AN ARCHITECTURE OF CONNECTION:

A PLACE FOR MUSIC

by

Carolyn Jones Schorer

Thesis submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

MASTER OF ARCHITECTURE

Approved:

Gregory K. Hunt, Chairman

J. Thomas Regan

Jaan Holt

March, 1986

Blacksburg, Virginia

AN ARCHITECTURE OF CONNECTION:

A PLACE FOR MUSIC

by

Carolyn Jones Schorer

(ABSTRACT)

A building as:

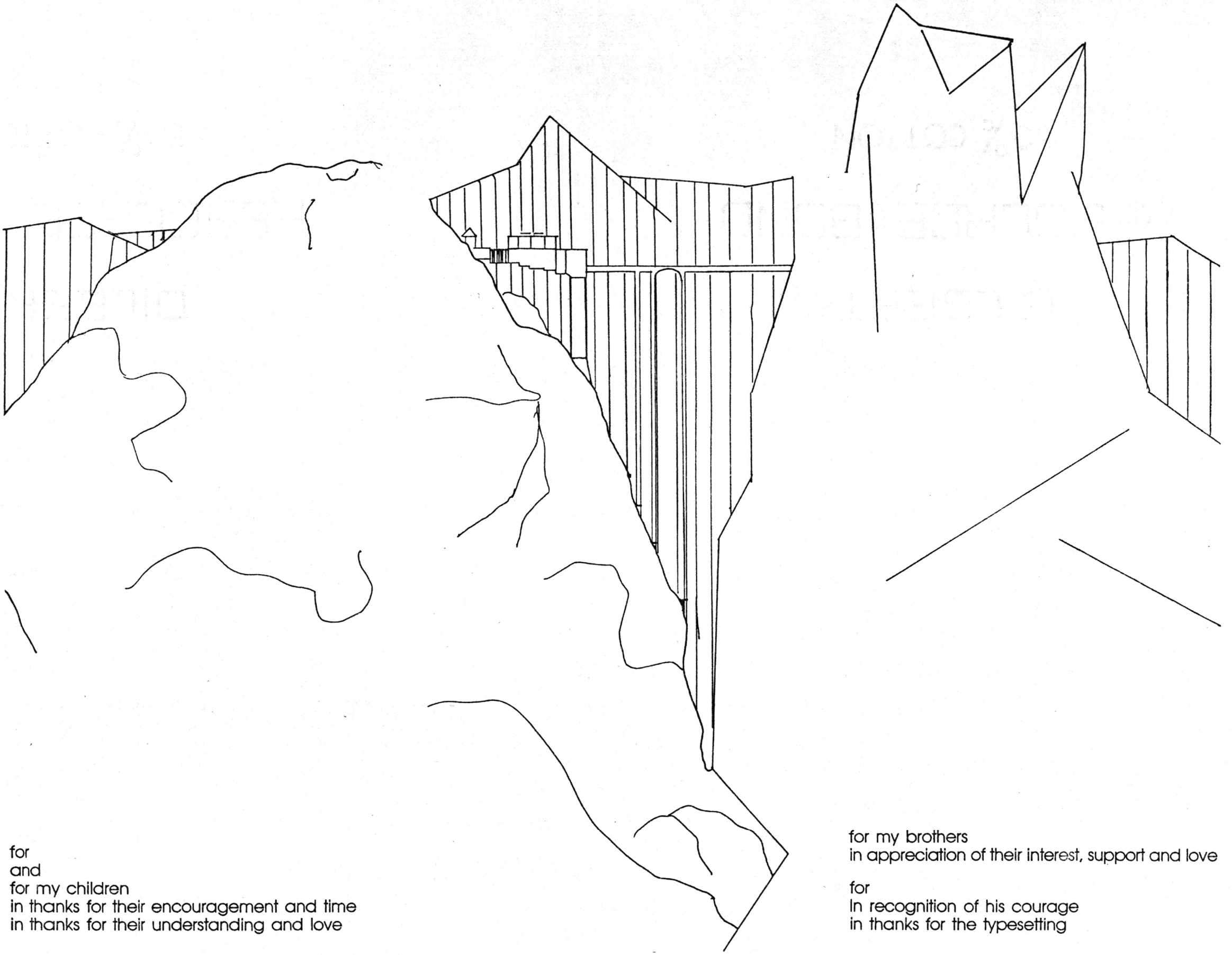
a theater, a place to experience music;

a connecting link between contrasting conditions and values, landscapes and terrain, materials and styles of architecture;

a viaduct, a structural and psychological bridge inviting one to traverse, to experience, and to depend upon its walkways and rhythms, its transitions and choices;

a natural extension of an existing park which presently separates, as both valley and buffer, the medieval (Sacrofano) and the post World War II (Martini) sectors of the town;

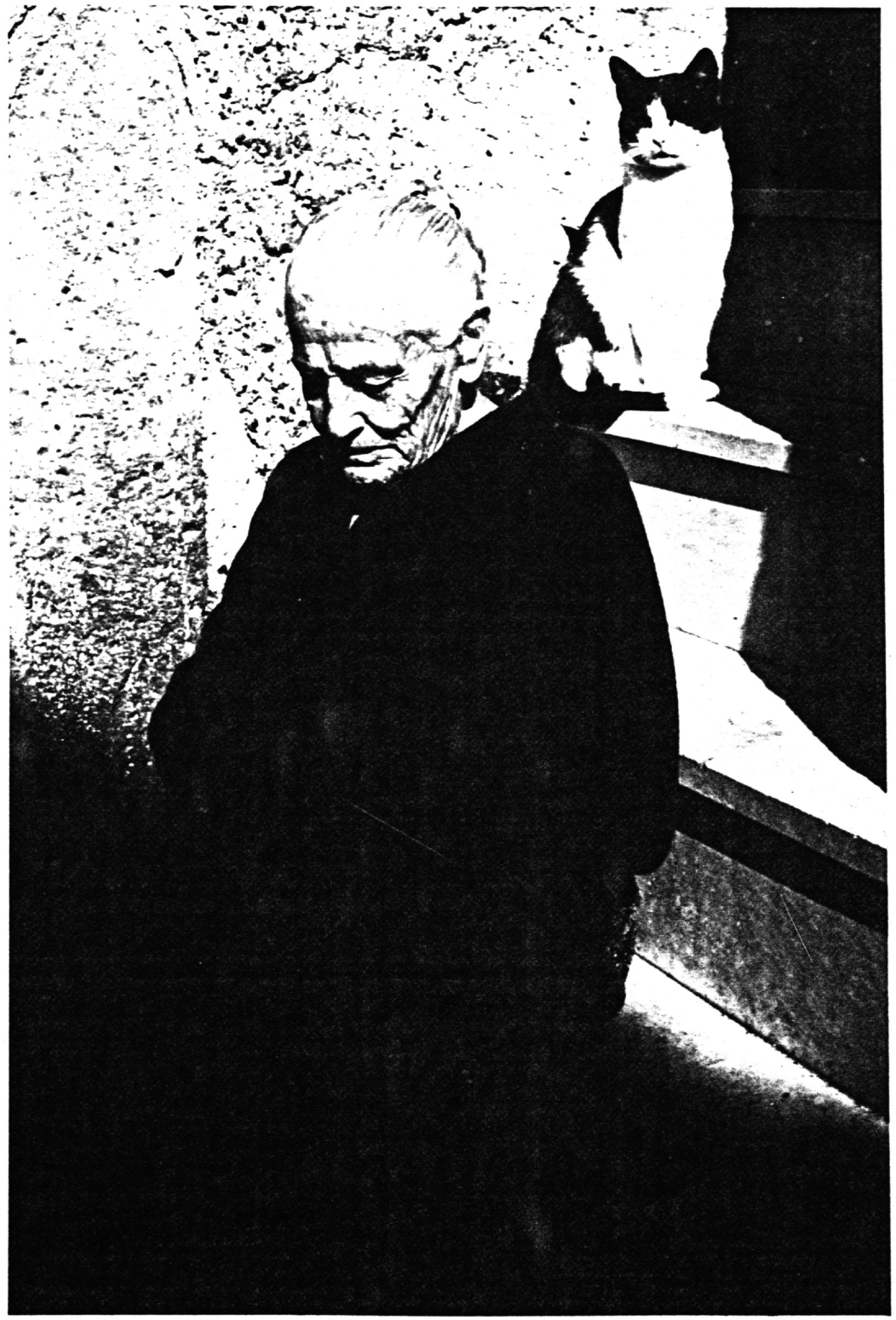
a reinforcement of the double axis: Rome-Sacrofano, Sacrofano-Martini.



for
and
for my children
in thanks for their encouragement and time
in thanks for their understanding and love

for my brothers
in appreciation of their interest, support and love

for
In recognition of his courage
in thanks for the typesetting



The bells in the tower ring until the procession, winding slowly up the hill, reaches the cemetery. I know, because I was in the procession today. They slid back the heavy marble slab, and then the business of winches, pulleys and chains began. Lowering her into the vault, they couldn't agree on which of the four vertically stacked shelves to place the coffin. Wanting just to know where she is so that I can visit sometimes with flowers, I left then. We felt a touch of spring and then yesterday the days turned cold and the wind came up through the mountains. My special friend Lavinia died, and I am sad.

I'll remember her welcoming wave from the small window above the arch. I'll remember her silhouette sitting on the step, knitting in the sun. I'll remember her beautiful face opening in a smile. I'll remember her visiting Rosina. They have been friends for more than fifty years. I'll remember her concern when it snowed, thrusting precious logs into my arms. I'll remember her sitting, cold, by the corner fire. I'll remember that she bought a hunting dog when she was 85. She is the spirit of Sacrofano.

Lavinia
November 20, 1899
February 12, 1985

for the People of Sacrofano

TITLE	i
ABSTRACT	ii
DEDICATION	iii iv
TABLE OF CONTENTS	v
DESIGN STATEMENT	1 2
INTRODUCTION	3
DESIGN CONSIDERATIONS	4
PROGRAM	4
QUOTE	5
TERRITORY	6
TOWN AND SITE STUDIES	17
NOTES FROM A HILLTOWN: SOUNDS	41 42
PRELIMINARY STUDIES	43
THE THEATER	50
REFLECTIONS	61
REFERENCES	62
VITA	63

American Embassy Rome
APO 09794
New York, NY
August 14, 1984

Mr. Seiji Ozawa
c/o Symphony Hall
Boston, MA 02115

Dear Mr. Ozawa:

In June 1973 you visited the U.S.S.R. to conduct the San Francisco Symphony Orchestra. My husband and I, diplomats posted to open the U.S. Consulate in Leningrad, heard that you hoped to procure some Coca Cola, a then scarce commodity in the Soviet Union. We offered you a case we'd been saving; in appreciation, you invited us to sit with the percussion section during a performance in the Leningrad Philharmonic Hall. Although our Foreign Service lives reverberate with experiences both arduous and adventuresome, that one evening's experience - the opportunity to feel the power as well as the silence of a single section of the orchestra - has remained a unique and dramatic highlight of the past eleven years - not only as a the memory of a magnificent concert brilliantly conducted but also as a catalyst for subsequent personal comtemplation and study re new theater designs.

Three years ago, I returned to graduate school to become an architect. Since my thesis project - a place to experience music - is inspired by that evening in Leningrad with you, I am very interested in your thoughts regarding the feasibility of the following design concept for an experimental theater for music. The project has a specific site and will be presented - drawings and concept - to a panel of advisors but otherwise is, for now, strictly hypothetical.

Purpose:

To design a theater which, by introducing a new relationship between conductor, musicians and audience, provides a place both to experience and to study music.

Configuration:

The orchestra sits by section in a star-like configuration. All musicians face the conductor.

A limited number of the audience sits within the orchestra between the spokes of the star but at a level slightly lower than that of the musicians.

The remainder of the audience sits in an amphitheater outside the star. Adjustable acoustical baffles make it possible for those in the surrounding amphitheater to hear the total blend and sound of the orchestra.

According to the requirements of the composition to be played and the number of instruments in each section, the star - operated from beneath the floor on tracks - can be moved to change the number of spokes as well as the size of each spoke.

Scale:

An odeum.
Seating capacity: 400

Intentions:

1. To enable those studying - or interested in - a particular instrument to observe, at close range, the musician's fingering, breathing, techniques, etc., and to isolate and to follow that instrument's part in the composition.
2. To provide the student of conducting - as well as the entire audience - with the unique opportunity to observe and to appreciate the conductor's virtuosity from the orchestra's perspective rather than from behind the conductor.
3. To feel by proximity to the orchestra and involvement in the music the drama which, although inherent in music, may not be felt or understood by audiences in conventional theaters.
4. To inspire new styles of musical composition.
5. To enhance the possibilities for music appreciation.

Reactions:

Several orchestra musicians, when questioned as to their feelings and opinions regarding such a seating plan, responded that as long as vision to the conductor remains unimpaired and as long as each orchestra section remains either intact or in close proximity the plan, from a musician's perspective, is certainly acceptable. Some welcomed the opportunity for a closer relationship with the audience and the chance to share technical and interpretative knowledge and mastery of their instruments.

I hope that you may have time to respond as I respect your masterful conducting as both dynamic and innovative and expect that your ideas are the same.

Should you travel to Italy, either alone or with the Orchestra, please let me know as you have in us supporters who would like to help you sightsee, shop - survive in Rome. Still diplomats, we will be posted to the U.S. Embassy in Rome until August 1986.

Sincerely,

Carolyn Schorer

June 19, 1986

Ms. Carolyn Schorer
American Embassy Rome
APO 09794
New York, New York

Dear Ms. Schorer:

I do apologize in the delay in responding to your letter but due to Mr. Ozawa's hectic schedule, he has not had the time at this point to comment on your proposed project.

I spoke on the telephone with your husband several weeks ago, and in the course of the conversation I told him I would send him some names of acoustic consultants. Enclosed please find advertisements for some of the companies available.

Mr. Ozawa is returning to open our season at Tanglewood and you may be sure that I will try to get his comments on this project.

With best wishes.

Sincerely,

Martha Batchelor
Secretary to Seiji Ozawa

Carolyn J. Schorer
American Embassy
APO 09794-0007
New York, New York
July 10, 1985

Ms. Martha Batchelor
Secretary to Seiji Ozawa
Boston Symphony Orchestra
Symphony Hall
Boston, Massachusetts 02115

Dear Ms. Batchelor:

I appreciated your letter and enclosure of 19 June. I'll be working on the theater project throughout the summer and would be specifically interested to know what Mr. Ozawa as Conductor thinks about a configuration of the orchestra which would allow a limited number of the audience to sit within the orchestra's perimeter. Please refer to my letter of 14 August 1984. Although the configuration could be altered to accommodate the composition and the number of musicians in each section, one example would be a multi-spoked star, occupied by the orchestra, in which all the musicians face the Conductor. Limited numbers of the audience could sit in recessed areas (thereby neither distracting musicians nor obstructing their view of the Conductor) between spokes of the star. The remainder of the audience would sit in an amphitheater arrangement partially surrounding the orchestra. The Conductor would face both the musicians and the audience. Total seating capacity: 350-400.

Intentions for this *experimental* theater are to expand the relationship between Conductor and audience and between musicians and audience by:

1. giving the audience the unique opportunity, now experienced only by musicians, to follow and appreciate the virtuosity of the Conductor and his rapport with the orchestra. One is drawn to a performance, in most cases, by the Conductor and it seems less than satisfactory to view his virtuosity only through his hands and the back of his head.
2. enabling those studying music to isolate and to follow a particular instrument, orchestra section or part in the score.

I have talked with numerous symphony orchestra musicians regarding the possiblity of limited numbers of audience sitting "within" their ranks. Each one has said that as long as the section is intact and line of sight to the Conductor is unobstructed, each rather likes the idea that observers interested in a particular instrument could have a more direct relationship in terms of sight and sound. The musicians suggested that a change in the conventional pattern could open the way for new kinds of compositions. Stage theater has introduced new relationships between actors and audience. Why not in musical theater as well!?

Thank you for your time. I look forward to hearing from you again.

Sincerely yours,

Carolyn Schorer

Sacrofano, located on a north/south axis in close proximity to Rome, Italy, is a prototype of the Tuscan hilltowns whose forms emerge from the hills of the Tiber River valley. The town's origins are Etruscan, its relics are Roman, and its first continuous habitation dates from the eleventh century. Following World War II, the population expanded beyond the walls' limits and a new town, Martini, grew facing the hilltown on an adjacent and parallel hill. A road and a park in the valley between old and new towns define the separation. Architecturally, economically, psychologically, and technologically, the two hillsides maintain - and even strive for - separate identities. Culturally and geographically, they are one. The citizens of both have reasons, aside from family connections, for crossing to the other side (two churches, two schools, the marketplace and shops are in Sacrofano; the cemetery, pastures, and a grocery store are in Martini). The change, however, is abrupt. The thesis project provides a place to experience music (as described in the Design Statement), and as a secondary but interlocking function intends, in its passageways, to make direct connections between the two parts of the town.

The theater, begun in Alexandria, Virginia, on a Potomac River site adjacent to the Torpedo Factory, was subsequently airlifted to Sacrofano. In the evolution of building sites and design, a major concern of the project has always been that the building contribute a function back to the street, so that even those who don't intend to use the building for its primary purpose have the opportunity to participate in and to rely upon its rhythms and presence. In the Alexandria theater, a double lobby - one inside and one outside - ringed the building's perimeter providing covered walkways, benches, reading nooks, a bike path through the building, and changes of spatial conditions leading toward a view of the Potomac. Located at the terminus of King Street the walkways, designed to be used by theater-goers, residents,and tourists alike, provided a turnstile around the building, drawing its visitors to the river before turning them around for the return walk up King Street.

In the Sacrofano theater the passageways, which provide access to the theater, may be used independently of theater function. The north elevation offers two choices to the traveller. 1) The first is within the building and is constructed with materials, contradictions, and choices belonging to the hilltown. As one is drawn along the passageway, past a terraced restaurant and a window looking into the interior of the theater, spaces become larger, lighter, and more like those in Martini. As with walks contained by the hilltown, one must go within to experience them. The route cannot be anticipated or read from the outside. 2) The second choice is the main street of the hilltown (see page entitled North/South Axis, One Walk Through Town) repeated in the park as the buttressed walkway along the north elevation of the building. 3) Open to the air, the passageway on the south elevation traverses the side of the building like a path on the side of the hill. It begins with conditions familiar to those who live in Martini. The main staricase used to ascend the hill between Martini houses is reproduced with the same step number, dimension, and slope along the southern passageway. As one walks from east to west, the spatial conditions gradually become like those of the hilltown. Light becomes diffused and walkways more confined. Before entering the gatehouse to go up to the hilltown, the town's honeycombed foundations can be seen through a window in the hillside.

It is hoped that by incorporating in the design the dominant axial elements already existent in the circulation patterns of both Sacrofano and Martini the passageways, even though in a different context, will seem natural. The gradual transitions will encourage people to cross and, in becoming familiar with contrasting conditions, to make valid connections between the two parts of the town.

There is stated need for a festival center easily accessible from Rome. There is a tradition of lute and flute playing in the town. Many participated, visually and verbally, in the studies and were disappointed to learn that the project is theoretical.

DESIGN CONSIDERATIONS

A new building appears, transforming the site. For some who live nearby, the building's functions coincide with and support their own interests and needs. For others, excluded by the building's definitive function, the building remains a structural entity - in some cases to be regarded as a territorial intruder. In becoming an integral part of its environment a building can offer, even to those not interested in its primary function, the opportunity to participate in its presence. In thinking about what a building could be, a primary concern was to offer back to the community a building accessible on several planes of use, its coexistent functions at once inter-related and independent. With the assumed responsibility of making a building which reaches beyond its internal functions, the project develops with duality of purpose. As both a connection and a progression between, the theater is a place to experience music between passageways.

How does one bridge disparate conditions? Connective architecture presents questions for which there seem to be a myriad of interpretations with no definitive solutions. A bridge assumes that two sides should be connected - that someone wants to cross. In the town of Sacrofano, this may not yet be the case. Perhaps insular hilltowns exist with architectural integrity intact because bridges from the outside have not yet made valid connections.

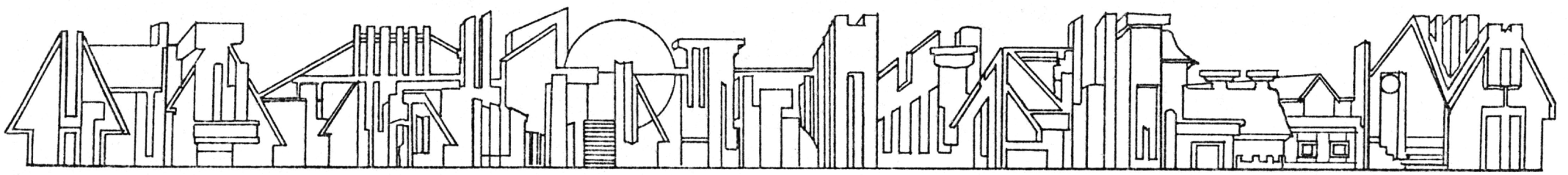
Should a bridge look like the side it touches? Or, should it look like the far side so that when beginning one's journey one is drawn across with foreshortened perspective - with a preview of the opposite side? Or, should a bridge resemble neither side but, as the joint between, have an identity uniquely its own?

Studies of territory, of vernacular forms, and of the town were undertaken to study these questions and to define relevant possibilities for design.

PROGRAM

1. theater for audience of 400
2. tri-level art gallery/lobby
3. skylit restaurant, terraced seating
4. practice rooms, dressing rooms, music and instrument storage rooms, offices, rest and utility rooms
5. circular drive for vehicle entrance and exit
6. ground level parking garage
7. roof terrace accessible from 3rd level lobby
8. rooftop marketplace accessible from technicians' rooms and from the hilltown via pedestrian bridges
9. courtyard terrace accessible from north and south passageways and from interior of the theater
10. direct access from building to upper and lower terraces of the park
11. park wall observation deck accessible from theater via underground tunnel
12. two gatehouses:
    a. overlook and entrance to outside passageway
    b. ticket lobby and entrance to inside passageway
13. earthquake resistant construction

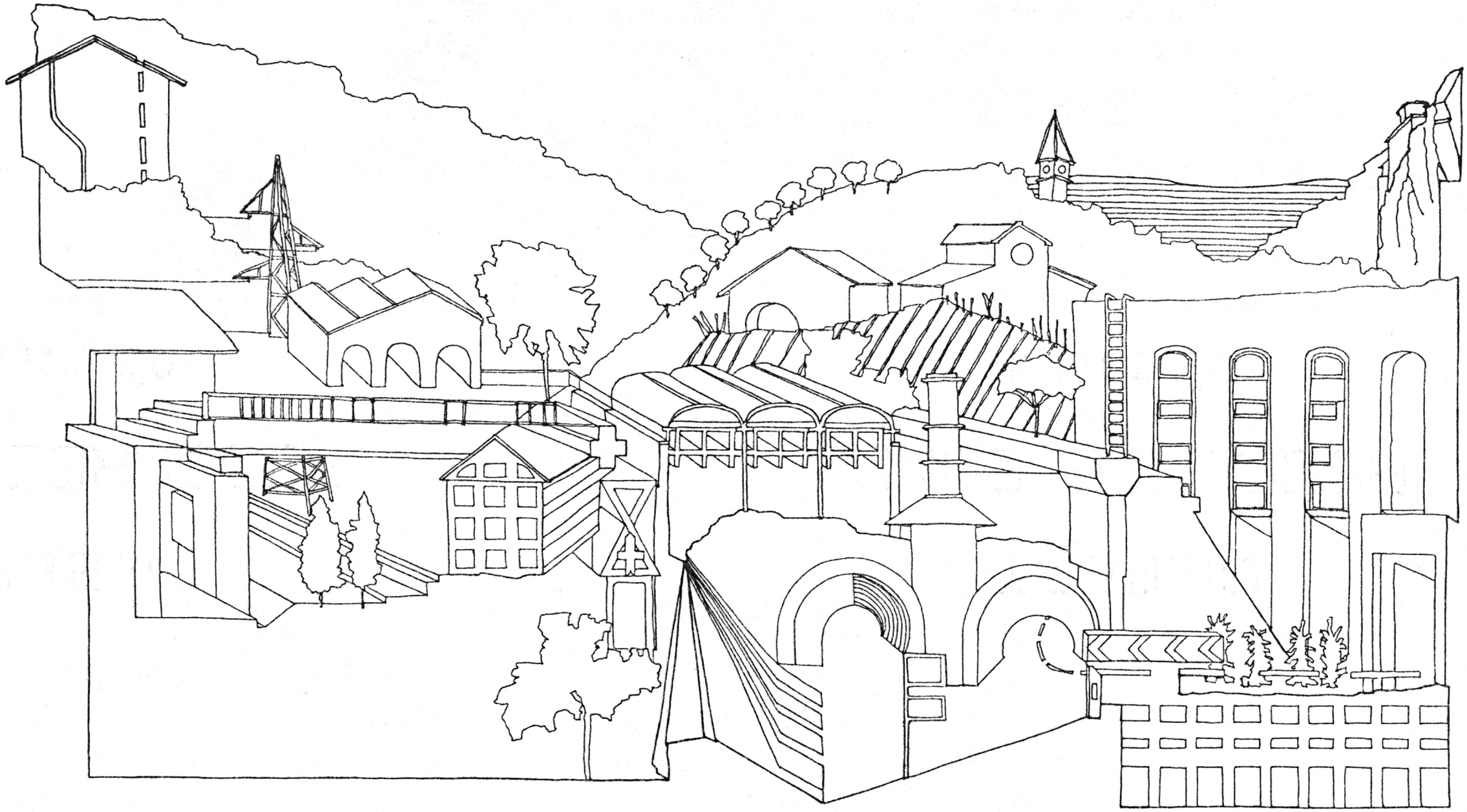
...no man can know just what another means when he tells about the city he sees. For the city that he sees is just the city that he brings with him, that he has within his heart; and even at that immeasurable moment of first perception, when for the first time he sees the city with his naked eye, at that tremendous moment of final apprehension when the great city smiles at last upon his living sense, still no man can be certain that he has seen the city as it is, because in the hairbreadth of that instant recognition a whole new city is composed, made out of sense but shaped and colored and unalterable from all that he has felt and thought and dreamed about before.[1]



TERRITORY

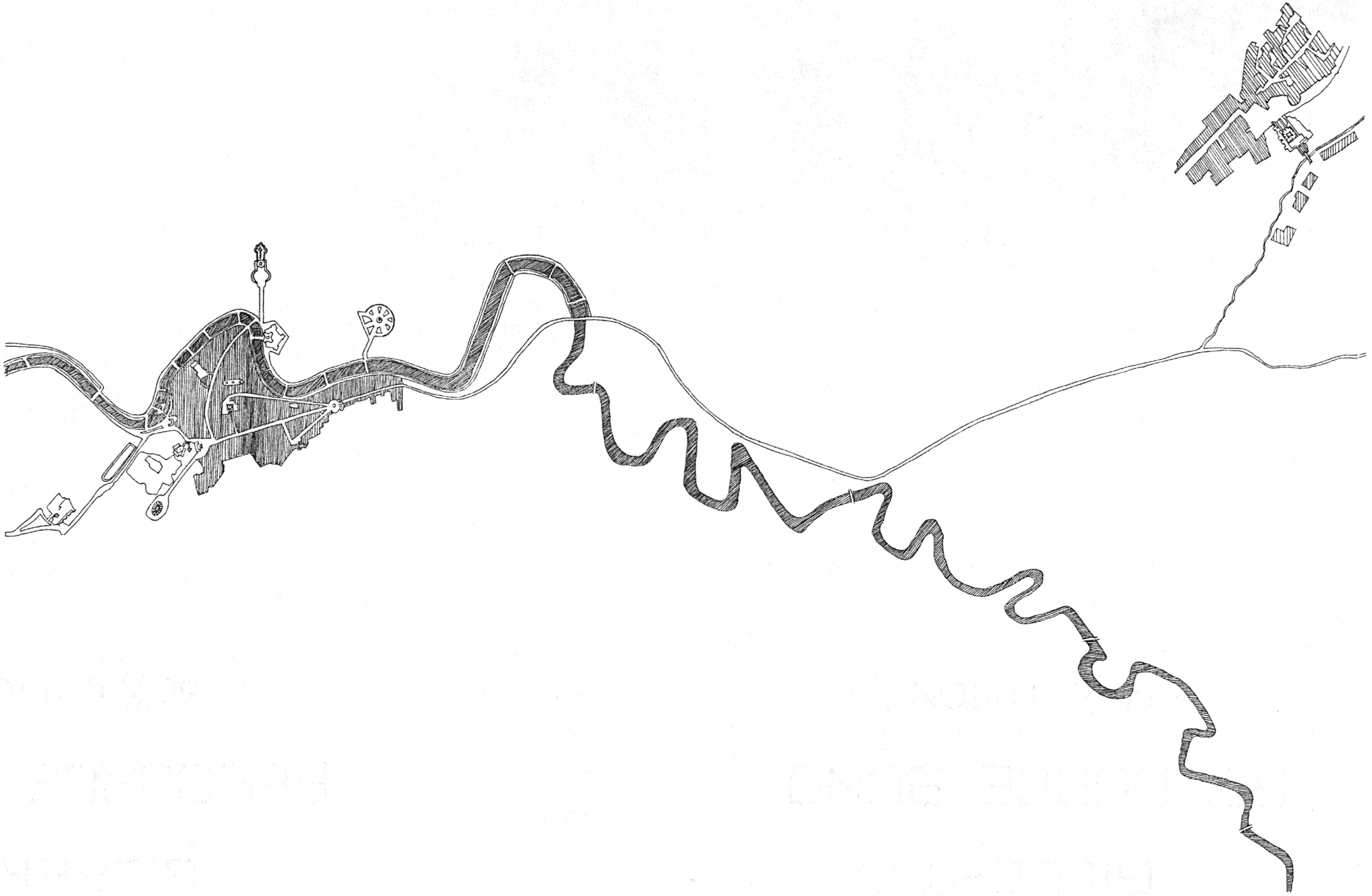
Each work of architecture has its own environment, which for the sake of convenience may be defined as its territory.

The first thing to be done when creating a piece of architecture is to get to know its territory.[2]

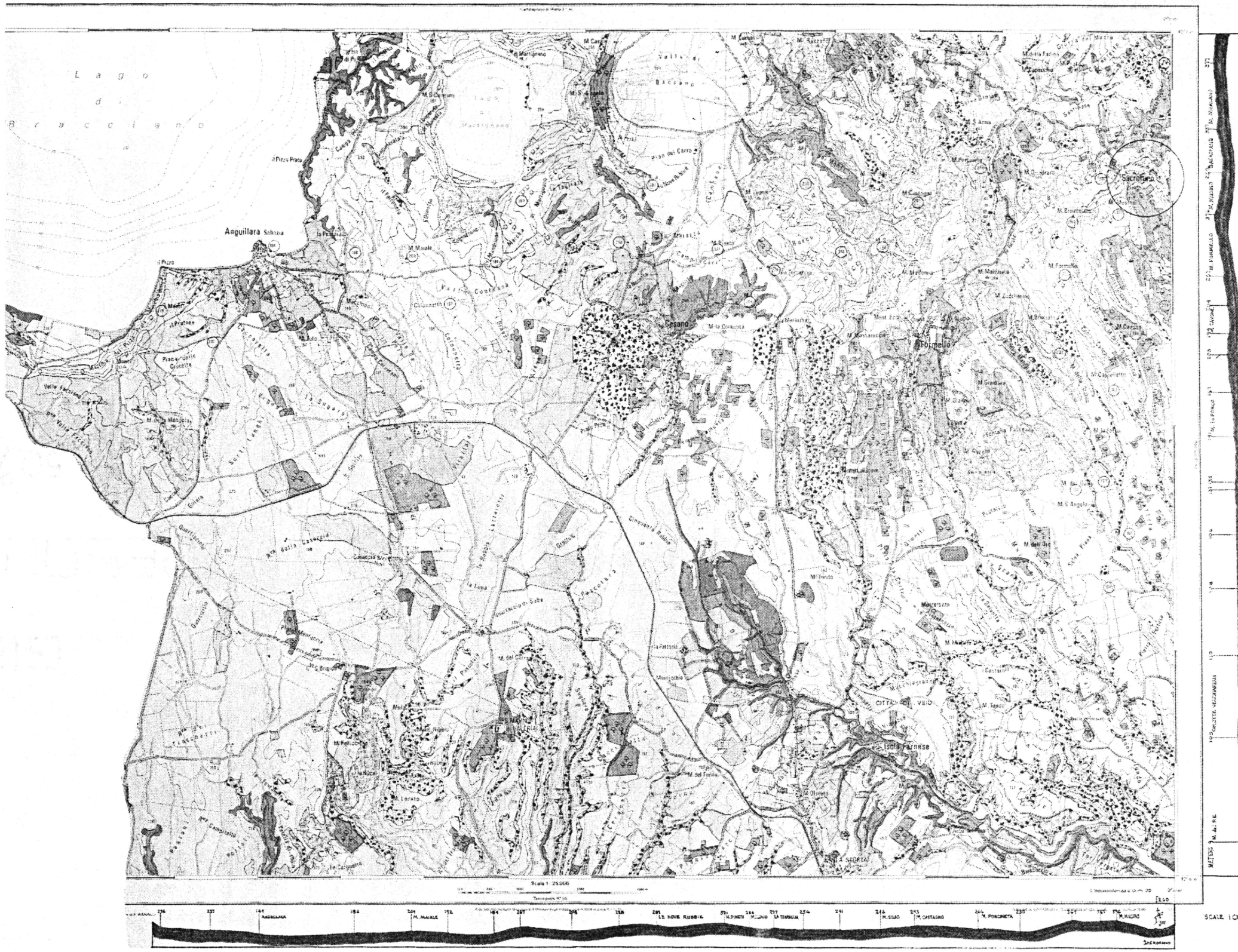


Vineyards, olive groves, farmhouses, condominiums, cliff-face monasteries, Romanesque churches, buildings within aqueducts' arches, factories, autostradas, tunnels, railroads, power lines, marble ruins, rolling hills, terraced lands,...

Sacrofano's territory in the pastoral perimeters of the province of Rome is, in its collage of history, landscape, and use, a microcosm of Italy today.



From Rome's Baths of Caracalla, Circus Maximus, Coloseum, Forum, Campidoglio, Pantheon, Piazza Navona, Caesar's Tomb, St. Peter's, Castel St. Angelo, Spanish Steps, Piazza del Popolo, and Piazza Mazzini, proceed north, crossing bridges and following the Tiber River and the Flaminia (Roman consular road built in 3 A.D.), until you come to a theater which bridges the valley in Sacrofano. Remnant outcroppings of walls, villas, towers, and abbeys break through fields of tilled soil. The territory records evidence, in both vertical and horizontal layers, of having been inhabited for centuries.



Topographically, Sacrofano is not characteristic of or remarkable as a hilltown. It appears in no guidebooks and attracts no tourists with cameras. it neither dominates a craggy precipice nor commands an extraordinary view. With four perfunctory towers it is and was, in the scheme of autonomous feuding hilltowns, strategically indefensible.

Carved out of the volcanic outcroppings of Mt. Musino, Sacrofano is situated in the rolling hills of the Tiber Valley 28 kilometers northwest of Rome.

Culturally, economically and sociologically, the north-south axis with Rome both preserves and erodes the historic identity of Sacrofano. The integrity of the territory itself has probably been best preserved by its continued agricultural use.

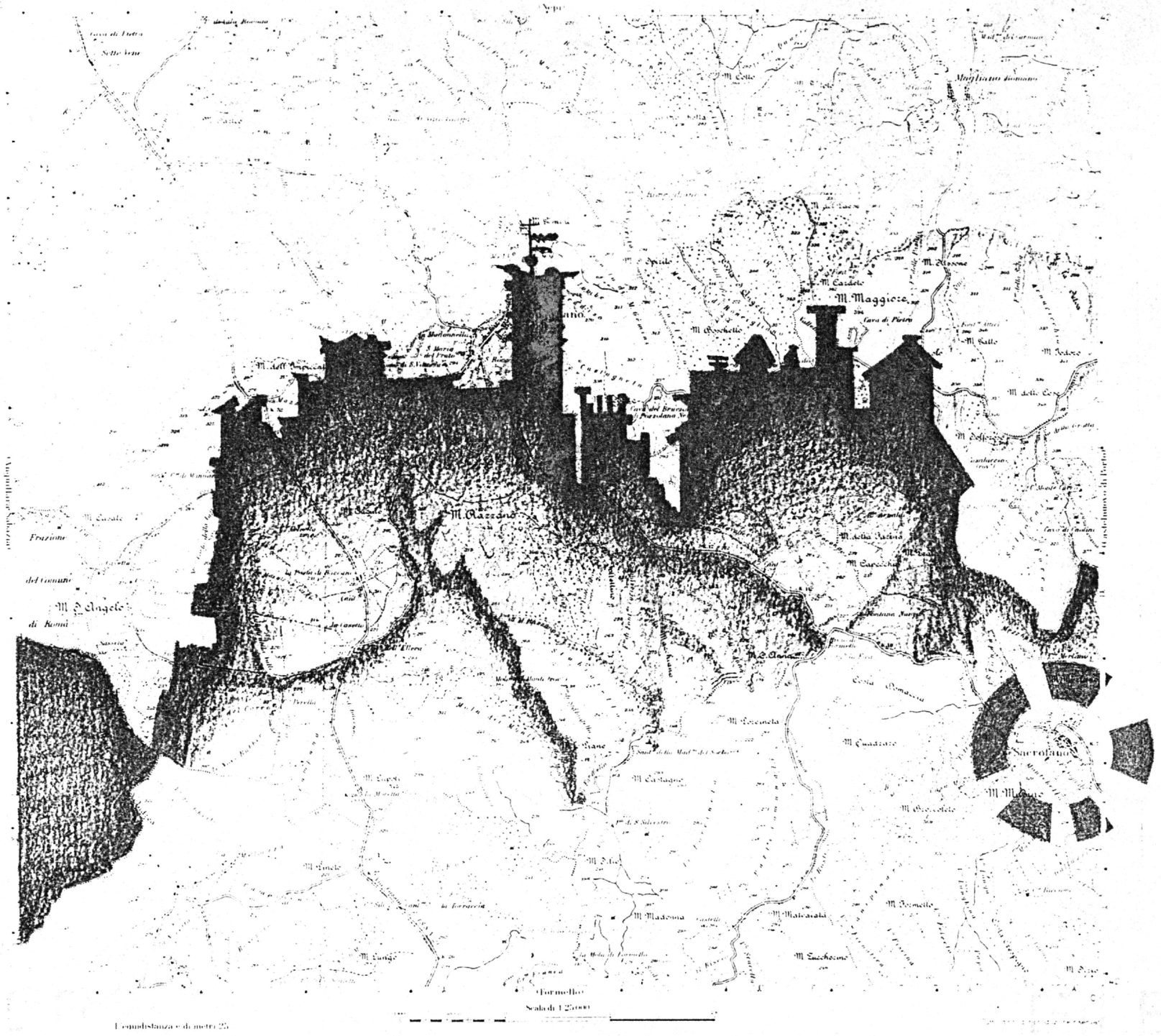
F. 145 della Carta d'Italia

CAMPAGNA DI ROMA

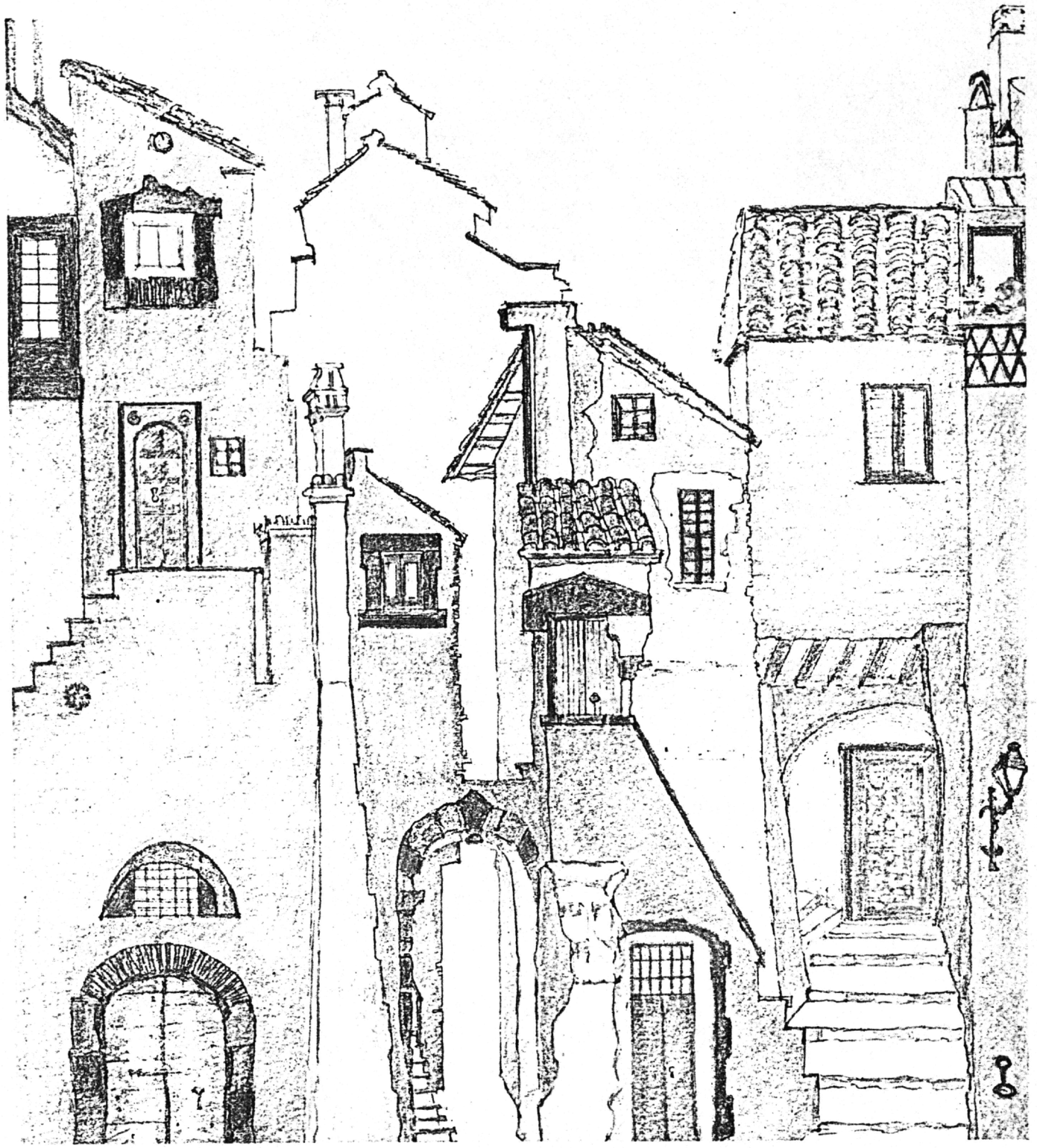
Le coordinate geografiche sono riferite all'Ellissoide Internazionale orientato a Roma M. Mario

II N.E.

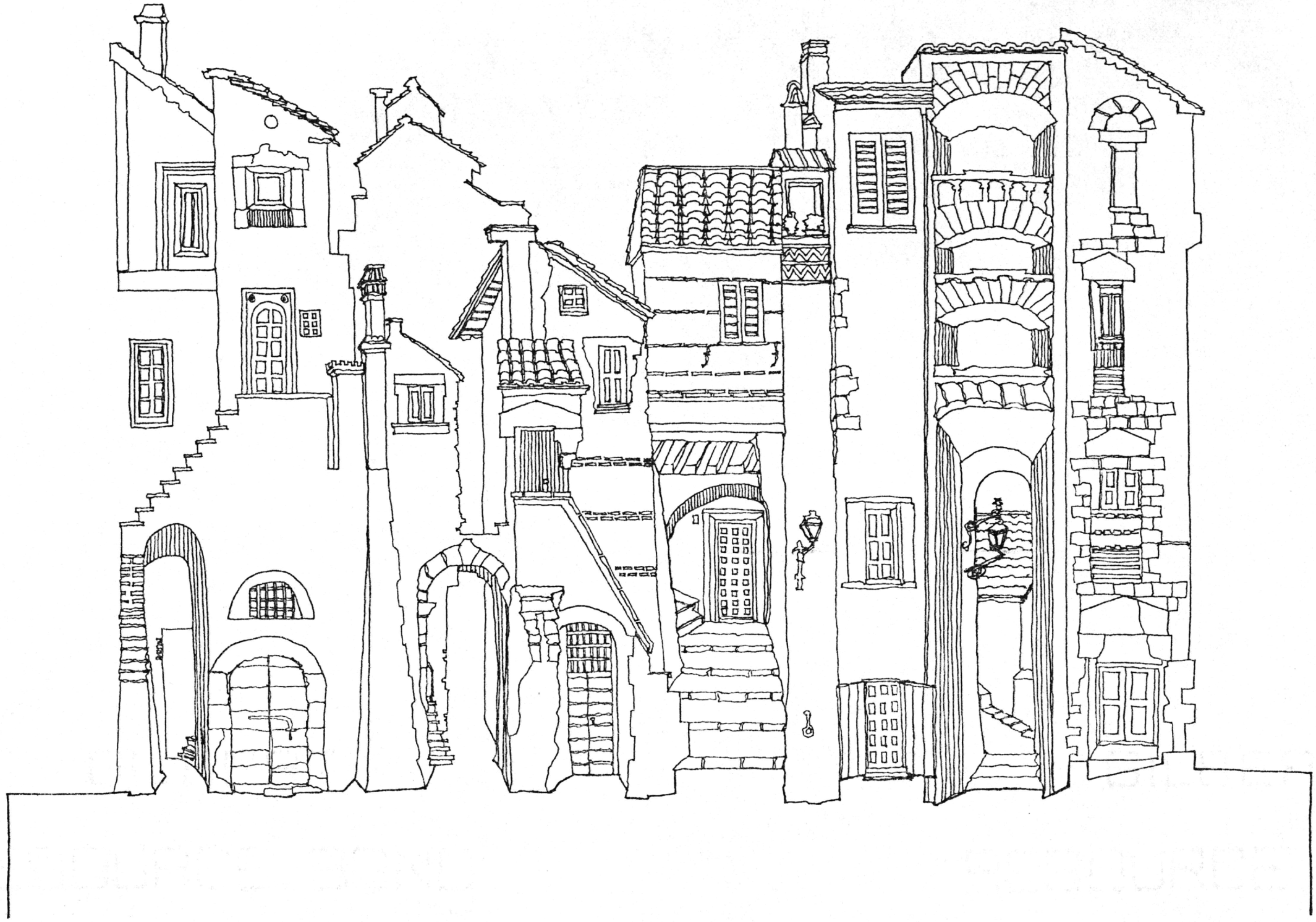
Longitudine Ovest dal meridiano di Roma Monte Mario



These towns do not diminish the landscape, they enhance it - they are themselves crystallized landscape, growing out of the natural materials and rhythms of the place.[3]



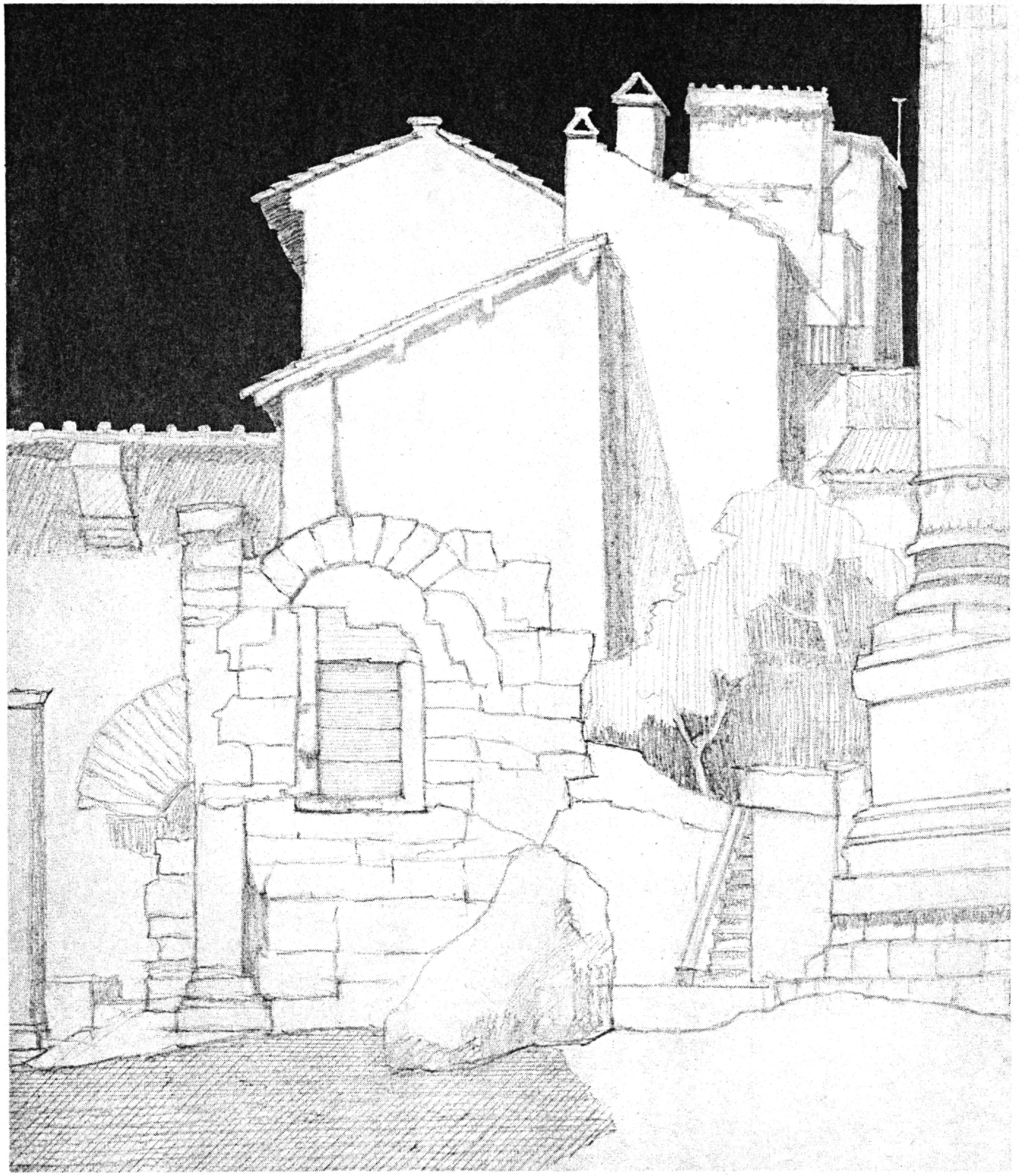
The true basis for any serious study of the art of architecture still lies in those indigenous, more humble buildings everywhere that are to architecture what folklore is to literature or folksong to music[4]...



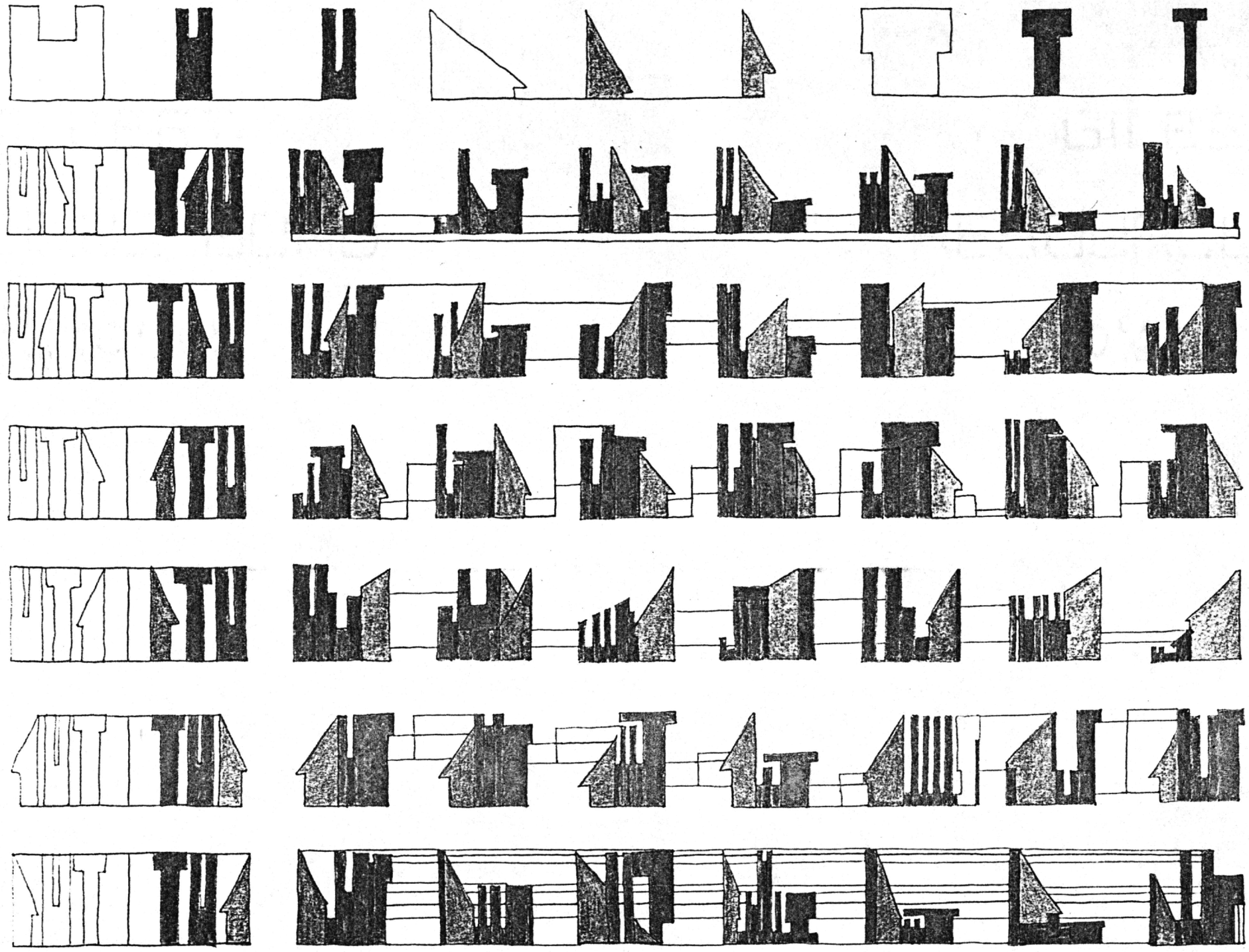
Eight Towns

Folk architecture's distinction is that it developed without pretense to elegant style or heroic form, growing instead out of the practical needs of the inhabitants and the formidable restraints of site, climate and pre-industrial society.[5]

The abundance and variety of juxtaposed materials and textures creates a sense of possessibility by suggesting an environment made by a continuing, incomplete additive process in which anyone can participate.[6]

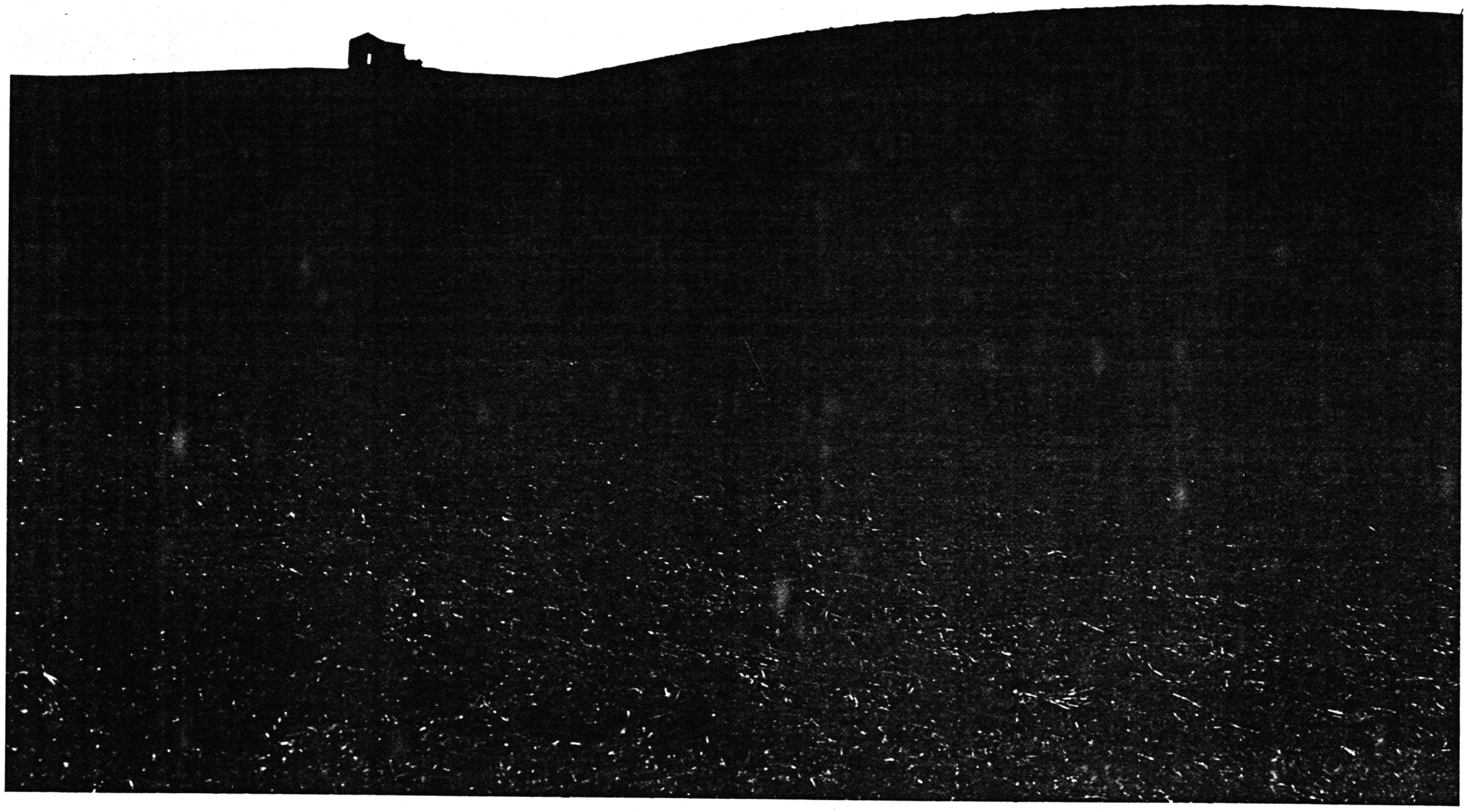


Man's psychological needs require an environment which alternates between clarity and ambiguity, privacy and affinity, simplicity and complexity, familiarity and uniqueness, unity and variety - all accommodated by the vernacular.[7]



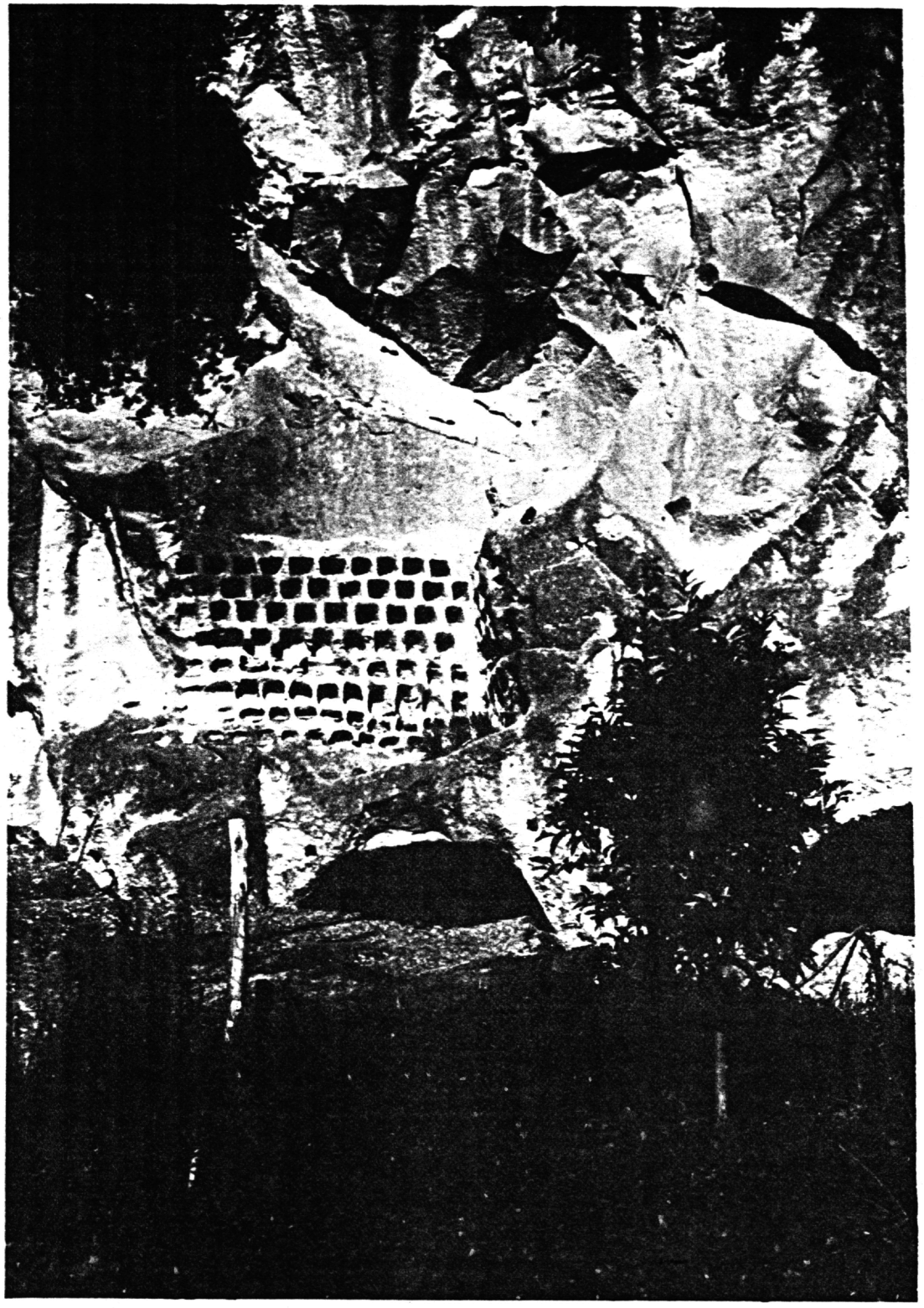
A Study of Forms

Collage as a process is a design method that allows improbable things to be brought together...for the result of collage is transformation giving new meanings to the familiar and existing by altering their context.[8]

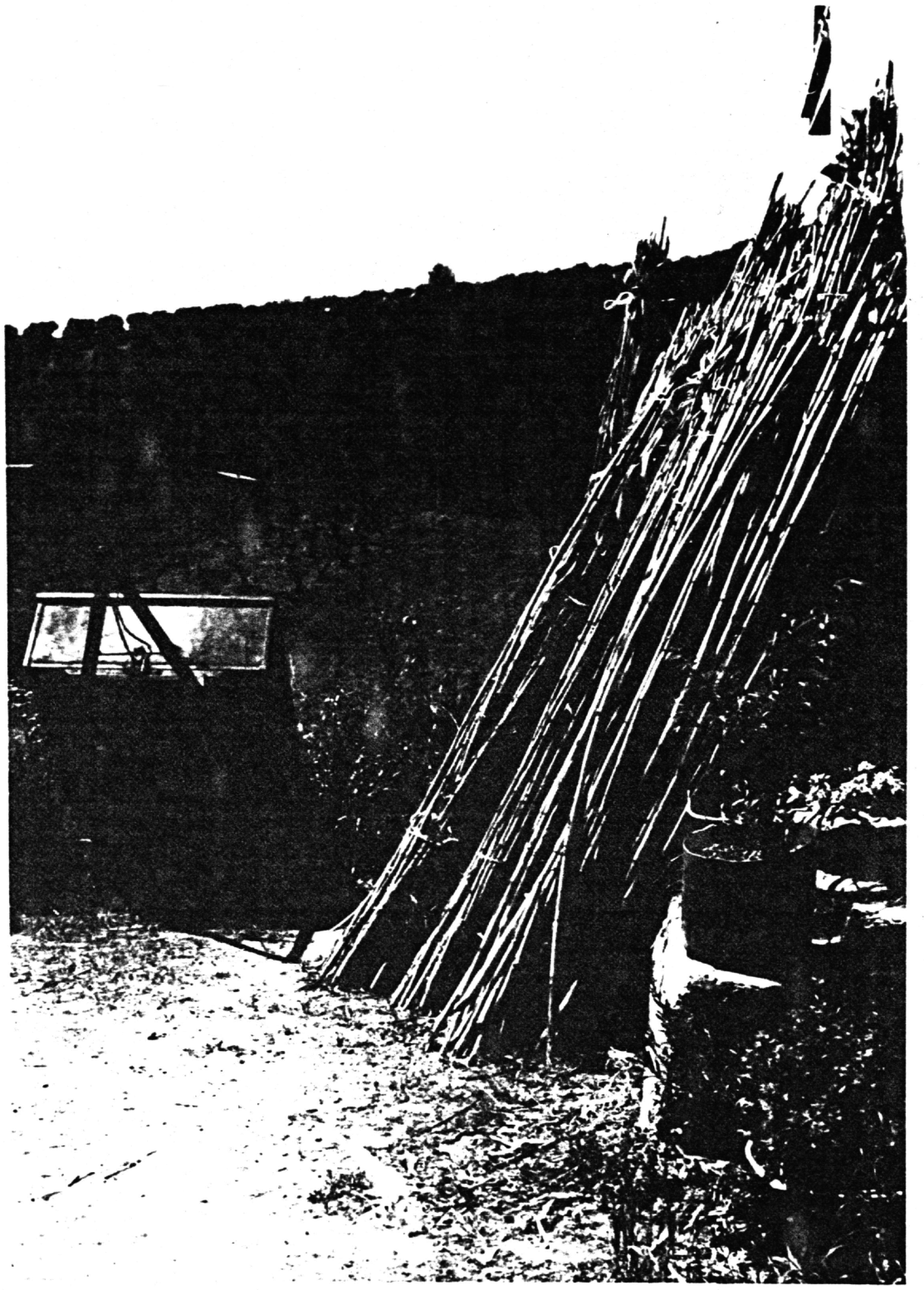


The small barns on the edges of villages, because of their simplicity and smaller scale are a transition from town form to landscape.[9]

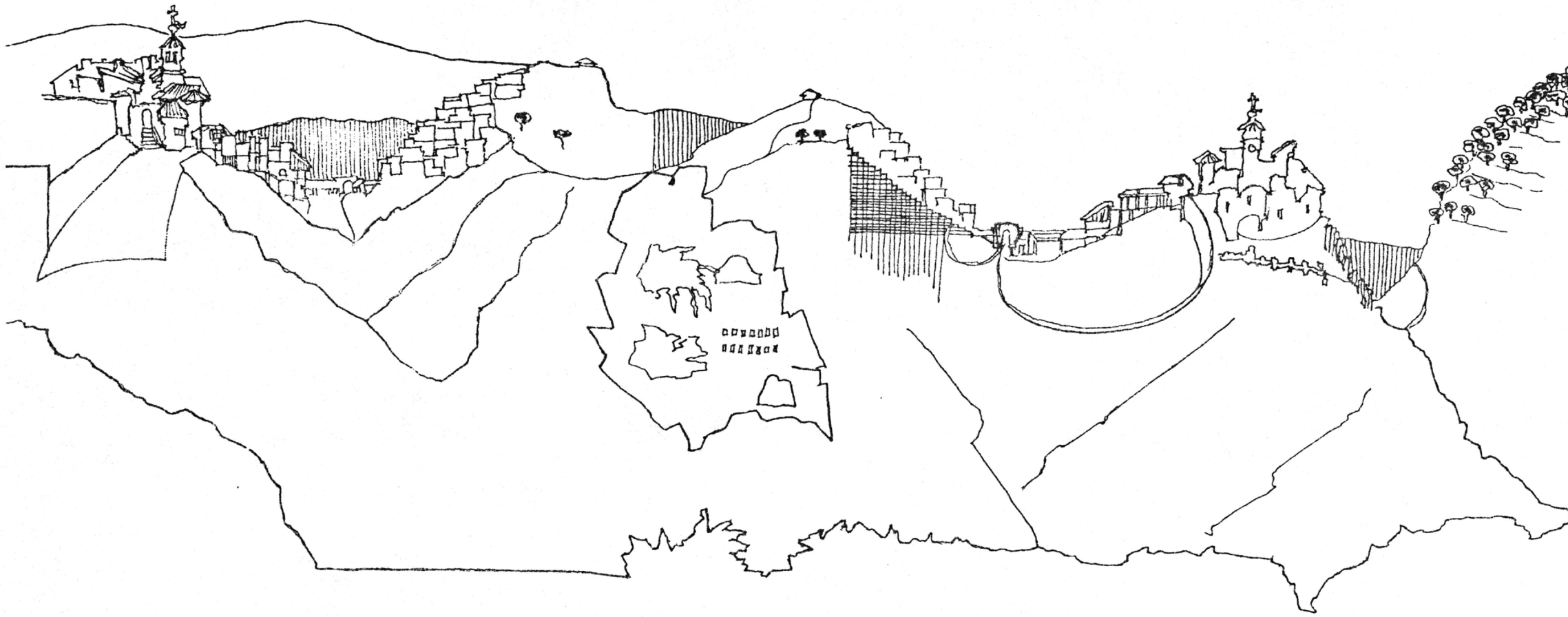
In September and October the earth is scorched black from summer's fires, and landscapes become surrealistic.



Tufa cliffs, pocked with the shadowy caverns of pigeon holes and Etruscan caves, form the high northeast wall of the town.



Rocky soils give way to bamboo stalks, waving like fields of wild corn in lowlands just below the southern rise to the town. Vertically arranged rows of olive trees lend order to the western hillside. silvery leaves, refracting sunset's rays, focus the day's final light on stuccoed sienna walls.



TOWN AND SITE STUDIES

The town never overwhelms - there is always the sense of the landscape with the works of man in it.[10]

Windows face inward on the hilltown from cold-walled rooms at the bottom of shafts where each street in the maze has its own slice of sky. Narrow strips of sun filter through some invisible venetian blind, filling voids with angular patterns and changing colors and textures of walls as they pass. Limber cats and black-shawled widows leave shadows to migrate with the light, claiming perches at different elevations according to the time of day. When the sun moves overhead, inside spaces expand. Door latches click and slide in sequence as Sacrofanese rush out at noon. Sun slips away - an elusive friend. Contrasts give way to flat diffused light in the afternoon. Light defines tufa forms inviting the adventuresome to explore. Outsiders won't visit the town at night when tall walls lean in, compressing the darkness. "Ghosts" they say jokingly.

Most towns grew without plan as irregular, accidental clusters of mutually supporting individual units, accommodating the peculiarities of each site.[11]

The hard-edged tufa form of Sacrofano's east wall (refer to hilltown plan and sketches) is reversed and repeated in the soft contours of the earth, giving form to the terraces. The form gradually erodes, becoming softer and less defined, as it steps down to park level.

The hillside site gives most of the houses access to light and air, even though they have been built, repaired and added to apparently without plan - leaning against each other for mutual support.[12]

With mutually supporting houses packed tightly together, the village makes efficient use of materials and environment since it encloses the maximum of space with the minimum of surface. This results in a uniform density and pattern of house forms enhanced by the similarity of materials, colors, and shapes.[13]

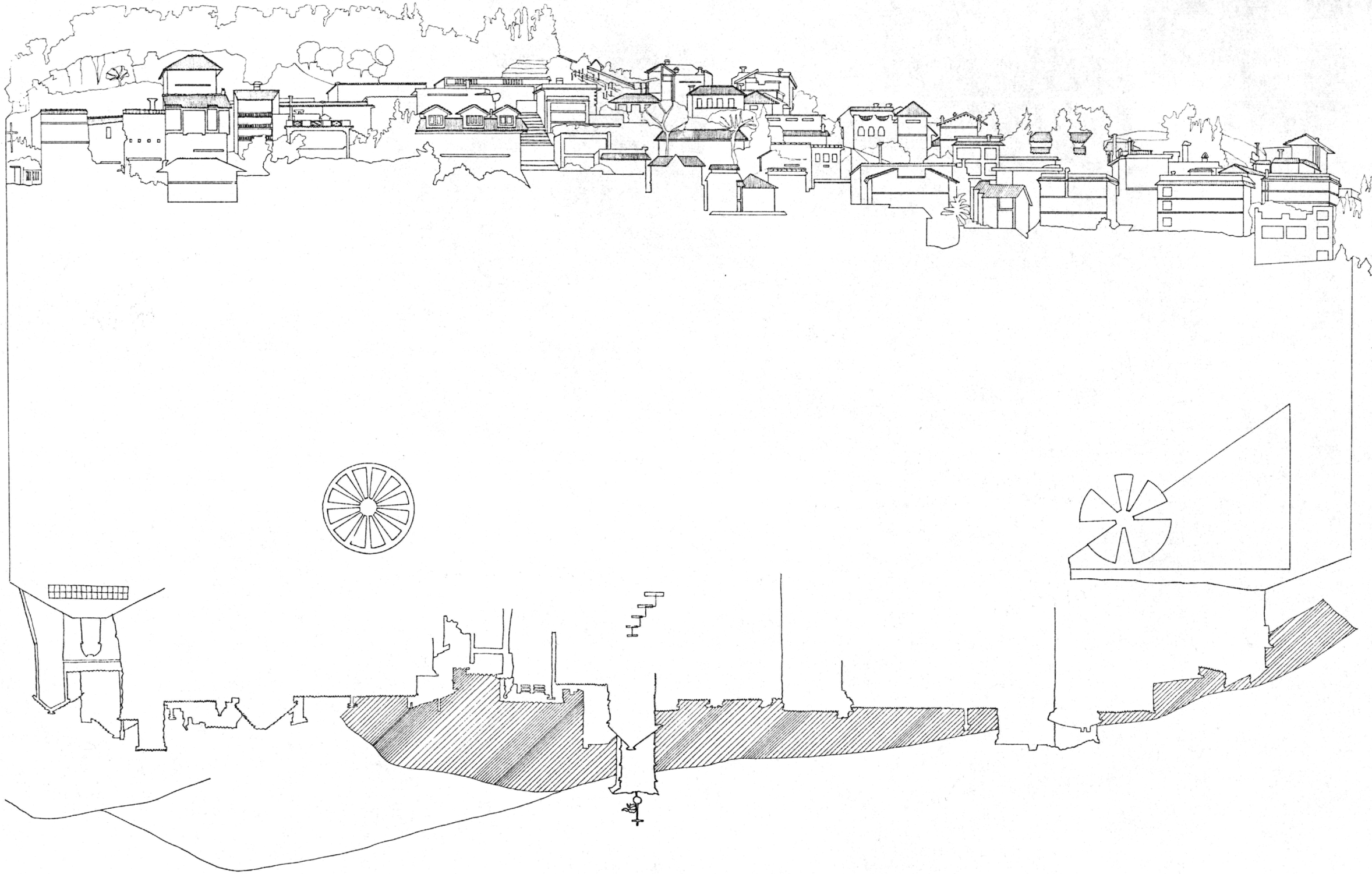
Building forms seen from above seem more delicate - lighter and more precise. One senses roofs reaching for air and for the sky. When one lives in the view, one sees the view inside out and feels the weight - the profundity of stone.

Bordered on the west by Piazza del Mercato, on the south by condominiums, on the east by the road leading to the Flaminia and Rome, and on the north by park, the Site -125' (west) by 285' (south) - drops 66' in 118', west to east.

Situated in the valley between the centro storico (11th century) and the post World War II sectors of the town, the site is at the southern boundary of the park.

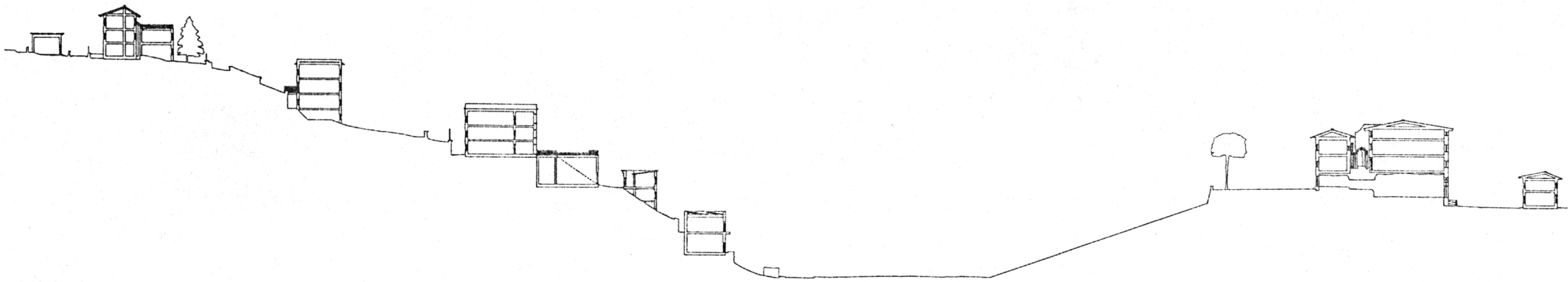
The Site is presently occupied by a garden, chicken coops and a dump.

An Elf service station which juts into the park and two buildings on the western boundary - an abandoned garage and a 1950's concrete block two-family dwelling - will be removed to make way for the theater. There is a second service station immediately adjacent to the first. The two families have relocated to new public housing on the western edge of the town.



Contours

Sacrofano consists of two cities,...both change with time, but their relationship does not change; the second is the one about to free itself from the first.[14]

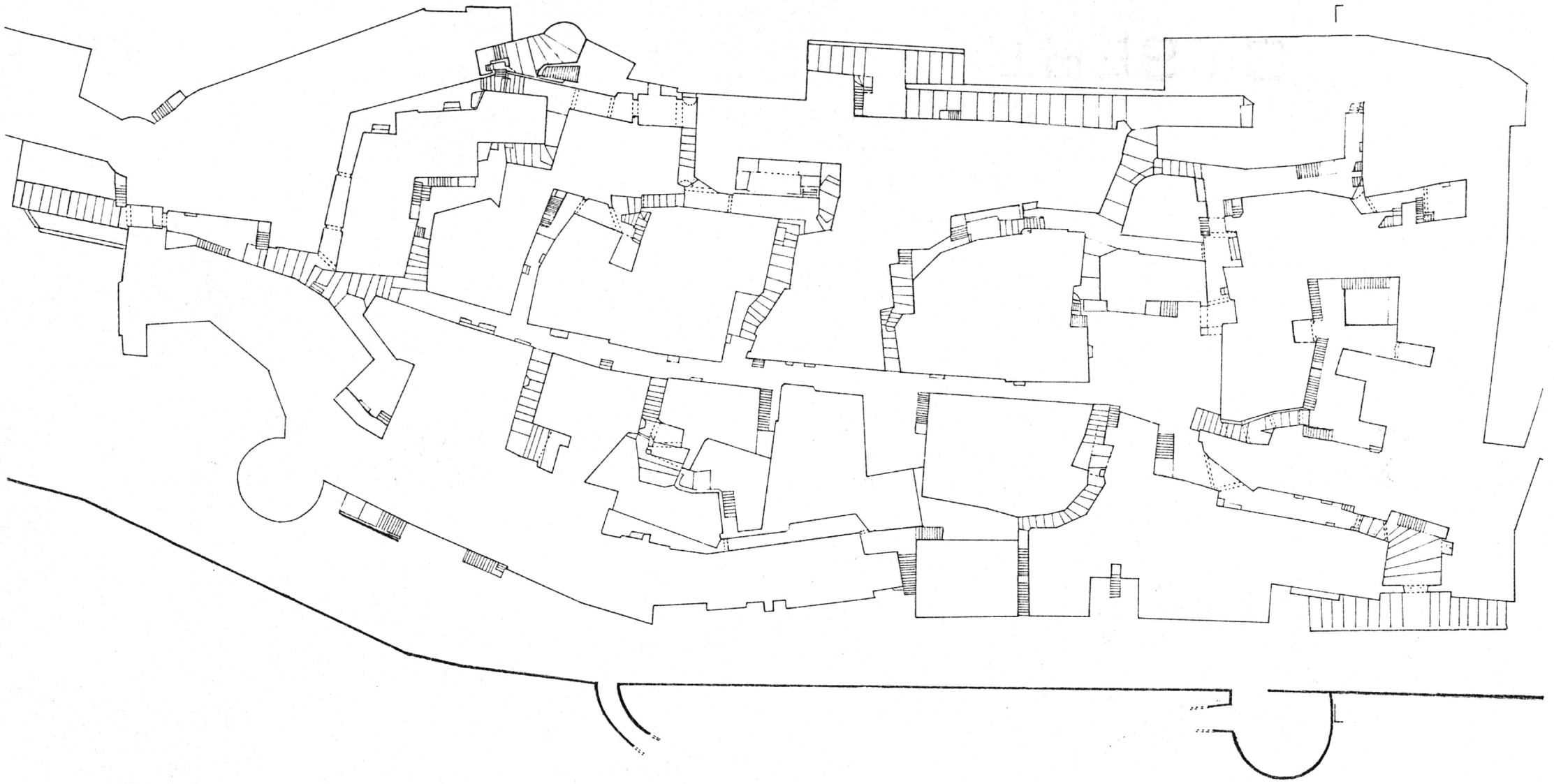


Section looking South

Martini - Site - Sacrofano

New Sacrofano steps down the parallel hillside, its concrete block structures - independent and additive - having no architectural or structural relationship one to the other.

The houses of the old town: brown and gray shapes of pockmarked tufa clustered and pressed together, pushed up and held onto the hill by buttresses leaning their backs into the load.



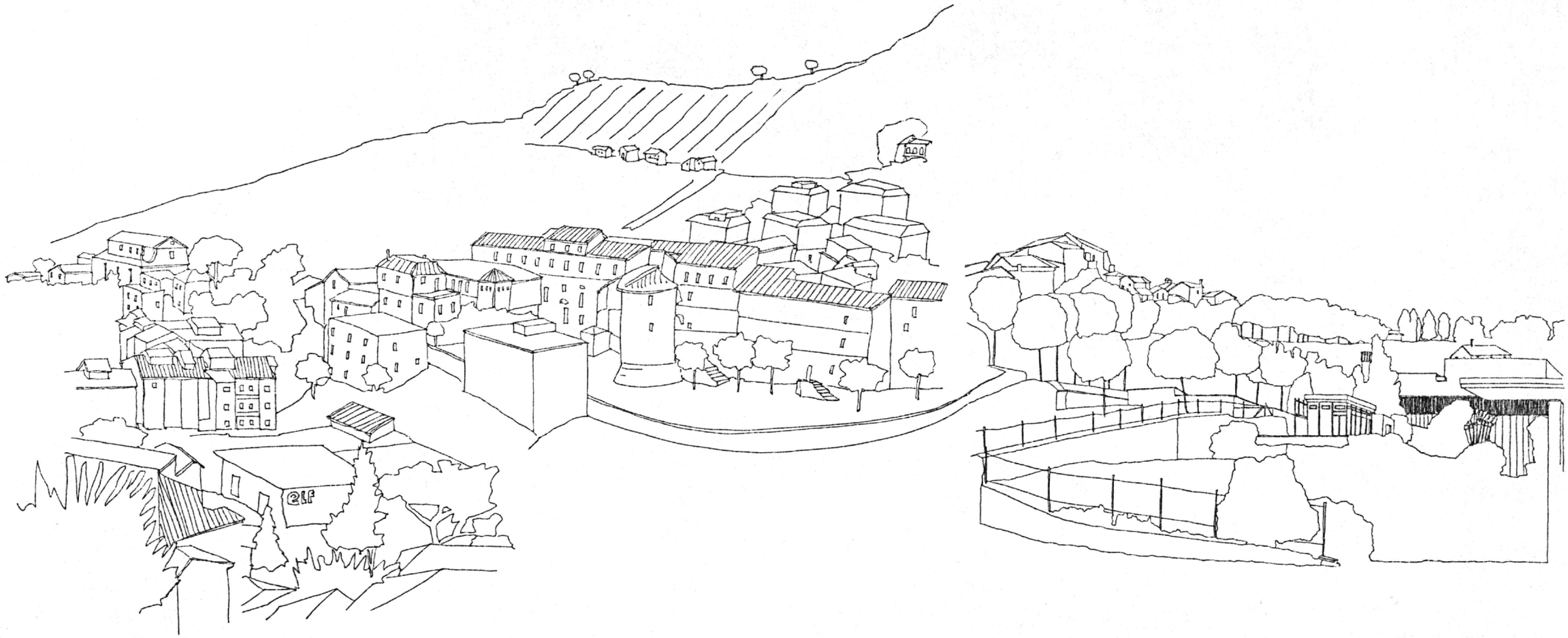
Since the shortest distance between two points...is not a straight line but a zigzag that ramifies in tortuous optional routes, the ways open to each passerby are never two, but many,...And that is not all: the network of routes is not arranged on one level, but follows an up-and-down course of steps, landings,...hanging streets. Combining segments of the various routes, elevated or on ground level, each inhabitant can enjoy every day the pleasure of a new itinerary to reach the same places.[15]

With the possibility of experiencing simultaneous perspectives - causing draftsman's dismay - my room is at once three steps (2'8") below piazza level, two stories above street level and, in terms of the hilltown, five stories high.

Section looking North
Vecchio Castello - Vecchio Ghetto

Section cut indicated on plan; see preceding page.

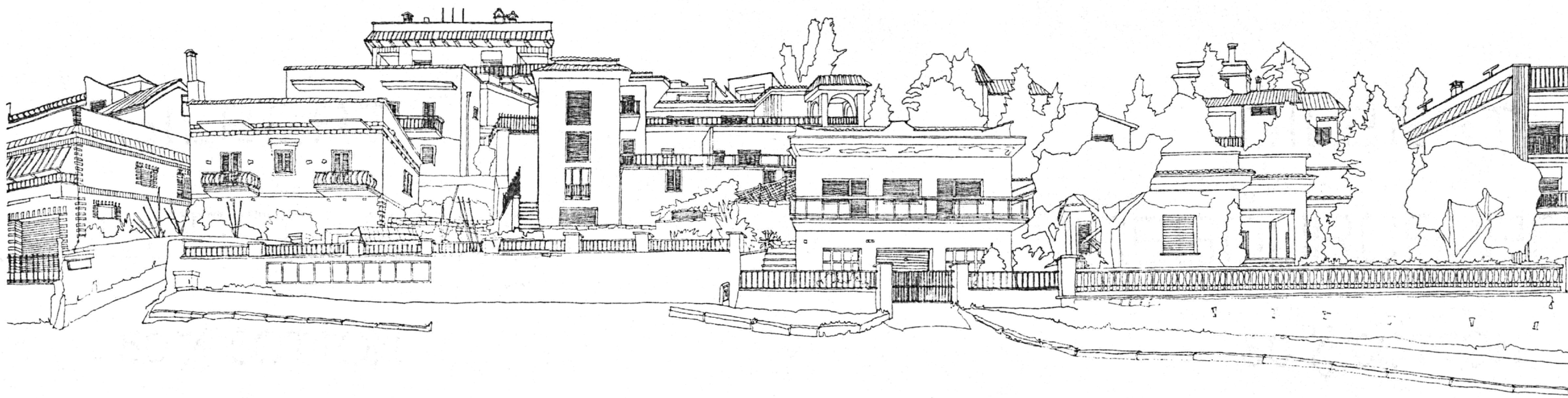
If one thinks about this when crossing the room, one experiences - in the unexpected passage from a safe place out to an edge - a sudden loss of equilibrium and orientation.



In addition to serving 4,000 inhabitants - there is a tradition of lute and flute playing in the town - the theater intends to reinforce the north/south axis with Rome by "tuning up" and making a festival center of the park.

The theater's lobby is designed to serve both the indoor theater and its outdoor counterpart - a hillside amphitheater presently used only by picnickers and by children at play.

The two theaters spiral upward in opposite directions (indoor - counterclockwise; outdoor - clockwise) creating balanced tension which pulls outward toward the north and south perimeters of the park. (see aerial photo)

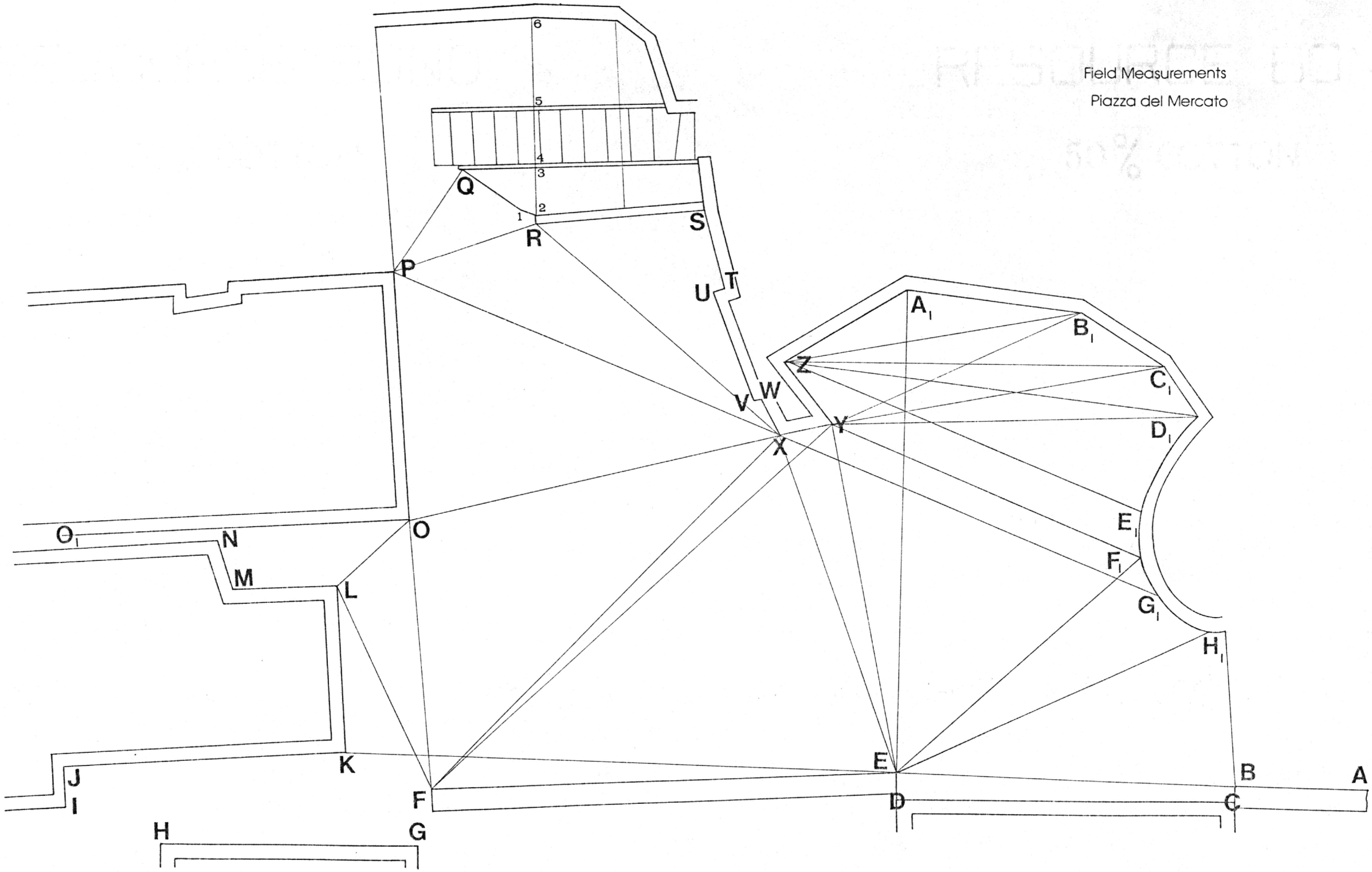


Panorama looking east from Site to Martini

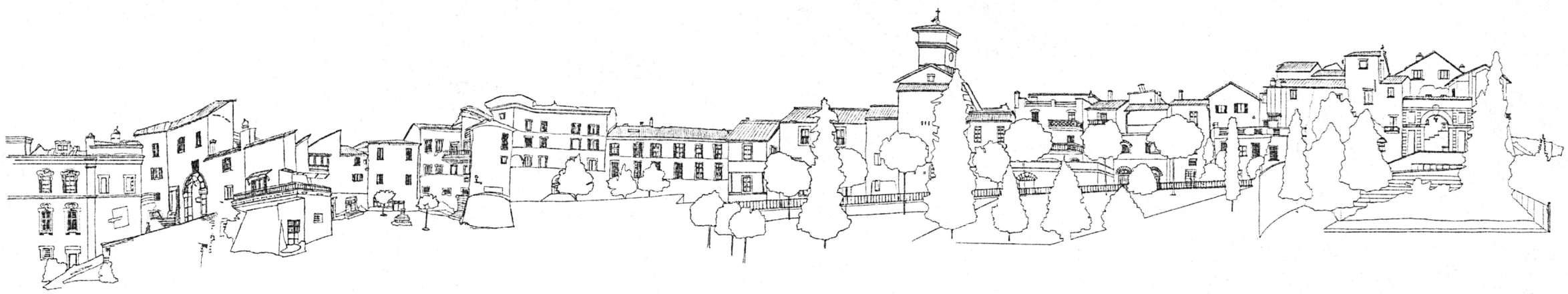
Stacked against the hillside, the houses of Martini stand in defiant juxtaposition to the amorphous geometry of the hilltown.

Field Measurements

Piazza del Mercato

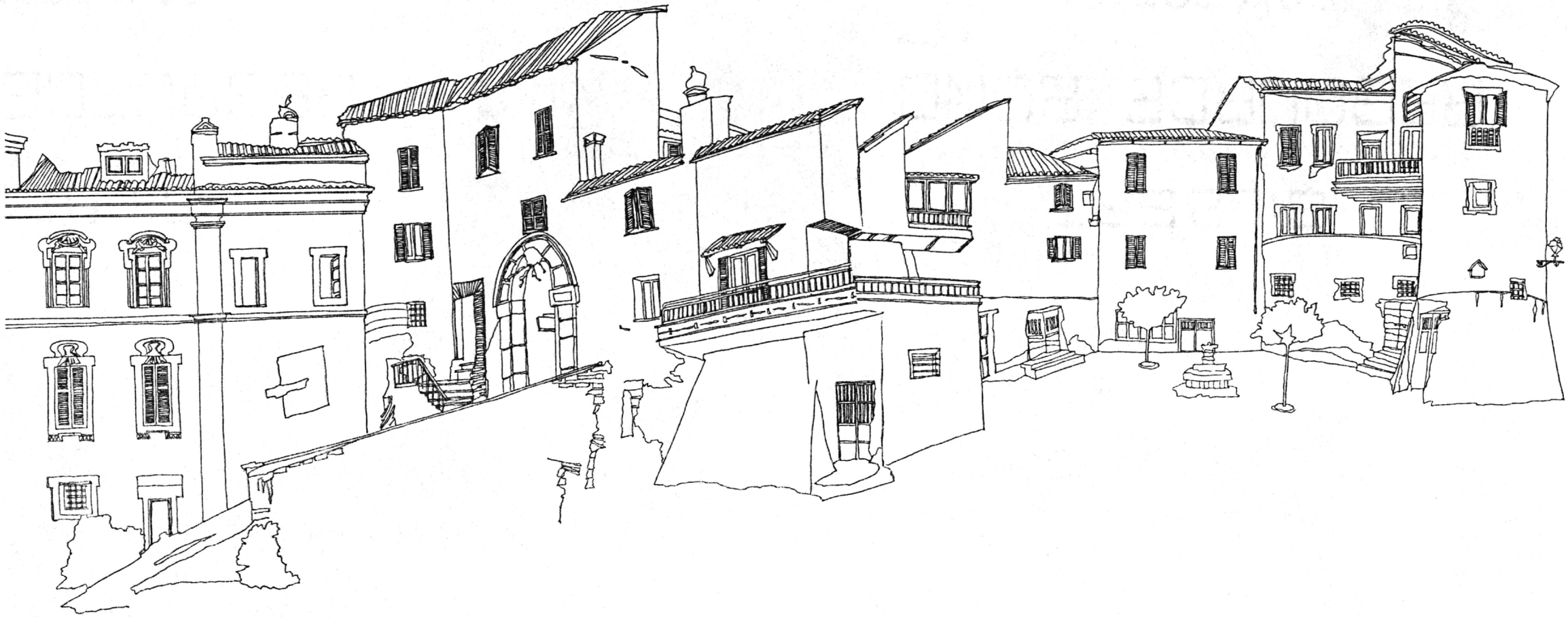


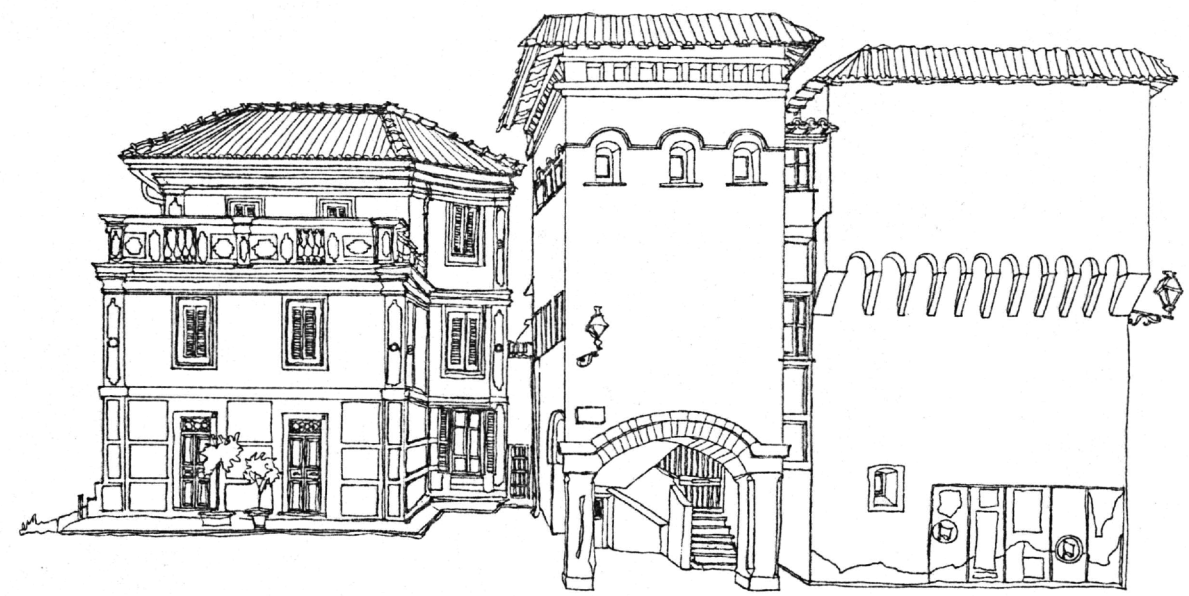
A	AB	20′	F	FY	84′ 8″		LM	16′ 4″	Q	QQ_1	10′ 5″	U	UV	17′ 11″	Z	ZA	22′ 4″
B	BH_1	23′ 5″		FX	77′ 3″		LM to O-O_1	9′ 6″	Q_1	Q_1Q_2	2′ 4″	V	VW	1′ 1″		ZB_1	46′ 6″
	BC	2′ 7″		FO	41′ 10″	N	N to O-O_1	2′	Q_2	Q_2R	1′ 3″	W	WX	6′ 4″		ZC_1	58′
	BE	52′ 7″		FL	34′ 5″	O	OX	59′ 3″		Q_2Q_5	17′	X	XY	8′		ZD_1	64′ 5″
D	DE	4′ 1″		FG	9′		OP	38′ 1″		Q_2Q_6	31′ 2″		XG_1	62′ 2″		ZE_1	59′ 9″
E	EH_1	52′ 5″	G	GH	40′		OP to X	58′ 3″	Q_3	Q_3Q_4	6″	Y	YZ	12′ 1″	A_1	A_1B_1	26′ 8″
	EF_1	51′	H	H to JK	12′ 4″	P	PP_1	25′ 7″		Q_3Q_5	9′ 5″		YB_1	42′ 7″	B_1	B_1C_1	15′ 6″
	EA_1	74′ 7″	I	IJ	6′		P to Palace	38′ 3″	R	RS	26′ 3″		YC_1	52′	C_1	C_1D_1	9′ 7″
	EY	55′	J	JK	44′		PQ	19′ 6″		RX	49′ 6″		YD_1	56′	E_1	E_1F_1	7′ 6″
	EX	54′ 10″	K	KL	25′ 7″		PR	23′ 8″	S	ST	12′ 10″		YF_1	52′			
	EK	84′ 8″					PX	65′	T	TU	1′ 7″						
	EF	72′ 2″	L	LO	14′ 6″												



Sacrofano: east wall

Sacrofano has the quality of remaining in your memory point by point, in its succession of streets, of houses along the streets, and of doors and windows in the houses...The secret lies in the way your gaze runs over patterns following one another as in a musical scale when not a note can be altered or displaced.[16]



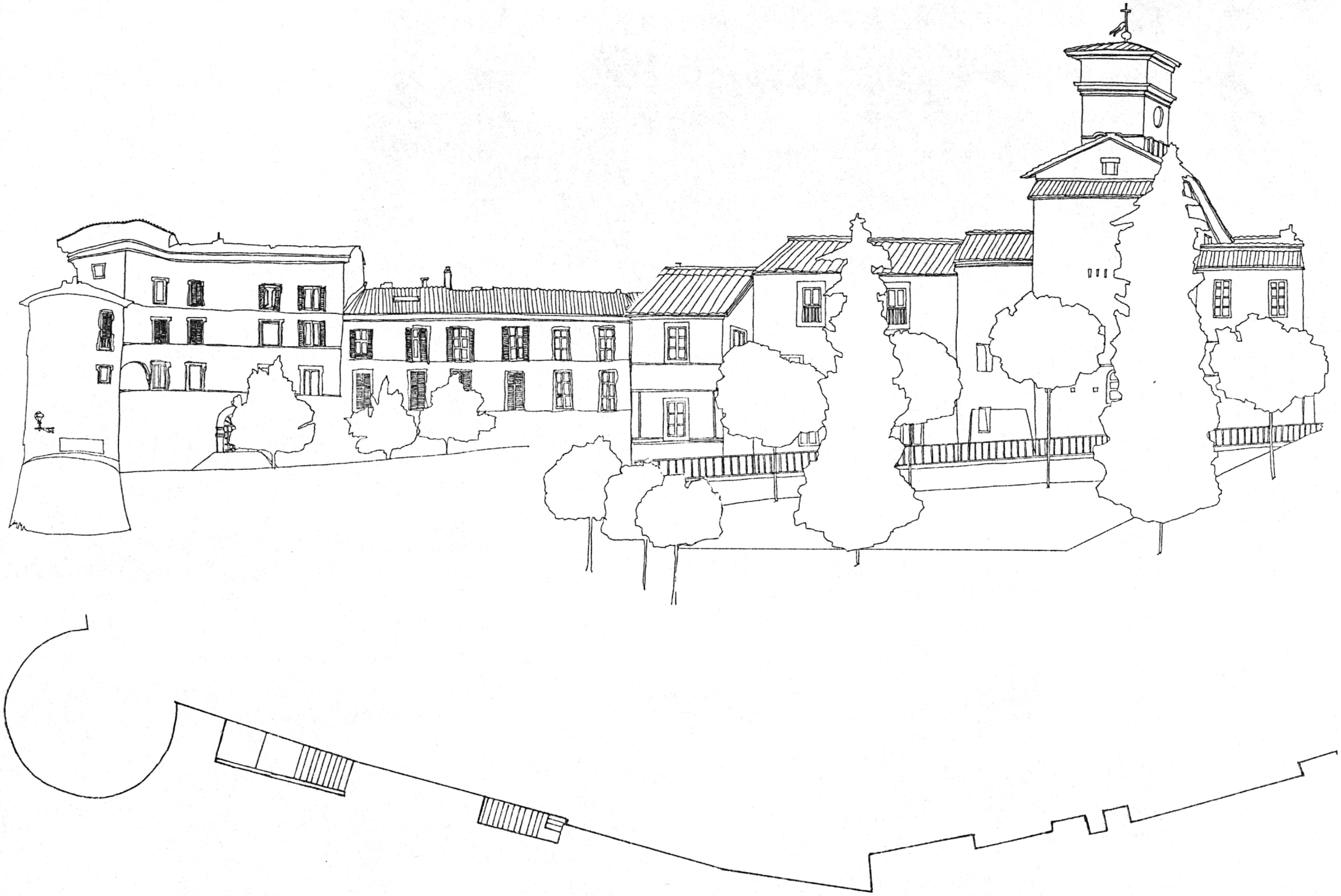


Piazza del Mercato looking west from Site.

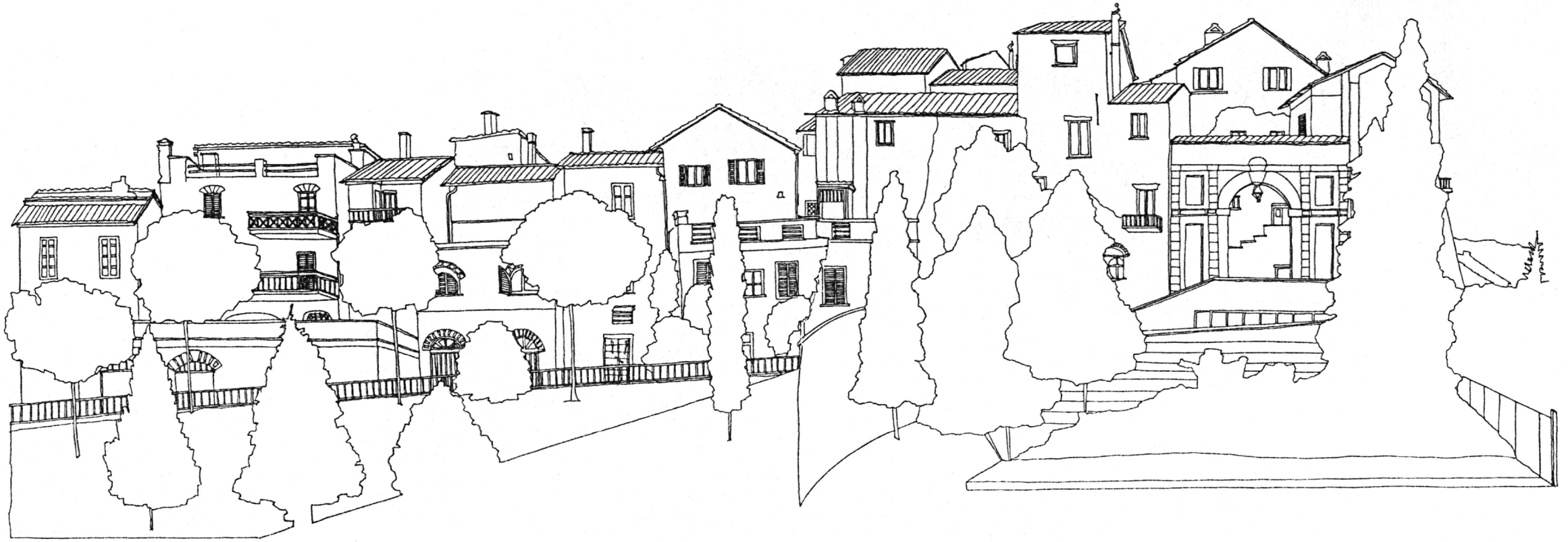
Porta di San Biaggio, the lower gate to the town.

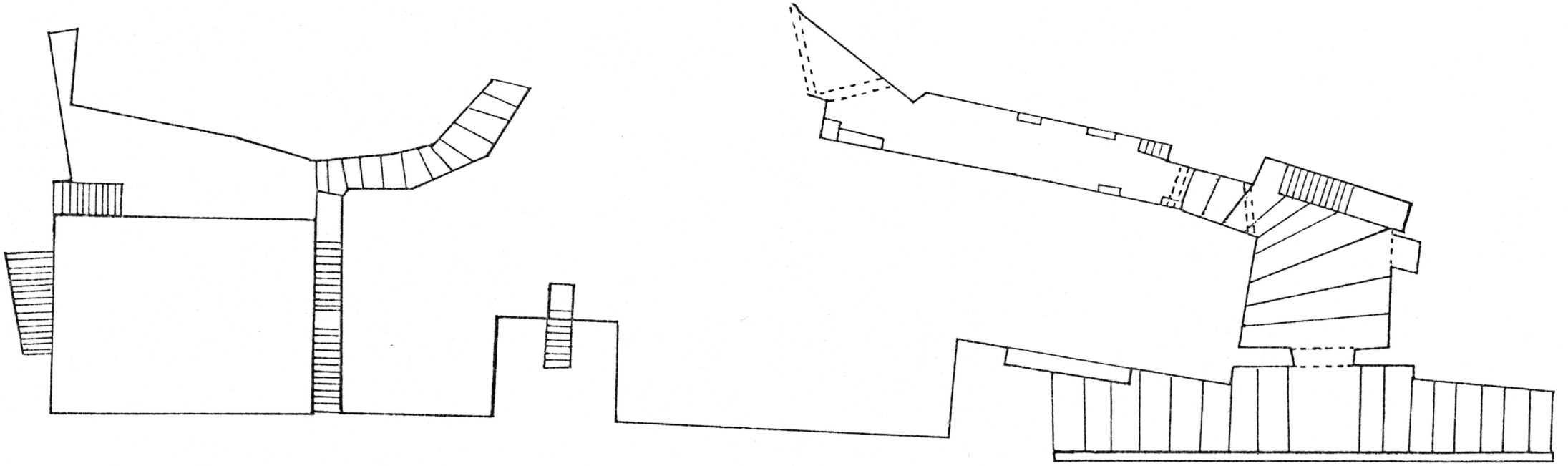
Vendors arrange fresh produce on umbrellaed booths. Plants bedeck a stone fountain. Rubber boots, belts, doormats, espresso pots, and clothes on hangers, swinging in the breeze, are all part of the display. School children come and go as part of the pedestrian melange. Cars cannot pass. The theater invites the marketplace to spill over onto its roof.

Private home and middle school located at southwest corner of Site. See Field Measurements: Piazza del Mercato.



The contained perimeter town, because of the wall-like solidity and continuity of the perimeter houses, often has the appearance of a single huge building or mega-structure.[17]





Sacrofano does not tell its past, but contains it like the lines of a hand, written in the corners of the streets, the gratings of the windows, the banisters of the steps,...every segment marked in turn with scratches, indentations, scrolls.[18]

Like all of the town's inhabitants, you follow zigzag lines from one street to another, you distinguish the patches of sunlight from patches of shade, a door here, a stairway there, a bench where you can put down your basket, a hole where your foot stumbles if you are not careful. All the rest of the city is invisible. The town *is a space in which routes are drawn between points suspended in the void, ...Your footsteps follow not what is outside the eyes, but what is within, buried, erased.*[19]

Come up the 12 long sloping steps. Don't mind the pale torso next to the palace wall on the left. He's done without his head for 1600 years or so.

Speeding motorcyclists swerve toward the wall to avoid steps, so don't worry. You probably won't be hit.

The small cobblestones, laid like tiny mosaics in radial patterns - the radius of each determined by the breadth of the stonemason's reach - are worn shiny and smooth.

Glance left and right down crooked passageways. (We can go exploring later, and I'll show you some of my favorite places). Lean forward and keep coming straight up Via di Mezzo (Middle Street) past the dry goods store with the biscotti and farina canisters and the village rugs for 3,000 lira. You'll find no maps or street signs.

Some of the rooms are abandoned - cobwebs on window grilles, green moss on walls.

Pass the barbershop with a pink bow over the door. They have a new baby girl. The phone and electric wires loop and hang along the outsides of the buildings. Wires sometimes fall down when it rains.

Pass the cobbler who works in dim light (stop for a moment and your eyes will adjust) and sings baritone.

Pass the window to the sky.

Doorways near the church are grand in scale. Cartouches and pilasters of stone tell of past elegance and wealth. There's a stone bench set into the wall, but no one ever sits there. There's never any sun.

Notice the small courtyard on your right. I go there to collect wood, padlocked behind the battered wooden door at #62. I imagine how it would be if those rectangular marble slabs stacked against the wall were used to make seats so that the old women who seek sun - sitting on stairs - would have a place to go. I imagine how it would be if the fountain in the wall were repaired and something green were planted.

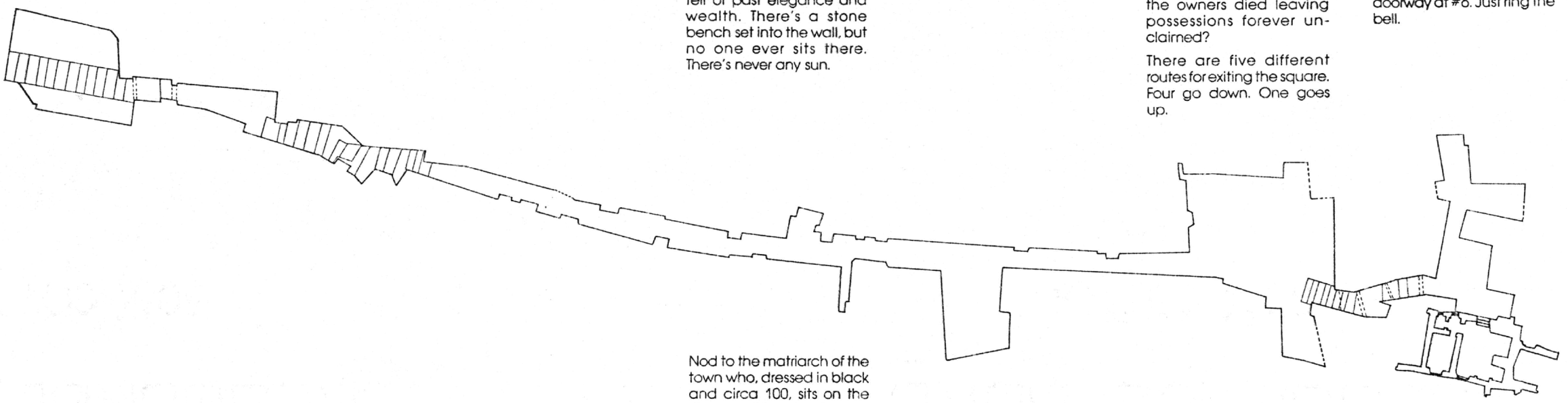
Scaffolding is being erected in the Piazza of Armando Diaz. It seems the buildings' facades are to be cleaned. The lucidatore may be out in the square sanding newly found - newly created - antiques. What do you think of Rosanna's window frames? She just painted them bright giallo (yellow).

Through the window of the cobbler's shop on the right you can see shoes stacked in apparently irretrievable disorder. Shoes abandoned? unneeded? or, have the owners died leaving possessions forever unclaimed?

There are five different routes for exiting the square. Four go down. One goes up.

You're now in the enclosed courtyard of the Vecchio Ghetto. On the wall to the east can be seen the traces of three arches - closed during Jewish occupation of this courtyard in medieval times.

Lavinia - age, 85 - may lean out of any of a number of windows above. Wave to see her glorious smile. Crowds of calico cats will make you the intruder. Never mind. There is no earth, no gardens in the hilltown, so the cats like to sit in the flowerpot by the arched iron doorway at #6. Just ring the bell.



Nod to the matriarch of the town who, dressed in black and circa 100, sits on the steps and knows who you are and where you go.

Upon reaching the church, the grade levels. Push the door if you want to enter. You will probably be alone, but there always seems to be a candle burning. The interior is whitewashed and cold. The old bell rests, covered with dust, by the door. There is no longer any way for the priest to reach his pulpit, but an exquisite white cloth of linen and lace covers the altar.

One day I climbed the wooden ladders of the belltower and looked down on the roofs.

Walk through the covered arched gateway, Porta di San Biaggio - known as the Porta di Sotto (lower gate). An old glass lantern and a star - each spoke with tiny lights - illuminate the way at night.

Where the walk becomes concrete and conglomerate, watch your step as a section caved in last week during the heavy rain and the hole is about 8" deep.

There is a small blue ceramic jug - a Roman piece - stuck in the wall by #10. In fact, there are many Roman remnants stuck in the walls along the way.

Step over the sprawling German Shepherd who, no matter which way he reclines, claims most of the street making pedestrian passage precarious. Just say, "Hi Duke". He seems used to that now.

You may have to step around large wooden wine barrels - washed, drying and lined up awaiting this year's harvest.

When looking up to see heavy wooden lintels visible through stuccoed facades, be careful not to fall into door wells. They are deep and unprotected.

If you come in the afternoon, the way may seem dark. The streets are only 7' and less wide, and buildings fill voids with shadow except in places where shafts of sun pierce volumes through cracks and imperfections in the wall. Sun makes cobblestones warm and gives tufa the texture of dry sand.

Choose the one which goes up and walk through another covered archway. (Did you notice the flowers painted on the drainpipe?) The plastic bags of trash hanging on the driftwood stump are waiting for the streetcleaner who comes up with cart and broom about noon.

If it's raining, you'll need rubber boots for walking up the steps. The way becomes a rushing torrent - actually, quite a splendid waterfall.

I didn't know you were going to drop by on Saturday. I'm in Rome. But, you can visit with my neighbor - a champion weight lifter from Afghanistan. Unable to accept the Soviet presence in his country, he walked through the mountains for thirteen days and escaped. He comes around on Saturday mornings with a tray and cups of tea to share with neighbors.

On the long axis one street cuts the "centro storico" in two, leading air and winter gales up through the town.

North - South Axis
One Walk Through Town

Just to remind you should you want to drop in, no cars are allowed in the centro storico so leave yours by the fountain in the marketplace - Piazza del Mercato. The car is probably safe although, last night someone decided that the most convenient route between A and B was over mine. The large footprints began at the back of the trunk and continued up over the car - across the roof and down onto the hood. It must have been fun. *"Let's go walk on cars."* Or, do you suppose Big Foot is in the area?

Of the two back doors to the town, the most visible is the ramped sloping staircase which lifts to a height of 27' at a 15° angle to connect the hilltown with the street below.

Although I must warn you that there is a young artist who prefers cars to paper when drawing her magic marker designs, you can park down there on Largo Cardinale Gaspari by the 1914 statue "a Morti per la Patria" (to those who died for the homeland). A bronze soldier "Nel cuore dei vivi" (in the hearts of the living) stands on an uneven tufa block, his now green bayonet still drawn. Carved beneath, a goddess with flowing hair and flaming torch symbolically lights the way. Realists, giving faith a boost, have added a candle to the monument.

You can stop for a cool drink at the small sink extending from the center of the lower staircase. A worn millstone is its basin, a collage of field stone, Roman brick, and found materials is its base.

The wall itself: stacked blocks of pocked tufa. Sprigs of moss sprout from the indentations and pores of this gigantic stone sponge.

The steps themselves are the street: Via U. Maddalena and the houses - joined as one - are the wall. Battered wooden and metal doorways (Young boys cannot pass without a kick.), with hues of colors once bold, are closed with rusted locks and chains. One can peer through carved keyholes. Cobwebs lace open slats. Television aerials, fastened in inventive ways, reach up from green wrought iron railings. Electric wires zigzag, dodging behind sheets hung from pulleyed lines to dry. From a distance, the wall appears to undulate in the breeze. Yellow lichen and lavendar mortar lend muted accents to otherwise dark and somber stone.

In an interlocking arrangement of buttresses and counter buttresses, the corner at the top of the stairs looks to be the final check, the vertical keystone which holds the town from sliding sideways off its hill.

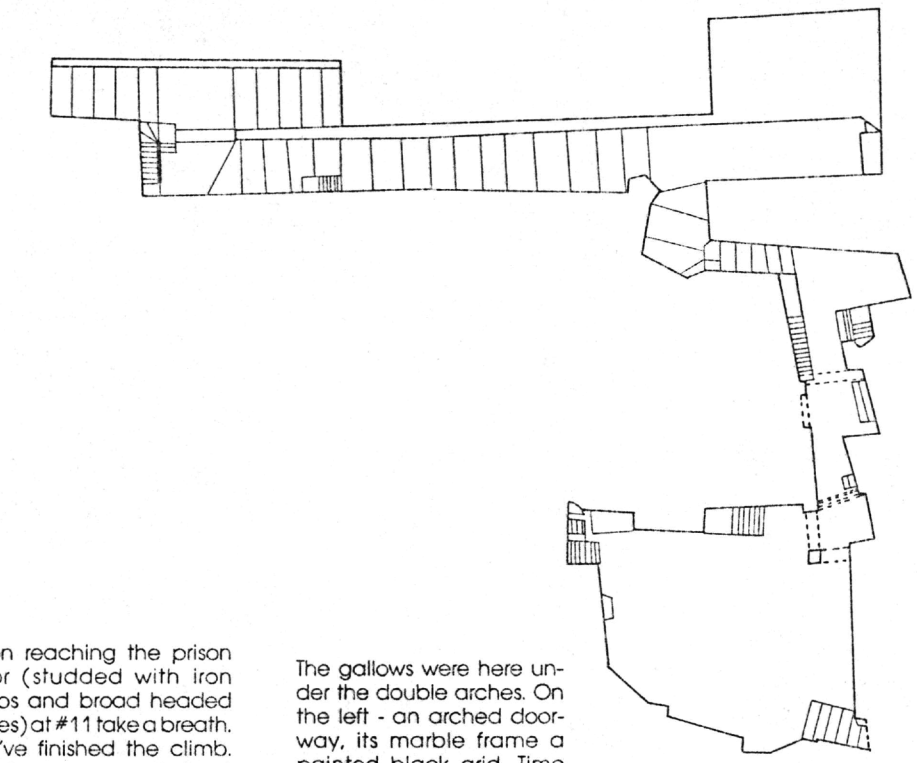
Enrico's doorway is here. He exists, a daily reminder of the close-lipped brutality of village justice.

We can explore deadends in the maze another time (In fact, you'll need to know them if you want to play hide and seek.). An earthquake in the 1940's separated walls from their roofs and caused the vertical fissure which runs the length of the wall to your right.

Take your first left up the street which has lost its name. Those who live there know, but for others the sign is masked with paint. Be careful. The steps are steep and are of different heights.

One of the town's original towers stands here. Its round form has been squared off with buttresses. An addition further masks the form. In the north, such advances as plumbing are integrated and hidden from view. From Rome south they are stuck to the outsides of structures to be flaunted with ostentatious pride.

Turn right onto Via Vecchio Castello (Old Castle Road) past harp-shaped doorway #1. An abandoned stairway and a red wooden ramp which mysteriously disappears into a now blank wall bridge the entrance to the covered passageway. Seventeen massive oak beams, scorched by a fire in the 11th century, span this passage beneath houses. Blackened beams can be seen throughout the town. When passing beneath, we imagine that it's still possible to smell smoke.



Beneath two long-needle pines, branches bent and broken by this year's snows, are two metal benches where hollow rungs sag beneath some unseen load. Four cellars, hewn from the wall beneath the stairs, are dark storerooms for firewood and wine - irregular spaces seldom exposed to light.

The staircase wall leans in toward the town, serving as a buttress before narrowing and rising vertically as a wall. Its top, eroded by relentless wind and pounding rain, reminds of rows of hand-dripped sand castles. As a handrail it is only 2' 4" above the steps. The Uncertainty of one's safety seems to heighten the adventure of any passage through town.

There are five steps to either approach; white strips of marble edging make the steps easier to see at night. If you choose to come from the south by doorway #1, where BOIA CHI (Who is the Executioner?) is the graffito on the wall, you can see the outlines of original quoin blocks - edges chipped and gouged away, scarred remainders of a once precise corner.

The top two stories have windows organized toward afternoon sun and a view; the lower levels have windows shoving through in random alignment to grope for air and for light. Should you arrive between 2 and 4 o'clock, green wooden shutters will be closed for the riposo (afternoon rest). A blue gauze curtain hangs across the doorway at #11. Broken wine bottles protrude from niches in the wall. Cats prowl the steps - shoulder to shoulder - advancing with steady stare.

Rest for a minute at the top of the steps and look out over the opposite hill striped silver and green with olive groves.

As you continue upward, notice the rusted bars on the two windows to your left: horizontal pipes held by vertical chains. 1200 years or so ago this was the prison. I mention details to note as it is the habit here to walk with eyes downcast, concentrating on the footing. Just because there is a step, one cannot assume that it will be level or even there.

Overhead light fixtures, extending from flat building corners, cast long shadows in low winter sun.

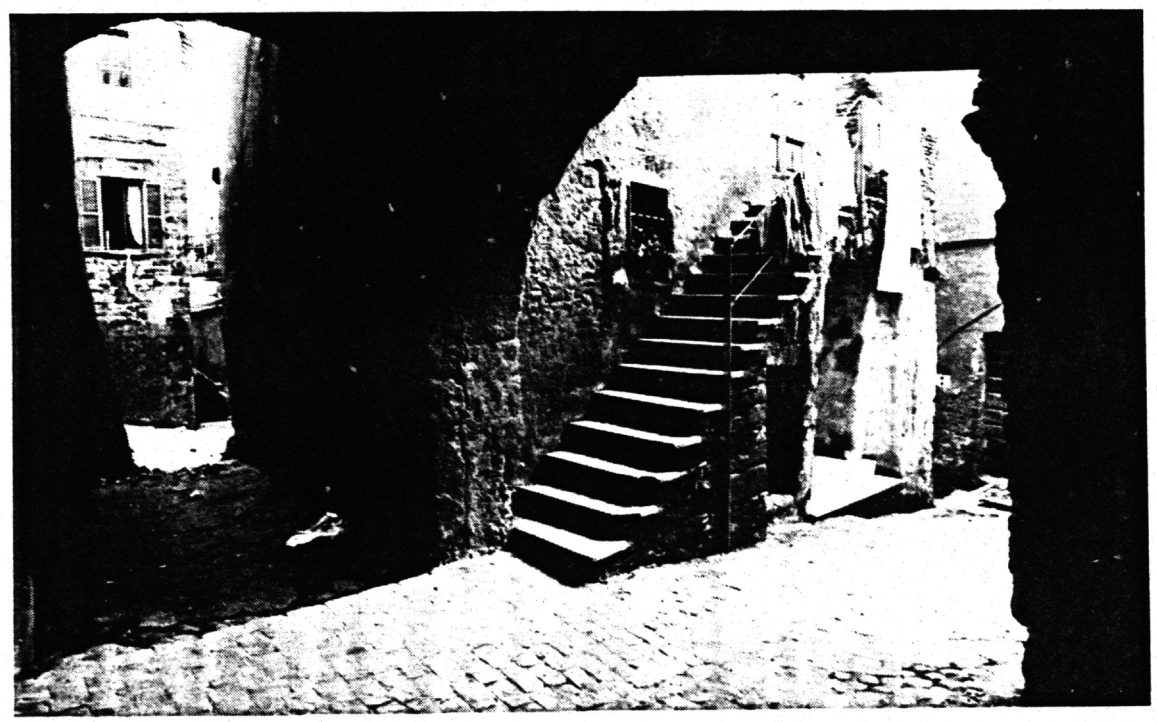
Upon reaching the prison door (studded with iron straps and broad headed spikes) at #11 take a breath. You've finished the climb. What can you read about the past and future of these walls? Peeling layers of stucco reveal stone, mortar, tufa, iron tie rods, cracks, weeds , a string course of bricks, the withered ends of wooden beams...and one wonders about the changing balance of forces which at once holds these walls together and pulls them apart.

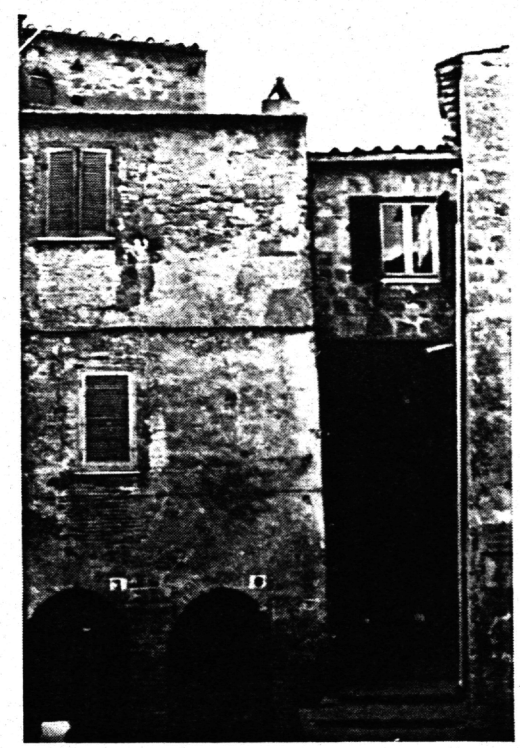
The gallows were here under the double arches. On the left - an arched doorway, its marble frame a painted black grid. Time and dust have claimed the design.

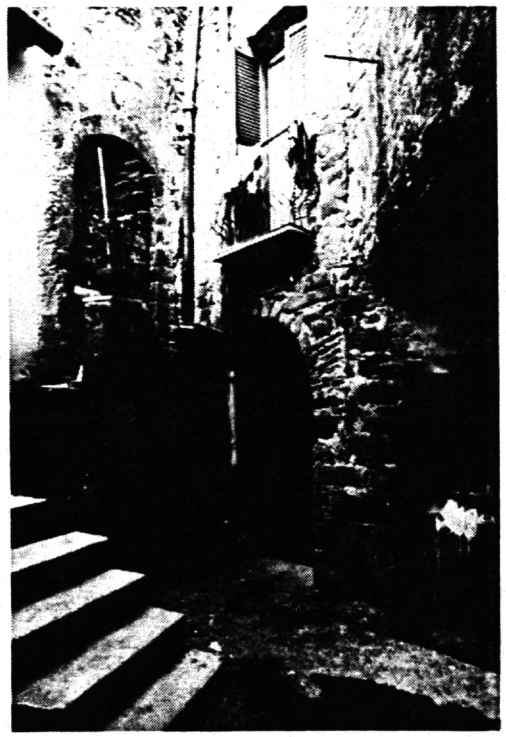
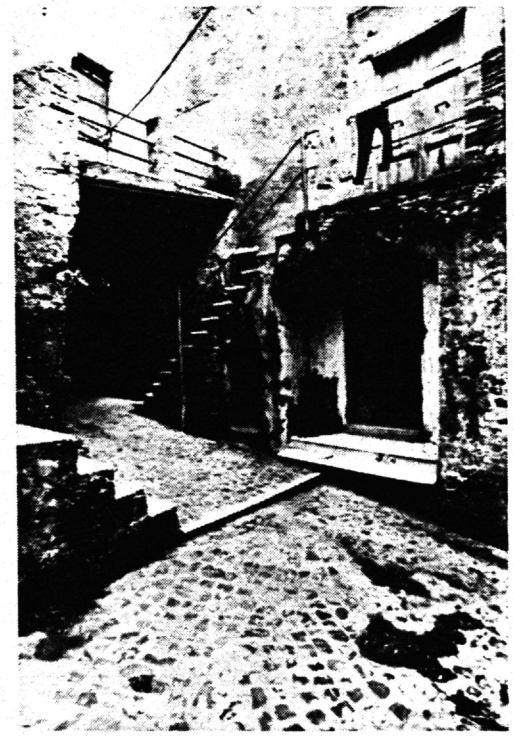
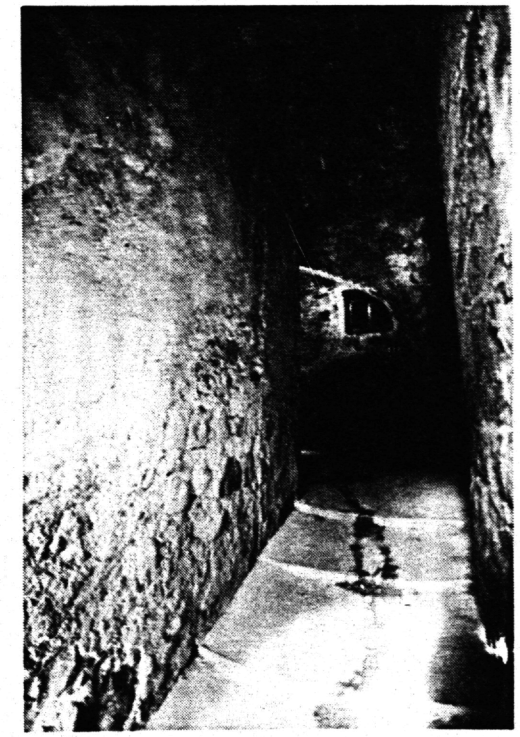
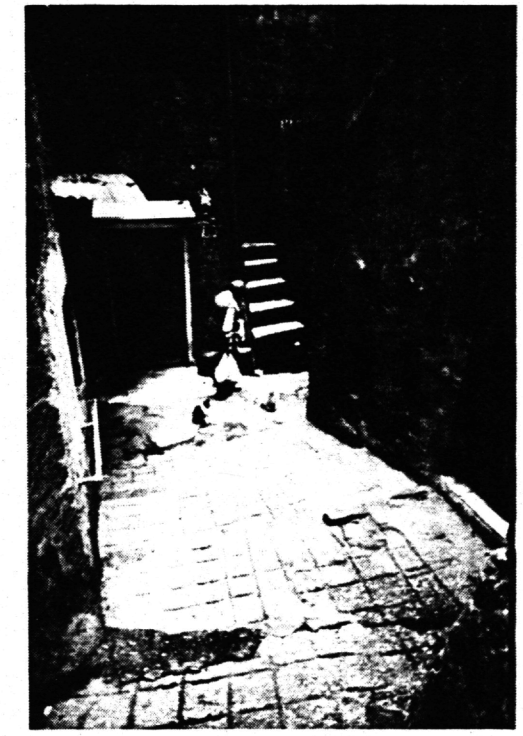
You'll come out onto the square, Piazza A. Diaz, by the workshop of the restauratore/lucidatore. Do you recognize where you are now? The restauratore has revealed the dimensions of his interior space by painting its outlines on the anonymous exterior wall.

Scaling the Western Wall

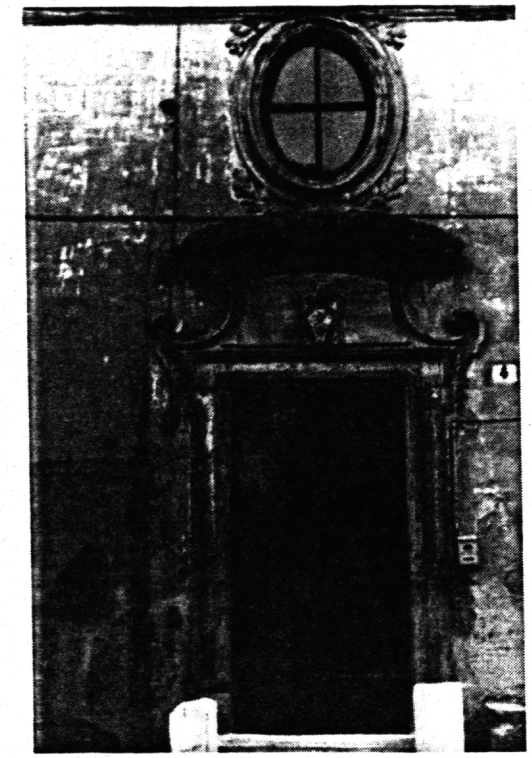
The Back Stairs of the Town

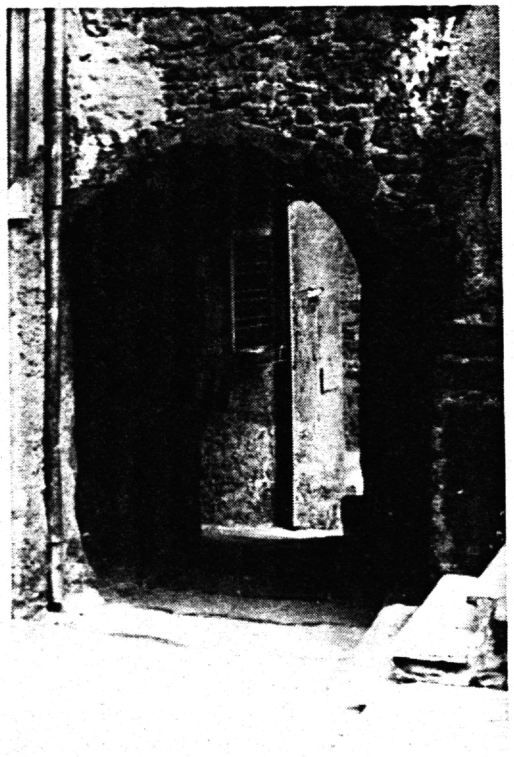


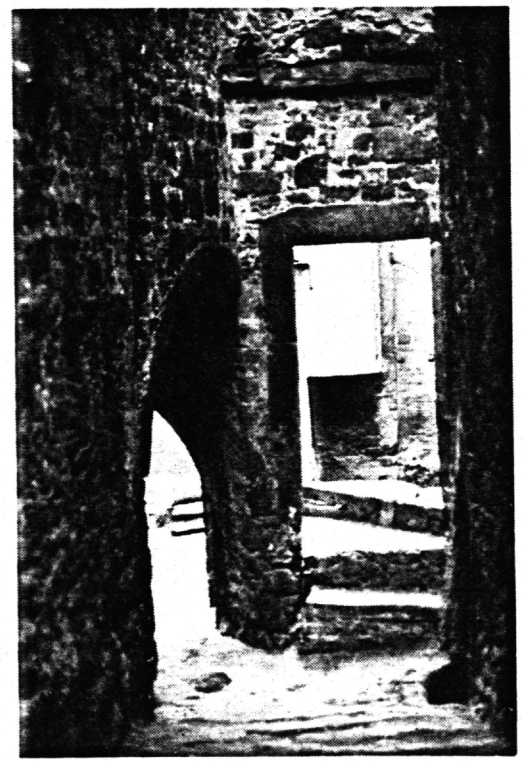


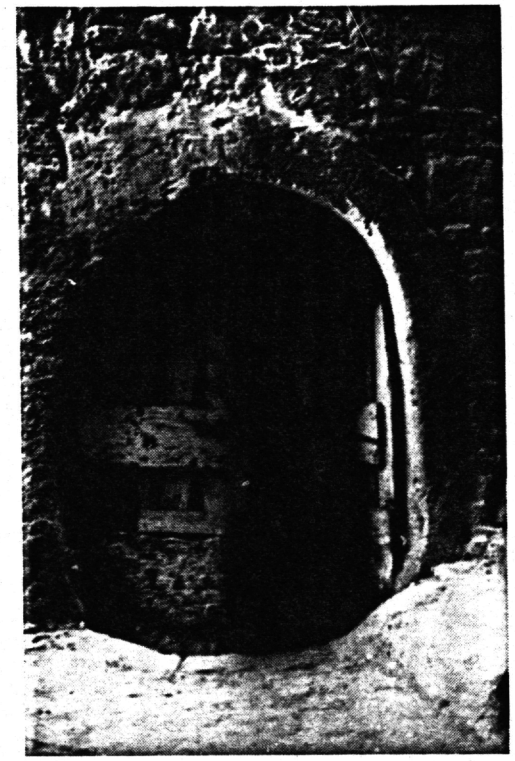





Though no substitute for walking through these towns, sequences of photographs can give some sense of changing views, the variety of spaces, and the play of light and dark that one experiences in moving along the passages - one hesitates to call them streets.[20]

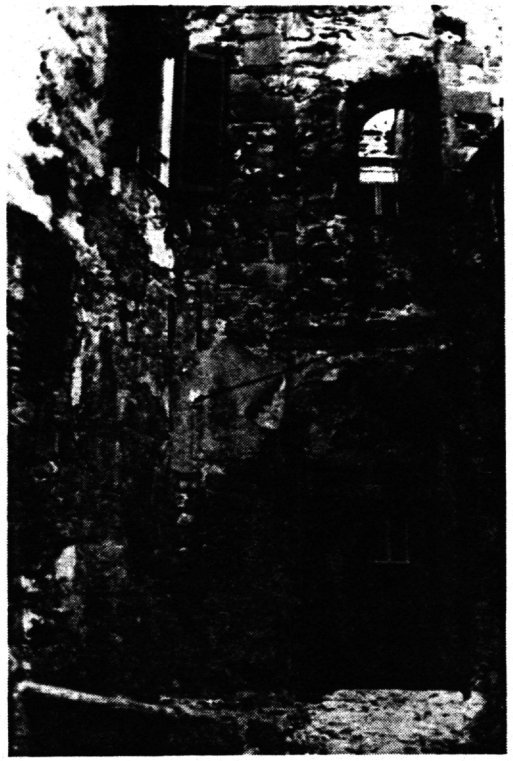


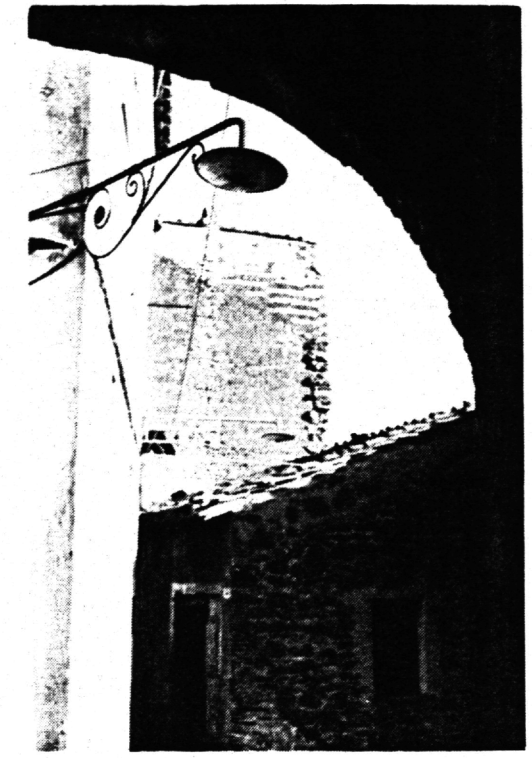
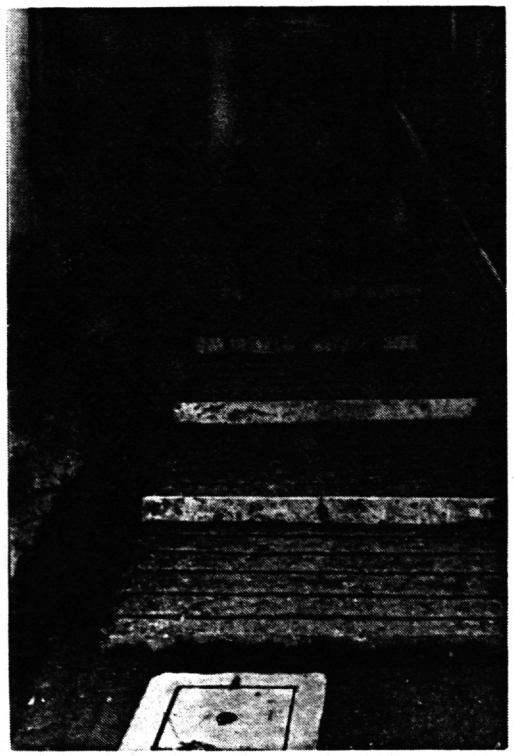
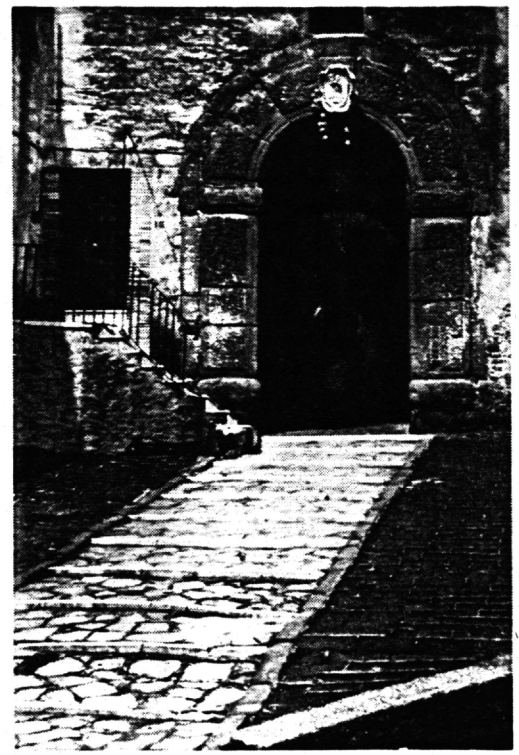




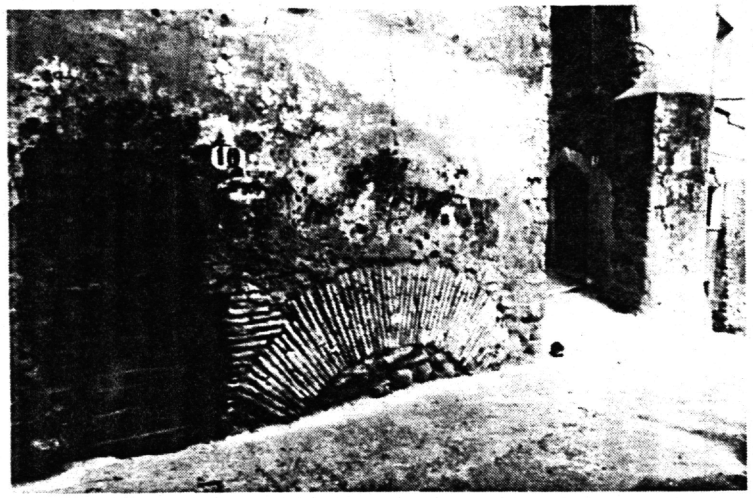


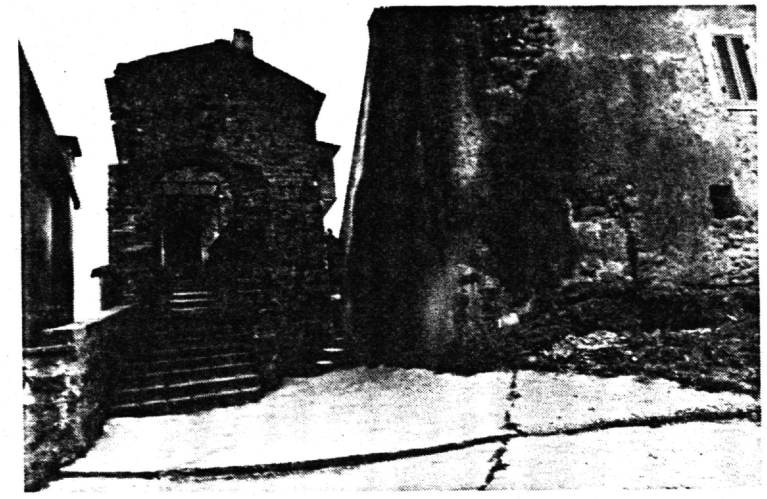
Doorways tell stories of past grandeur and of present use. Buildings disappear or take on other forms, but doorways remain - evidence of change and of another historical time.

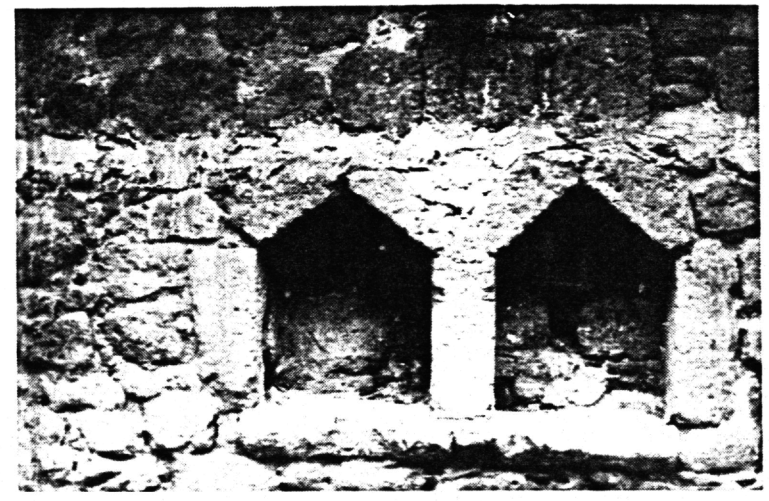


When in a vertical slot - buildings blocking all but overhead angles of sun - light appears and disappears in a hide and seek of sudden contrasts.







Here one must follow the drama of the sky. Clouds run and bump into the hills leaving cobblestones slick with mist. Clouds stack, separate and move so quickly that when looking up, one has the impression that it is not the clouds but the buildings which are moving. Watching clouds - taking pictures - waiting for the sun - Vertigo.

I had a deaf friend who, lying on the floor watching a long procession of ants, wondered: "How much noise do ants make?". I often think of that day recalling the realization, felt poignantly then, that although sound enhances visual perception, some things can only be clearly perceived and understood through sound. In Sacrofano, footsteps and voices bounce, reverberate, bump, skip, slide around corners and disappear, reappearing suddenly - modified, in different combinations and rhythms at different levels. There are no jets or traffic hum, no sirens or industrial roar to intrude upon and mask the sounds of the hilltown. Each appears undiluted, isolated with its echo - its volume intensified and its life prolonged by the acoustics of small spaces, by the hardness of stone. And I realize that in the process of analyzing and adapting to structural relationships, in both the architectural and the human sense, I have - in this place for ventriloquists -come to rely upon sound.

Sounds are an important part of the architectural impression in Sacrofano. They give clues as to the volumes, spaces, and materials of the town, but trying to record them was not an easy process. Going out to take Sounds is more difficult than going out to take pictures. I roamed the streets looking for available voices to snatch, like a pickpocket in search of prey. Photographs seem more honest. People know you're taking them. One can lie in wait for a sunset, and a view is stationary, but sounds are elusive. By the time one reacts, they've changed or vanished. Voices don't stand still and smile. Living above a passageway is like living on a bridge. It's difficult to find sustained, steady sound because everything keeps moving. Everything passes by, and one must lie in wait - anticipating - like a hunter in his blind.

Notes from a Hilltown:

SOUNDS

Small spoons touch tea glasses before dawn.

Breakfast chairs scrape floors above.

Doors creak, opening to let a shadow pass. Heavy handles drop and bang.

Isolated steps walk away echoing staccato rhythms.

Running steps mingle with voices, bumping books on walls, rushing to school. They will return with soccer balls to kick against wooden doors and a startling supply of firecrackers to punctuate the afternoon.

Twig brooms sweep squares of cobblestone with dry and brittle scratching sounds.

Donkey hooves carry ladders to repair walls in the morning.

Carpenters sand and saw with sounds connected to my spine.

I prefer the timbre of the cobbler's steady tap.

Rosa's cleaver chops just short of fingers in the butcher's shop. I watched, tightly clenching fists, one time.

Wet sheets, dripping from rooftop lines, snap like sails in autumn winds that turn whirring chimney caps.

I rush to the window to learn: Who is the town whistler? Eyes strain to reach around corners. His tune resounds but, in the game, he is always gone.

Market stalls close with the wooden thump of crates, coveted for kindling, dragged up steep steps.

Hunters' shots crack between vineyard stalks. Quail, bodies stripped to the skin but for wings and tail taut in full feathered plume, hang from hooks by noon.

The sharpener's wheel screams and whines, spinning sparks in the square on Friday.

Church bells ring in sequence, ordering activity with sound, marking each hour of the day.

The funeral procession, in slow black march, suppresses cries felt in stifled unison through the enveloping silence.

Knitting needles click from doorways in the sun.

Voices, trapped in courtyards - bent by corners, repulsed by walls, hurrying to escape - pause to join gossip in tones fortissimo on stairs at 1:00. It is impossible not to eavesdrop when old people whisper.

Mariella pulls her toy. I hear the wheels turn and catch in pavement cracks.

When we were walking, Antoinetta stopped me with stories of the gallows. Later, passing alone, I felt her whispers lingering still beneath sagging beams.

Thunder rolls through mountains and up the meadow. Scared sheep scatter shaking bells, crashing into buildings with giants' might.

No grass or trees or moss mute and absorb relentless rain. Wet sounds announced by windows' rattle and umbrella canopies' pop warn of water's force rushing in cascades down steps and streets, impenetrable surfaces with no drains, pelting terracotta while water jumps at one sideways from the tufa pores of spitting walls. Drenched tiles disengage in avalanches of masonry and stone. Cats, begrudgingly intimidated, crouch for cover behind rusted bars in windowsills, entreating to come in.

Fourteen doors have one phone whose ring intrudes, reminding of responsibilities in other worlds and places. When it affected public space, the intruder's receiver was ruthlessly ripped from its cord in the booth.

Grating on yesterday's memory: the sound of my metal tape measure snapping at 71 feet. Hit and Run. The driver, if he realized, showed no care. Olimpia turned her eyes down and quietly helped pick up the bent remains.

The din of dishes announces guests, family gathered, the dinner hour, wine pouring from rustic bottles newly filled in the cellar.

Radio and television are special Sunday sounds. Since it seems important to share one's choice, programs rush from windows and doorways with maximum velocity and volume to compete, colliding at corners and clashing in the square.

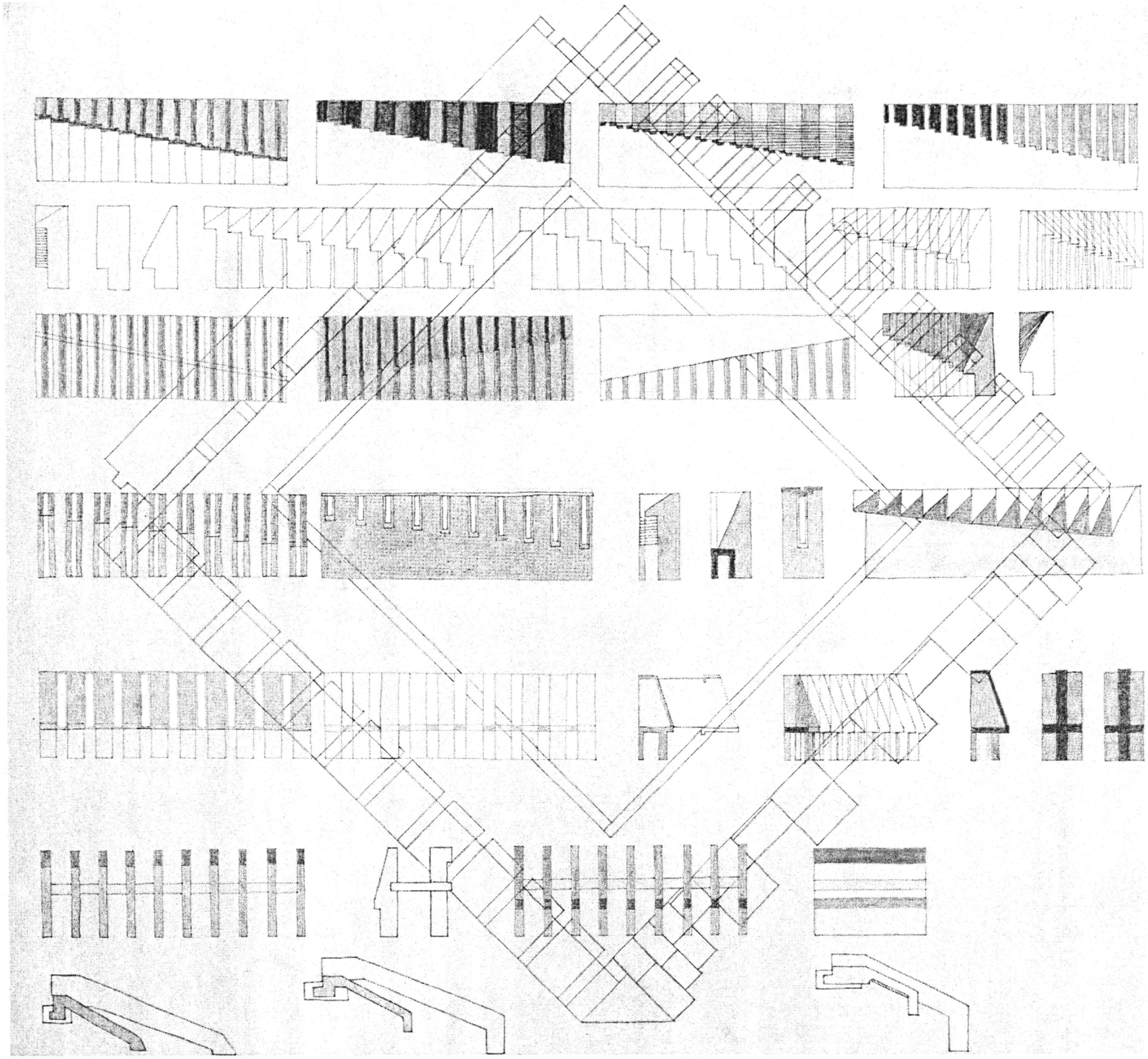
In sudden burst of Grieg-like sound, each theme joins in lively crescendo - the final movement of the day, after 5:00.

Some night sounds - of mice and bats - I accept as inevitable now. A friend gave me an article about learning to love bats. Others - of lute and flute - seem more melancholy. Passing the tower, I heard Silent Night in September, and a horse, galloping riderless and free over cobblestones - whinnying visions of Ichabod Crane -not too long ago.

Logs crackling and sputtering sweet sap in hissing coals keep me company. Beams creak. Bolts slide. Sacrofano sleeps at 9:00.

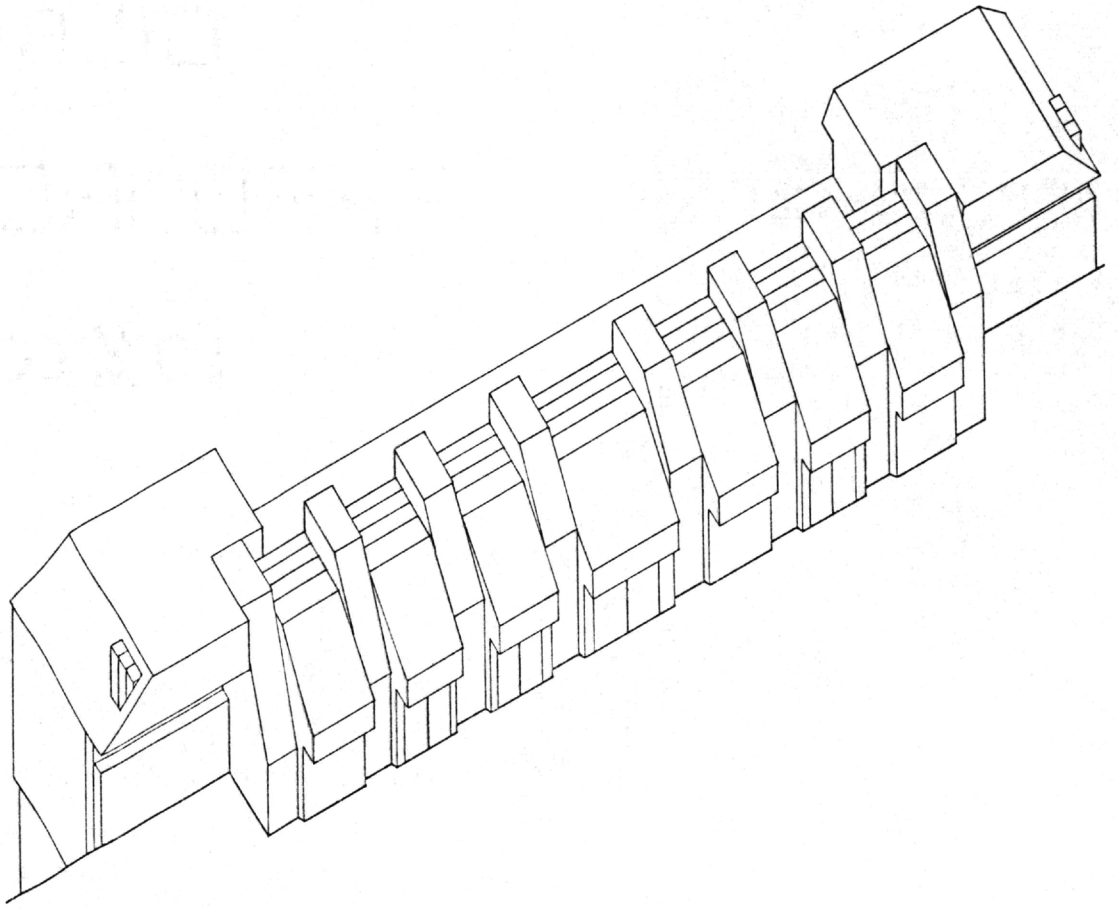
Footsteps and voices, rising in voids and hollow corridors of space - pushed and buffeted by the wind - duck muffled beneath passageways to hide, to emerge, to cross and climb.

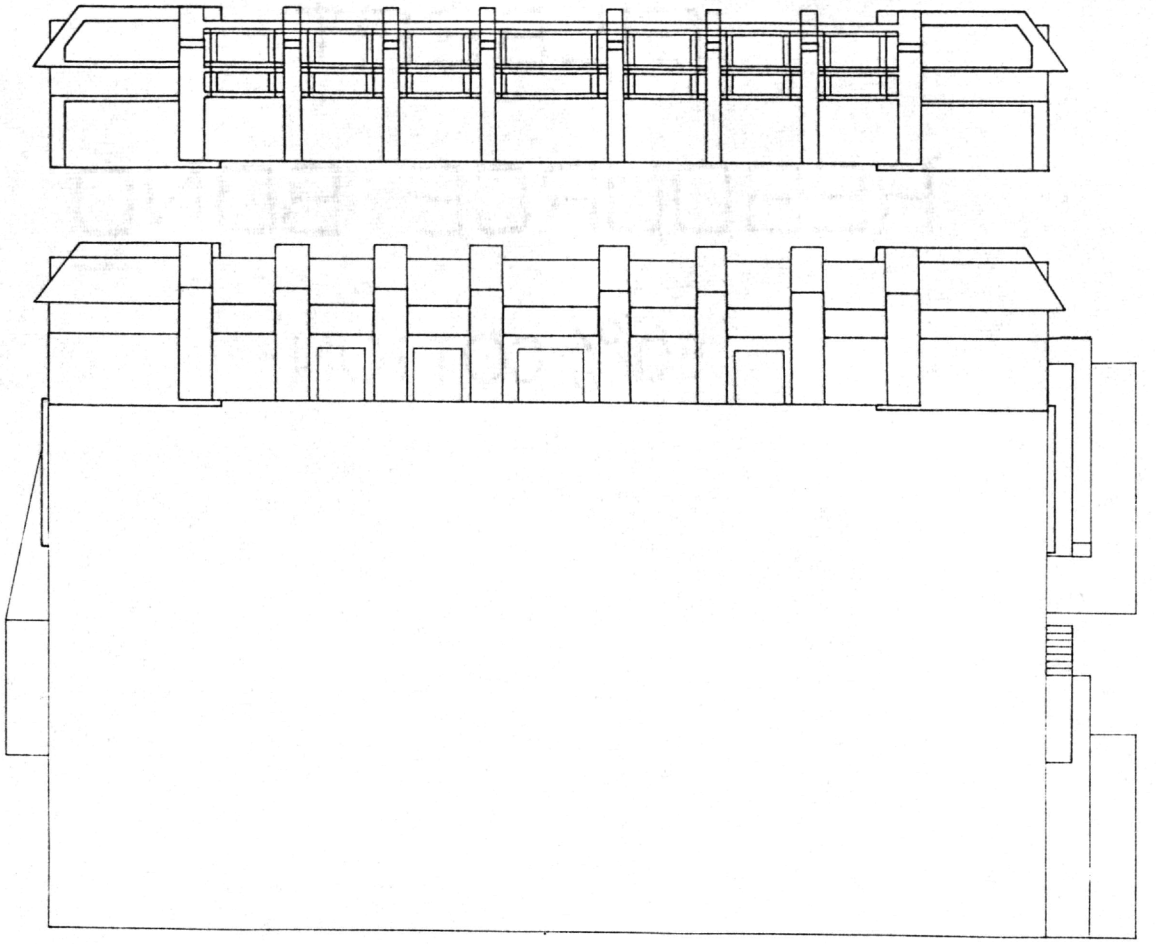
The listener follows patterns in the net of movement. There are no secrets in this web of woven sound.

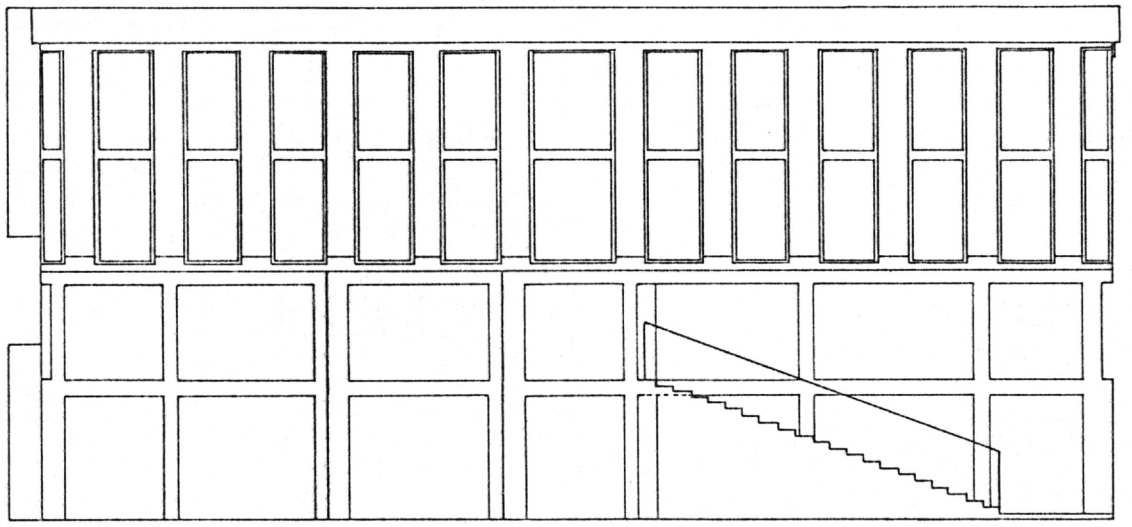


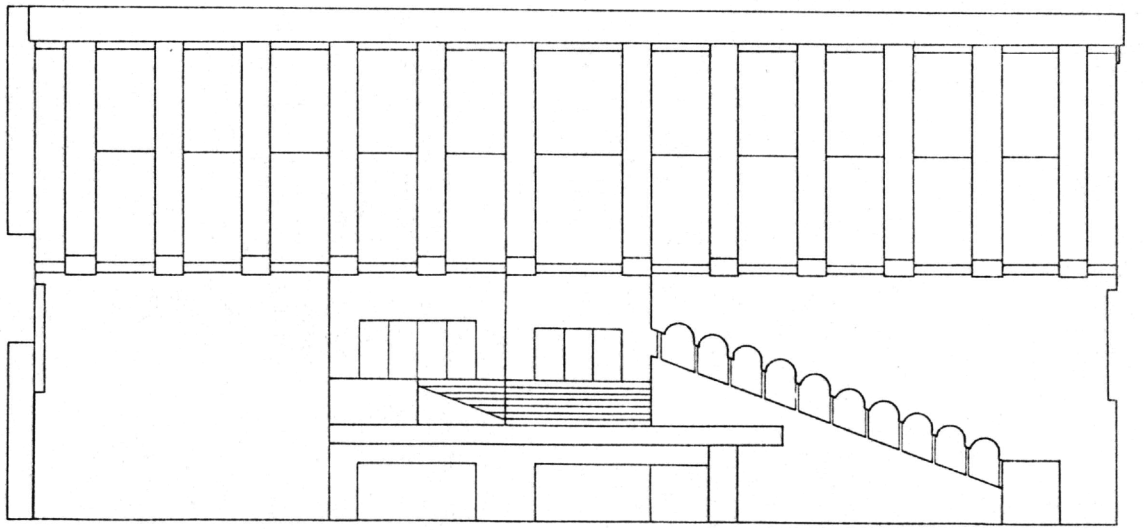
PRELIMINARY STUDIES

When you have all the answers about a building before you start building it, your answers are not true. The building gives you answers as it grows and becomes itself.[21]









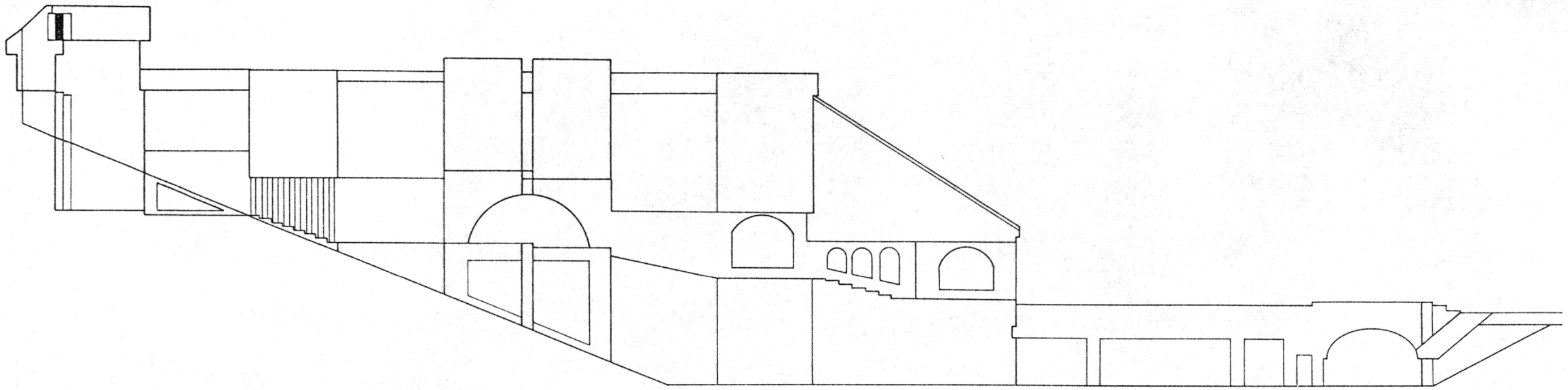
Axonometric: west

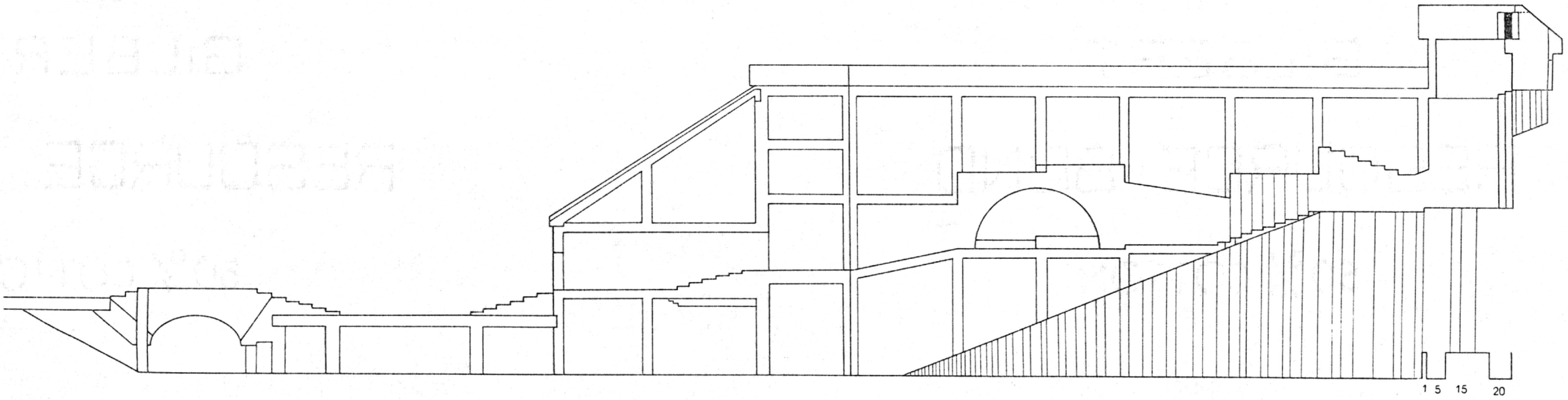
Section: east

Elevation: west

Section: west

Elevation: east



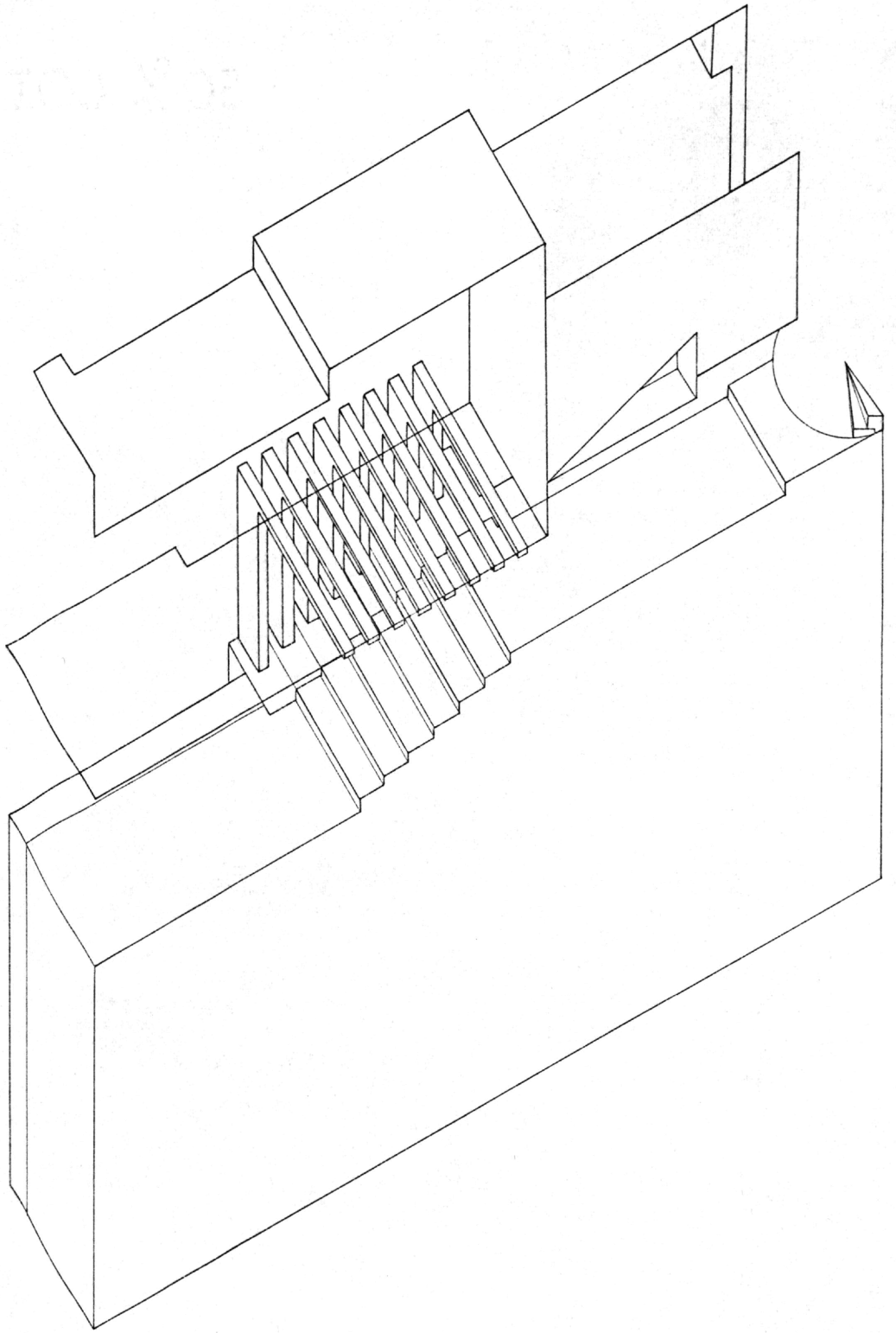


Concrete does the work of structure, of holding things up. The columns are apart from each other. The space between must be filled. Therefore, the travertine. The travertine is a fill-in material. It is a wall material which is an enclosing material...

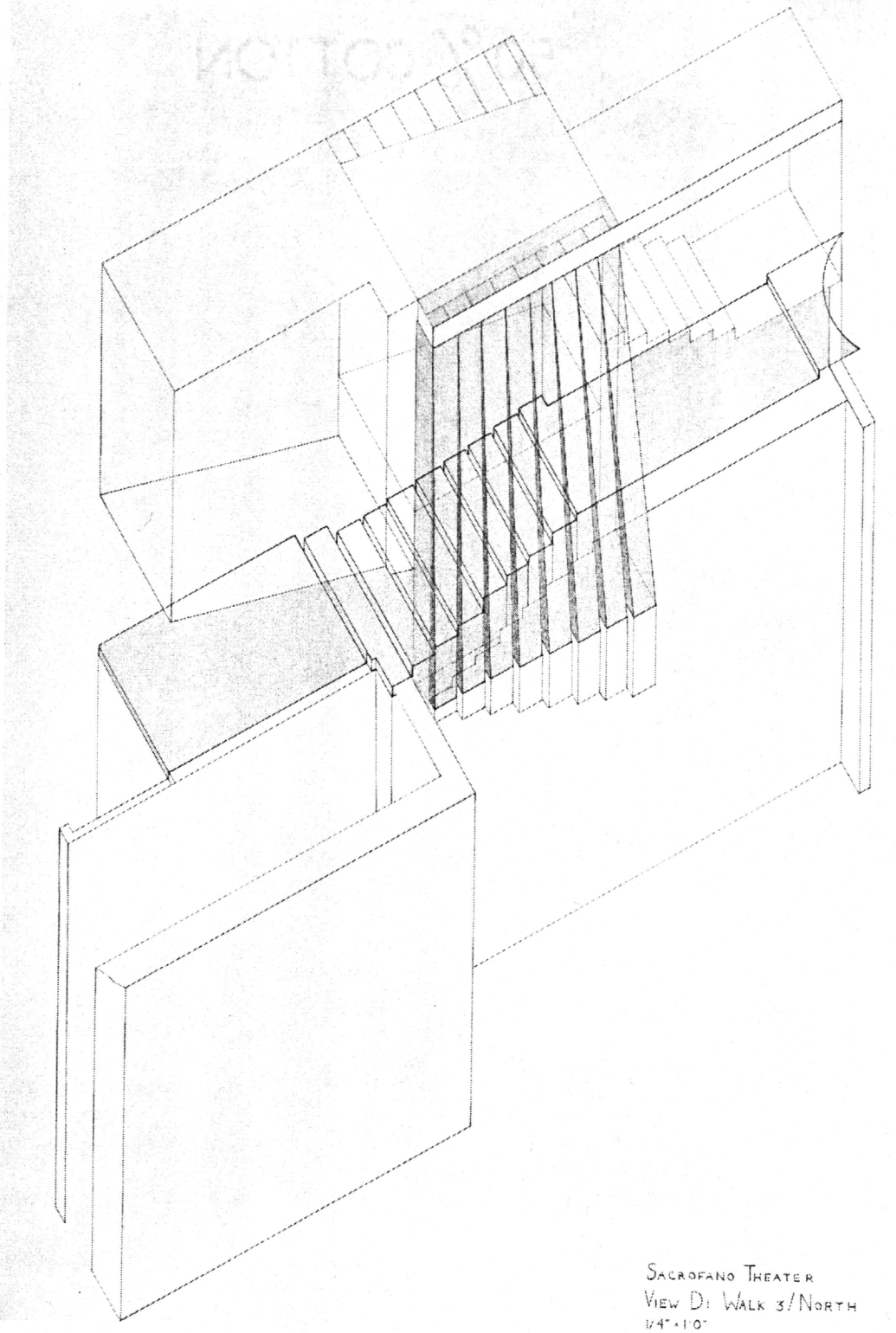
Elevation: south

Section: north

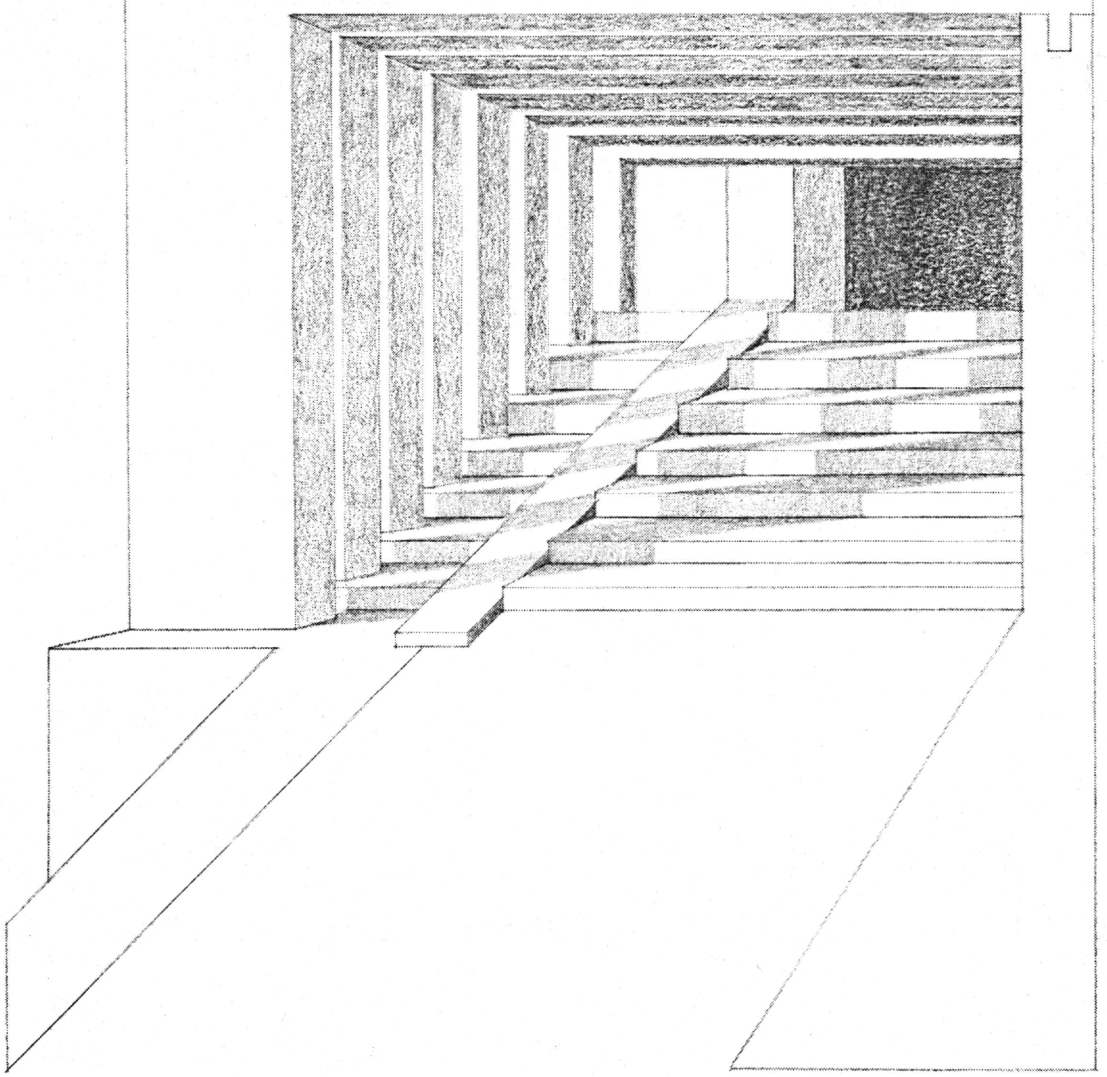
Travertine and concrete belong beautifully together because concrete must be taken for whatever irregularities or accidents in the pouring reveal themselves. Travertine is very much like concrete - its character is such that they look like the same material. That makes the whole building again monolithic and it doesn't separate things.[22]



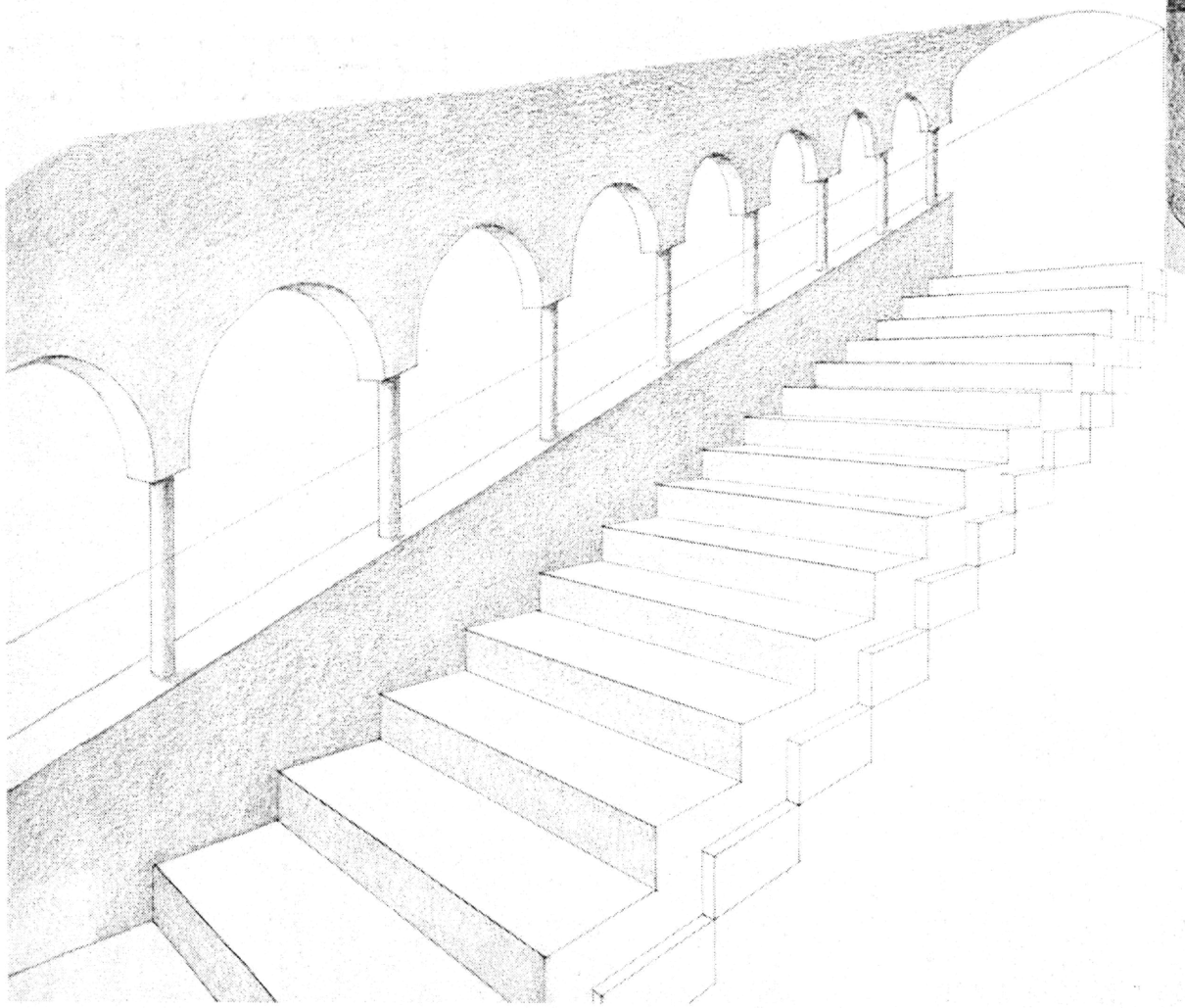
Axonometric: passageway south

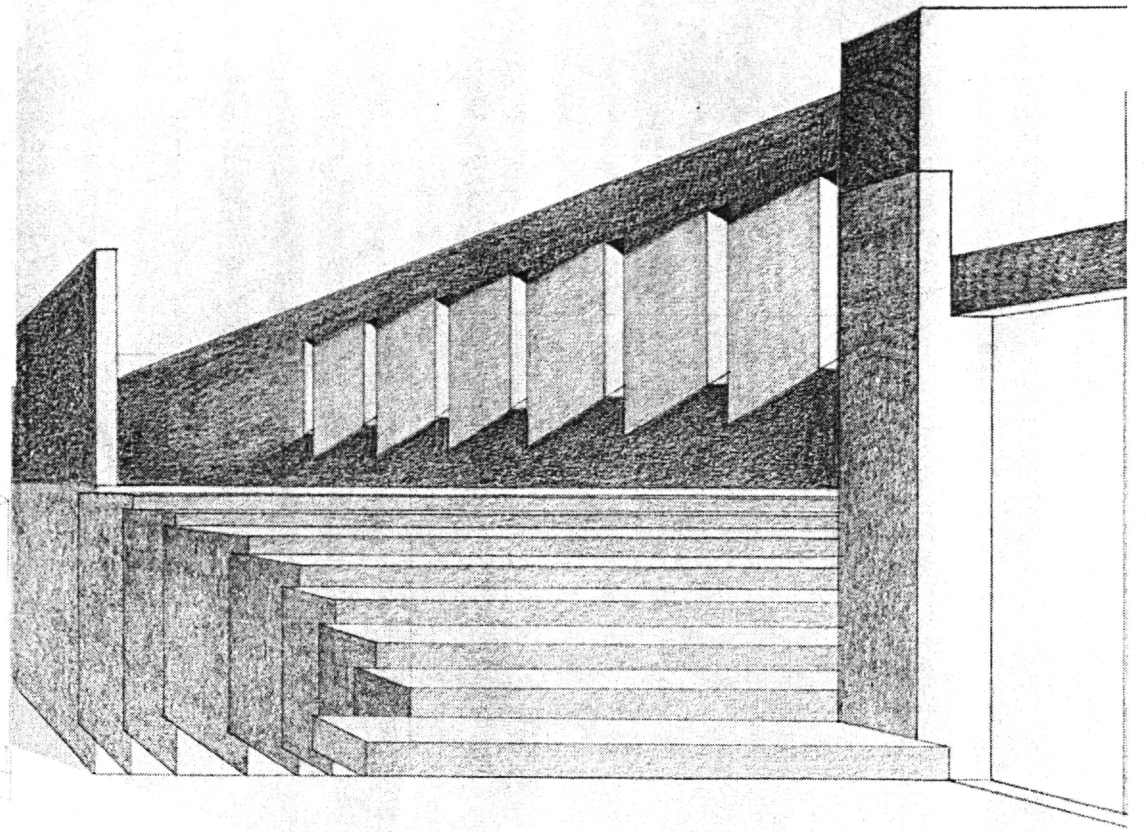


Axonometric: passageway north

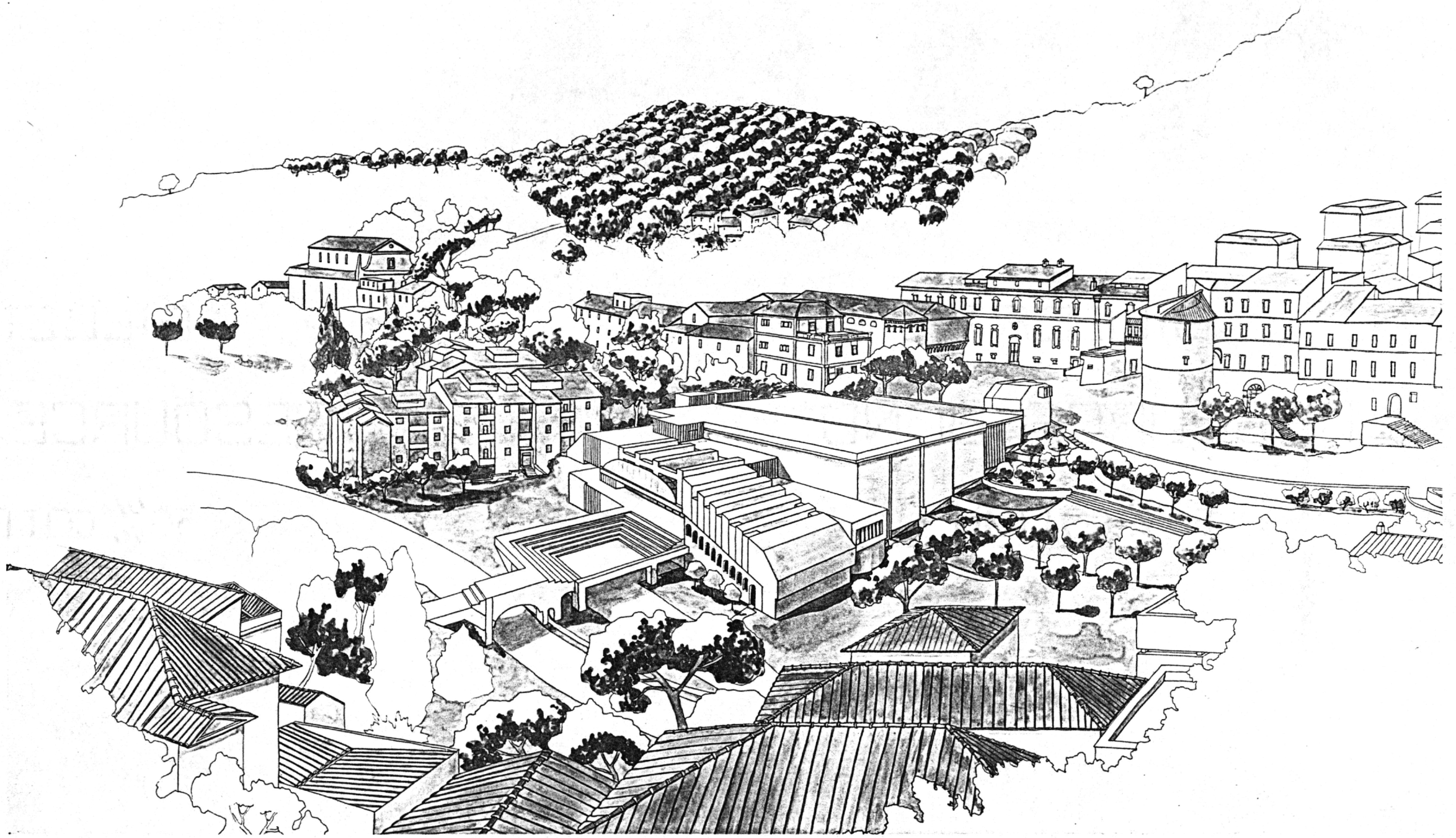


Material casts shadows. Shadows belong to light. No space, architecturally, is a space unless it has natural light.[23]

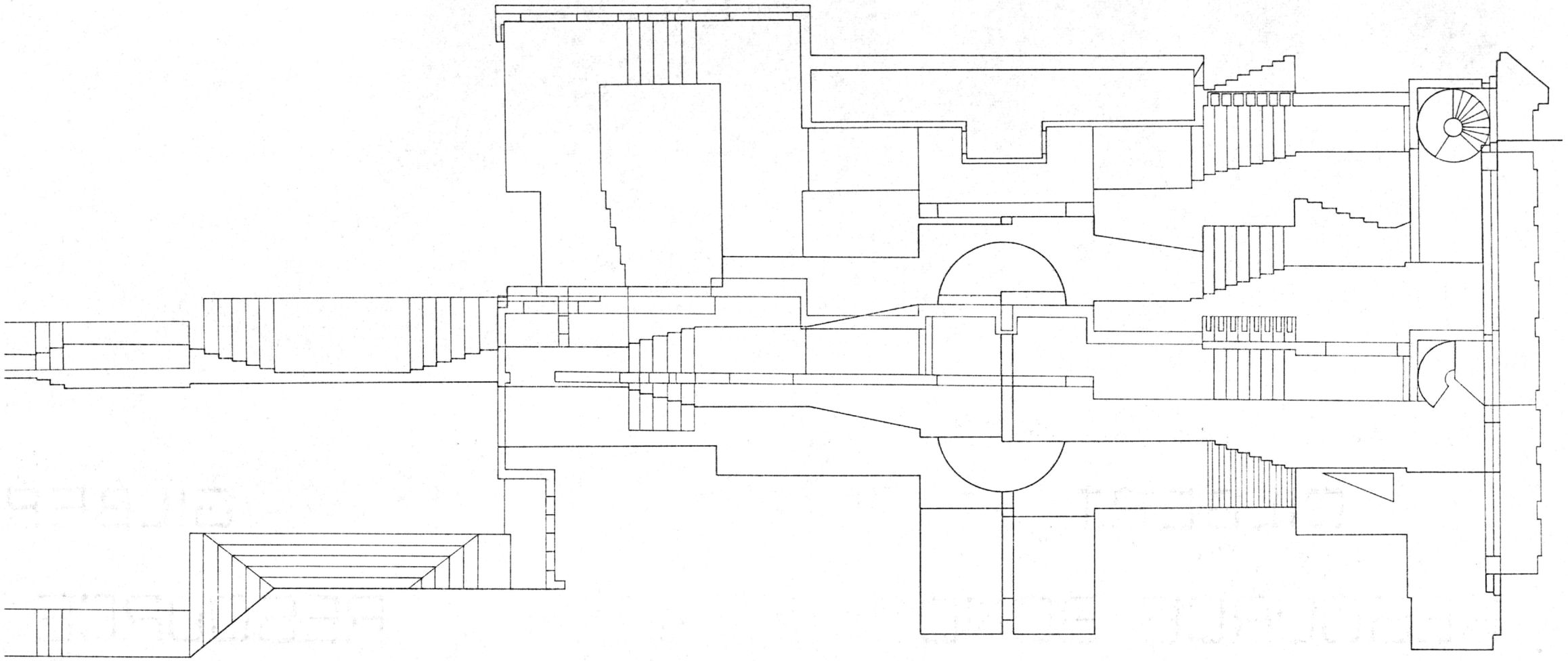




A stair isn't something you get out of a catalogue but a very important event in a building.[24]

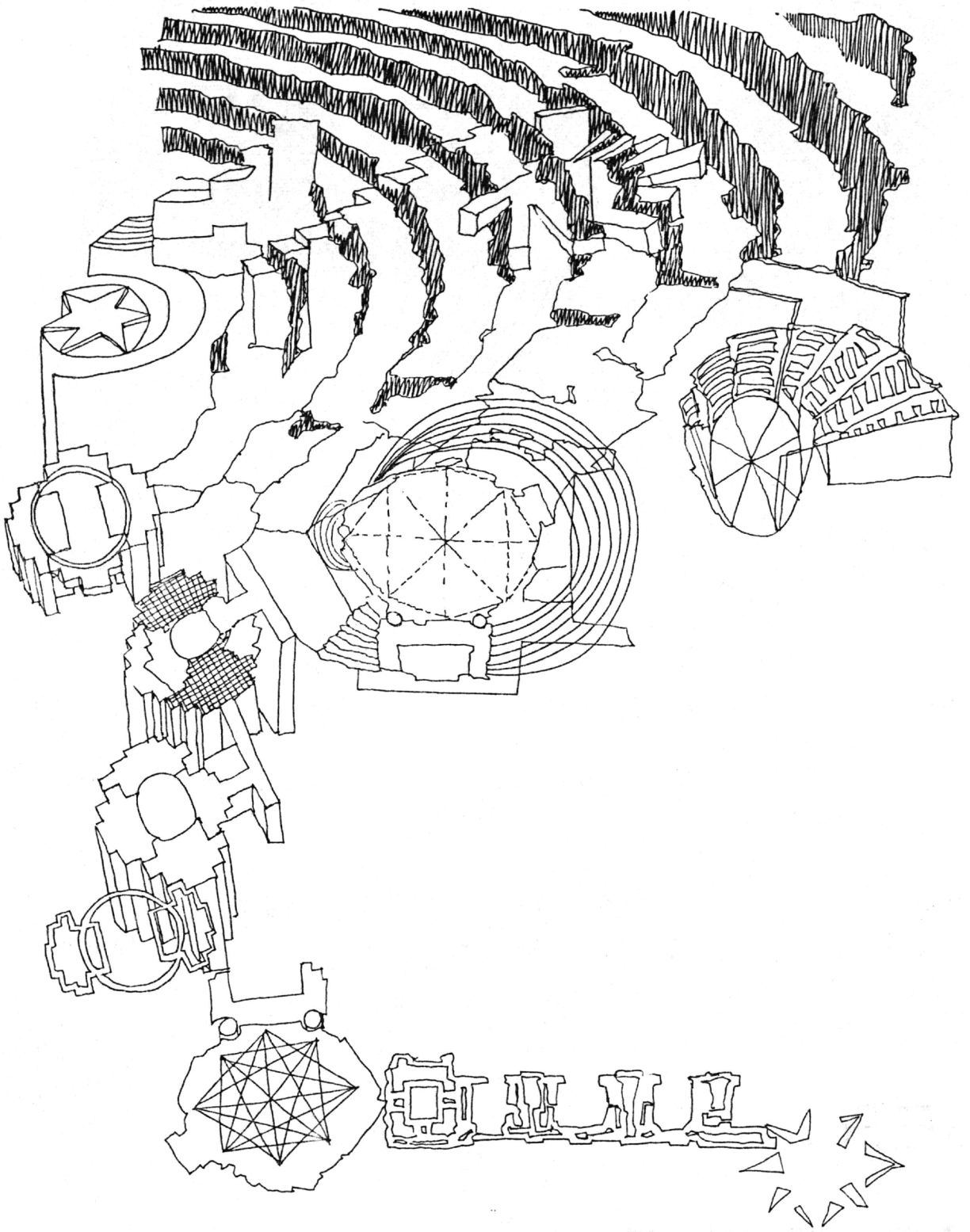


My mind is full of Roman greatness and the vault so etched itself in my mind that, though I cannot employ it, it's there always ready. And the vault seems to be the best. And I realize that the light must come from a high point where the light is best in its zenith.[25]



THE THEATER

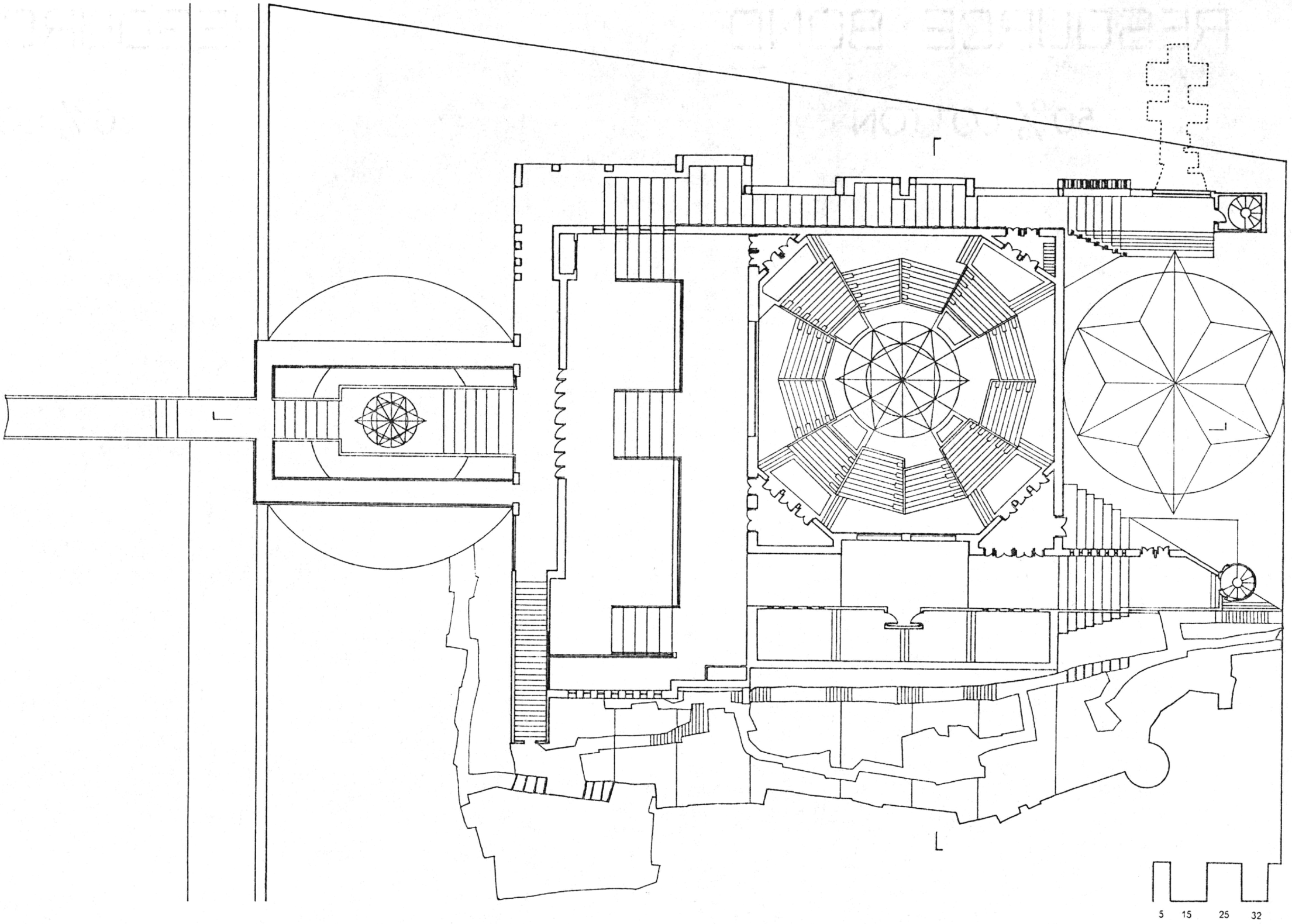
A Place to Experience Music
Between Passageways



Greek theaters carved into hillsides, radial stages breaking through the history and tradition of classical form, multi-level seating spiraling into the hill, wall-sections, moveable flooring, interlocking components,. . . What will the spatial relationship between audience and musician be?

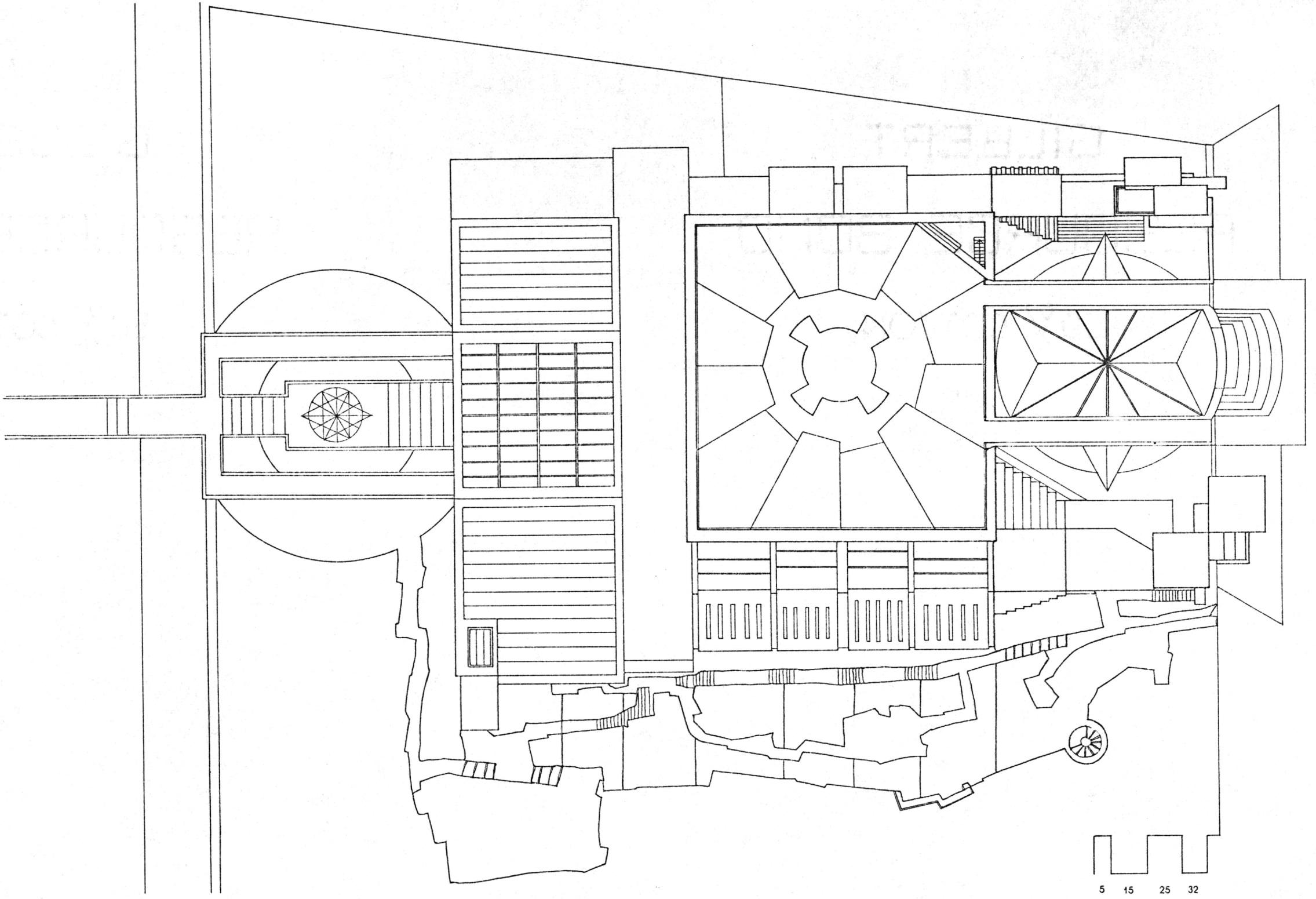
The idea is made of the material of experiences.[26]

The beauty of ruins:imprints in the land,tall columns rising in rhythmic repetition of surrounding pines,cracks and crevices born of rain and wind, the simplicity and strength of voids, the memory of form.



Plan: pedestrian bridges, theater, gatehouses, park terrace

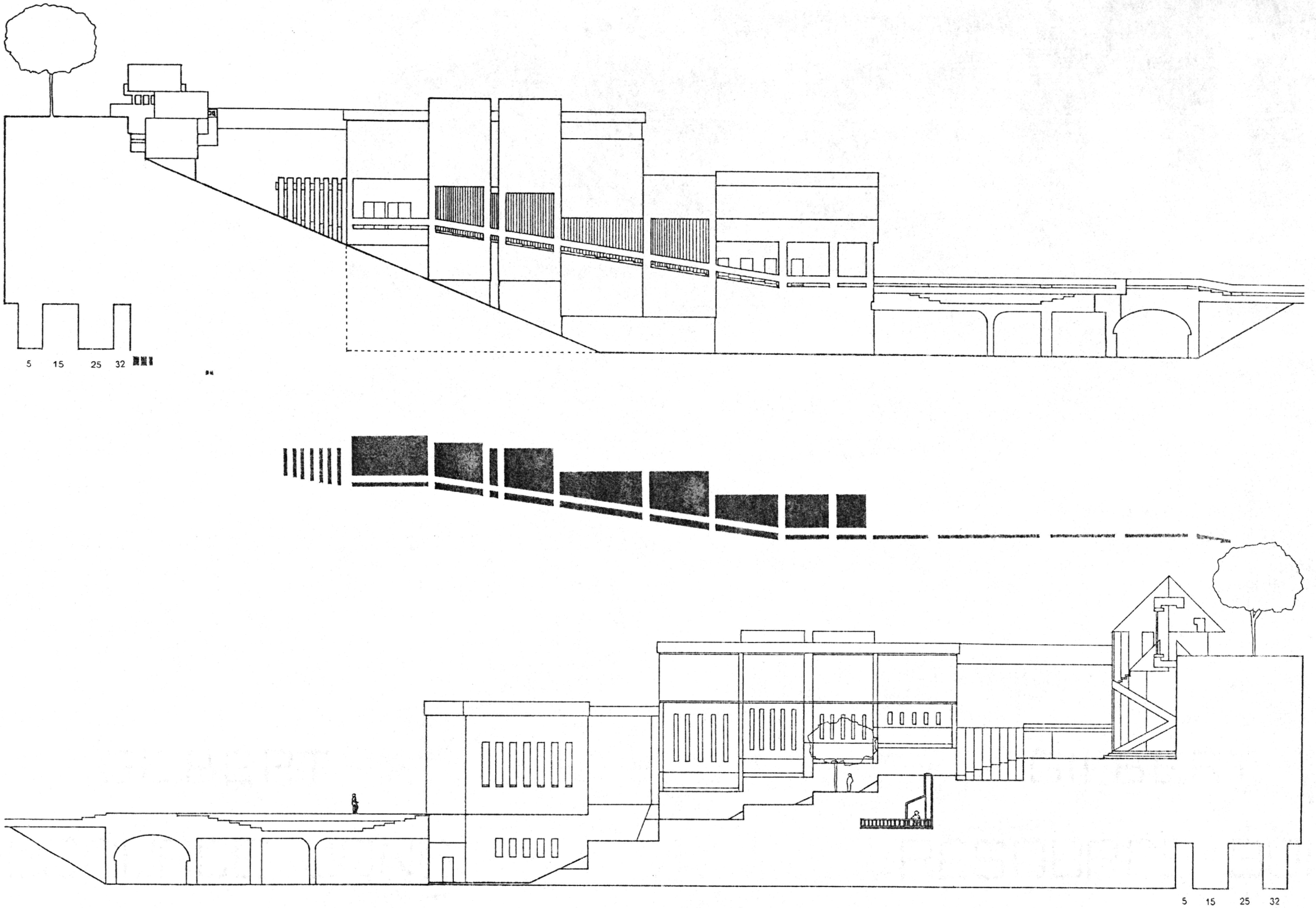
In both use and design, the theater and the building strive to encourage audience and community involvement. There is no longer a separation between audience and performer. Both interact as participants in the new kinetic theater.



Roof Plan

Outside Spaces, east to west:
pedestrian bridges, steps, lobby-top terrace, theater roof garden, west courtyard terrace, bridges from roof to hill-town, south elevation covered passageway, gatehouse overlook, east-west terraced walk and park overlook, ramp and spiral stairs leading to terraces below.

Pedestrian bridges, reinforced with wind cables, extend the hilltown piazza to the roof and lead to market spaces whose forms echo those of the stage floor below.

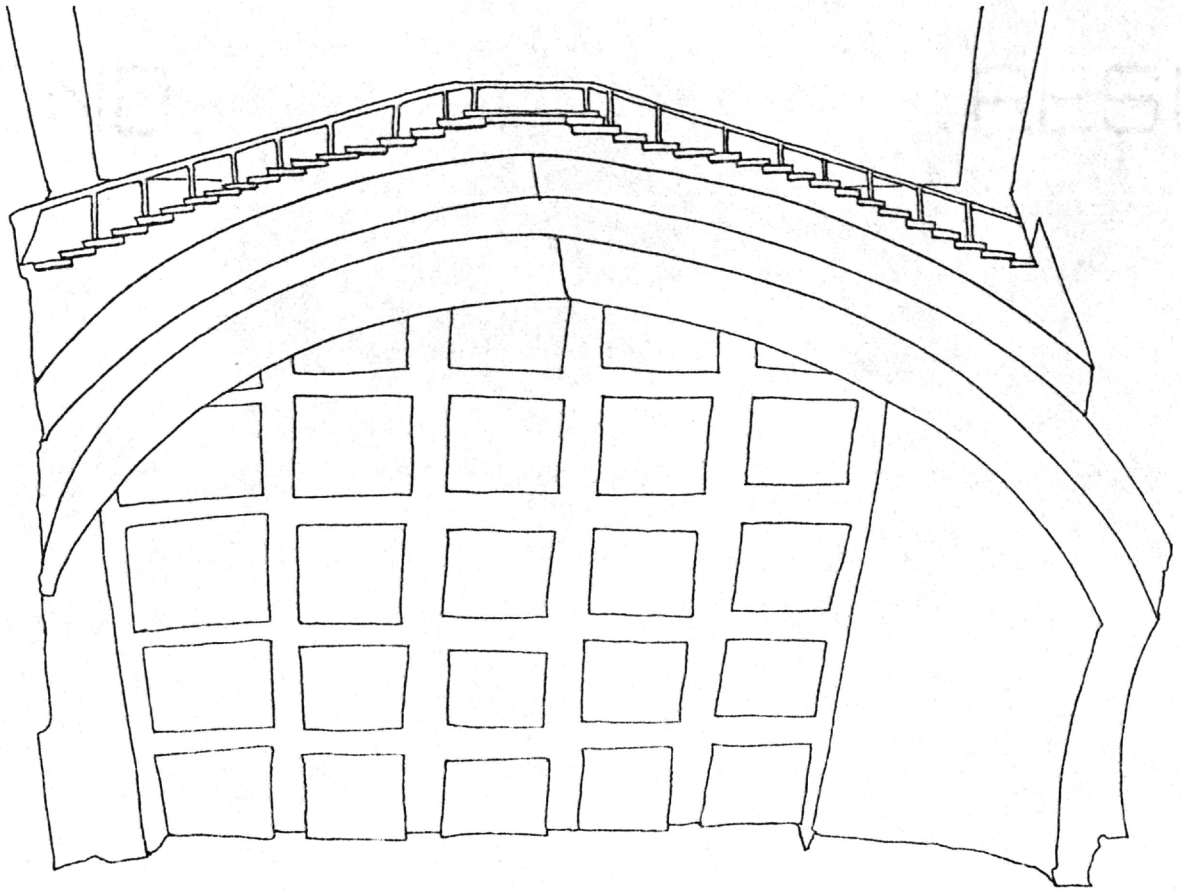


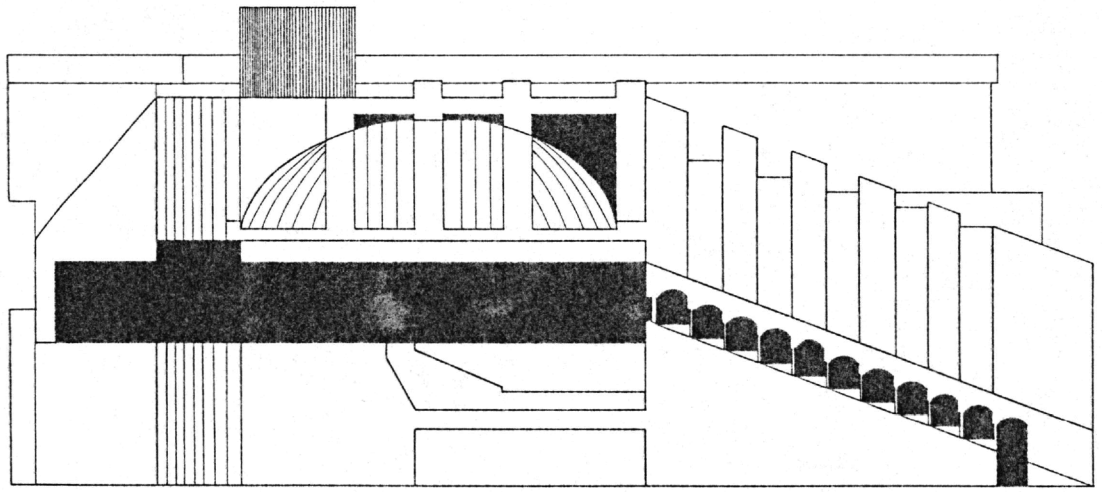
Elevation: south

Elevation: north

Because of the open porches, how the building is made is completely clear before you go into it. It is the same realization behind Renaissance buildings which gave the arcade to the street, though the buildings themselves did not need the arcade for their own purposes.

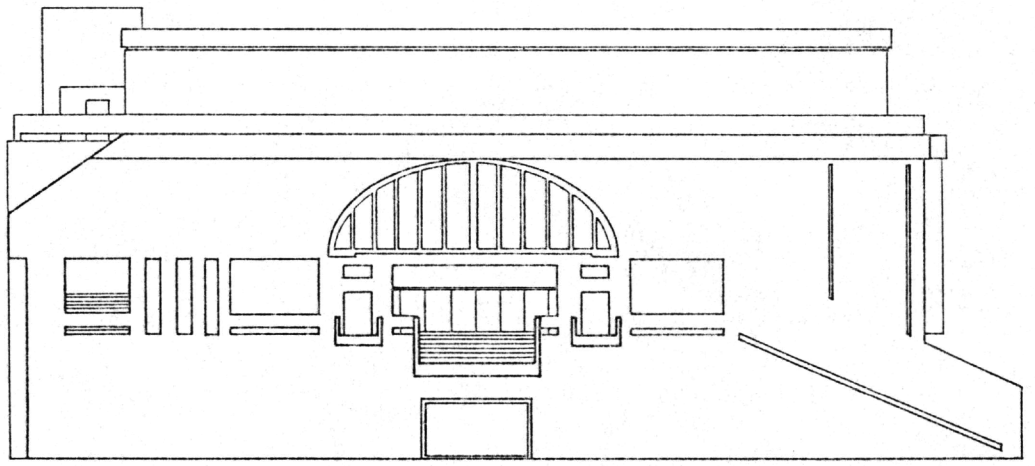
So the porch sits there, made as the interior is made, without any obligation of painting on its walls, a realization of what is architecture. When you look at the building and porch, it is an offering. You know it wasn't programmed; it is something that emerged. You know what's so wonderful about those porches? They're so unnecessary.[27]



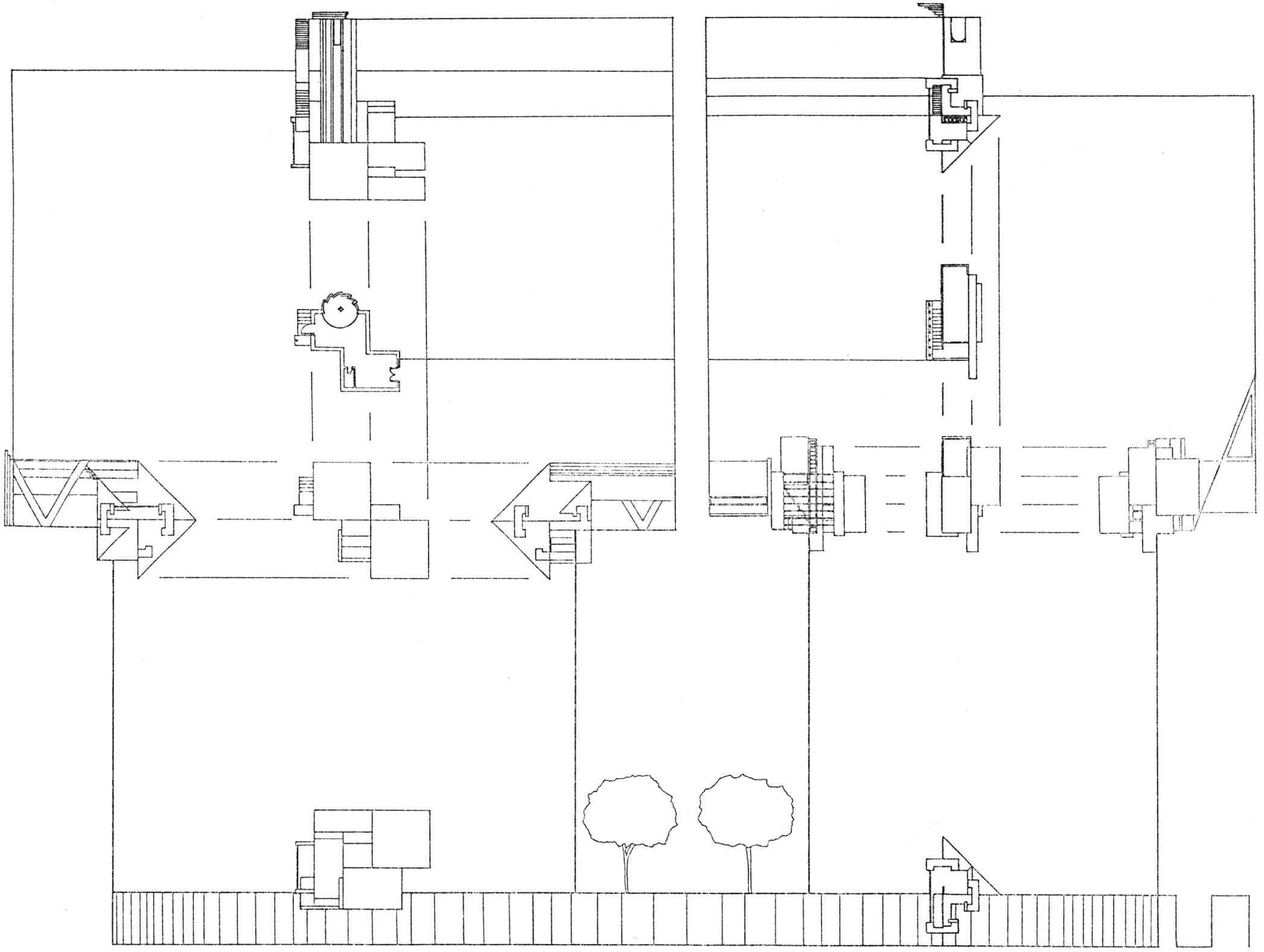


Elevation: east/preliminary study

Stairs over arches connect practice rooms with offices/sub-theater corridor



Entrance: from Martini, from the park, from the street, from Rome

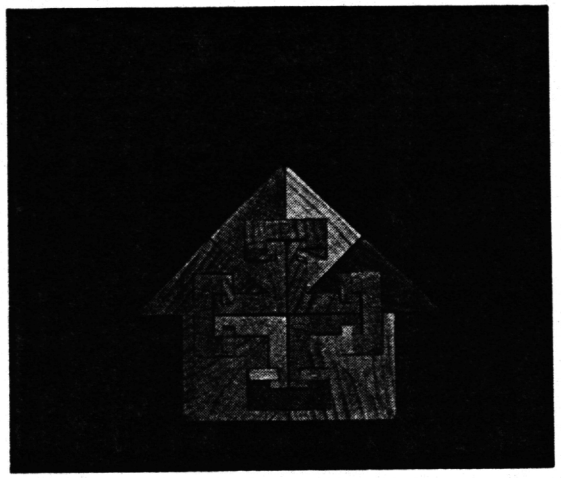
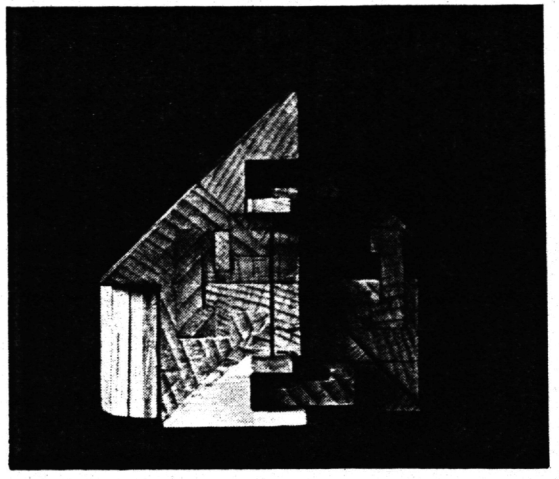
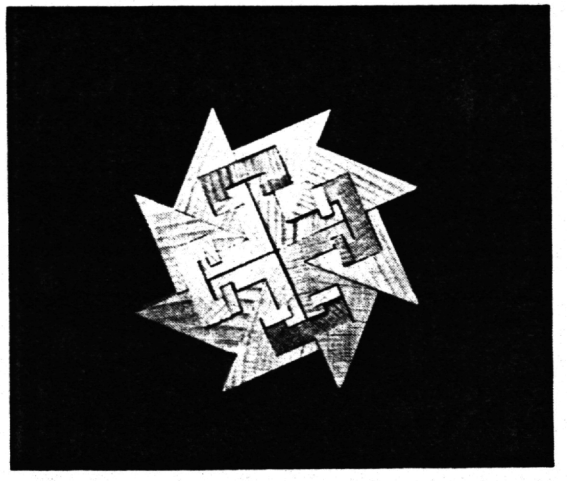
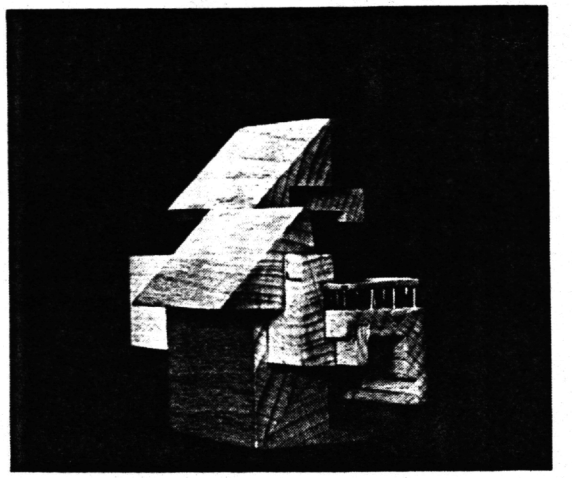
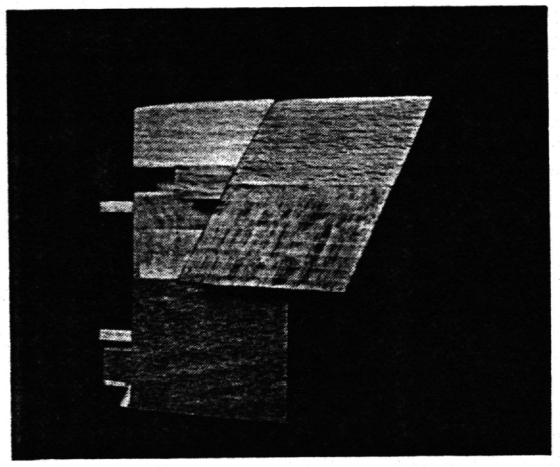


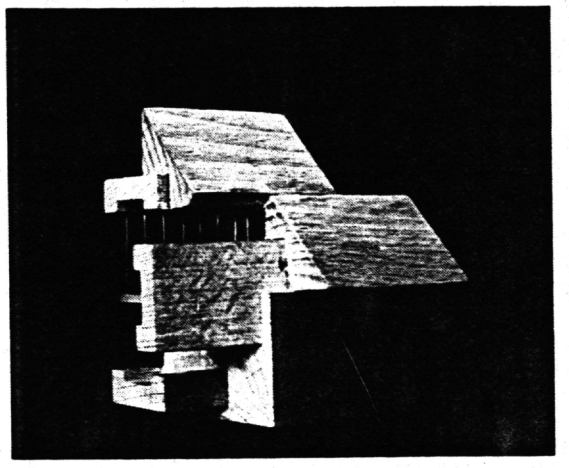
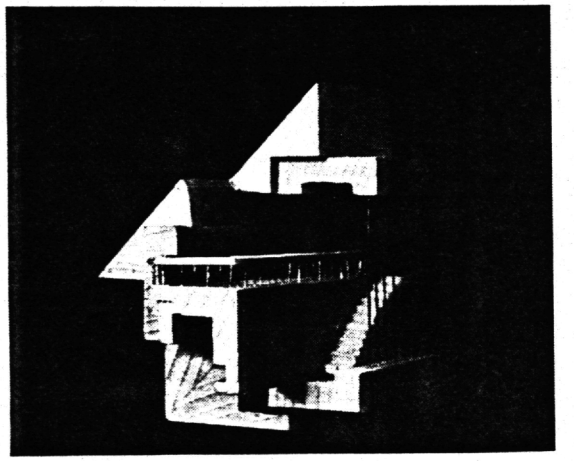
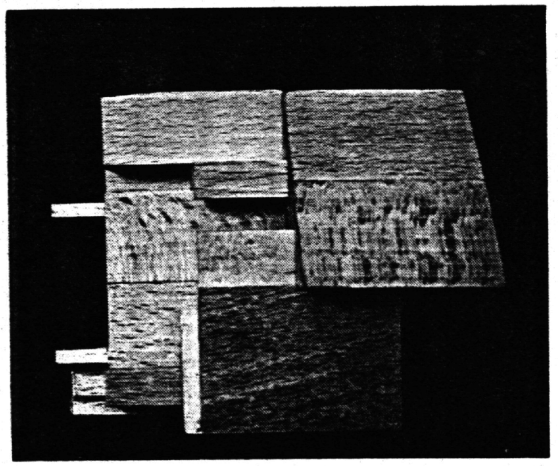
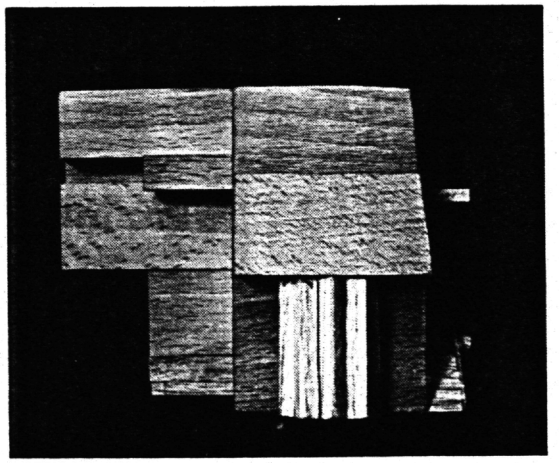
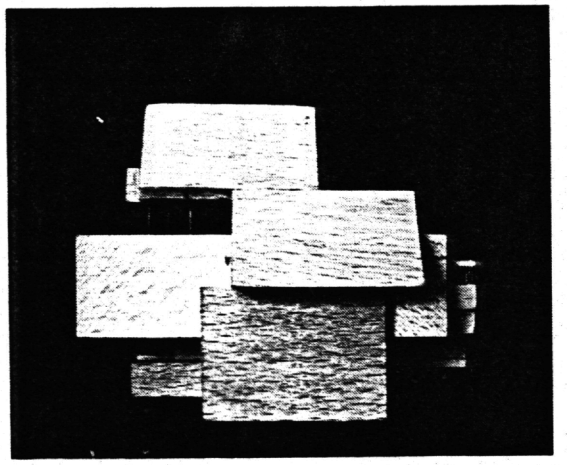
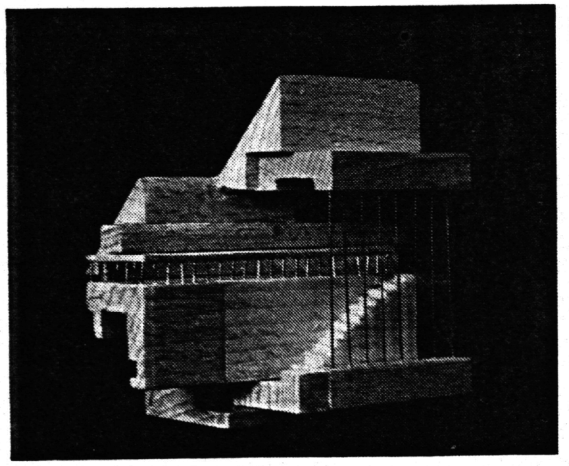
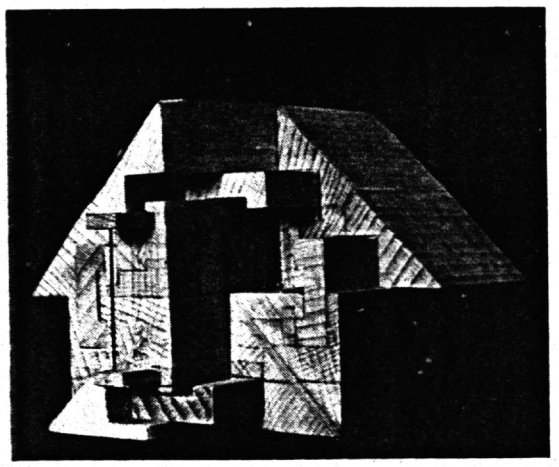
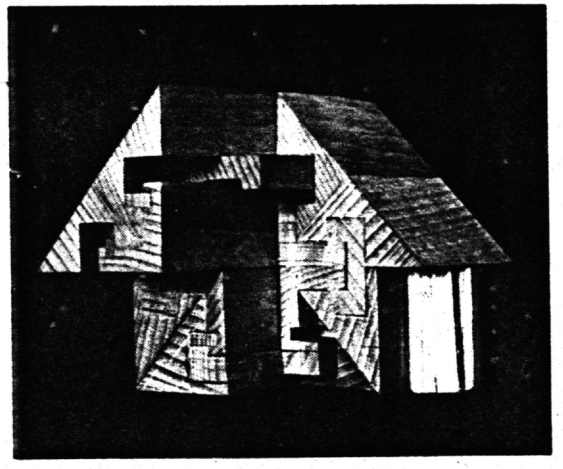
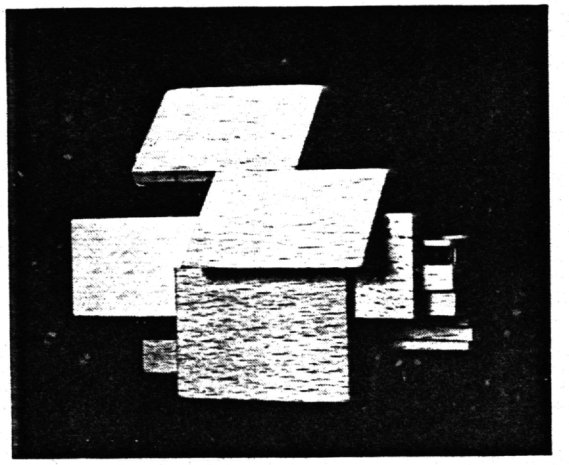
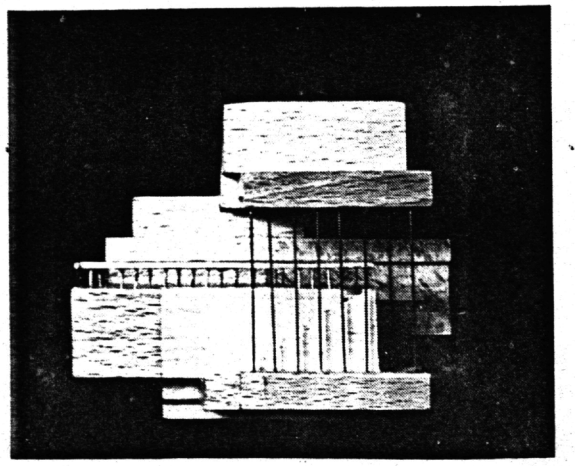
Upper lobby and entrance to inside and park walkways.

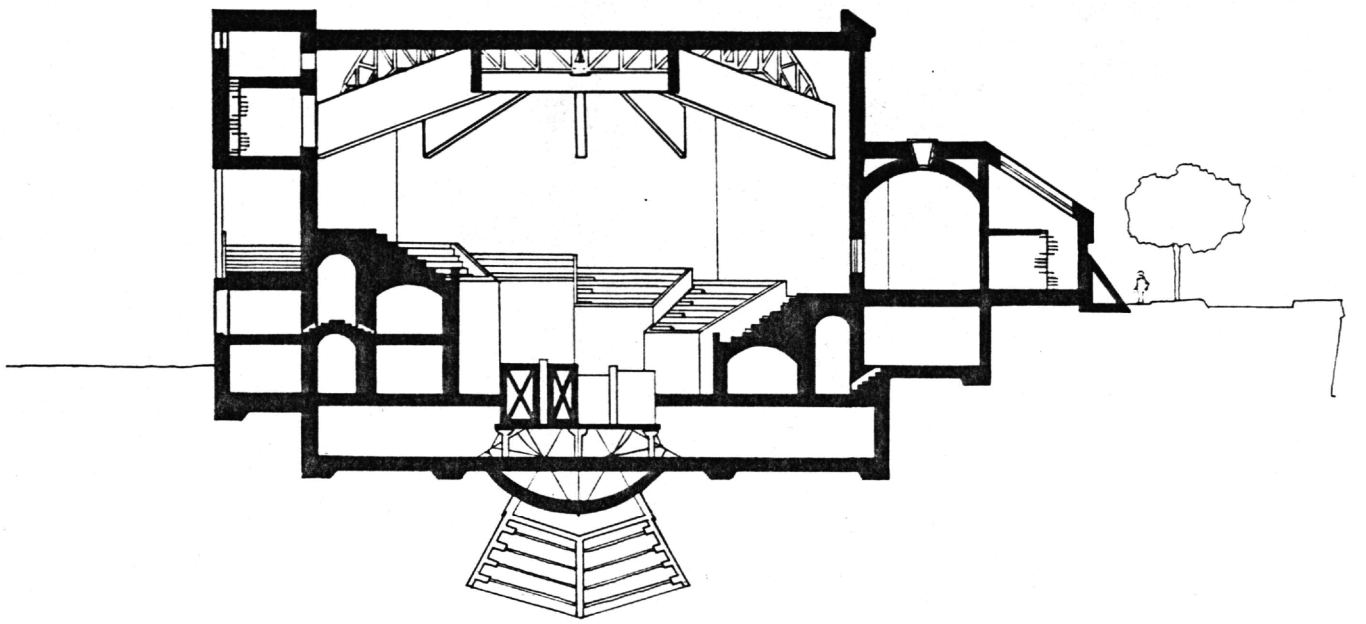
West, North, East and South Elevations
Roof and Floor Plans

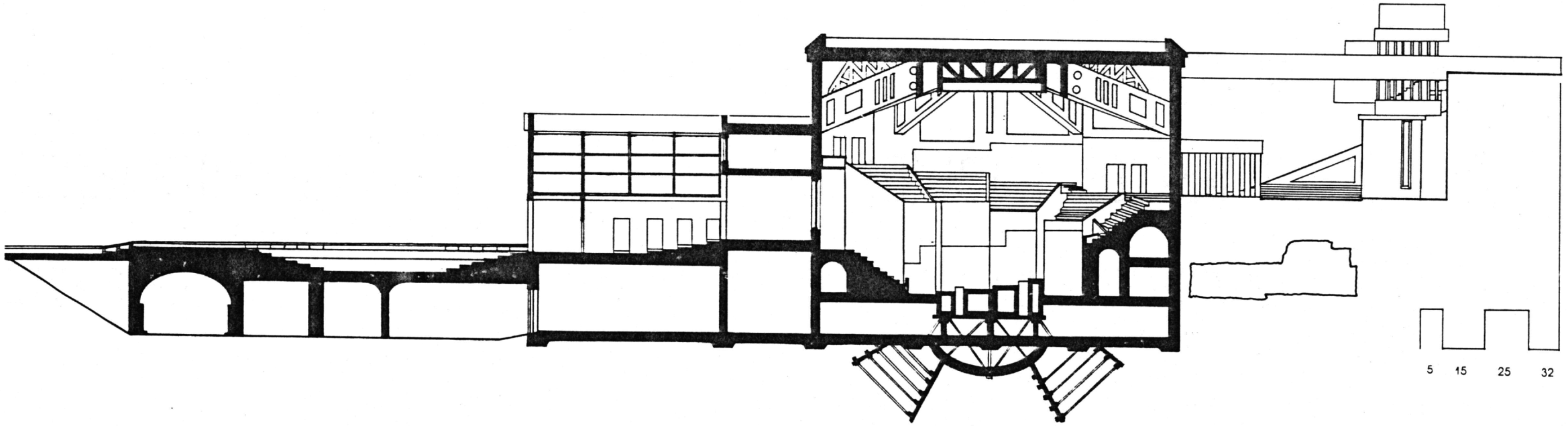
Designed as a puzzle of sliding vernacular components, the two gatehouses (doorways to the walkways and to the building) on Piazza del Mercato/Marketplace Square are the only parts of the building present in the hilltown.

Overlook and entrance to outside walkway.



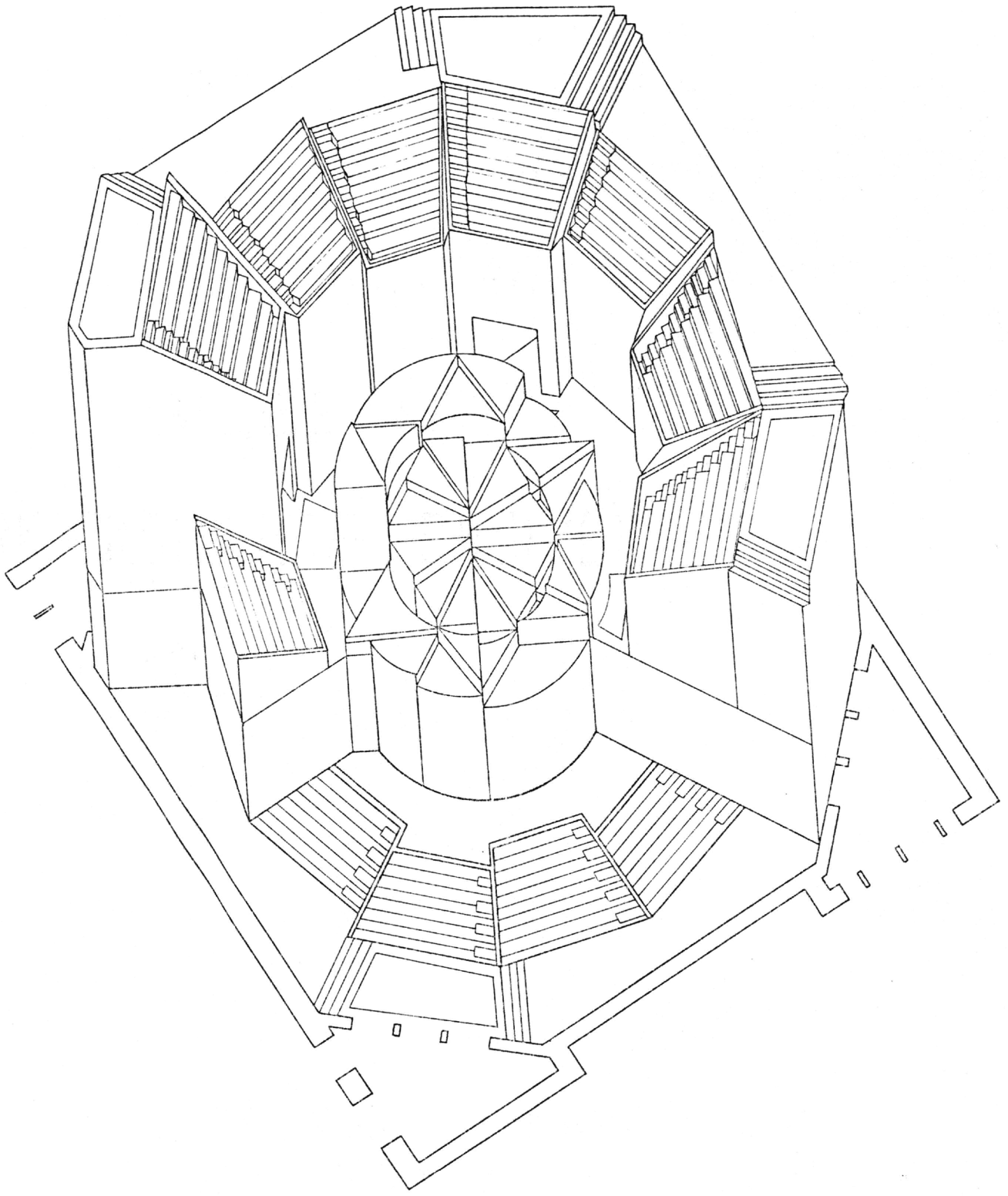


Section looking West

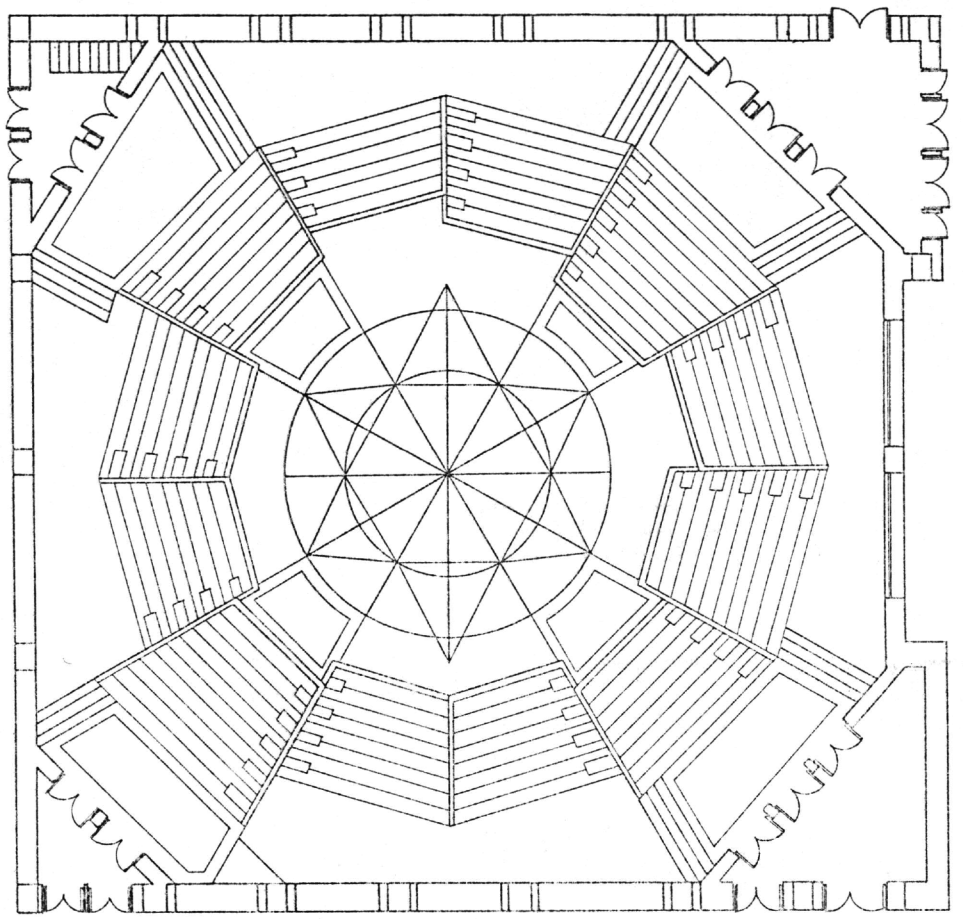
Section looking South

The most startling planning change in theater forms is the thought that the audience does not have to be any place at all; that the audience isn't necessarily anywhere, in any fixed place; that the audience is free to move, free to sit anywhere, to be anywhere and watch...If you had architecture that was permanent and the audience was free to choose how they wanted to relate to a performance, that would be the most startling innovation in theaters.[28]

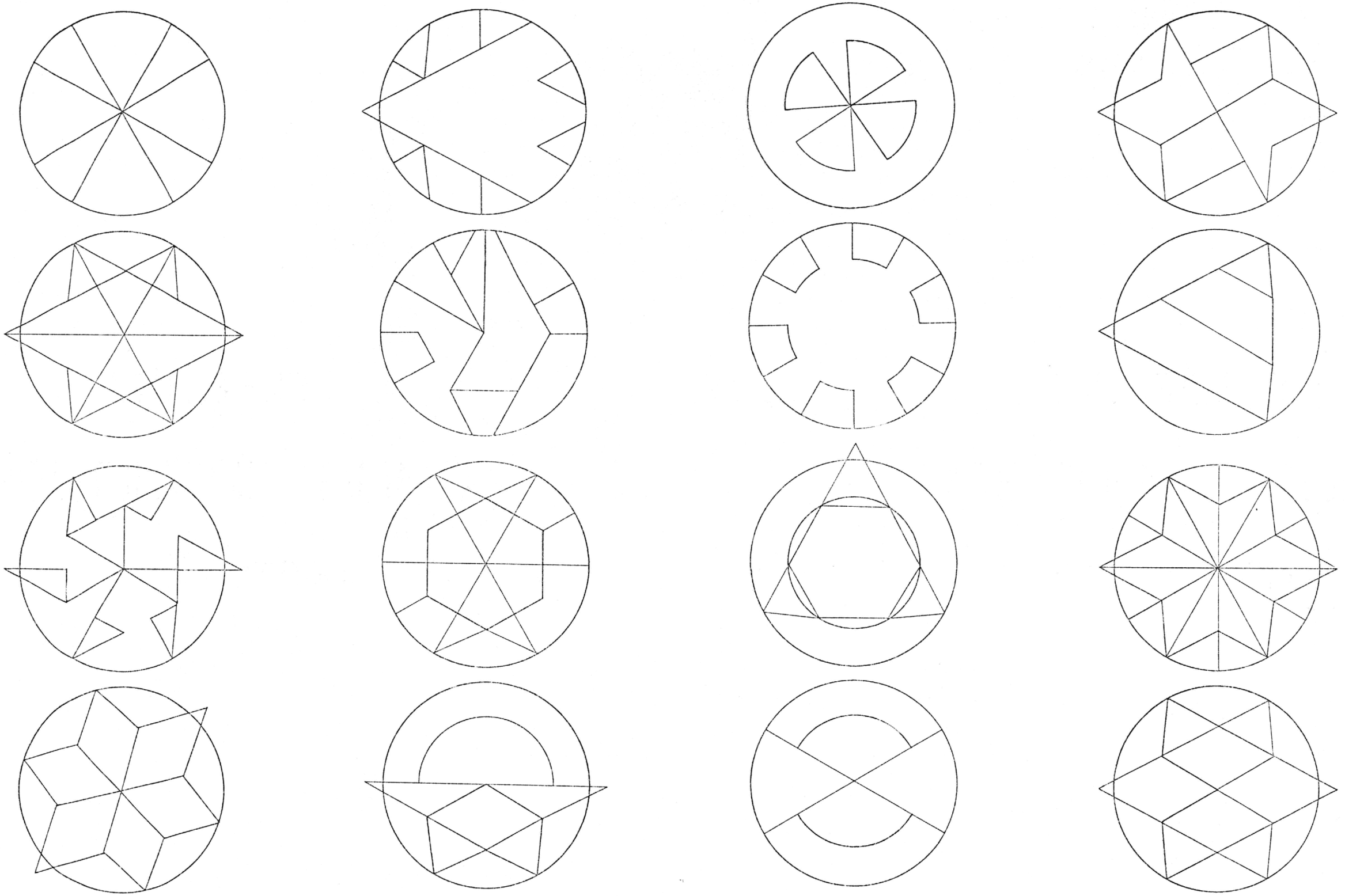
And other juxtapostions are possible... the animating intent must be noted and respected. It is to jog the participants in the event - both spectators and performers - into new perspectives of each other, into closer communion, if you will.[29]



In making a space to perform we should not forget that people can move vertically. The audience could move vertically, the musicians could move vertically, and the two could change positions vertically.[30]



Almost all our theaters at the moment are based on something very linear. We haven't gotten involved with hearing someone over our heads or underneath us, or looking up or down.[31]



Floor Configurations

Depending upon the musical composition and the number and desired arrangement of musicians and audience, the moveable, adjustable stage can be redesigned for each performance.

The day of the passive audience is waning. People want to participate in theater.[32]

September 1984 - December 1985. After sixteen months as a resident in the "centro storico", I leave with:

REFLECTIONS

"The city, as they call it, is an Italian hilltown, one of those clusters of houses which can be seen from any main highway, a huddle of gray and white shapes pressed up against the side of the mountain as if they were sheep fearful of falling off it, which they sometimes do."[33]

Spaces are compressed and defined; people seem grateful for walls' boundaries. Having lived on the open range where space is horizontal and walls are an anathema and having lived in a hilltown where space is vertical and each house is a wall, I can't say, with the indelible impression of both, that I am either for or against walls. For those arriving from the city, Sacrofano seems learnable and small. For those who have not left, the external town is never totally discovered or known. Strange, for with curiosity and wonder, I travelled its intricate tanagram - streets known by details and not by names - in one hour. Now, I have walked the streets so many times that the plan stands up and takes the 3rd dimension.

I often had strange feelings about a time warp here. The surroundings are medieval, as are methods of conducting daily life. Where technology encroaches, people use it as quickly as possible and then - so as not to be noticed - tuck it away. When crossing to the opposite hill (Martini) or when going south down the hill to Rome, the juxtaposition, the contrast, seems too sudden. In other spheres, the philosophical acceptance of things seems greater here as though these people, actually further advanced in a progression, have intentionally removed themselves from other lives so as to have time for contemplation and existence on a more basic level. And so, appearing to be of the past, perhaps they are of the future and, shuttling between philosophies, conditions, and places, I know not whether I am going backward or forward in time.

Being in limbo between places - when you've left one place and have its memory and haven't yet arrived at the next place but have its anticipation - is being at once part of both and of neither. The transition between realities is the unknown and becomes the challenge. In Sacrofano, the transition/the bridge is one of place, conditions, and time. From past to future, the transition/the bridge-between for me is the experiencing and the study of Architecture.

Architectural Record. "Art for Art's Sake", McGraw Hill, New York, 1983

Architettura in Provincia. "Il centro storico di Sacrofano", Edizione Kappa, Rome, Italy, 1984
Surveys and Revisions for drawing, page 44, done by CJS while employed by Il Laboratorio

Botta, Mario. "Mario Botta features Nine Works", Architecture and Urbanism #105, June 1979
footnote 2

Calvino, Italo. *Invisible Cities.* Harcourt Brace Janovich Publishers, 1972
footnotes 14, 15, 16, 18, 19

Carver, Norman F. Jr. *Italian Hilltowns.* Documan Press, 1985
footnotes 3, 5, 7, 9, 10, 11, 12, 13, 17, 20

Crichton, Robert. *The Secret of Santa Vittoria.* Simon and Schuster, New York, 1966
footnote 33

Descartes, Rene
footnote 26

Fisher, Jules. "Training Tomorrow's Pros", Progressive Architecture, December 1970
footnotes 30, 31

Hardy, Hugh. "New Places in Old Spaces", Progressive Architecture, December 1970
footnotes 28, 32

"HHPA's USA";"HHPA on the Arts", Progressive Architectures, February 1975
footnotes 6, 8

Houghton, Norris for Hardy Holzman Pfeiffer. Progressive Architecture. February 1975
footnote 29

Izenour, George. *Theater Design.* McGraw Hill, New York, 1977

Kahn, Louis I. *Light is the Theme.* Louis I. Kahn and Kimbell Art Museum, 1978
footnotes 21, 22, 23, 24, 25, 27

Meilziner, Jo. *The Shapes of Our Theater.* Clarkson N. Potter, Inc., 1970

Mumford, Lewis. *The City in History.* Harcourt, Brace and World, Inc., 1961

Progressive Architecture. "Performing Halls", November 1975 "Out of Round", August 1982

Rudofsky, Bernard. *Streets for People.* Van Nostrand Reinhold, New York, 1982

Wolfe, Thomas. *The Web and the Rock.* Sun Dial Press, Garden City, New York, 1940.
footnote 1

Wright, Frank Lloyd. *An Autobiography.* Horizon Press, New York, 1977
footnote 4

The vita has been removed from the scanned document