational act of educating one-another yields an opportunity for *discovery* from surrounding students, inciting the need in them for *self revelation*.



Program

The conservatory provides the opportunity for 3 overlapping classes of 25 students each to study in an intensive 18 month program. The school provides all necessities to the students, including apartments for visiting faculty or distinguished students. The center of the town of Floyd is only a few miles away and presents the students with the opportunity to learn from the members of this vibrant musical community.



Refine

Dwell

Gather

Perform

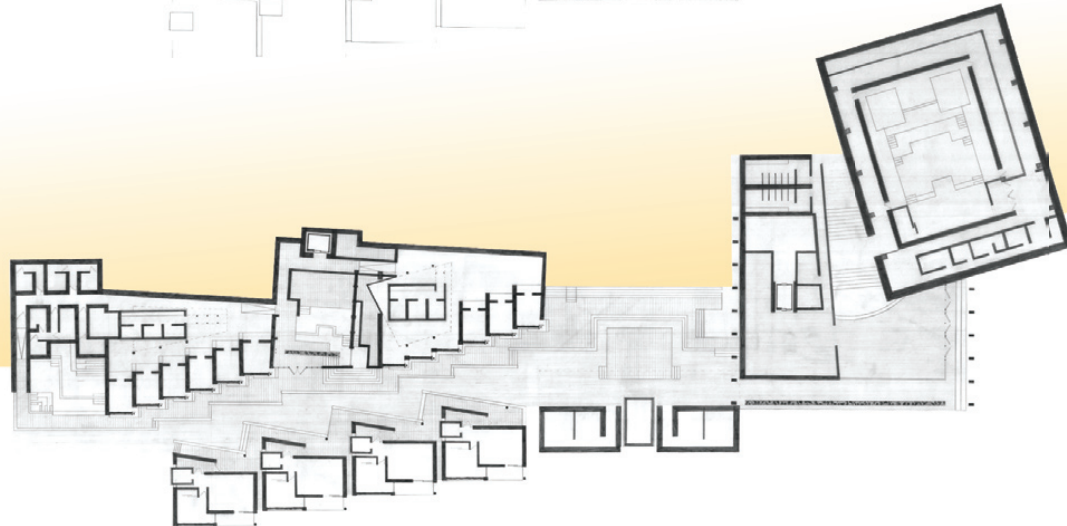
Plan_Upper

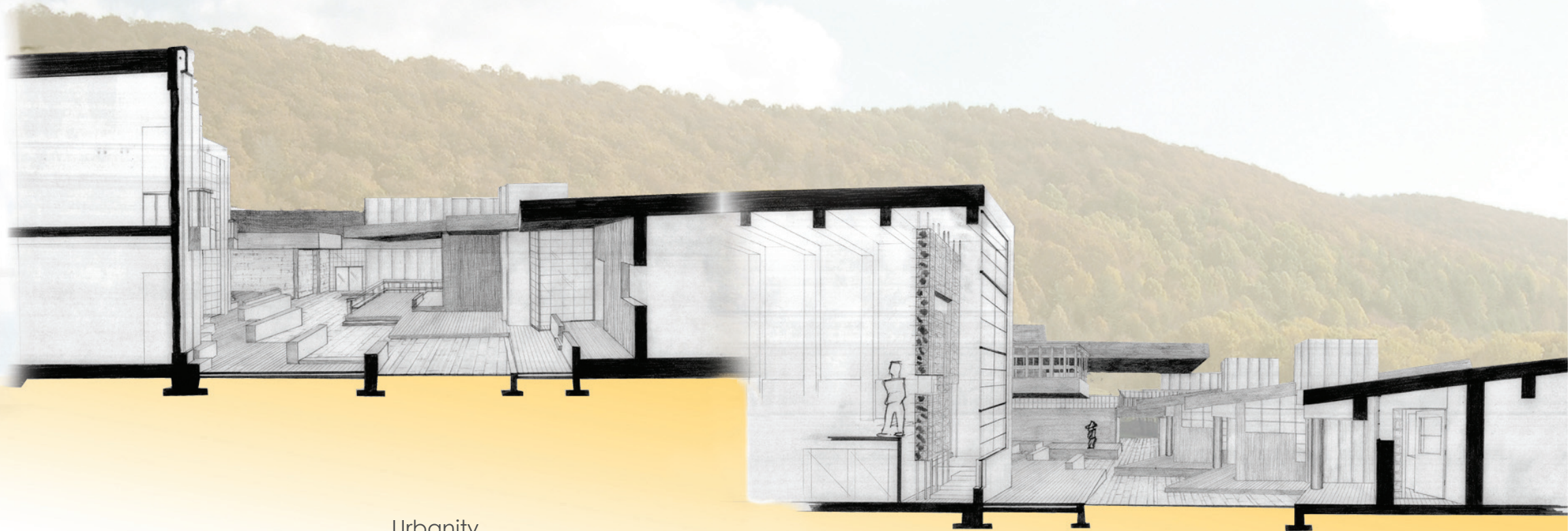


Plan_Central



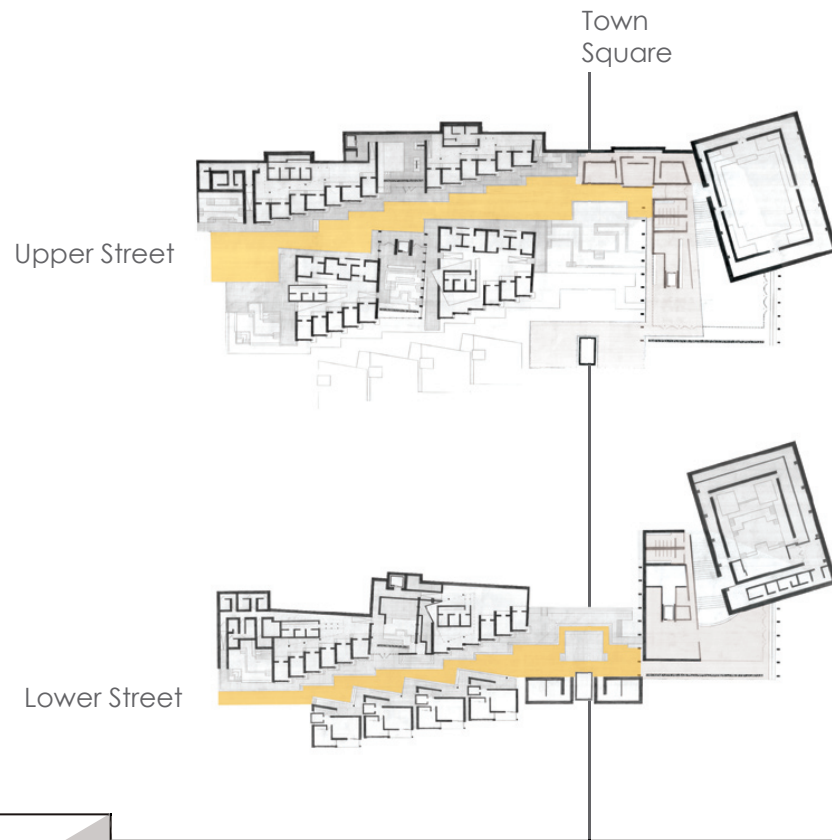
Plan_Lower





Urbanity

The greatest opportunity for discovery is present in the streets. The two streets are approximately one full story apart in grade, offering an interesting transition in terrain and overlook opportunities. The close flanking of the streets by residential buildings adds a dense urban impression. Porches and balconies reach out to meet the pedestrians, increasing a student's chance for gathering inspiration from the porch musicians around him.

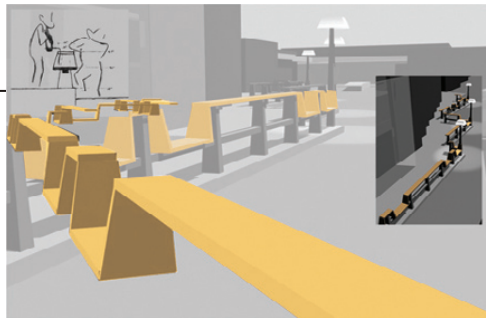
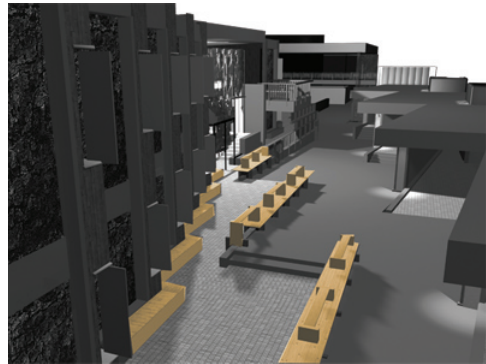
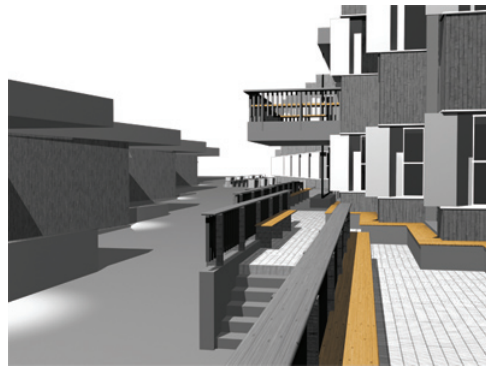


Merging Streets with Square

Visual and auditory views are critical in joining the streets with the square and promoting discovery. It is possible to look down the length of each street from the square and see every porch and balcony (see rendering page 23). The northern-facing exterior walls of each residential building are also angled slightly so as to reflect street sounds towards the square. The streets themselves gently slope from the western end of the site down to the central town square, dropping only 1 foot for every 30 (see longitudinal section page 26). In this way, the movement of students walking along the street towards seminar rooms and dining hall in the morning is hastened while the movement of students walking back up the streets past each porch and balcony in the afternoon is slowed.



ill. 12 Kenneth Murray. *Down To Earth*. 1974. p99.



A Place to Sit

Every city must have good benches. Gaudí knew this when he designed his serpentine bench in Park Guëll (below left). Missionaries in New Mexico knew the importance of the hearth in public gathering and encircled it with a bench (below right). People congregate, they converse, they sit. The benches in this project act as the breakable line between public and private space. The buildings themselves are skirted by benches, as are the porches that reach out to meet the street. Several iterations for bench design are explored in digital models (left). A good bench is comfortable for sitting, perching, leaning, napping, and placing a drink. This is achieved through the variation in height between street and porch. The benches are comfortable 18" above the plane of the porch, but a varying height above the sloping street. They may be seat, stool, or bar in relation to street level, with sun-warmed wood welcoming leisurely conversation. A seat is integral to views, rest, and audience.



ill. 13, Rainer Zerbst. *Gaudí: A Life Devoted to Architecture*. 1990. p153.



ill. 14 Rebecca Stuecker. 2001.



View: Upper Street looking West

Upper Street's
Porches



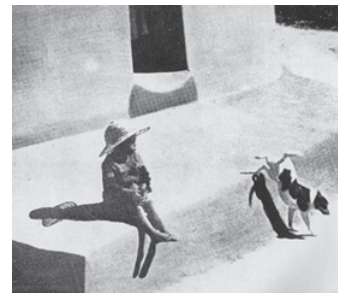
Lower Street's
Porches



Porches

Porches are an integral and historic element in learning the language of bluegrass. A child sits on his porch and enjoys the safety of home while feeling a part of the world beyond its walls. A porch is a personal stage. A porch is a place to congregate without the formality of an indoor room. Ownership is shared by the home and the street.

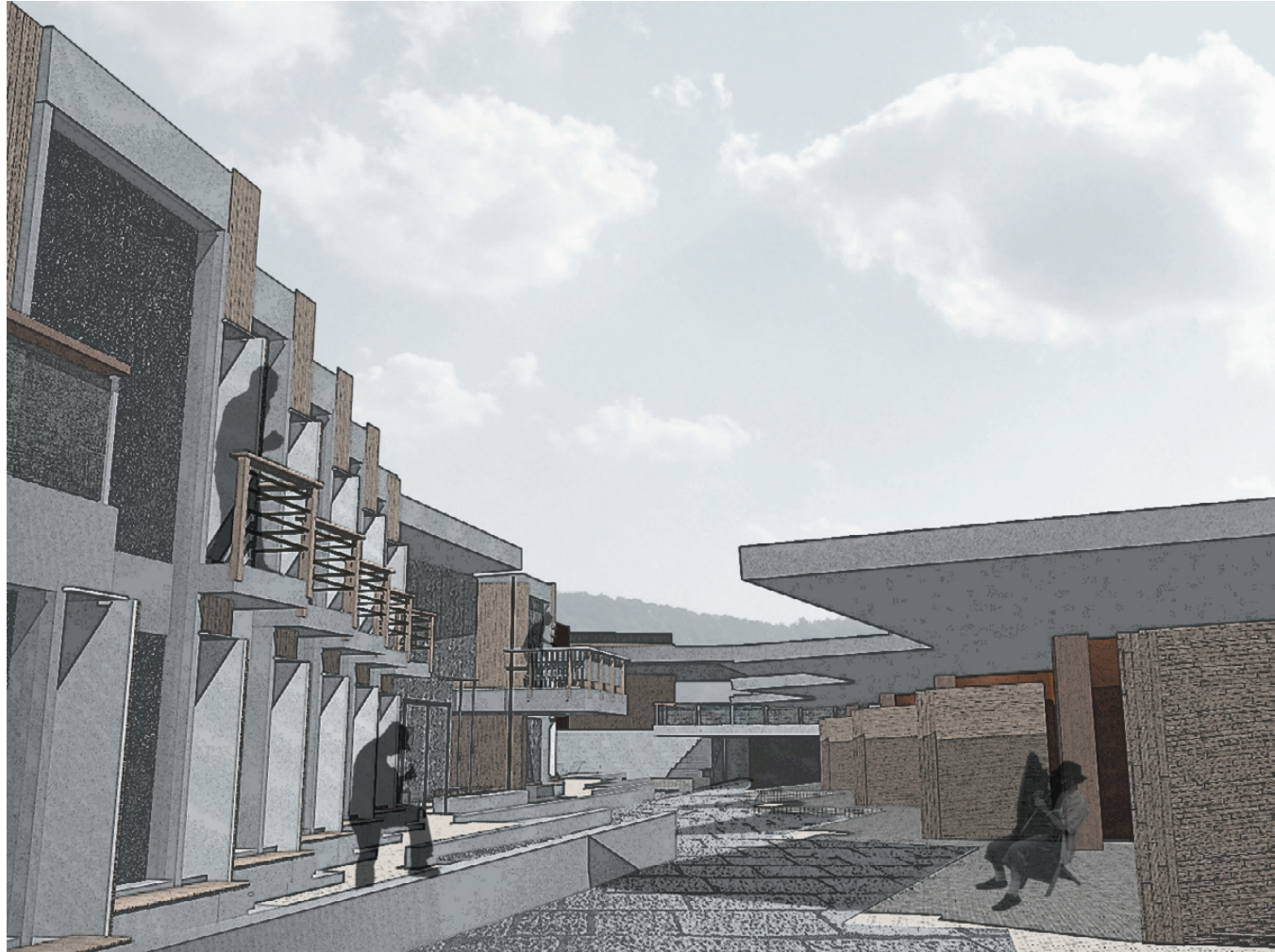
There are many types of porches in this project. Each room has its own small porch, extending beyond both the interior and exterior doorways, capable of seating one or two students. In the same language, the residential buildings themselves are skirted by a porch. A successful porch must have clearly labeled ownership (see page 36). This is achieved by maintaining material and height consistent inside to out. The variable height of the sloping stone-paved streets further enhances the separateness of these porches that are, to the west, below street level by about 2 feet and, to the east, above street level by about 2 feet. A successful porch must provide a place to sit: they are all skirted by benches as outlined earlier. A successful porch must also provide a place to look out onto a street or town square, a place from which to view/hear inspiration. Some porches provide protection from weather, some are entirely exposed. The architectural language for the porch in this project is created to enhance the opportunities for discovery, revelation, and education.



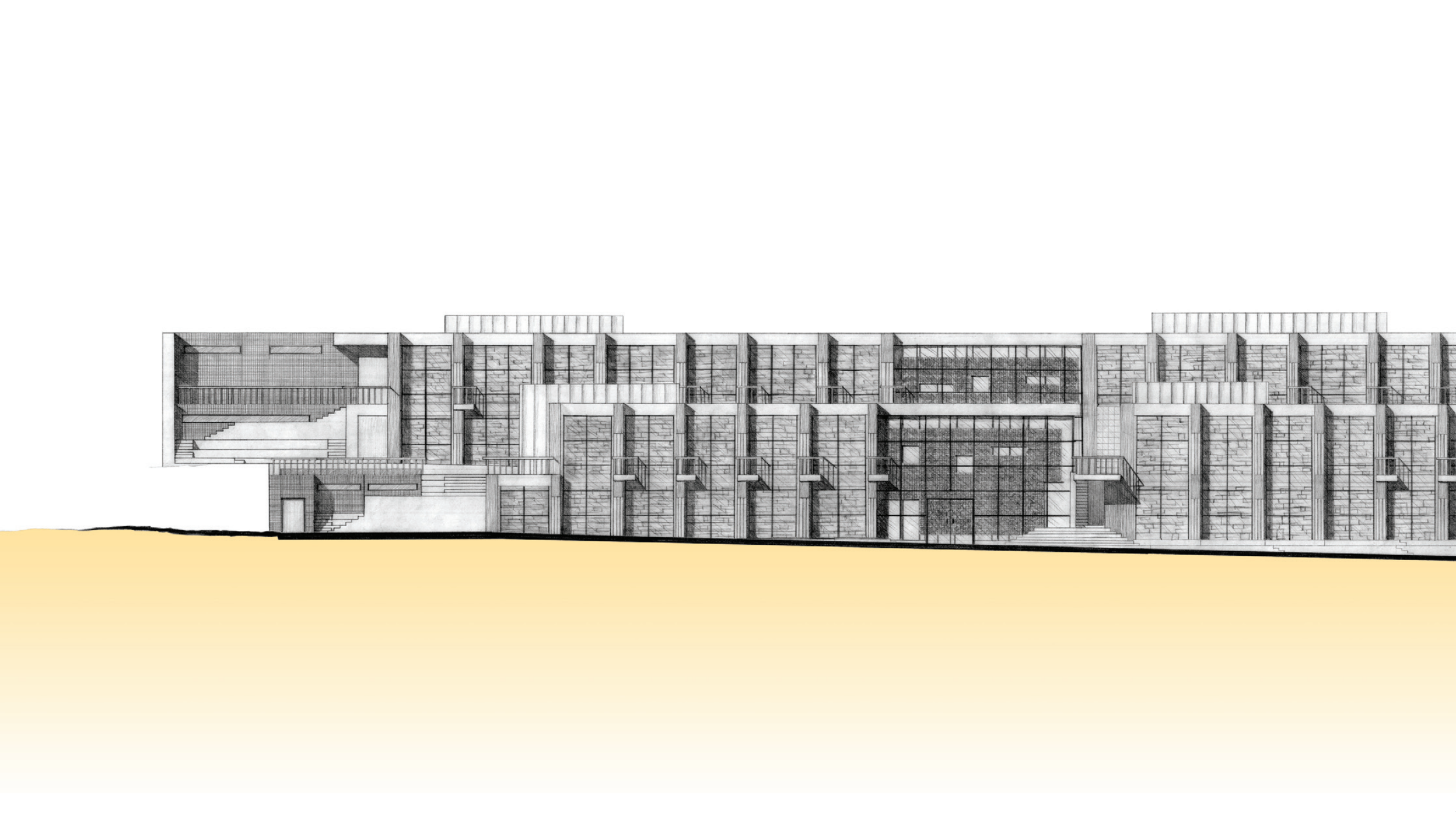
ill. 15, Herman Herzberger. *Lessons For Students in Architecture*. 1991. p 32

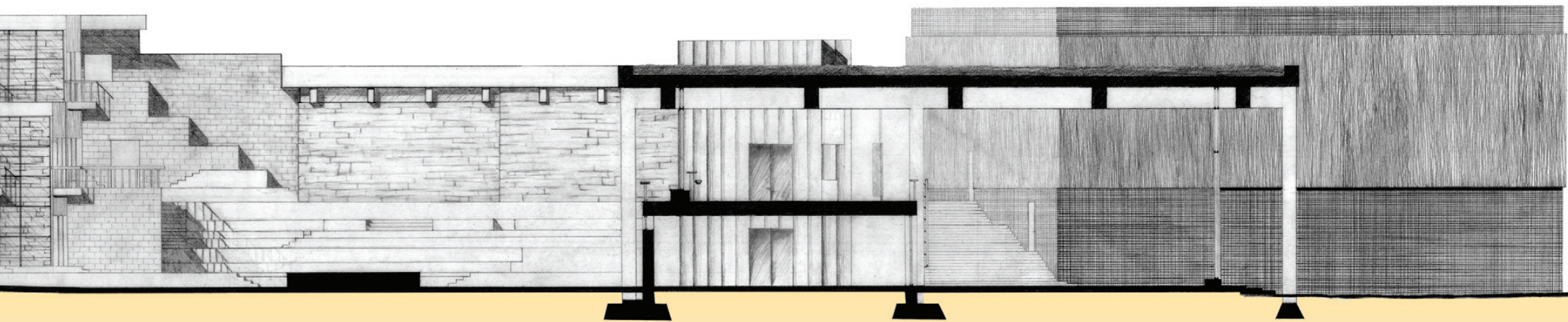
ill 16, Kenneth Murray. *Down to Earth*. 1974. p39.

ill 17, Cecelia Conway. *African Banjo Echos in Appalachia*. 1955. pxxi.



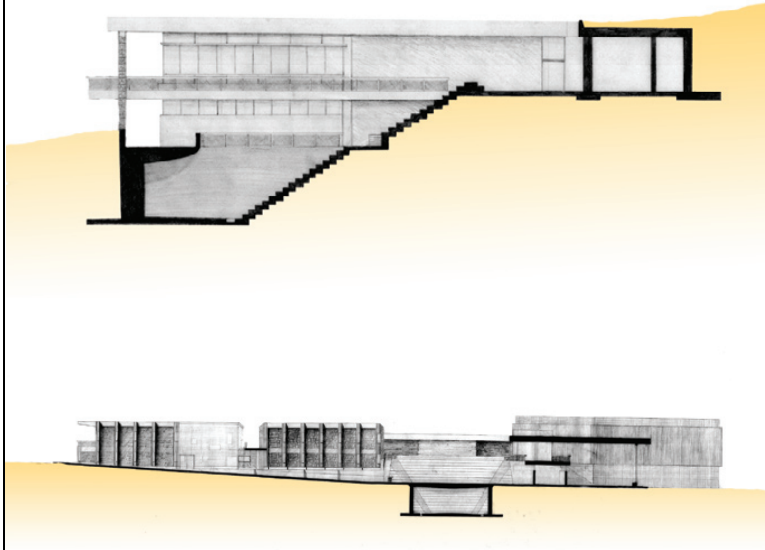
View: Lower Street looking East





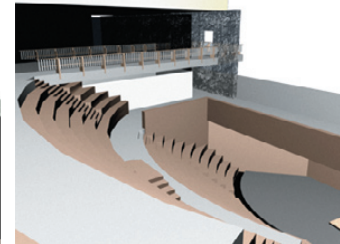
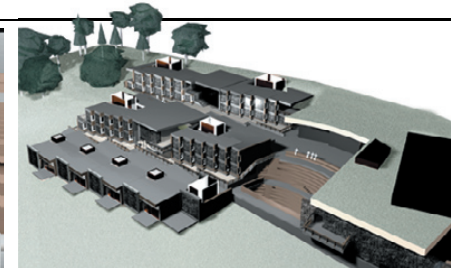
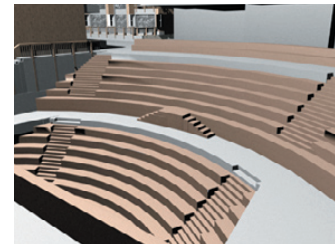
ills. 18, Kenneth Murray, Down To Earth, 1974, p61.





Outdoor Gathering: The First Attempt

The first iteration of an outdoor gathering place to link the east and west ends of the site takes shape as an amphitheater. Although this solution provides an acoustically sensitive outdoor performance area, it creates a chasm in the site, even further dividing the two streets. In order to walk to the dining facility or seminar rooms, the students are forced around the amphitheater. The greatest opportunity for conversation, and therefore education, would take place in an area the students walk *through*, not around.



ill. 19, Sandra Davis Lakeman, *Natural Light and The Italian Piazza*, 1992, p.67.

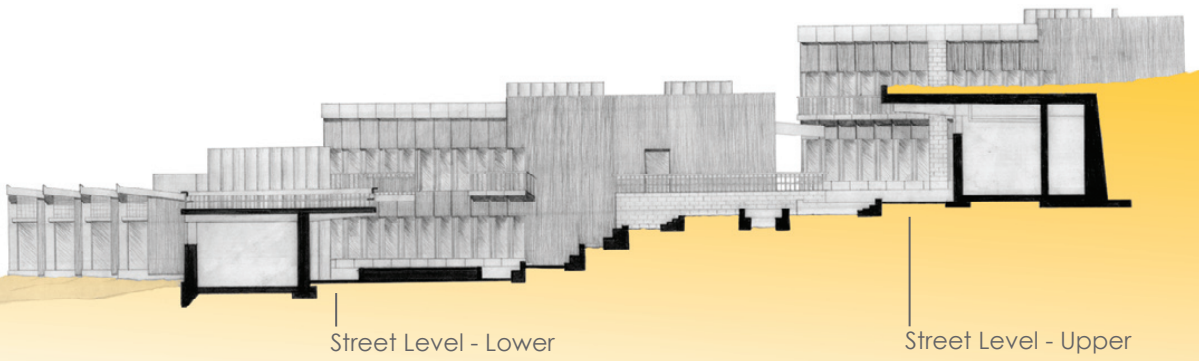


Outdoor Gathering: The Final Design

Because the streets are one full story different in grade, the place they visually and physically join is critical to encouraging students to move freely from one to the other. The town square with its terraced grass seating levels and multiple platforms for impromptu performance is certainly a more traditional venue for mountain music, bringing the streets together physically. The buildings on the site are arranged around the town square so that performances can be discovered from multiple angles: the dining hall seating wraps around from inside to out, the streets merge within the square so that in order to get from bedroom to seminar or breakfast students must walk through, and the northern facing walls of both streets are angled so as to direct sound from the street to the square. In order for them to become active and vital places for discovery it must be possible to look down the length of each street from the square and see every porch and balcony. If a student is in the dining hall or coming out of a recording studio, he can glance to the west and discover a variety of activity taking place in the street and porches. It is not enough simply to provide a place for an occasion, but we must make the place one in which occasions are most likely to occur by directing traffic and arranging the place around visual and auditory cues. Sienna's piazza and Portland's town square successfully illustrate visual connectivity and place-making within a sloping city.



ill. 20 Russ Heini, *Portland From the Air*, 2000, p.76.





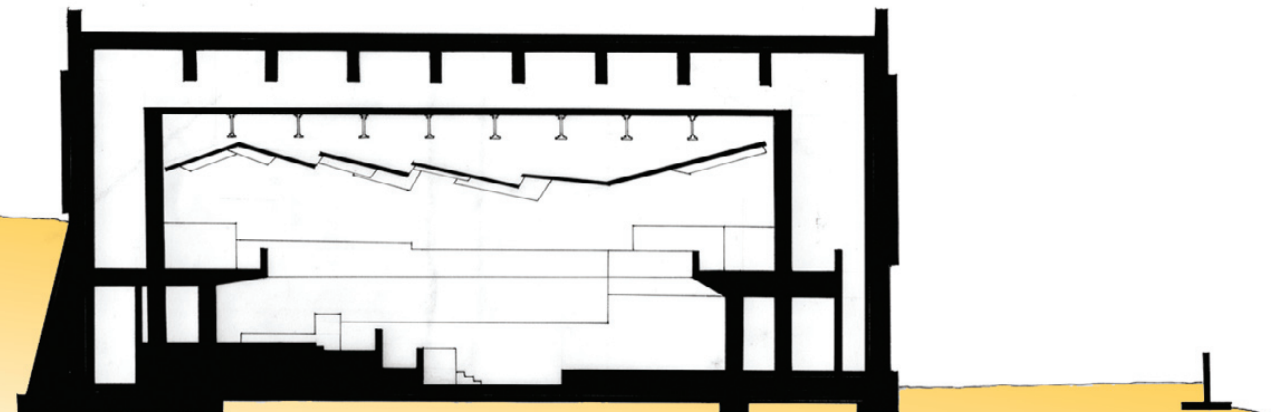
Formal Facade

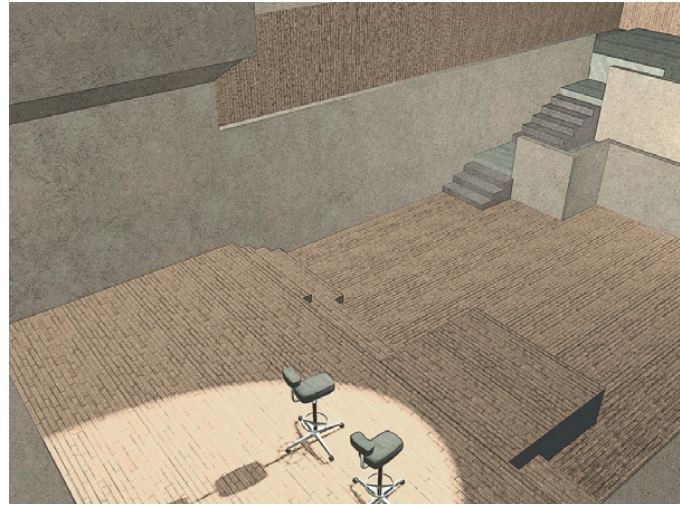
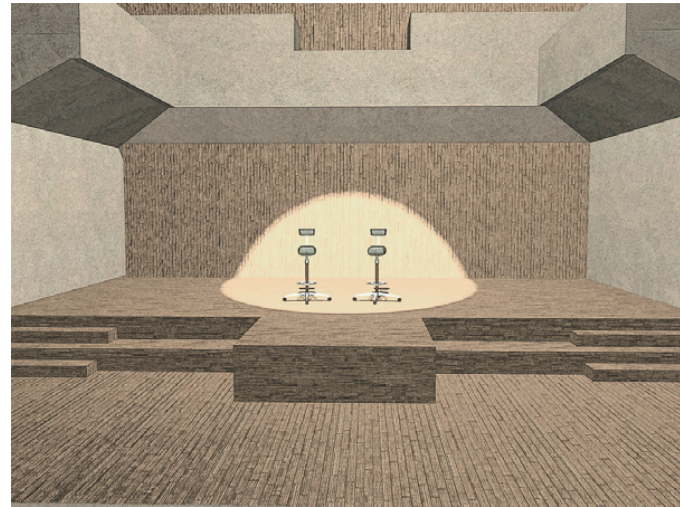
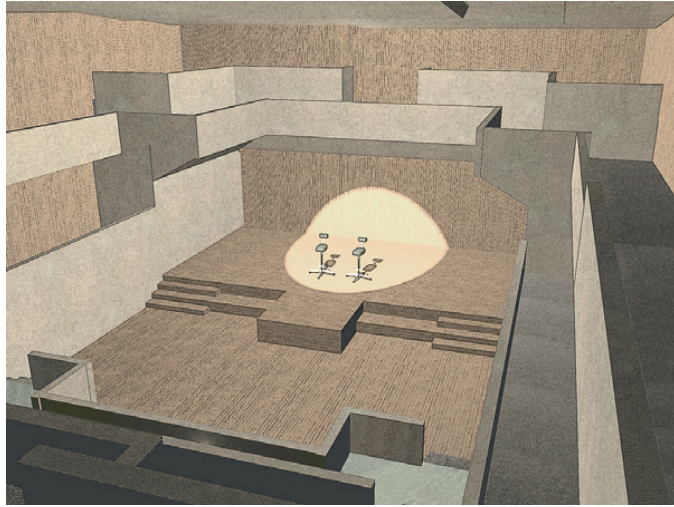
The auditorium and attached main entrance to the school present a formal face to a music that has always been learned informally. This difference is revealed in several architectural clues. The auditorium is skewed slightly on an angle to the rest of the site, the outer facade is of polished soapstone tile rather than split stone faces, the height of the main entrance is on a grand scale with 32' columns and floor-to-ceiling glass walls, even the stairs leading from the entrance hall to the auditorium doors have tread and riser dimensions that force a slow, loping ascent. These areas of the school reach out to visitors and are not commonly viewed by the students. Once beyond them, the architectural language is colloquial in scale and appearance.

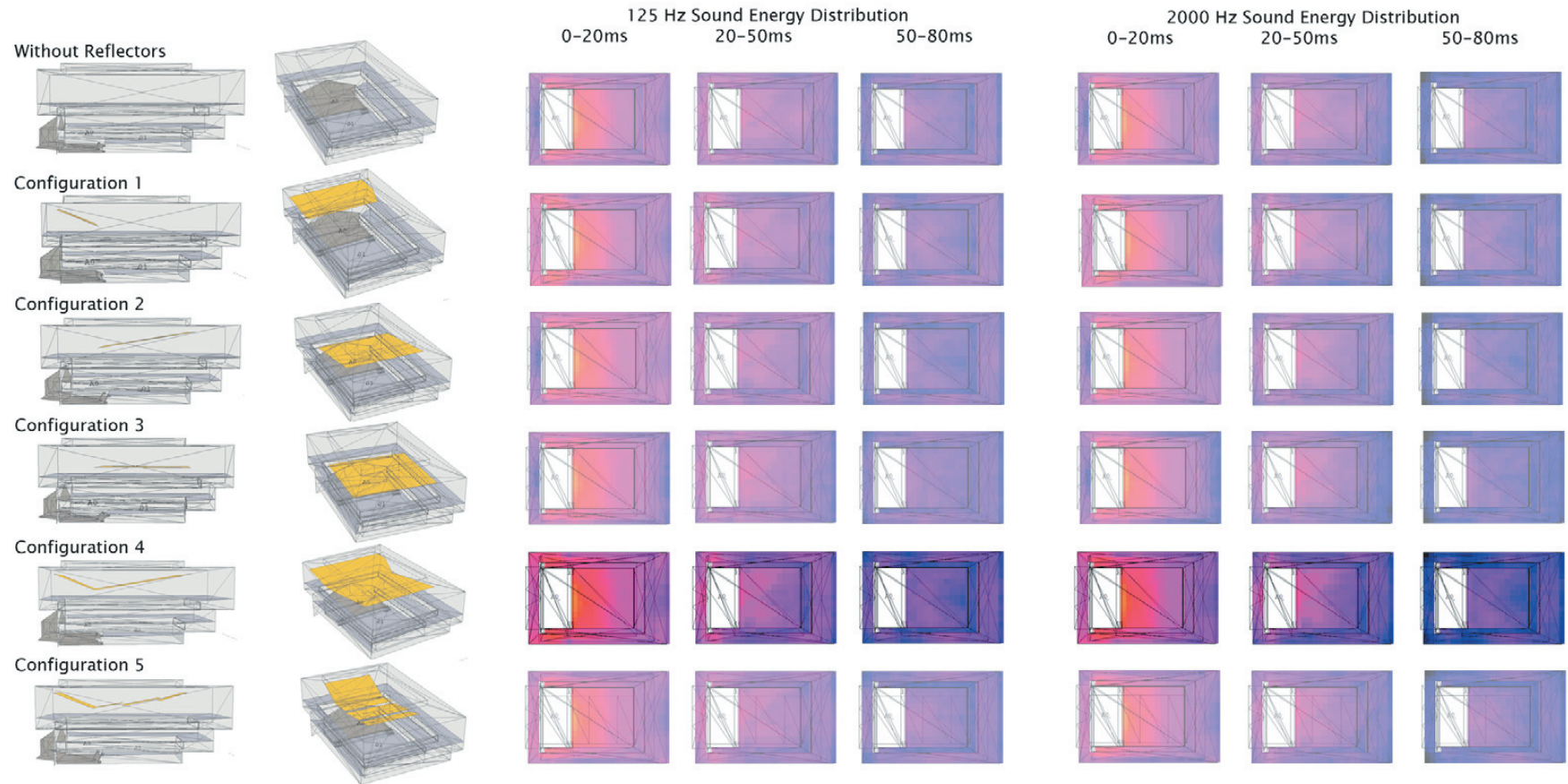


What Makes a Good Stage?

Is it the slightly raised platform that indicates a place of performance, or is it the audience seating that defines this place? In the case of a music school, it is certainly the opportunity for student discovery which reveals a good stage. The auditorium provides a formalized, acoustically specific, unconventional place for bluegrass to be heard. After enjoying the "Friday Nite Jamboree", it is evident that the ability to get up and dance is an important ingredient to live performance. It is for this reason no fixed seats cover the main floor in front of the stage, and seating is staggered and broken into smaller groupings. This space gives the audience the dynamism of a grapevine-style hall while maintaining the acoustic benefits of the shoebox-style.

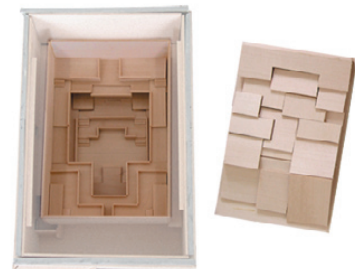






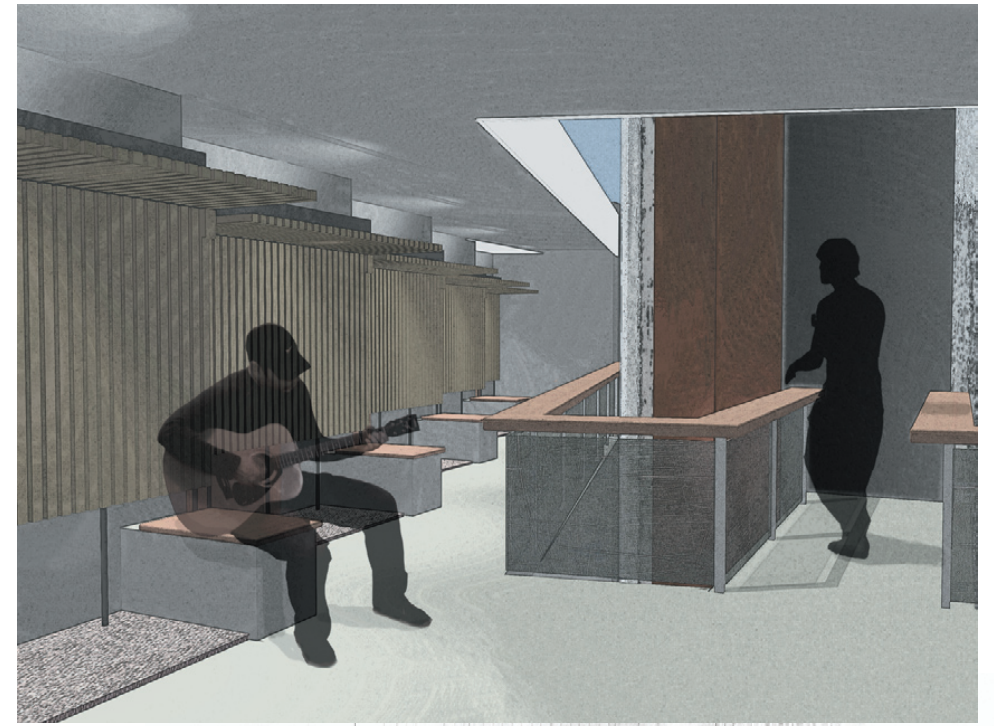
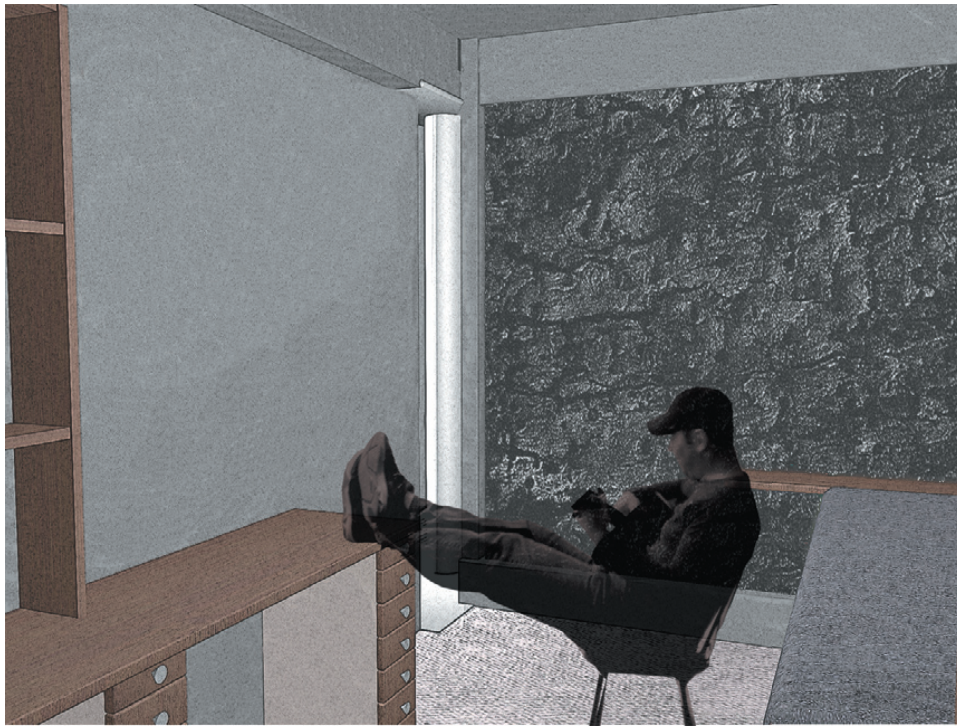
Acoustics

The acoustic specificity of the auditorium comes about through many trials and tests. One tool utilized during this process was software that maps sound pressure levels within a digital model. Although the initial design is generated from geometric solids the proportions of universal harmonies and basic acoustic common sense, this software is useful in creating the shape and configuration of final sound reflectors in the auditorium. It is important that each seat benefit from early sound reflections, especially those in the balconies. Configuration 4 in the test shown performs best at this task. The auditorium is also fairly small, seating only about 620 people, making a more intimate venue with the furthest distance from seat to stage being 60 feet. This distance was determined after finding Lawrence Olivier is quoted as saying "65 feet is as far as I can act to". The visual connection between the audience and musician on stage promote active participation and learning in this collaborative art.



Ill. 21 Jean Haskell Speer. *The Appalachian Photographs of Earl Palmer*. 1984. p55.

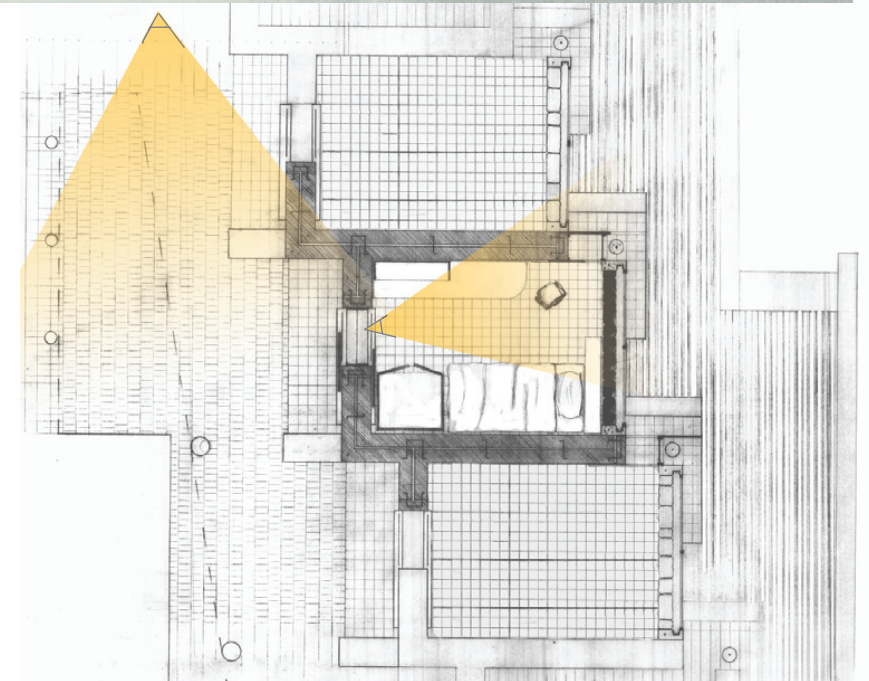


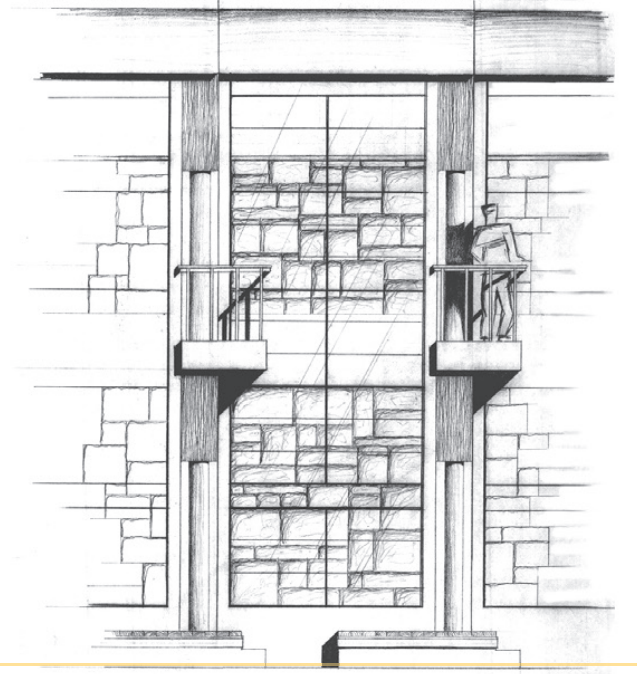
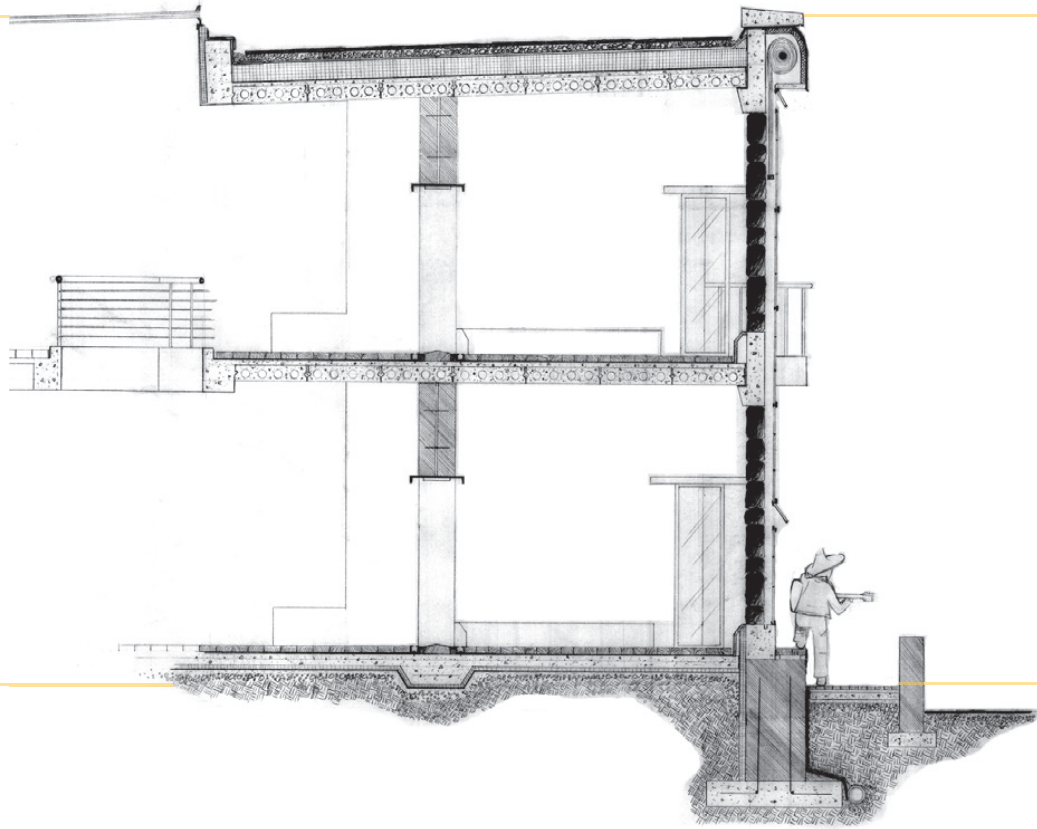


Home. Porch. Bedroom.

Discover the music in the streets, then return to the bedroom where its poetics are revealed to you. Musicians not only need to master a piece, but master its intent in order to expand their own vocabulary. It is not enough to simply make, but to know. Virtuosity is honed here.

Each student has a bedroom, and indoor porch, and an outdoor porch or balcony for their own discovery and revelation. The rooms themselves are design as quiet, introspective places with thick, insulated masonry walls, a double-layer of doors to the interior hall, floor slabs separated from structural walls with a layer of resilient material, and 4" wood floor tile set in sawdust. The source of natural light is the eastern-facing door leading to the porch or balcony. In the early morning, sunlight will penetrate the space directly, and during the afternoon will reflect off of the white piloti. A view of the streets can be seen from these doorways, or a student can choose to shut the double-door to the distractions of the street in order to practice while still allowing light to enter.

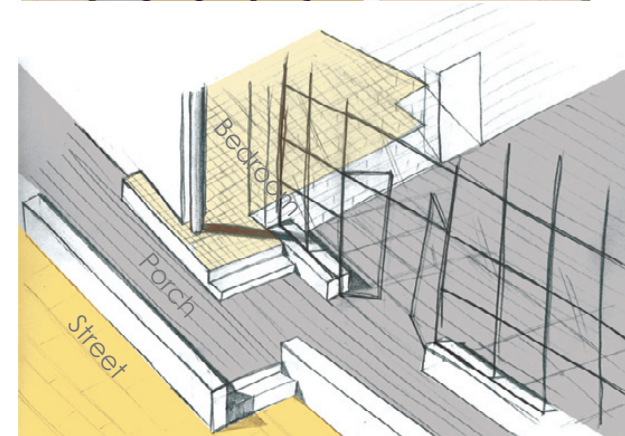




Section and Exterior Elevation: Bedrooms

Layers of Ownership

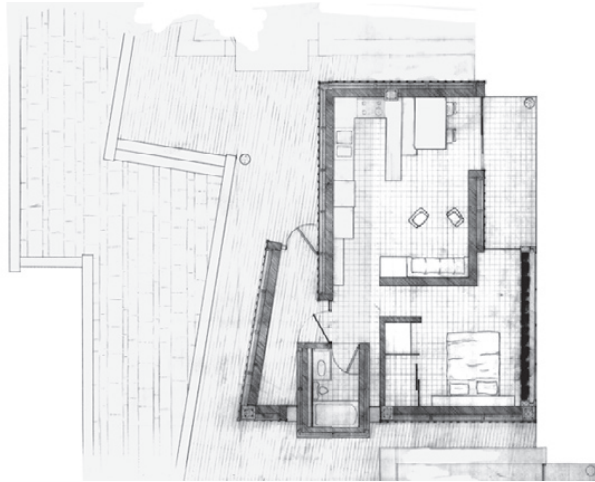
As the student moves from bedroom to street, several layers of ownership and privacy are revealed. Floor pattern/material, quality of natural light, and isolation of sound indicate the separation of layers. The bedroom is the innermost layer - owned by the individual. The floor of the bedroom stretches out onto its indoor and outdoor porches, still owned by the individual but exposed. Leaving the interior porch, you step onto a new floor pattern of the residence hall interior lit with skylights - owned by the students of that wing. Next you move to the common room where the floor changes in grade and quality and light is coming in directly but diffused through a stone screen - owned by the members of the entire residence hall. From there, the floor flows from inside to out, becoming large exterior porches - owned again by that residence hall. Moving onto the street, the floor is paved in stone and entirely exposed to the sun - owned by the people living on that street. Finally, the move to the town square brings both streets together - owned by the entire school.





Apartment

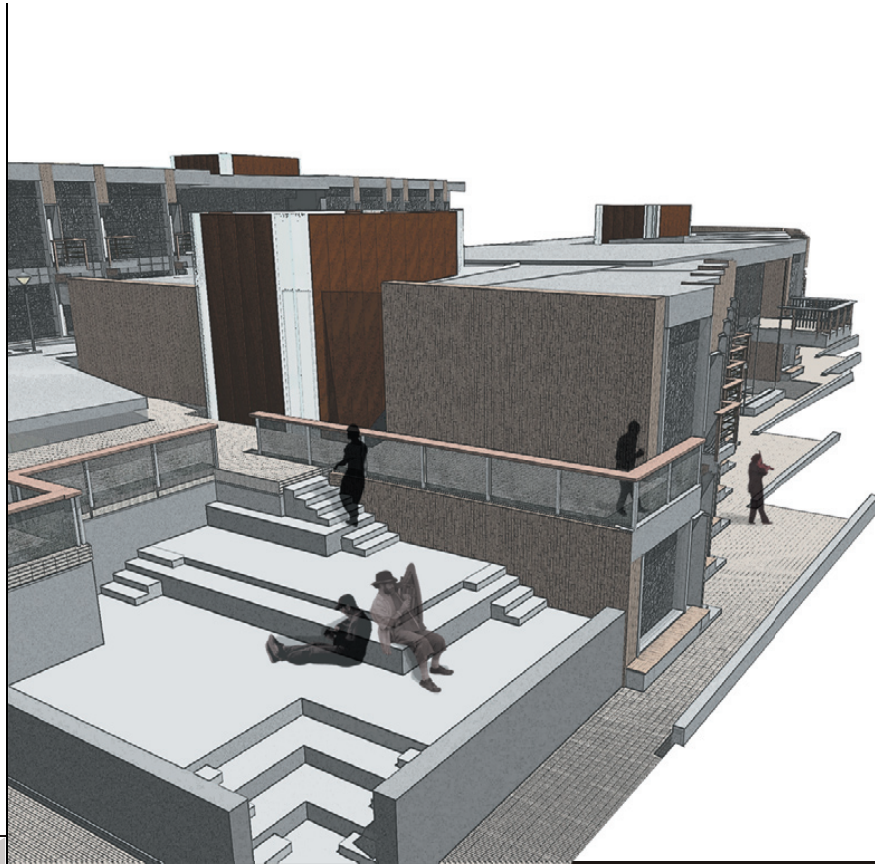
Flanking the southern edge of the lower street is a set of 4 small apartments. These apartments would be used by visiting faculty or distinguished students. Their northern front door brings the occupants to the action of the street, while the southern porches allow for a solitary view of the hillside.





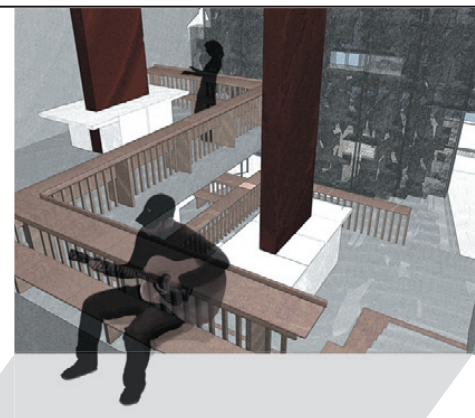
Ill. 22 Rebecca Stuecker, 2005.

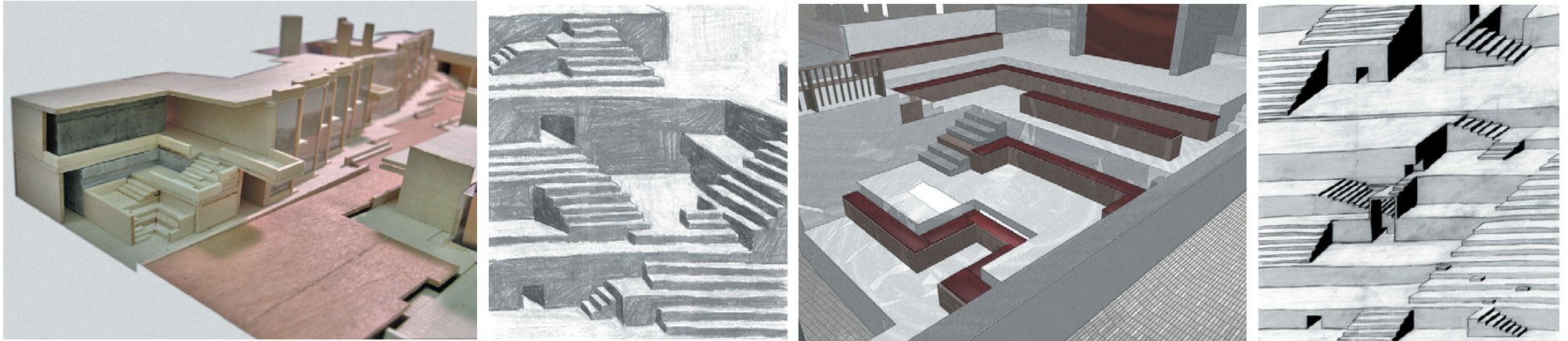
View: Recording Studio Roof Decks Looking East



“Education is an interdependent, socially constructive, conversational process.”

Never is the statement of Kenneth Bruffee more accurate than when describing music education; in particular, bluegrass music. In order to design a formal program for the learning of bluegrass, there must be an acknowledgement of the informal places in which bluegrass was taught for generations. In this project, conversations happen in the common rooms: the laundromat (right), the exterior steps outside of the practice rooms (above), etc. These rooms are made active by their everyday use and propensity for walk-throughs, while dynamic seating, lighting conditions (see page 44), and views entice the students to stay. As the students teach one-another in conversation, these intermediary places become more critical to learning music than any classroom.



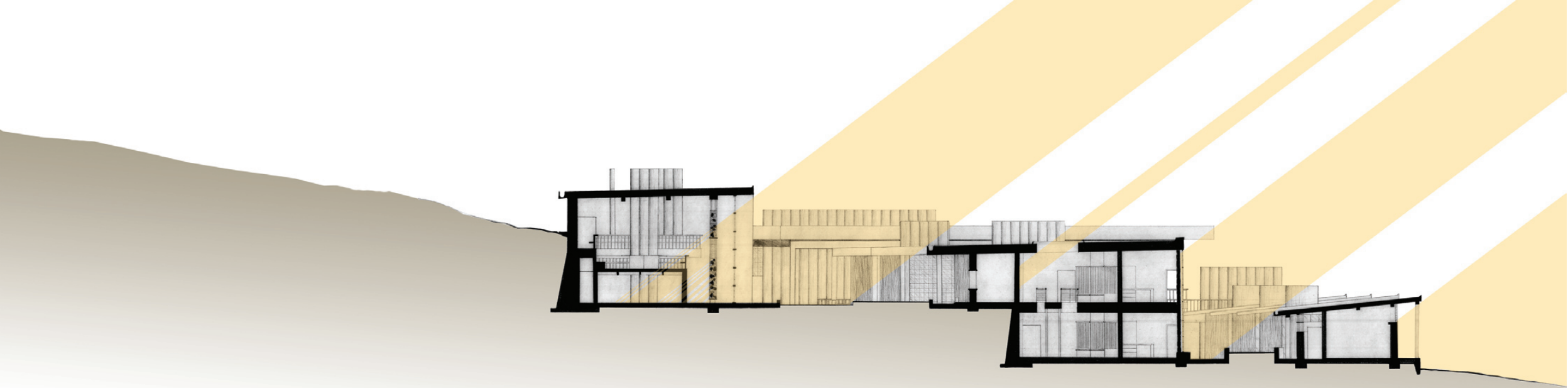


Early Inspiration Takes Shape

The gathering spaces that are so integral to conversational learning have a geometric quality developed in early drawings. As the struggle to answer the hill emerged in sketches, these stair configurations took shape. There is a variability and engaging quality within these spaces that draw interest while providing seat and stage opportunities.

iii. 23. Rebecca Stuecker, 2005.
iii. 24. Rebecca Stuecker, 2006.





All Water Flows Out: The Geographical Significance of Floyd County

Floyd County is located in a unique physiographic province of Virginia in the Southern Blue Ridge. The plateau on which the county lies divides eastern and western-flowing waters. Nickel, cobalt, iron, copper, arsenic, and soapstone were all mined at one time in Floyd. Soapstone is a metamorphic rock formed 400 to 500 million years ago when deep ocean crust was soaked in sea water, broken by tectonic collision, and wedged up from the ocean depths during the formation of the Appalachian Mountain chain. Soapstone is a remarkably dense and resilient material. Unlike marble and granite, it is non-reactive and due to its density and composition can hold heat well. Soapstone stoves and hearths are common in Floyd and are known to radiate heat long after the fire has gone out.



ill. 25 U.S. Geological Survey. 2001

The Language of Stone Walls

All walls with southern exposure in this project are clad in soapstone. The way in which the stone is applied underscores the difference between spaces. Soapstone's innate heat-holding ability makes it a perfect candidate in trombe walls - as in the residential buildings. A local quarry makes gabion screen walls easily attainable - as in the interior gathering spaces. Soapstone's dense composition makes a beautiful black polished surface - as in the outer tiles of the acoustically formal spaces: the auditorium, recording studios, and practice rooms.



ill. 26 David Dornie. *New Stone Architecture*. 2003. p.167.



A Milan Street

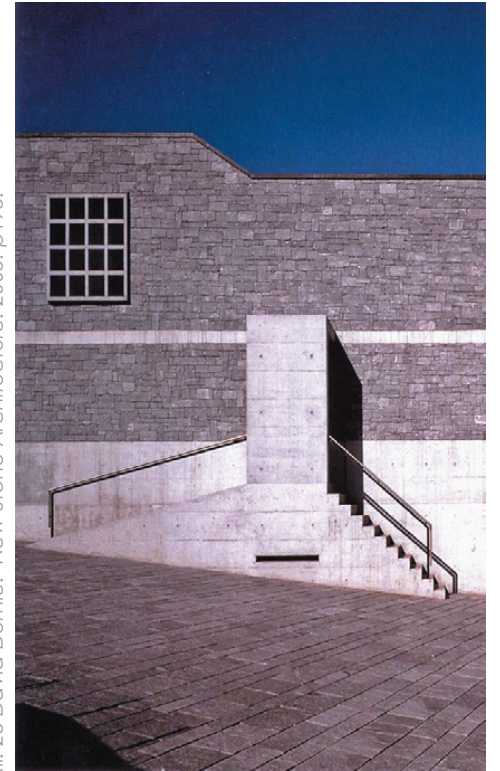


Streets Paved in Stone

Both the upper and lower street are paved in soapstone. As in Cavadini's Swiss municipal building (right), both the horizontal and vertical surfaces are clad in stone; the residential walls behind glass as trombe walls and the streets intricately paved. As the plan diagrams show, the pavers will extend into the interior auditorium/classroom areas of the project. The continuous flooring slopes down to the town square, then remains level as it ties the eastern and western ends of the site.



ill. 26 David Dornie. *New Stone Architecture*. 2003. p.193.



Rafaele Cavadini
Municipal Buildings
Iragna, Switzerland

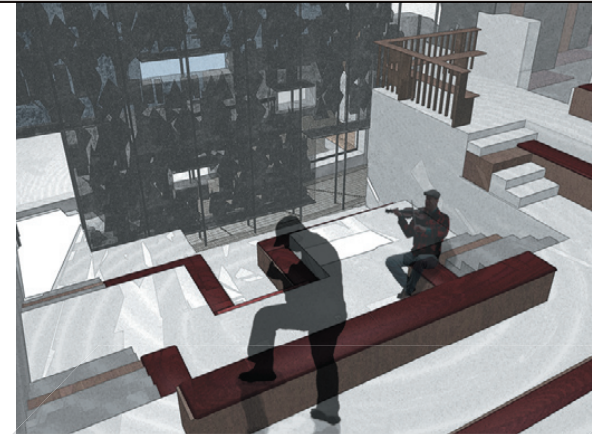
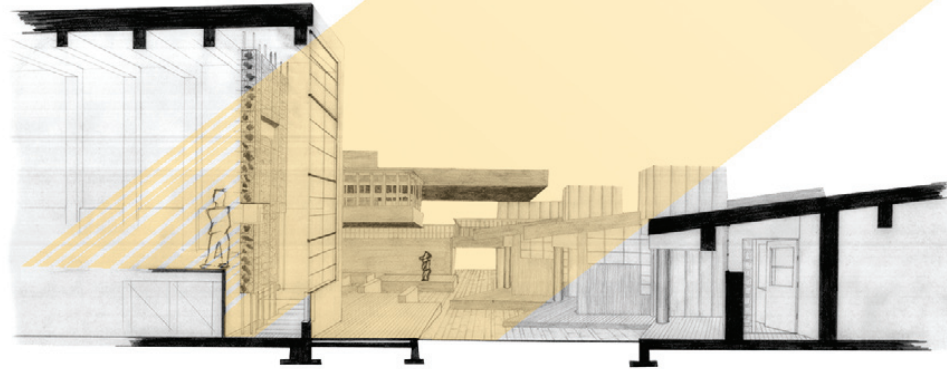
ill. 28, A+U, 4.331, 1998, p.20.
ill. 29, Domus, 803, 1998, p.13.

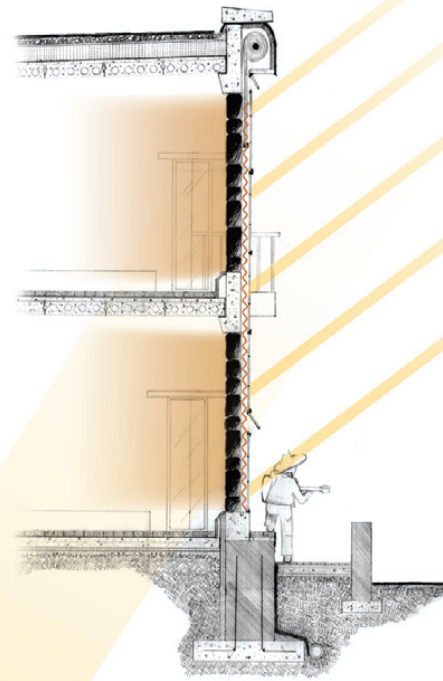


Herzog and de Meuron
Domus Winery

Gabion Baskets

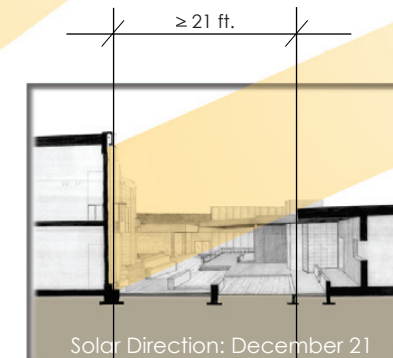
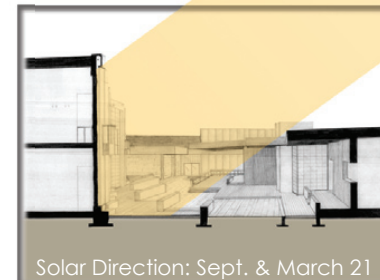
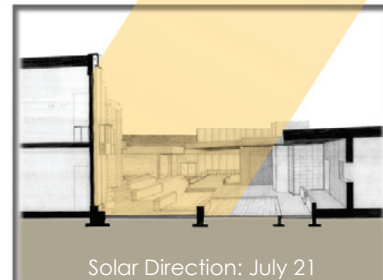
The idea to create a screen out of stone came early in the project as the need to filter the strong southern exposure of the interior gathering spaces became evident. After researching the many ways in which stone has been used to screen light in past structures, the solution of Herzog and de Meuron in a California winery stood out as the most attractive and suitable for this project. Gabion baskets, usually the utilitarian aid of erosion control in roadside ditches, are used by Herzog and de Meuron to elegantly hold stones bound as an exterior wall and tied to the structure. Two of the gabion basket screens in the bluegrass conservatory stand within the rooms they protect (laundry room, common room), while one is located outside (dining hall/auditorium entrance). These gathering spaces are provided with a dynamic lighting condition, thereby increasing the chances for public gathering and engaging conversation.





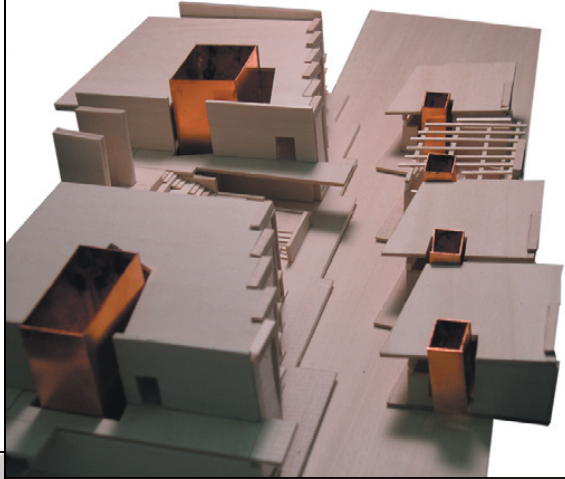
Trombe Walls

All southern-facing exterior walls of the private rooms of the residential buildings and apartments are trombe walls. The dark soapstone 10-inch thick walls are separated from the double-paneled glazing with a 4-inch air space. As the heat from the sun strikes the wall, the glass prevents heat from escaping and slowly warms the dense stone which then radiates heat into the rooms during the night. As the sun goes down, accordion insulation drops between the stone and glass to prevent heat from escaping outward and protect the glass from extreme temperature changes. Even during the summer months, the temperature swings about 25 degrees between night and day in Floyd and night radiation will be needed, but vents located at the top and bottom of the glass walls can be opened to allow hot air to escape.



Copper Covering

The bathrooms and various service spaces are covered in copper panels. These free-standing units break through the walls and roofs of the buildings they serve, leaving a gap of light on all sides to illuminate the copper surface within. The exposed exterior areas allow for easy maintenance access while the outer copper panels turn green with oxidation.

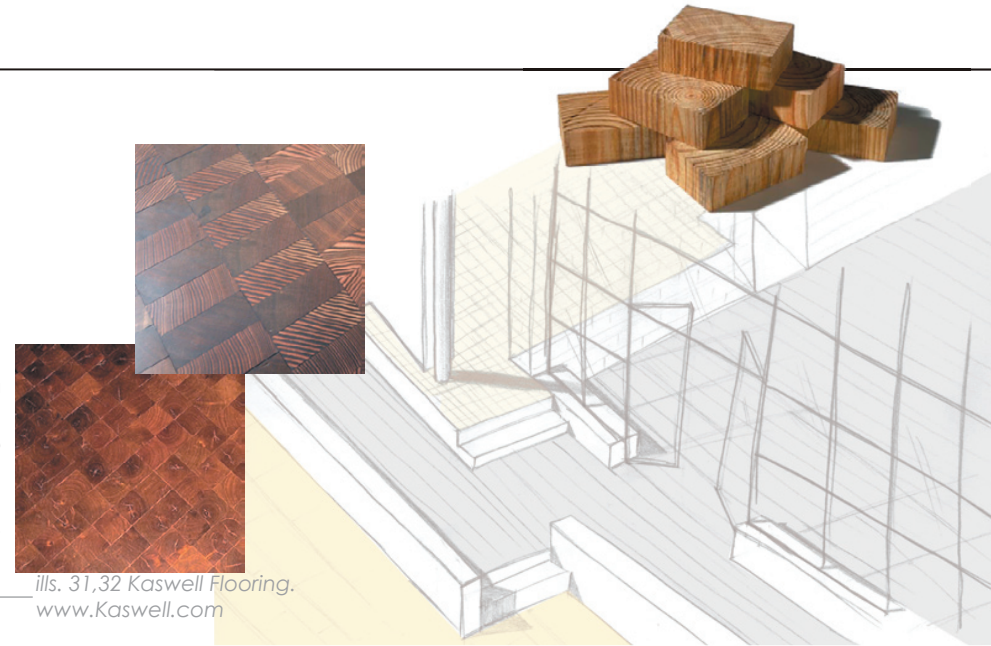


ill. 30 Rebecca Stuecker, 2004.

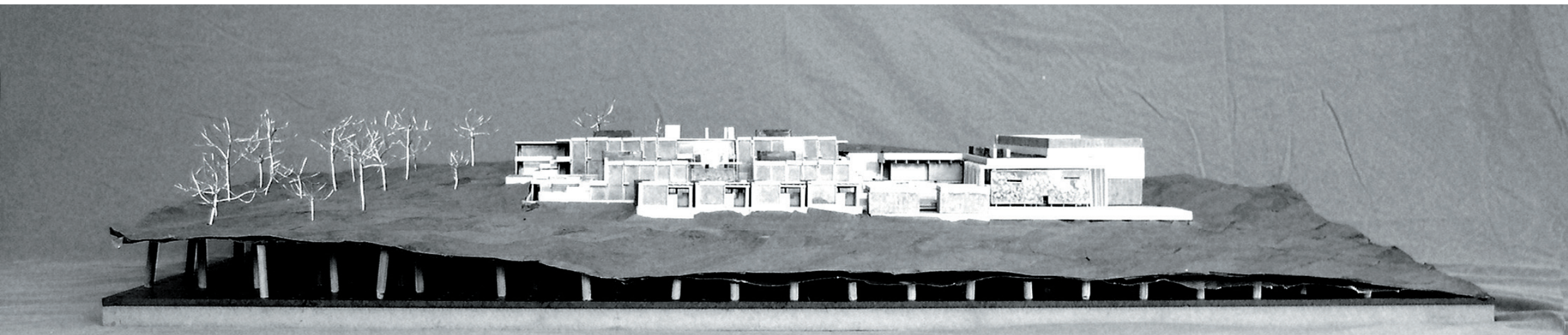
Heikkinen-Komonen Architects
Finnish Embassy
Washington, D.C.

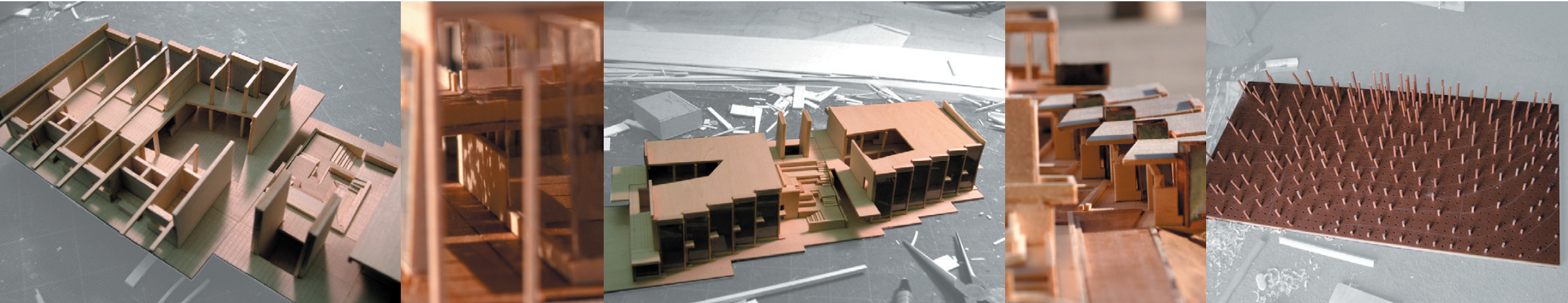
End-Grain & Separation of Ownership

Wood laid as end-grain blocks provide flooring within the private rooms and extend to the interior and exterior porches of those rooms - revealing the ownership of each student to his porch. A set of rooms makes up a hall that is again clad in end-grain flooring but stained a different color to indicate ownership by the students residing in that hall. The common rooms of the residential building and its extending exterior porches are floored in wood planks, yet another layer of common ownership. With these, the buildings meet the street - paved in stone and owned by all equally.



ills. 31,32 Kaswell Flooring.
www.Kaswell.com





The greatest design tool available to a student of architecture is the physical model. It is here that this project came together on the site for the first time. Drawings, even by hand, do not provide the same incite. It is too easy in a drawing to forget the plan while working on the section, or forget the elevation while working on the plan. Three-dimensional digital explorations are extremely beneficial during the early stages of the design process, but decisions too-easily become automatic with snap-in-place technology. Although there were many early sketch models for this project, the final 1/16-scale detailed representation incorporates all the elements of this music conservatory. The urban density, importance of streets, site dependence, exposure of southern-facing soapstone, and socially-engaging places within this project are all revealed in the model. The months spent building it were the most enjoyable of my academic career.

Conclusion

Initially, I found my thesis argument to be based on social exploration, barely dipping a toe into the search for a system of architectural signification. I have not laid out the parameters for any archetypal spaces. I have not made bold definitions for school or room to be carried throughout my career designing schools and rooms. Nor have I written a manifesto on a new architecture for our time.

A question was asked during the defense of this thesis that I could not answer: "What is a porch?". I took this question as one in need of definition and absolutes. The years of my academic life pre-architecture were spent finding meaning in the natural world within definitions and truths extracted from biological and chemical analysis. But a school is not an oak tree. Neither is a porch. A school for bluegrass music is not a school for baroque music. A porch on an urban street is not a porch on a farmhouse. I believed that calling for a system of classification for architectural places is a myopic endeavor for which social occasion is considered a secondary - and *unchanging* factor. An attempt to classify architectural space within finite parameters inevitably leads to a false neutrality, "like a glove that becomes no hand because it fits all hands"* . Human beings are not static creatures, and because architecture serves the needs of human beings, it too must not be static.

I began reading Le Corbusier; an architect who is often quoted as a list-maker in his definition for a machine house. I soon learned that Le Corbusier is quoted out of context. He was not creating a list or definition, he himself broke those narrow parameters many times. He was calling for a new architectural language in an age when the great gifts of steel, reinforced concrete, and mass production were used to define every visible object *but* the architectural. A steel piloti and cantilevered reinforced concrete beam are the tools an architect must use to finally free an exterior wall from its load-bearing responsibility, open up the floor space, raise the house from its foundation, make a roof you can walk on, etc. I believe Le Corbusier had no interest in list-making or finding a taxonomic definition for house, he was making a plea to modern architects to abandon the old language of column and arch for this new language of steel and reinforced concrete.

So the question must not be "What is a porch?", but rather "How can a porch?". How can a porch further a student's understanding of music? I have instead chosen to use my thesis book to answer this question. And in the development of this book, I have come to understand that my project truly is a search for a system of architectural signification. The system I propose is based on the pragmatic**: the relationship between the architectural "sign" and its human user. Here, meaning can be found. Here, truths can be tested and proven. This system burdens the architect with a great responsibility, possibly the most socially responsible of all professions. Bad public policy may be overturned, but a bad public school stands for decades, taking its toll on the children within and the community without. Architecture must meet the human need for beauty while providing a place to sit and enjoy it. The seat, the beauty, and the observer are interdependent: one cannot be defined without reference to the others.

The growth of this project, and method by which it developed, represents an architecture composed in the search to understand the presence of place and the opportunity for occasion. A design language in response to cues from the existing landscape was produced while an analysis of the occasions that take place when a person learns bluegrass music was made. The architecture emerged as the design language was translated into explicit forms that meet the needs of these occasions. Meaning is found in these forms through the pragmatic inference of their users. The success and beauty of the architecture is revealed in a place that fosters the education of a learning-based community.

*Aldo Van Eyck *The Medicine of Reciprocity Tentatively Illustrated*

**Gandelonas, Mario *On Reading Architecture: Eisenman and Graves*



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Illustrations

*All illustrations not listed on pages 51&52 are the sole creation of the author

- 1 __Fiddle Player__ Barnwell, Tim. *The Face of Appalachia: Portraits from the Mountain Farm*. New York: W.W. Norton & Co., 2003. p97.
- 2 __Carter Family__ Zwonitzer, Mark. *Will You Miss Me When I'm Gone?*. New York: Simon & Schuster, 2002. Album Cover Art.
- 3 __Banjo__ Conway, Cecelia. *African Banjo Echos in Appalachia: A Study of Folk Traditions*. Knoxville: University of Tennessee Press, 1955. p79.
- 4 __Floyd Country Store Sign__ Author's Personal Archive
- 5 __Mabry Mill__ Author's Personal Archive
- 6 __Banjo Player__ Speer, Jean Haskell ed. *The Appalachian Photographs of Earl Palmer*. Lexington: University Press of Kentucky, 1984. p15.
- 7 __The Jamboree__ Author's Personal Archive
- 8 __VA Maps / Aerial Images__ U.S. Geological Survey website: www.usgs.gov
- 9 __View From Site__ Author's Personal Archive
- 10 __Table For Two__ Herzberger, Herman. *Lessons for Students in Architecture*. Rotterdam: O10 Publishers, 1991. p5-6.
- 11 __Sheet Music__ "E-Minor Measuring", written by Author
- 12 __Coal Miner's Street__ Murray, Kenneth. *Down To Earth: People of Appalachia*. Boone: Appalachian Consortium Press, 1974. p99.
- 13 __Gaudí Bench__ Zerbst, Rainer. *Gaudí: A Life Devoted to Architecture*. Cologne: Taschen, 1990. p153.
- 14 __Albuquerque Bench__ Author's Personal Archive
- 15 __Boy and Dog on Porch__ Herzberger, Herman. *Lessons for Students in Architecture*. Rotterdam: O10 Publishers, 1991. p32.
- 16 __Storefront Gathering__ Murray, Kenneth. *Down To Earth: People of Appalachia*. Boone: Appalachian Consortium Press, 1974. p39.
- 17 __Porch Duet__ Conway, Cecelia. *African Banjo Echos in Appalachia: A Study of Folk Traditions*. Knoxville: University of Tennessee Press, 1955. pxxi.
- 18 __Chattanooga Stage__ Murray, Kenneth. *Down To Earth: People of Appalachia*. Boone: Appalachian Consortium Press, 1974. p61.
- 19 __Siena Piazza__ Lakeman, Sandra Davis. *Natural Light and The Italian Piazza: Siena, as a case study*. Siena: Alsaba Grafiche, 1992. p67.
- 20 __Portland Square__ Heintz, Russ. *Portland from the Air: Aerial Photography by Russ Heintz*. Portland: Graphic Arts Center Pub., 2000. Willard Martin, architect. p76.
- 21 __Plowing__ Speer, Jean Haskell ed. *The Appalachian Photographs of Earl Palmer*. Lexington: University Press of Kentucky, 1984. p55.

Illustrations (Continued)

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- 22__ Background of Floyd's Black Ridge__ Author's Personal Archive
- 23__ Board & Batten Siding__ Author's Personal Archive
- 24__ Eureka Springs stone Wall and Concrete Steps__ Author's Personal Archive
- 25__ VA Map__ www.usgs.gov
- 26__ Milan Street__ Dornie, David. *New Stone Architecture*. Boston: McGraw Hill, 2003. p167.
- 27__ Cavadini Swiss Munciple Building__ Dornie, David. *New Stone Architecture*. Boston: McGraw Hill, 2003. p193.
- 28__ Herzog & de Meuron Domus Winery__ *A+U* 4.331 (1998): 6-27
- 29__ Herzog & de Meuron Domus Winery__ Aaron Betsky. *Domus*. 803 (1998): 8-17.
- 30__ Finnish Embassy__ Author's Personal Archive
- 31,32__ end-grain wood__ Website, Kaswell Flooring Systems: www.kaswell.com

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