

A Theater for the Greek Landscape

Submitted in partial fulfillment of
the requirements for the degree of
Bachelor in Architecture at
The Massachusetts Institute of Technology
March 24, 1964

Signature redacted

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83 Brattle Street
Cambridge 38, Mass.
March 24, 1964

Pietro Belluschi, Dean
School of Architecture and Planning
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Cambridge 39, Massachusetts

Dear Dean Belluschi:

In partial fulfillment of the requirements
for the degree of Bachelor of Architecture, I herewith
Respectfully submit my thesis entitled "A Theater for the
Greek Landscape".

Sincerely yours,

Signature redacted

Paul Sapounakis

ACKNOWLEDGEMENTS

I would like to thank the Thesis Committee and my Design Critics for their helpful advice and criticisms and my Mother for her faith and encouragement.

ABSTRACT

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If there is such a thing as cultural convergence, if among people of great intelligence and sensitivity there is at the same time but independently a reorientation in a given direction, and if orientation can be symbolised by a variety of ways, in philosophy, in fiction, in poetry, in painting, in music, then it would seem that precisely such a cultural circumstance has been determined by a thematic continuity in the recent conceptualizations of several dramatists, and architects. This striking mutuality has at its basis the arrestment of the mind at a single and exclusive orientation, the Ancient Greek Amphitheater.

This Thesis entitled "A Theater for the Greek Landscape" is an attempt to secure the imaginative center and source of that Greek Amphitheater, and to amplify its several architectural and dramaturgical intimations to the design of a similarly dynamic and vital theater for the modern Greek countryside.

This report contains an examination of the Ancient Theater in the Ancient Landscape, deriving those modes and essences to resolve an appropriate theater design; a formulation of "Pure Theater" design theory, defining psychological and physiological characteristics of the dramatic "art"; an elaboration of the facilities for the Theater, clarifying the intention; and a statement of the Proposal, describing the Solution.

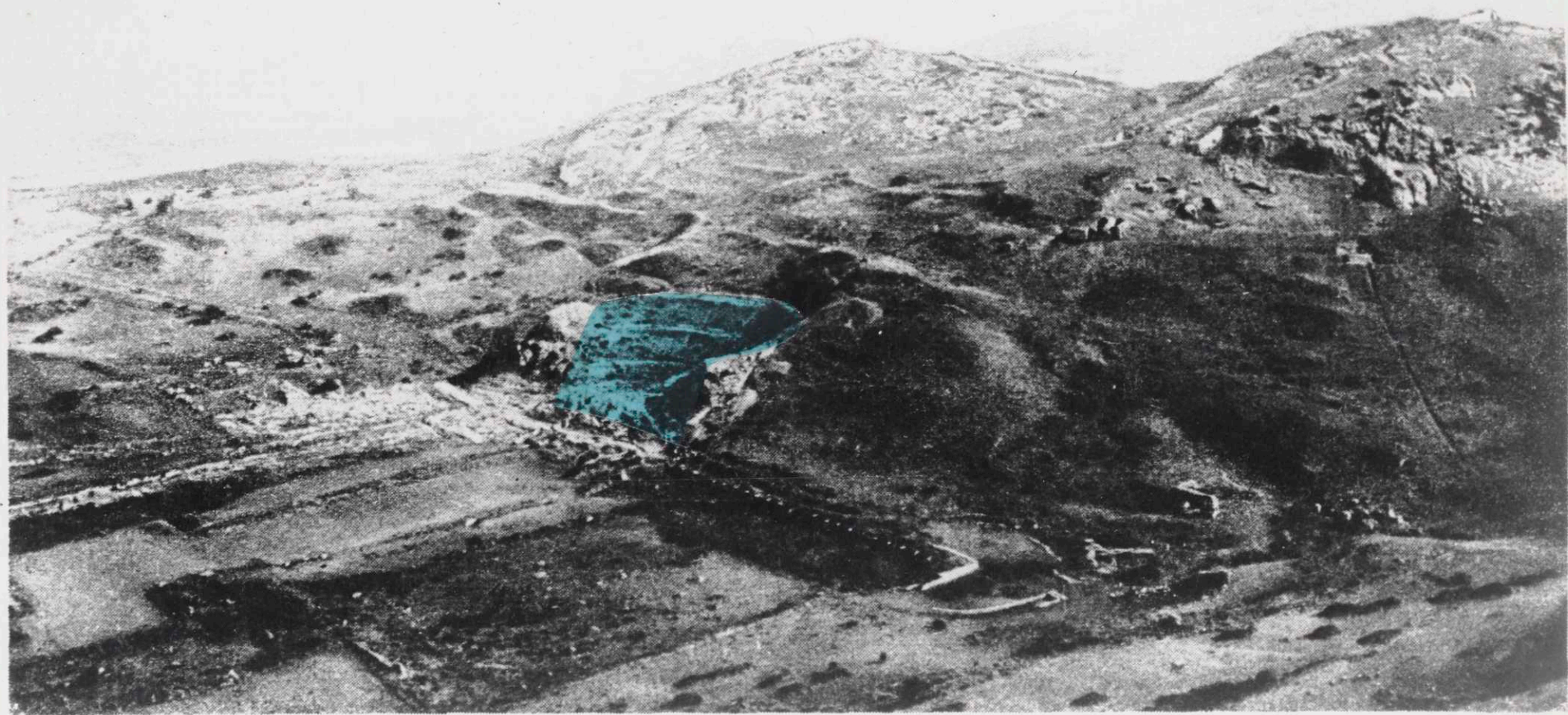


TABLE OF CONTENTS

Introduction	1
Way of the Greeks	3
Classical Theater Building	5
Towards a Theory for a Design	9
Facilities for the Theater	15
a. The Program	16
The Proposal	18
a. The Site	
b. The Theater	
c. The Physical Solution	
References	33

DEDICATION

To my Mother and late Father

INTRODUCTION

INTRODUCTION

"Primarily, the theater in the modern world, from every standpoint lacks style. Inside and out it should be distinguished, It should look and be 'theater' in its architecture....to the student of the subject the development of the theater since the Greeks shows gradual deterioration"

Norman Bel Geddes ¹

To the Greeks, the theater was their most vital creative expression, and they succeeded in achieving results that for "pure theater" have never been surpassed. They built them to look like theaters and to dignify what transpired within them. The greeks lived in an age of imagination.

Today the land has a different life. It is an existence which belongs essentially to a country in its last, denuded phase. The land is desolate, empty, despoiled, abandoned by its ancient life, its unique and noble life. Gone are the groves and the majestic Attic cypress, and sad in their stead are low bushes and small pines which spice the air with a never-failing, delicate fragrance as though incense were rising from sacrificial alters.

Even thus denuded, Greece remains a land fit for Gods. Its aspects have a world-wide significance. There is drama in the sea, omnipresent and restless. There is drama in the islands scattered across it like stepping stones, silhouetted to the horizon in a sequence of perspectives, black, purple and blue. There is drama in the cubes and domes and the zigzagging stepped streets of the towns piling up, as though organically, to match the bare rocky contours of the peaks towering skywards to reveal majestic tumbling panoramas of land and sea. For Greece is not, in its atmos-

¹ Encyclopaedia Brittanica, 14th Edition; The Theater and the Motion Pictures, page 13.



phere, an antiquarian country. Hellenists, for the most part in terms of Greece's ancient heritage, come, in a spirit of academic nostalgia, to see the ruins; to lament over the cities, the temples, and the statues of the past. But the Greek sense of wholeness makes little distinction between past and present. The Greeks of today may have little direct affinity with the Greeks of Antiquity; they may indeed be a mongrel, Balkanised race. Still the same environment has bred them and the same ideas have turned them into a nation.

Yet that nation, that Greek 'landscape' lost its 'meaning' when the ancient society died out. It was somehow held together by the sensibility of those discoverers, almost as though the most spiritual of all ancient edifices were themselves unintentionally showing us the meaning of the landscape itself. When the ancient life departed from Greece, there went with it the men who had revealed the significance of that landscape and kept that significance alive. They were succeeded, not by men of an entirely different type, but by men who closed their eyes to that significance.

But what of the Gods?

THE WAY OF THE GREEKS

THE WAY OF THE GREEKS

"We know the world has experienced at least one great theater: a theater of momentous power and inspiration, regardless from what standpoint it is considered; a theater that drew audiences five times greater than any motion picture today. That theater belonged to the Greeks a few hundred years B.C. The effect of that theater may be said to have been the rousing of vast overwhelming ideas of thought and feeling in the masses. In modern times we have nothing to compare with this." 2

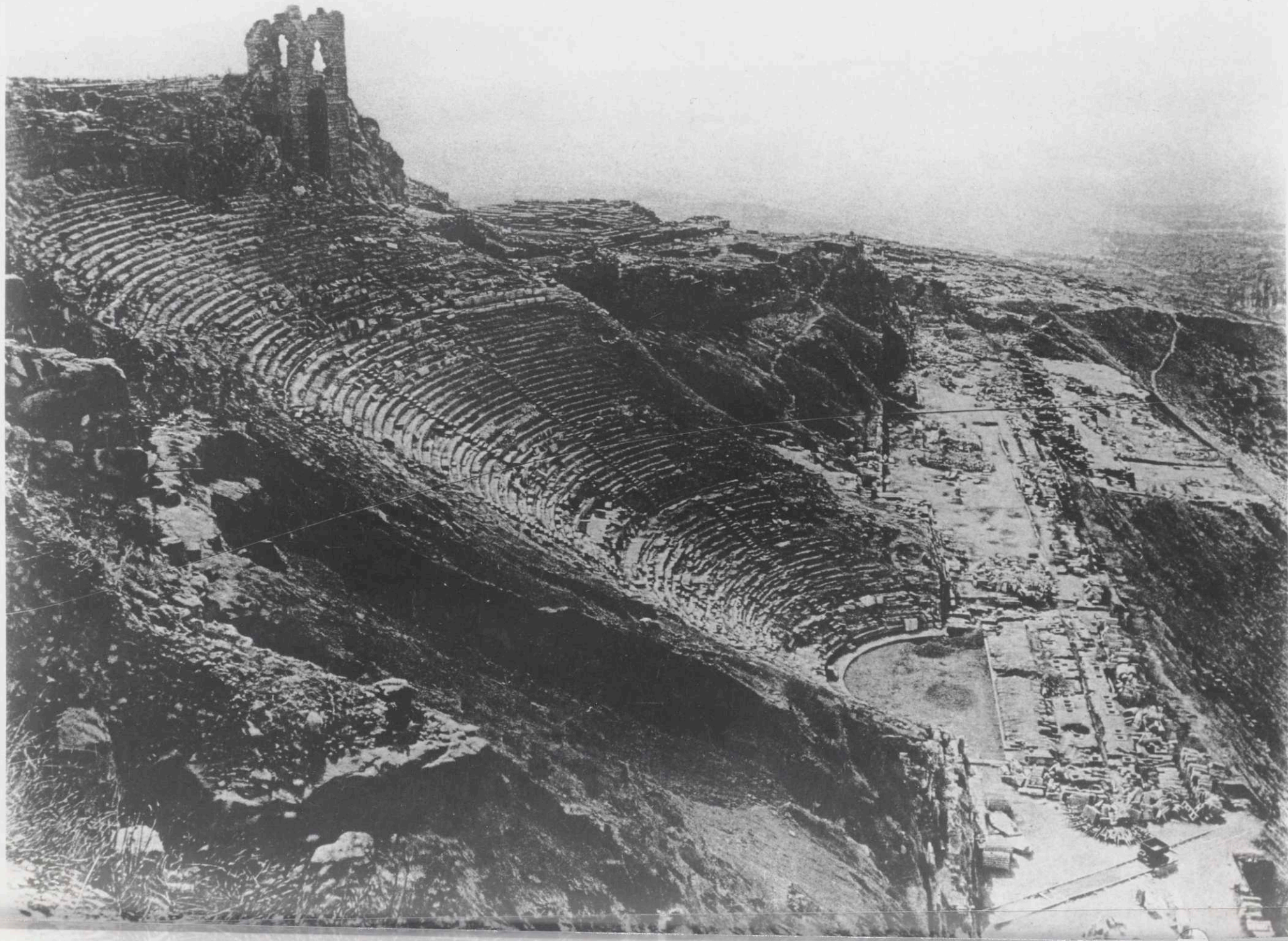
And yet today we cannot even hope to recapture the Greek point of view; the simplicity and directness of their vision are not for us. Nor are the elements of their manifold Mind. For though they hewed theaters out of earth with unswerving rigour, with no vain flourishes or flights of fancy, guided as they were by this Mind which conceived of all kinds of structured visual relationships, they at the same time wavered between such secrecy and darkness of the Eleusian Mysteries and the pageantry of the Panathenea. Only collective participation in the emotional catharsis of Greek Tragedy seems to have restored the balance. It has been contended, in fact, that perhaps it was in the theater, after all, that the Greeks of the Classical Age found their authentic place of worship. There, Man, Destiny, and the Gods were confronted, depicted, in their natural and balanced (i.e. universal) relation to each other.

Performances of Dithyramps, tragedies, satyr plays, and comedies may thus be seen as acts of religion. This may

2 Norman Bel Geddes, Horizons, page 156

account for the choice of sacred places, much as with the sites of temples, for their theaters. To the Greek architect the setting of the theater was all-important. He planned it, seeing it fully hollowed out of the slope of a hill, determining its size by its situation to some plain hilltop or the wide plateau of a related acropolis. Literally and figuratively, then, in drama and its architecture, the poet, the actors, and the audience were conscious of a higher presence. They were gathered there in an act of worship, all sharing the same experience. The poets and actors did not speak to the audience; they spoke for them. Their task and their power was to express the great communal emotion. That deep community feeling came to pass in the theater of Dionysus. Men lost their sense of isolation. They ceased to be shut-in lonely individuals as they were swept away in a great on-rush of emotion which extraordinarily united, and indeed, as with the building itself, dominated the hills and the seas and the arch of the sky.

It would be difficult to conceive a more striking symbolization of the separation of the ordering imagination from the phenomena of nature than that demonstrated by the panoply of structure and ritual illustrated above. The world of nature was here unequivocally split for the human imagination, which was firmly located within the mind and the vision of the architect and dramatist, from whom that order emanated. It is precisely that order which has been so compelling with its systems of structured meaning and identity, and which has served as basis for informed recent designs of buildings and plays.



THE CLASSICAL THEATER BUILDING

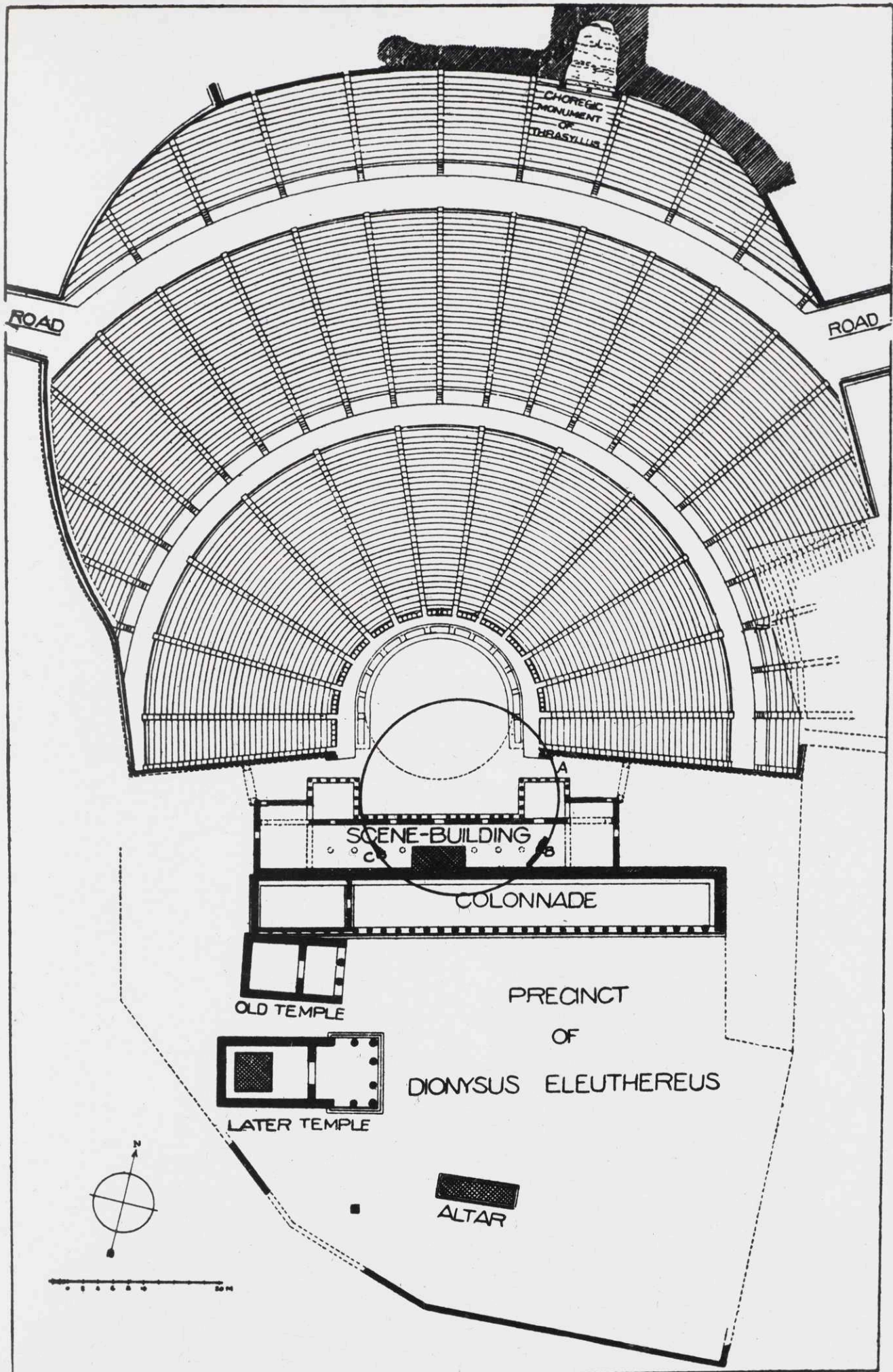
THE CLASSICAL THEATER BUILDING

The elaborately worked-out allusions to the Cosmos so often found in the sacred edifices of other lands, making the object a microcosm charged with esoteric meanings through and through, were almost wholly absent from Greek temples and civic buildings. While illustrating on metopes and pediments primaeval legends of gods and heroes, they responded primarily to a need that was essentially aesthetic and psychological. Without these carvings, the buildings, despite what is assumed to have been a lavish use of color, would have appealed insufficiently to the senses. Moreover, the essential value and intrinsic beauty of the temples was contributed through the Greek variation on the theme of symmetria - harmonious proportions of volumes and lines. The appeal of the theater buildings, on the other hand, seems to have been of another order.

Greece, in its bone structure, in its bold living contours of rock, was, and indeed always will be, I believe, a country for the sculptor, hewing human and architectural forms from its stone. The architects of ancient edifices carved generously, in fact, into the earth when creating terraces on precipitous terrains that would have discouraged any but the most determined or romantic designers. But it is significant that in spite of the opportunities to form novel spatial configurations linked through various levels, all the forms developed remained within the types on less dramatic terrain.

Thus, for all the organization that was imposed on the external spaces through the elaborate terracing and stepping, the buildings themselves remained independent--its own composition of mass and volume - directly related only to the space around. The design of the theaters, predicated on the fundamental advantage of a naturally existing sloping framework for the extending tiers, advanced with far less architectural pretension a siting of an entirely different order. It was a direct means of expression of the more spirited idea that form and function are one: the elimination of the separation and complication of post and beam joinery in favor of the expressive flow of continuous surface. Here, by instinct and with the trigger of an ingenious economic idea, a principle entered into building, a principle that was to manifest itself independently in China, Peru, Mexico, and to be developed by only a handful of architects who chose to explore its meaning.

The Greek Theater, itself, developed on its own early statement of semicircular 'plasticity' integrating gradually the several solid elements associated as stage areas. The orchestra, the germ of the Greek theater, was a complete circle, and here the chorus chanted and danced, as by voice and gesture they unfolded the tale of the drama acted on the stage. The auditorium rose in tiers of concentric semi-circles from the orchestra and was divided by radiating narrow-stepped aisles of ascent and descent. The scene building, of which little remains, was presumably a simply designed structure of



CHOREGIC
MONUMENT
OF
THEASYLLUS

ROAD

ROAD

SCENE-BUILDING

COLONNADE

OLD TEMPLE

PRECINCT

OF

DIONYSUS ELEUTHEREUS

LATER TEMPLE

ALTAR



rectangular forms, probably two stories in height with a one-story proskenion stretched across in front of it, and slightly projecting wings at each end. The stage or 'logeion' (speaking-place) for the few actors usual in a Greek drama was a long narrow platform with the permanent architectural background of the proskenion and the 'skene' or scene building. The theater at Epidaurus is universally considered to best represent this phase of Greek theater. The auditorium was truly democratically conceived, with provision for equally good places everywhere; at the same time it was practically arranged for the purpose of smooth filling and emptying. In Epidaurus, however, the three components of the Greek theater, the orchestra, the skene, and the theatron did not form a single architectural unit. Ultimately the form known best from the later phase of the theater at Priene became common. When the orchestra was a distinct full circle the scene building was a mere tangent to the circle, while the theatron was a natural development of the circle itself. Later when the line of the proskenion cut across the perimeter of the circle of the orchestra both scene buildings and theatron became parts of the same circle. This closer unity, then, gave clearer integration to the several solid elements and clearer definition to the enclosed volume than in the older form.

The forms of the late Roman Hellenistic theaters are indeed in full agreement with the rules for the plan given by Vitruvius. The orchestra is a creation of the archaic, the auditorium of the classical, and the stage

of the Hellenistic period. Vitruvius praises the advantageous plan and perfect construction of the classical auditorium, whose rising tiers of seats bring out to their fullest effect the harmonious sounds of the human voice as well as of music. As we can now determine, the explanation of the acoustical performance of the Greek theaters was their steep (approximately 32°) seating sections which reduced the absorption of sound by the intervening audience. "...the ancient architects, following in the footsteps of nature, perfected the ascending rows of seats in the theaters from their investigations of the ascending voice and by means of the canonical theory of the mathematicians and that of the musicians..." 3

Subsequent to the theaters of the phase of Priene and Segesta and Pergamon, i.e. the Hellenistic theater, the design of theaters changed notably and significantly. In general, the novelty of later design right through to Roman Amphitheaters was to develop the form as an interior, thus asserting the reality of the enclosure and less its pliant viability with the landscape. More and more emphasis is placed on the definition and clarity of the exterior volume as a mass until it eventually is simply built up by means of concrete vaulting supporting the tiers of seats. Simultaneous to this development is the raising of the stage area and the defining of the logeion. The stage is set (metaphorically) for the introduction of the prosce-nium and the degeneration of the classical building.

3 Vitruvius, Ten books of Architecture, page 152

TOWARDS A THEORY FOR A DESIGN

TOWARDS A THEORY FOR A DESIGN

This theater for the Greek Landscape is a particular kind of community orientation; it is the environment for dramatic experience; it is, baldly, a machine, an instrument for theatrical presentation. As its Ancient counterpart, it houses the sifting cultural vortexes leavening the great lump of the lukewarm, the fickle, the timeserving and the indifferent. But unlike Epidaurus and the inn-yards and the ballroom, where the stage was the sole custodian of that curious escape from the extension of immediate living, today this theater must share with the motion picture and television and radio the task of satisfying that 'representative reality' to which the stage used to minister single-handedly.

There must be an assesment of the implications of this new alignment. In the planning of this new building, there must, in addition to phrasing the source of its essential aesthetic motivation and departure, be a clarification of the theater design to justify and assure the validity of its creation. Still, the first thing any theoretician has to face is that there is no universal solution to this. Arthur Miller adds "I think it's a false chase...You can't hope to make one theater which is absolutely perfect for all kinds of plays. It's just a contradiction in terms."

What, then, is this new theater to be and what will and what should be the environment for dramatic experience? What will be the relation of its auditorium to its stage, of its audience to its actors? What will make it appropriate? Pursuing Mr Miller's reasoning it is explicitly necessary to consider the kind of play; this presumably subserves the aim of discovering the peculiar virtue of the individual construction. I have no doubt that Mr. Miller as a distinguished playwright realizes the generative power of the written play, as, in fact, he does say "...all this will get resolved by someone writing a play which creates, out of its own demands, a shape..". This potential of the play is, itself, a significant element in the evolution of the Ancient theater and a force which if the subject were to be treated in exacting depth could be shown to have infinite reciprocal effect on the playhouse itself. If, nevertheless, one continues to examine the nature of the dramatic art in an effort to define its container, and particularly if one juxtaposes the 'theatrical province' with that of the cinema and television, I believe certain, in fact three, distinct and pervasive characteristics emerge:

- a. There is in the theater an all important experience--living communication--the living presence of actors and audience in the same place and at the same time.

In every era of the theater's greatness the strong interaction of audience and performer has been manifest.

The unique space-time communication of sheer physical presence, and of closeness and nearness, in short, of 'esthetic distance' has heightened the dramatic perspective, a quality not to be confused with intimacy, for reality is not always perceived from clearly close up. Arthur Kahane, speaking in high hyperbole, described this meeting of audience and performer in Greek theater:

"....The chorus arises and moves in the midst of the audience; the characters meet each other amid the spectators; from all sides the spectator is being impressed, so that gradually he becomes part of the whole and is rapidly absorbed in the action, a member of the chorus, so to speak." 4

Similarly, in the concert hall, the four-dimensional experience is of such an order that is not likely to be reproduced by the taperecorder. The screen and television are inherently representational and second-hand, distinctions which these media can explore to full and unique advantage, but which prohibit of necessity the dimensional intensification of the live performance.

- b. There is in the theater a common experience-- each spectator sharing with every member of the audience as well as with the actors.

The quality of this experience is in many ways not strictly restricted to the theater. Circus and sport spectacles are themselves almost based on the exhilaration of the surveying crowds applauding and cheering in unison. The theater in its finest moments, as in

4 Nicoll, Allardyce, The Development of the Theater, page 33

Greece, has been a profoundly collective art, where the audience was a part of a composite medium which is stage, actor, and audience. When in Greece, the stage was partially surrounded by the auditorium the spectator was aware not only of the action in front of him, which action significantly was attaining the full breadth of the production by its conjunction with the audience, but also peripherally of the other members of the audience on other sides of the stage. He perceived not only his own view of the performance, but simultaneously a vicarious view of the performance from the other positions. It was, in fact, precisely in that instant when the spectator not merely witnessed a reproduction of life as it is outside the theater, but took part in an experience that did not exist anywhere outside the theater that dramatic art took its place among the other arts.

- c. There is in the theater a three-dimensional experience where dramatic activity takes place in space as well as in time.

The stage is a place, not a picture. We accept the vital expressiveness given a play in performance by the dynamic relations of a three-dimensional actor moving in the third dimension, whether constructed or indicated.

The end that these observations seem to indicate is of the order of that heralded by a few of the farsighted critics of the theater's orientation.

"Now we are no longer in a picture, but moving beings in a real world; the frame cannot contain us. Already our plays are breaking through, we are demanding the removal of light barrier

and the orchestra pit that cut off the play from the audience.....We must run our stage forward, lower perhaps, and let it sweep in a wide curve across the auditorium, spilling to the floor in a cascade of steps. Thus instead of being a high shelf let into the wall, it becomes a gracious and easily approached plateau.....I believe the poetic drama could live again if we could move our play forward and back instead of posing it gracefully in a frame, but off from any living thing. We might recover vitality if we could move freely, playing back for a vista and the quiet, preparatory processes of a play, throwing forward for greater volume as the intensity of the story grew. Now wider, now narrowed down to a tall slit of light, using for our elements great solid masses bathed in the living tones of transmuted color."

Roy Mitchell ⁵

"The stage is no longer a picture box, but becomes an abstract architectural thing, constantly but unnoticeably changing under projected light....all the variations of the picture settings are to be surpassed--in favor of space, architecture and light creatively used."

Sheldon Cheney ⁶

"The art of the theatre today finds its full freedom within the boundaries of Appia's original concepts in a stage that is completely plastic, plastic in the sense of being infinitely malleable, plastic also in the sense of being consistently three-dimensional....."

Lee Simonson ⁷

"The end we seem to be going toward has a more plastic three-dimensional structure, formal, dignified and neutral, as a basis, its various

5 Roy Mitchell, Creative Theater, pg.241-3

6 Sheldon Cheney, The Theater, pg. 496

7 Lee Simonson, The Stage is Set, pg.375-6

acting platforms inviting a variety of movement, and provided with adequate space for lighting.....Such a structure is..... creative in dramatic terms, with emphasis on the intensity of the dramatic action and its projection to the audience...Any adequate technique for staging plays should permit of a play being run off in any combination or series of rhythms and not destroyed by such crude makeshifts as darkening the stage or lowering of the curtain to make changes in the setting."

Norman Bel Geddes ⁸

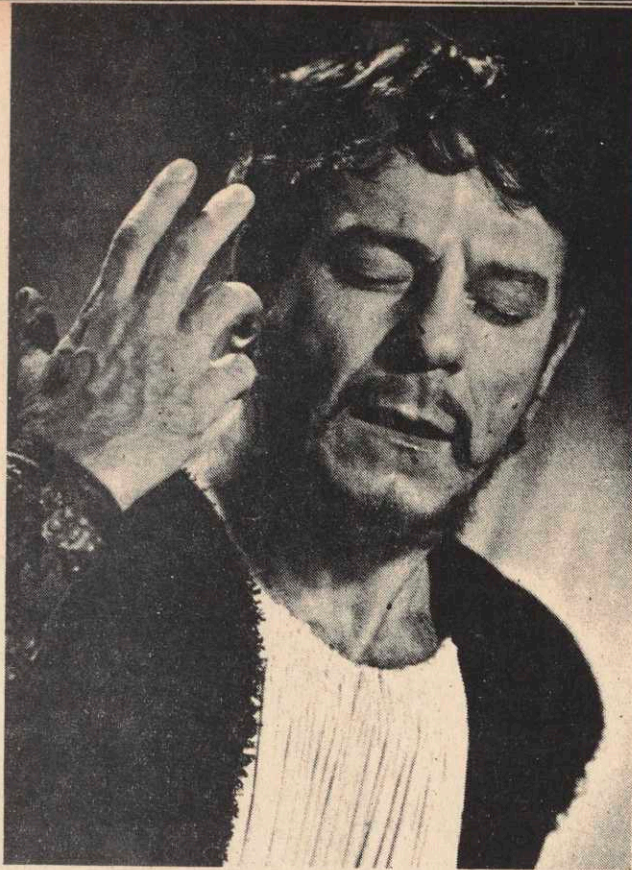
And as an antinomy, this last one by Peter Larkin:

"When talking about new theater, everyone tends to be glib. Generalities come easily, and pontifical irrelevancies have the ring of sincerity. It seems that it is safe to talk, since it is secretly agreed that the poor thing is dying anyway."

The Theater for the Greek Landscape must derive from the observations and insights of these men and an understanding of the dimensions of the dramatic art. In Greece itself a new drama is being born--a drama which must be expressed in appropriate conventions of significant form and sound and motion. It is no surprise that this drama written with the dignity and grandeur of that of the Ancient Greek demands a playhouse, not narrowly archaeological, but instinct with the live and healthy theatricalism of that plastic metaphor of drama, The Greek Theater.

⁸ Encyclopaedia Britannica, Ibid., Page 14

⁹ Ideal Theater, Page 9



ALEXIS MINOTIS

Minotis Sees Thespians Looking to Ancient Greece

ATHENS — Modern Greek thespians dream of the day when the revival of the ancient Greek tragedy can be accomplished. It is no easy task, but it is a natural duty.

This is the feeling of modern Greece's greatest exponent of the dramatic arts, Alexis Minotis, who suggests that in the revival of the Attic Drama historical, cultural and climatic conditions must be respected.

In an article, entitled "Attic Drama and Its Revival," Minotis points out that one of the current rules for the artists of the Greek stage is to face existing difficulties in the interpretation of tragedy with artistic means originally offered by life itself and by the artists' own human experience.

"From a sheer technical point of view, of course, the revival of ancient Greek drama in our days is concerned mostly with the problem of keeping its literary and mechanistic form intact," Minotis states. "This is a question primarily of basic aesthetic expression which may project in its entirety not only the artistic and religious intentions of the poet but also his humanistic af-

fections. The religious and mythological symbols may be dead for us today, but it is sufficient for the artist himself to have used them with passion and conviction, for by his passion and conviction, he breathes life into them again and makes the means by which we may grasp eternal and permanent truths."

Minotis notes that the traditional body of tragedy as conceived and developed in the poet's mind is historically of two elements, dramatic, to which he places a meaning of myth, and lyrical, the choral. Today, he notes, the mytho-centric is not exclusively the thesis of tragedy but rather what he terms "poeto-centric," an objectivified psychological and spiritual manifestation of the artist himself. In other words, Minotis says, beyond the technical skill of any play and its epochal ideas, there is involved the personality of the poet himself and his faith toward the "act of living."

The modern poet, Minotis feels, is more apt to permit his ego to dominate, so that poetical ego rather than poetical form dominates.

FACILITIES FOR THE THEATER

FACILITIES FOR THE THEATER

The theater for the Greek Landscape as has been determined should contain approximately 500 seats. This figure was purposely set low in order to concentrate the design on a dynamic generic solution of the type Greek Theater in the Greek Landscape. Although several conditions to the problem are in fact set by certain social and cultural circumstances of Greece (which I shall refer to later), the specific space requirements of the physical plant were not generated by any particular community nature.

The problem was, instead, posed to solve the design of a particularly representative Greek theater in distinctively Greek terrain, establishing at the same time a high standard theater facility. The program for this proposal was developed largely in terms of the seating capacity of the auditorium although technical facilities have been specified which may relate more economically to a larger playhouse. These technical facilities may be thought of as representative of the new organic and vital controls which extend the range of low-staffed playhouse.

THE PROGRAM

Public Areas

Main Auditorium - 500 seats at 10 sq.ft. per seat	5,000
Foyer - at 1 sq.ft. per seat	500
Lobby - at 2 sq.ft. per seat	1,000
Lounge - at 6 sq.ft. per seat	3,000
Coatroom and Lavatories, telephone booths	1,000
	<hr/>
Total	10,500

Administrative Areas

Directors Office	300
Asst. Directors Office	200
Production Managers Office	200
Managers Office	200
Main Office, accomodating 2 secretaries	250
Publicity Office	100
Mailing Room	100
Box Office	100
	<hr/>
Total	1,450

Technical Areas

Main Stage and Backstage	5,000
Paint Shop and Workshop	1,500
Property Office and Storage	1,000
Electrical Storage	300
Designers Studio	300
Stage Managers Office	300
Technical Director and Crew Room	300
Projection Room	150
Light Console Booth	100
Sound Booth	100
Viewing Booth	100
Costume Office	150

Technical Areas Cont.

Costume Workshop	500
Costume Storage	300
	<hr/>
Total	9,950

Personnel Areas

Dance and Chorus Studio	1,200
Dressing Rooms	
a. 4 singles	400
b. 4 doubles	800
c. 2 for 4	800
d. 2 Chorus	1,200
Rehearsal Rooms - 2 at 600	1,200
Green Room	400
	<hr/>
Total	6,000

Summary

Public Areas	10,500
Administrative Areas	1,450
Technical Areas	9,950
Personnel Areas	6,000
+ 20% Structure, Circulation, Mechanical, Services, etc.	5,580
	<hr/>
Total	33,480

THE PROPOSAL

THE PROPOSAL

The Site

Following the ancient Greeks, the art of theatre building reached its height in Europe where every period developed and in a way perfected its own rich style of architectural expression, and where the conditions of life in the larger cities permitted the theatre to attract attention to itself and its structure through appearance of three or four facades. For in Europe a theatre was usually built on a wide street or more ideally in an important square. The Paris Opera House, the Staatsoper in Vienna, and even in Stuttgart the twin State theatre in the park, were concepts of theatre fully realized without the impositions of land economics and space.

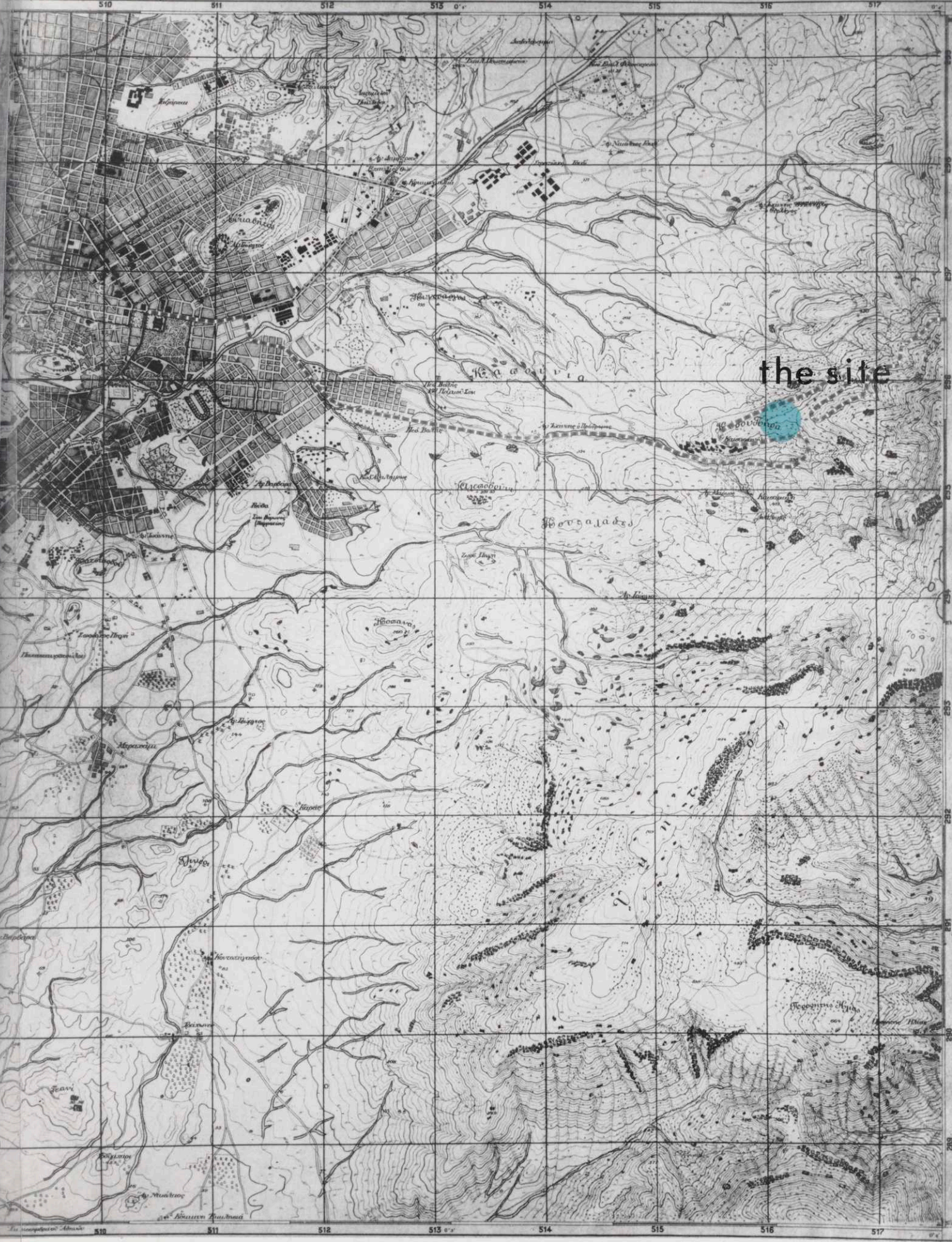
Everywhere today it is growing more and more difficult to find such ample and predominate sites in the large cities, the mainstreams of the theater-going public. The high value of land, the length and configurations of the blocks, and the type of buildings confronting and dominating the view combine to confound the architect in his design to make the building seen to tell its story. Limited to one facade facing a narrow street the architect cannot possibly show in the outer form of the building the anatomy that lives within. Faced, moreover, with the inadequate and insufficient attraction of his three or four story theatre building against the gigantic, varied, and for the city more vital proportions of the neighboring towers, the theater owner, in order to compete for visual notice under these conditions, turns to enormous electric signs, and

blankets the facade behind flashing bulbs and painted tin.

The Theater for the Greek Landscape, a theater as a dramatic place in its own right, instructed of the urban theater plight, restricted by the confines and configurations of Athens in this case, and guided by the principles of the design of the ancient auditoria, is sited on a western slope of the Hymettus mountain complex seven kilometers outside of the central plaza, the Omonia, of Athens.

This plateau on the hillside, sloping approximately 21° , has a magnificent view over the city itself and beyond to Pireus and on a clear day in to the Bay of the Sarronikos and Salamis, Aegina, and the islands of Poros and Hydra. The site of the theater plant is approached off the two-laned asphalt road wending its way up Hymettus to the tourist pavilion of the Greek government. Cypress trees, pines, and low bushes spice the air with the never-failing fragrance that has made Hymettus honey world-renowned. The experience of approach is refreshing and invigorating, through elements characteristically Greek and dramatically unpretentious.

Much like the ceremonial procession of the ancient Greek going to Delphi, or Olympia, or Epidaurus, or Ephesus, the visitor to the theater is obliged to make a journey to reach the site. It is envisaged that effort will not only be rewarding because of its many visual compensations, but will also contribute to the excitement and susceptibility of the event of theater-going. In addition, it will furnish the occasion of a relaxed automobile drive to the outdoors, in conjunction with which many families will



the site



the site

elect to bring their children, thus further elaborating the experience. It is, in fact, the case today that in the spring and summer seasons performances are regularly given throughout Greece's refurbished ancient auditoria, and these events are fully subscribed, thoroughly enjoyed, and richly rewarding. Greece's large tourist crowd and the burgeoning middle class resplendent in their new Peugeots, Austins, and Opels are taken to be sources of increased participation in the country theater and have impelled the Ministry of the Interior to initiate a program for accelerating the reconstruction of the scattered theaters of the ancient landscape. Perhaps a new theater of the Greek manner better equipped and, to be sure, more comfortable, would be more to the point.

THE PROPOSAL

The Theater

Greece, as we have said, is a land of bone structure, of bold living contours of rock, a country for the sculptor of human and architectural forms. The light of Greece, that transparent shimmering element to which so many pilgrims of light yearly pay homage, instructed the facets of his forms and directed his own disposition of them. When we survey the design of the ancient theaters, theaters ostensibly wrought out of the earth to satisfy the economics of sloping tiers and the acoustics of vast capacities, the consideration arises that rather than engineers at work the architects who produced them were more sculptors of an informed ordering imagination, discovering in the landscape a most striking symbolization of the concept of theater. These architects not only so impressed their vital concept of theater design on the Western mind, but also revealed, I believe, the foremost manner of handling the Greek terrain. Their earth moulding, platform slicing, and terrace embanking of the land imposed man's poised antinatural imaginings and structure on the landscape in a manner of great intelligence, and sensitivity, preserving at the same time their option to adorn the landscape with structures of their own.

The theater for the New Greek Landscape was designed to reaffirm those significant qualities of the ancient approach and to advance, if possible, theater design for Greece in terms of its improved technical capacities for building and presentation.



The theater is approached off the asphalt roadway of Hymettus on to a vitrified brick driveway leading to the parking area. The orientation of the approach is westerly but vistas to the city and beyond are precluded by the rising slope of the driveway and the pine trees just below its embankment. The parking area, with a capacity for 150-200 automobiles, is located above the entrance plateau of the theatre plaza but again is visually bounded by the Cypress trees which steppe down from the parking level to the theater level in formally arranged contours. The parking grounds are on several plateaus developing organically into the contours, in contrast to the rigid terracing on the borders of the building. A road leads down to the theater entrance plaza level for the immediate approaches of dignitaries. Entrance to the theater is through the eastern end of the portico which surrounds the playhouse as the only above earth structure. The box office located in the foyer is off to the side so that traffic may flow optionally either centrally into the lobby, or to the box office itself, or even to wait in the wing at the other end for friends or late arrivals. The lobby and/or lounge extend around the periphery of the auditorium and offer handsome views of the city of Athens and the Attic landscape. Stairs lead from both ends up to the offices housed on the level of the portico structure. The offices are disposed along the eastern length of the upper floor, while the western end serves to house the dance studio and two of the rehearsal rooms and the light and sound and projection booths and light batterns for the stage lighting. Toilet facilities are provided at either end of the lobby associated with the stairs to

the office level. Telephone booths, a drinking fountain, and a small refreshment stand are provided in the eastern end of the lower lobby level. At the extreme western end of both sides of the building, stairs lead down to the technical facilities and dressing rooms and the green room. The lobby and galleries have no enclosure, and the public may stroll about the gardens and the reflecting pond which is at the lowest level outside the green room.

The auditorium itself is not enclosed. The portico structure which covers the foyer, lobby, and lounges and which houses the offices, lighting, catwalks, and controls extends only above the last row of seating ending in a perimeter which like the auditorium itself is horseshoe-shaped. The theater is thusly conceived as an open-air playhouse which should be able to operate for a major portion of the year in Athens, much as the very popular outdoor cinemas which themselves have about an eight-month season. Moreover, it is expected that during the summer months when temperatures in Athens can become unpleasantly high, the open-air theater can expect to be cooled by the breezes of the high air-streams which develop on the hillsides below the crest of the mountain.

The seating in the auditorium is horse-shoe shaped, extending down in eight steep concentric tiers to the stage area. The audience, it is hoped, will thus be disposed to gain the greatest possible immediacy to the action by the intimate arrangement of the seats. In this way, moreover, the audience itself forms the enclosure of the action, increasing the degree of psychological participation. Access

to the seats themselves is generous; six stairs lead down into the bowl providing each seat with dual means of approach. The steep horse-shoe shaped seating was designed to utilize the existing slope of the hillside, and in so doing to focus attention on the stage. The pattern of stage activity thus has its own visual impact due to the sloping theater. Here there is a back wall so that the actor does not have to act with his back to the audience, and where, on the cyclorama, small set effects and projection images can be cast.

The stage exists in two parts, the forestage arena and the backstage platforms and cyclorama area. In effect, the whole stage may be thought of as a unit stage in that most of the levels and steps form the scenic basis for any type of production. In order, however, that production costs may be reduced in what it is assumed will be a repertory program, several hydraulic platforms have been provided. In the rear of the stage is the cyclorama, a series of continuous translucent louvered strips which are adjustable for stage lighting and movie projection. The area before the cyclorama is a variety of levels, ramps, platforms, projecting into the apron of the forestage area, with higher stages towering to the rear, the whole achieving pictorial qualities by the composition of actors on various levels and their movements in conjunction with lighting. The forestage apron is itself completely flat except that a hydraulic lift downstage can adjust an inner stage platform at any level. The forestage provides for walk-ons circumferentially up banks of stairs which lead to a downstage trench which

runs along the perimeter of the forestage underneath the first two tiers of seats. This makes it possible to bring actors on the stage from any direction quickly, and allows for staging plays which could permit the play to run off in any combination of rhythms without destroying the sequence by what Norman Bel Geddes referred to as the "crude makeshift" of darkening the stage or lowering the curtain.

Furthermore, in order to maintain the unity of viewers and performers in one space, the usual separation made by the open hole of the fly loft gridiron had to be eliminated. Because it remained necessary to permit lighting slots and a certain amount of vertical articulation of scenic props, a section was introduced to cover the backstage cyclorama. The two aisles separating the forestage from the upper stage were in addition outfitted with tracks so that wagons could be introduced into the flanks to bring properties, steps and small scenic pieces. The stage area and its machinery were thus planned for maximum flexibility in staging productions.

The lighting for the theater here is divided into two types: base lighting and the more familiar selected-area lighting. The base lighting is used also to unite the auditorium and the stage. As in the lobby where small spots set flush with the paving highlight the portico columns and the soffit of the overhang. Similarly in the theater all the surfaces visible to the viewer

are lighted as a unit to complete the spatial feeling. In the course of the production the base lights in the trench along cyclorama would better establish the quality of the mood of the lighting with the equal diffuse lighting they produce. They would also tend to soften the uneven spots reaching the cyc. They would in this sense be indirect lighting capable of a wide range of effects along the cyc perimeter. The point source light would operate from a very great number of positions, increasing the opportunity to depend more on lighting effects and less on painted scenery. Light batterns exist along the complete perimeter of the auditorium, along the ceiling of the inner stage and from positions in the aisle wings. The lighting console of the Izenour electronic system would coordinate the lighting effects from the light booth in the inside portico perimeter above the audience.

Because of the size of the auditorium and the steep angle of the seating, the acoustics of the theater should be excellent. Uniform distribution and high resolution is anticipated for the entire auditorium where the furthest seat from the base of the inner stage is only sixty feet away.

In addition to the foyer, lobby, offices and auditorium-stage areas, certain technical, rehearsal, and dressing areas are provided. These occur off the sides of the auditorium ends and at a variety of levels down through the stage level and one level beyond. These backstage facilities are planned for efficient functioning. The

workshop and the property storage rooms are on stage level directly adjacent to the stage on stage left and stage right. Dressing rooms, costume rooms, and the off-stage functions are located one level below the stage with direct access both to the wings, the trench around the forestage, and the Green Room. The Green Room is situated furthest from the stage on axis with soundproofed windows from which waiting actors can view what is going on. Also on stage right is the stage managers office and the stage machinery control console. Crossovers from one side of the stage to the other may be across the basement level and the trench below the cyclorama. The large dance studio the size of the central part of the stage is located in the enclosed upper portico area so that it can be used in the wintertime. It has direct access to the locker-rooms on the same level. The designers studio, the costume designer and the two large rehearsal rooms are similarly in the upper portico level with direct access to the costume room and the directors and producers offices. Service to the Shop is provided off the parking area along the northern slope of the theater.

THE PROPOSAL

The Physical Solution

In Greece steel and most wood (except cypress and pine) are imported items; hence, the widespread use of stone and reinforced concrete structure. In this case there are quarries near the site which can be opened for the need of the construction to provide masonry for faced ashlar or cyclopean retaining walls, and broken stone aggregate for the concrete construction.

The structure of the portico will be reinforced concrete I-beams on circular columns cast in situ in cardboard tubes. Spanning the I-beams will be a continuous slab of a special ribbed hollow tile concrete system. The hollow tile is fabricated locally for this purpose. The 12" columns will bear on reinforced concrete foundations in the retaining platform. The partition walls in portico offices will be of lightweight concrete block (approximately 6") with plaster on both sides. The exposed walls at the western end of the building housing the Green Room and dressing rooms will be standard (approximately 6") bearing walls which may be faced with 4" cinder block for reduced heat transmission. All roofs will be the standard hollow tile slab with rigid 1" insulation and slate roofing. The portico roof will be insulated with a layer of vermiculite and covered with slate. The space beneath will be vented from the sides to allow ventilation. Ceilings will be of acoustically absorptive material with a vapor barrier or as in the case of the ceiling area below the office will be hung from the office

slab and the vapor barrier will be omitted. Flooring in the studios and offices will be ½" resilient cork on concrete. Flooring in the lobbies and auditorium will be local clay tile polished and covered in areas with local rough woven rugs which will be stored during the day in the storage area off the service cores. The stage flooring will be oak set on sleepers and treated to resist weathering. Exterior and interior stairs will be as specified on drawings either stone or concrete, except that the stairs leading up to the offices will be cypress treads on a concrete frame. Windows will be cypress wood casement with gray tinted double glazing. Sunshading devices will be provided; to be outside vertical fixed cypress fins on east-west sides. All furniture and equipment will be naturally finished wood where possible. Seats in the auditorium will be specially treated molded plywood chairs detailed into concrete tiers. Lighting in the public areas will be of the recessed type with diffused plastic panels. High hats will focus light on special areas such as sculpture pieces on display in lounge; small lights flush with the paving will highlight the portico columns and soffit of the portico overhang. Lighting in the offices will be hung fixtures directing light where it is needed.

The theater will not be air-conditioned in the open-air season except as the offices may select to install ½" ton units for which provisions will be made. In the winter, heating will be forced hot-air from hori-

zontal ducts off vertical feeds from the mechanical room up through the service cores on either side of the lobby. The horizontal duct-work will be carried between the slab and the hung ceiling.

The landscaping process will involve the removal of existing growth in areas and little transplanting. additional trees will be planted along the driveway up to the theater, and in selected retaining platforms on the south and north sides of the playhouse. These will be indicated on drawings prepared for Phase 3. Walk and terrace paving will be specified on drawings to be either natural local stone or tile brick. Shade areas around the concrete reflecting pond will be through planted tall cypress and formal shrubs. The parking area will be of paving brick and cobblestones set in concrete.

Town water is not available on Hymettus. An artersian well will be located, therefore, under the area of the reflecting pond and water will be pumped to a storage tank at a high elevation in the theater basement. Artersian well water from Hymettus is pure and has a pleasant taste.

Electricity will be supplied off the power main which the Greek Electrical Corporation runs up along the Hymettus road to the Tourist Pavilion and other installations at the top of the mountain.

A septic tank and drainage field will dispose of the sewage of the theater facilities. The roads will have a crown of five inches at their center to allow for surface drainage; water will drain into the surrounding soil. The parking area will slope in the direction of the theater building, where at the upper base will be an 8" tile pipe which will collect the flow from the slope and drain it into the reflecting pond.

Any attempt to figure preliminary cost of the building would be almost impossible as there are no contractors' figures for jobs carried out in the area.

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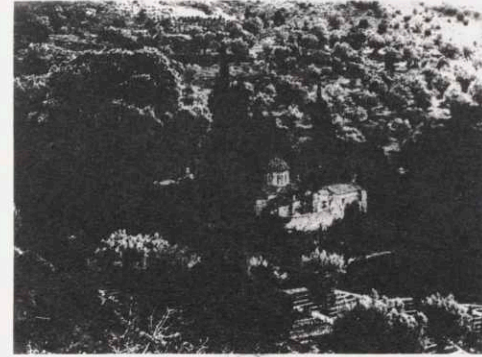
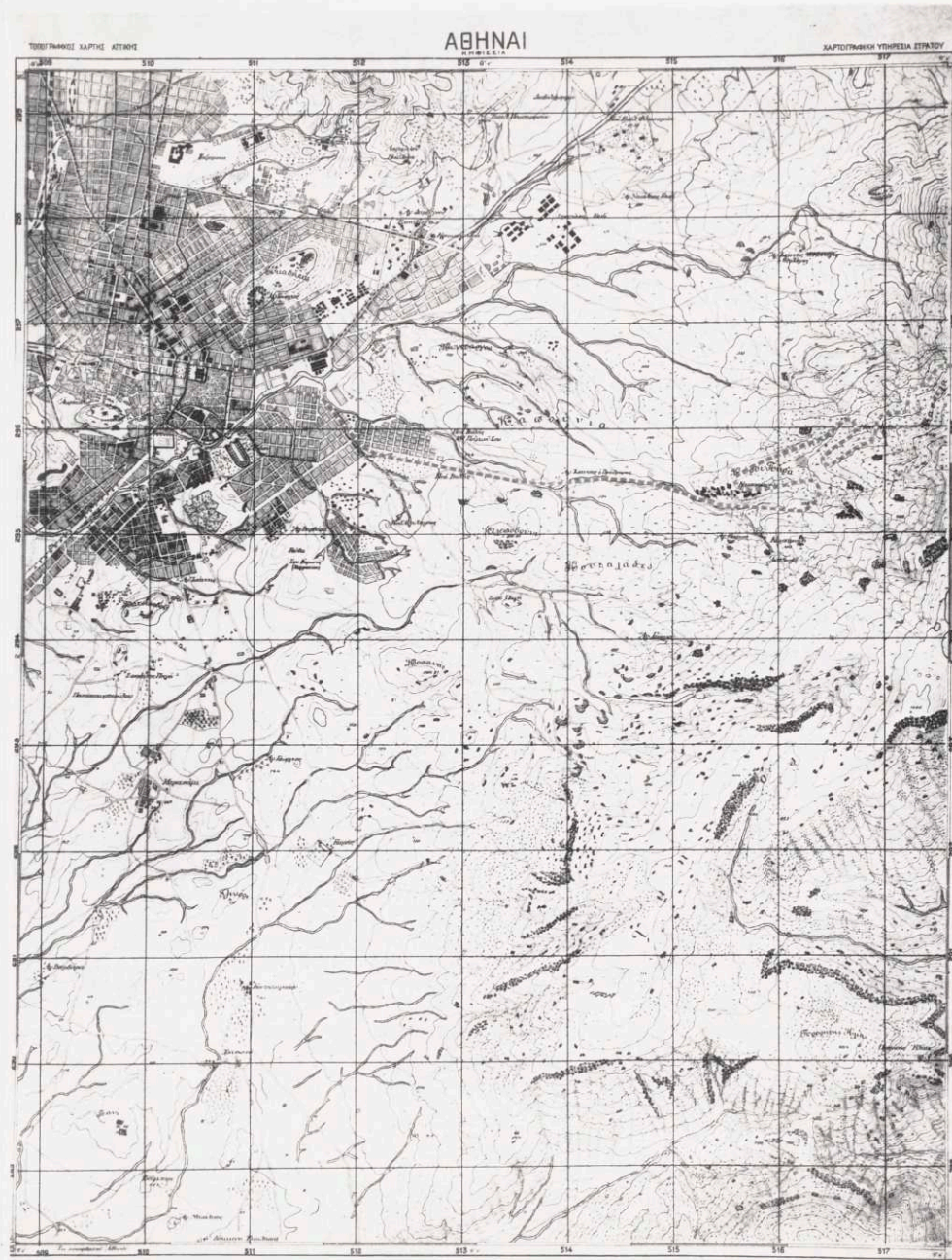
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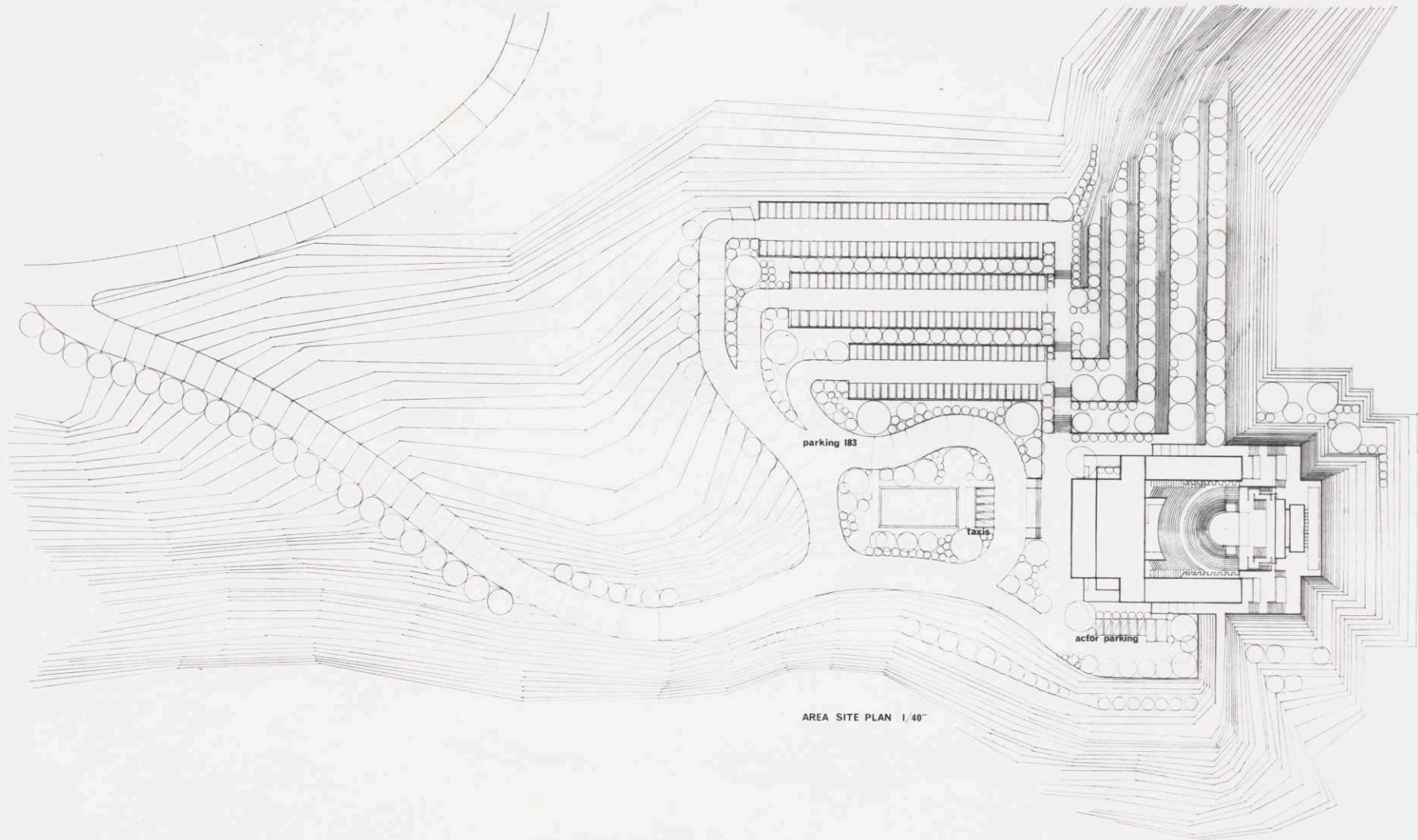
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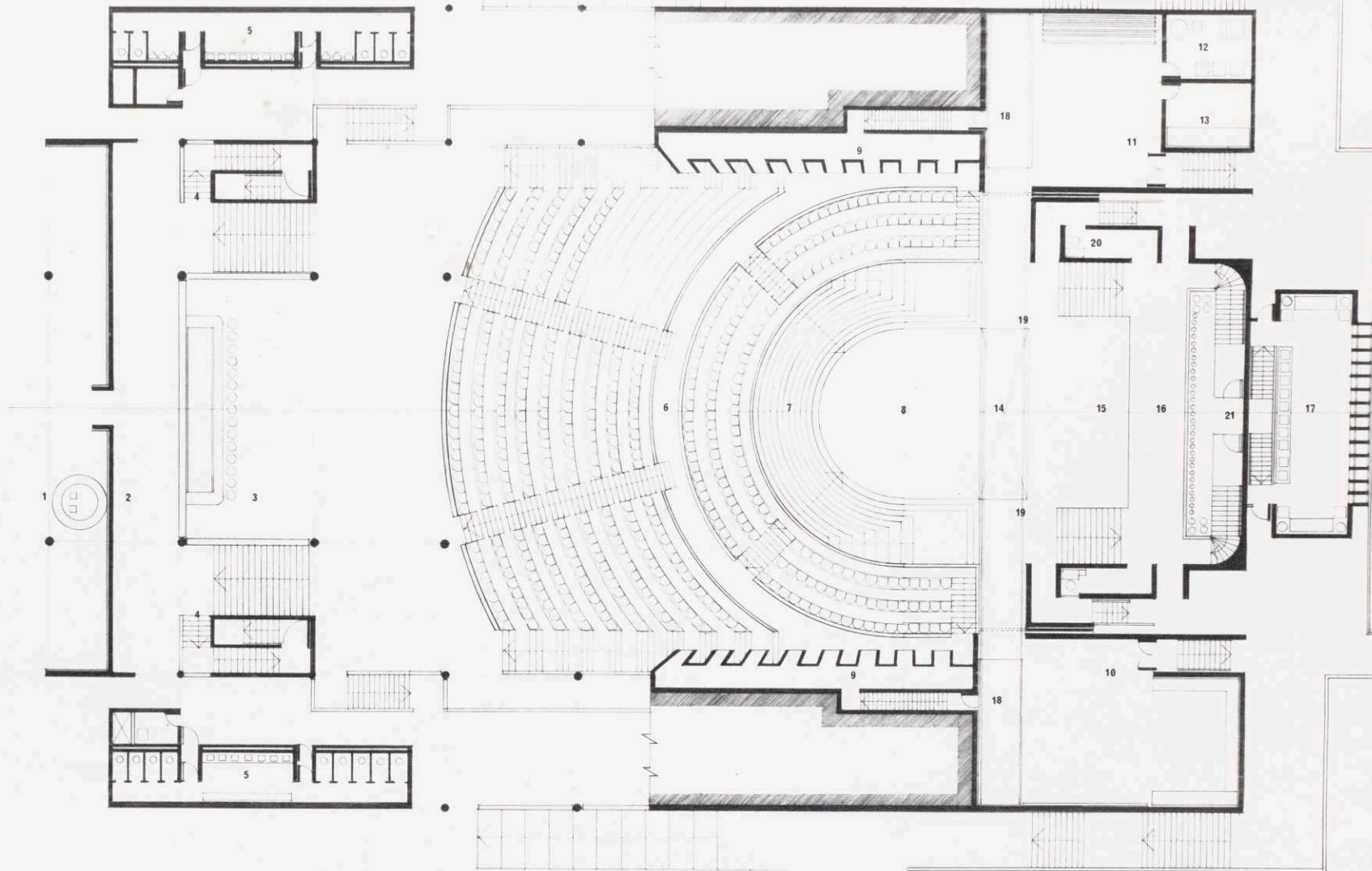
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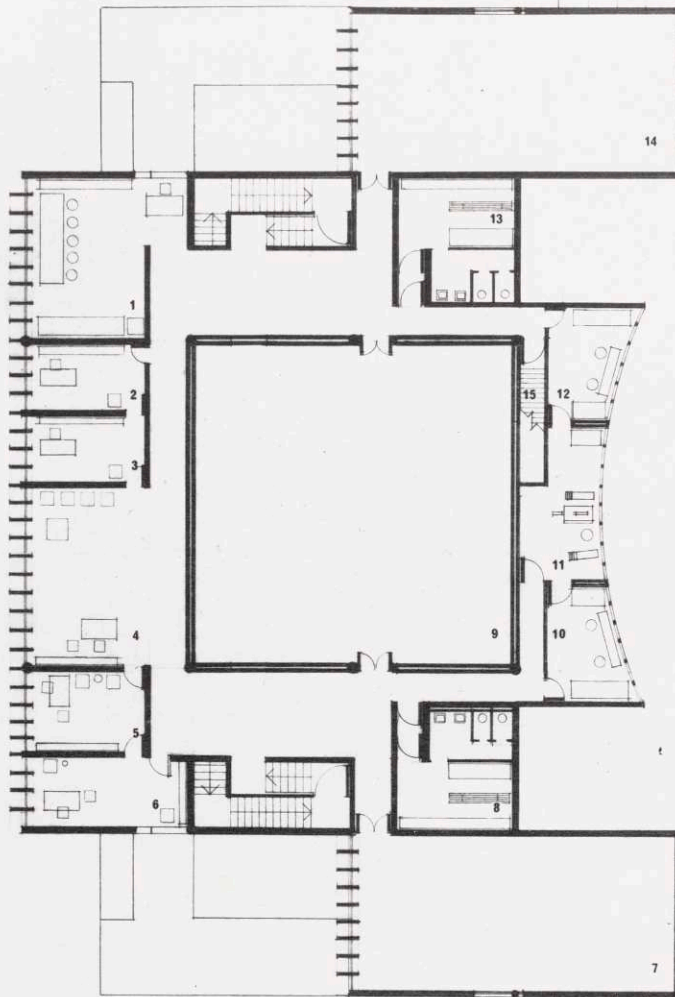


AREA SITE PLAN 1/40"



AUDITORIUM-STAGE FLOOR PLAN

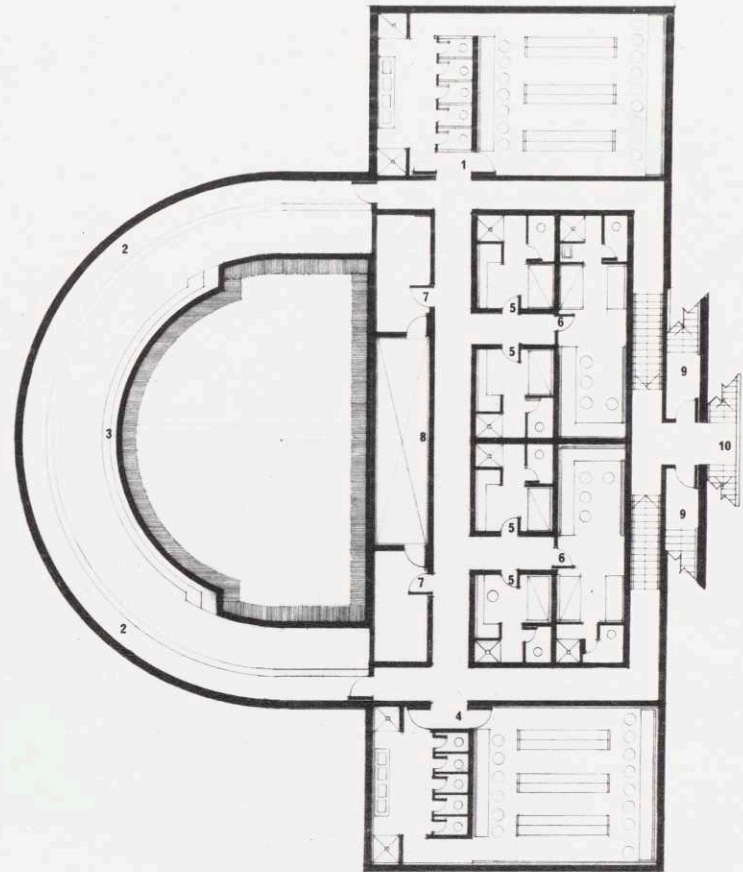
- KEY
- | | |
|--------------------------|-----------------------|
| 1 Box office | 13 Electrical storage |
| 2 Lobby | 14 Hydraulic platform |
| 3 Bar-lounge | 15 Inner stage |
| 4 Access to upper floor | 16 Upper stage |
| 5 Toilets | 17 Green room |
| 6 Auditorium 458 persons | 18 Wagon stage |
| 7 Stairs to trench | 19 Wagon tracks |
| 8 Forestage apron | 20 Stage manager |
| 9 Side light gallery | 21 Cyclorama |
| 10 Carpentry workshop | |
| 11 Property set dock | |
| 12 Property storage | |



ENCLOSED UPPER PORTICO FLOOR PLAN 1/8" = 1'-0"

KEY

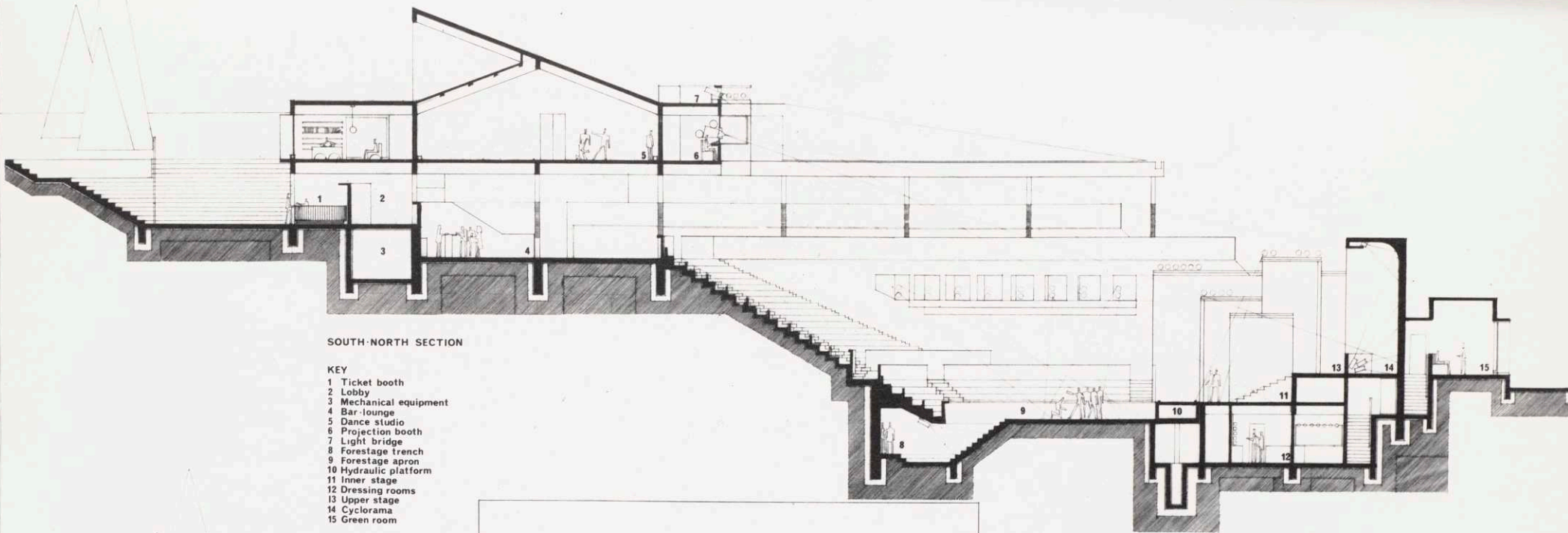
- 1 Costume workshop
- 2 Production manager
- 3 Business manager
- 4 Secretary office and library-lounge
- 5 Asst. director
- 6 Director
- 7 Rehearsal studio A
- 8 Male lockers and toilet
- 9 Dance studio
- 10 Sound control
- 11 Projection control
- 12 Light control
- 13 Female lockers and toilet
- 14 Rehearsal studio B
- 15 Stair to roof light gallery



BACKSTAGE LOWER FLOOR PLAN

KEY

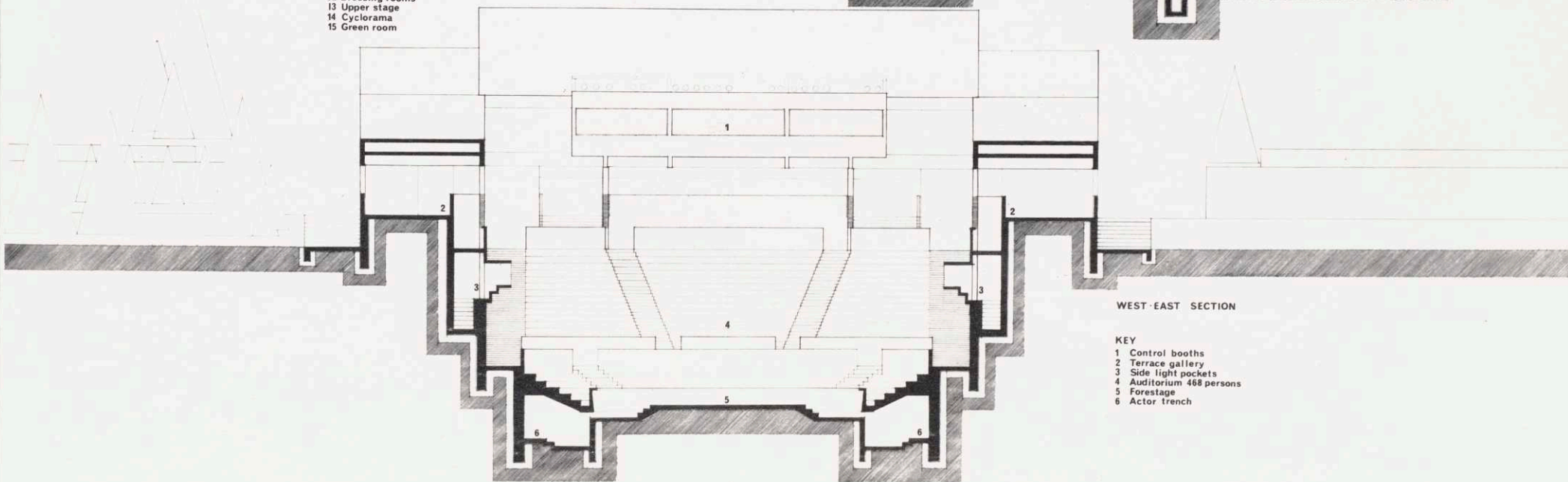
- 1 Female chorus dressing room
- 2 Forestage crossover trench
- 3 Stairs to forestage apron
- 4 Male chorus dressing room
- 5 Star dressing rooms
- 6 Quadruple dressing room
- 7 Wardrobe storage
- 8 Hydraulic platform
- 9 Backstage trench to upper stage
- 10 Stairs to green room



SOUTH-NORTH SECTION

KEY

- 1 Ticket booth
- 2 Lobby
- 3 Mechanical equipment
- 4 Bar-lounge
- 5 Dance studio
- 6 Projection booth
- 7 Light bridge
- 8 Forestage trench
- 9 Forestage apron
- 10 Hydraulic platform
- 11 Inner stage
- 12 Dressing rooms
- 13 Upper stage
- 14 Cyclorama
- 15 Green room



WEST-EAST SECTION

KEY

- 1 Control booths
- 2 Terrace gallery
- 3 Side light pockets
- 4 Auditorium 468 persons
- 5 Forestage
- 6 Actor trench