

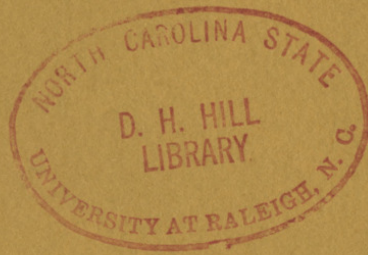
Forty Gardens



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*blossoms & sculpture(impermanence incarnate & intrinsic immortality)
now fortunately coexist:now the miracle of the alive touches the
mystery of the timeless—nothing can add to or subtract from so true
a marriage of the multitudinous & the singular;so beautiful a collision
of the momentary & the deathless*

e.e.cummings

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Forty Gardens
all to the scale of 1:2400
drawn by
forty-two design students
& presented with
histories and descriptions

Introduction

Lewis Clarke, Landscape Architect and Professor of Landscape Architecture, N. C. State University, School of Design; President, Lewis Clarke Associates, Raleigh, N. C.

Past cultures reveal themselves by conceptional evidence through their buildings and associated landscape configurations. An understanding of this order and physical form must be a fundamental part in the make-up and general knowledge of the designer. He should then be more capable in confidently seeking today his own answers for tomorrow's environmental needs. With this objective in mind, symbolic projects which possess clearly defined limits are chosen for study. Each differs in historical time, geographical location, ecological condition, functional, cultural, social and economic implications. Since size and scale are critical each project is studied at the same scale for purposes of comparison. These comparisons include such typical examples as:

- A) The re-creation of their distant homeland by conquering cultures in foreign territories is evident in such examples as the Generalife and La Alhambra.
- B) The utilization of acquired commercial wealth for the building of Italian villas and gardens to express the power of a venal and wealthy church.
- C) Confirmation of the dominating French Monarchy in the construction by Army labor of the great court gardens at Versailles for the entertainment of the crowned heads of Europe.
- D) The Symbol of a Nation, Blenheim Palace, built to honor the Duke of Marlborough and to commemorate the Nation's victory at the Battle of Blenheim.
- E) The combination and integration of science and art in the eighteenth century English landscape parks indicate through their physical and spatial configuration changing design concepts based on a developing agricultural technology.

Primitive fears of nature and her natural processes frequently imposed strict and severe configurations unsympathetically on the landscapes of early cultures. Technology and vastly increased knowledge together with great energy sources are now available for use in the design and modification of the environment. Unlike past cultures which were not equipped to desecrate and destroy their landscape environments the designer today can do so, and indeed is doing so. Concomitantly he also possesses the resources to create environments of beauty and value that were previously impossible.

It is hoped that through these studies the student will find invigorating interest in the past, and stimulation to retain it as a lively, useful and productive design heritage. The past can reveal the present and formulate the future as the understanding of the student today will be the legacy of tomorrow.

Editor's Preface

We have defined a garden rather broadly as an environment for human habitation and enjoyment which has been molded primarily from natural materials. As such, it cannot be judged as an abstract statement or sculpture, but only through physical experience. A garden is a total environment and should stimulate all the senses so that one becomes more a participant than a spectator. The plans and descriptions which form this issue are intended only as study tools, and not as a substitute for "experiencing" the gardens.

It is difficult, if not impossible, to present each garden as it existed at one point in time. Many of the gardens have undergone internal changes resulting from the varying tastes and values of succeeding generations of owners and architects. Time has brought even greater changes to the surroundings of most gardens, making accurate delineation of these areas difficult. Clear documentation is often lacking. Nevertheless we have elected to indicate the continuity of the landscape by including the surrounding terrain rather than give the false impression of odd-shaped islands of land. We feel this justifies the small liberties we have taken in order to complete the renderings.

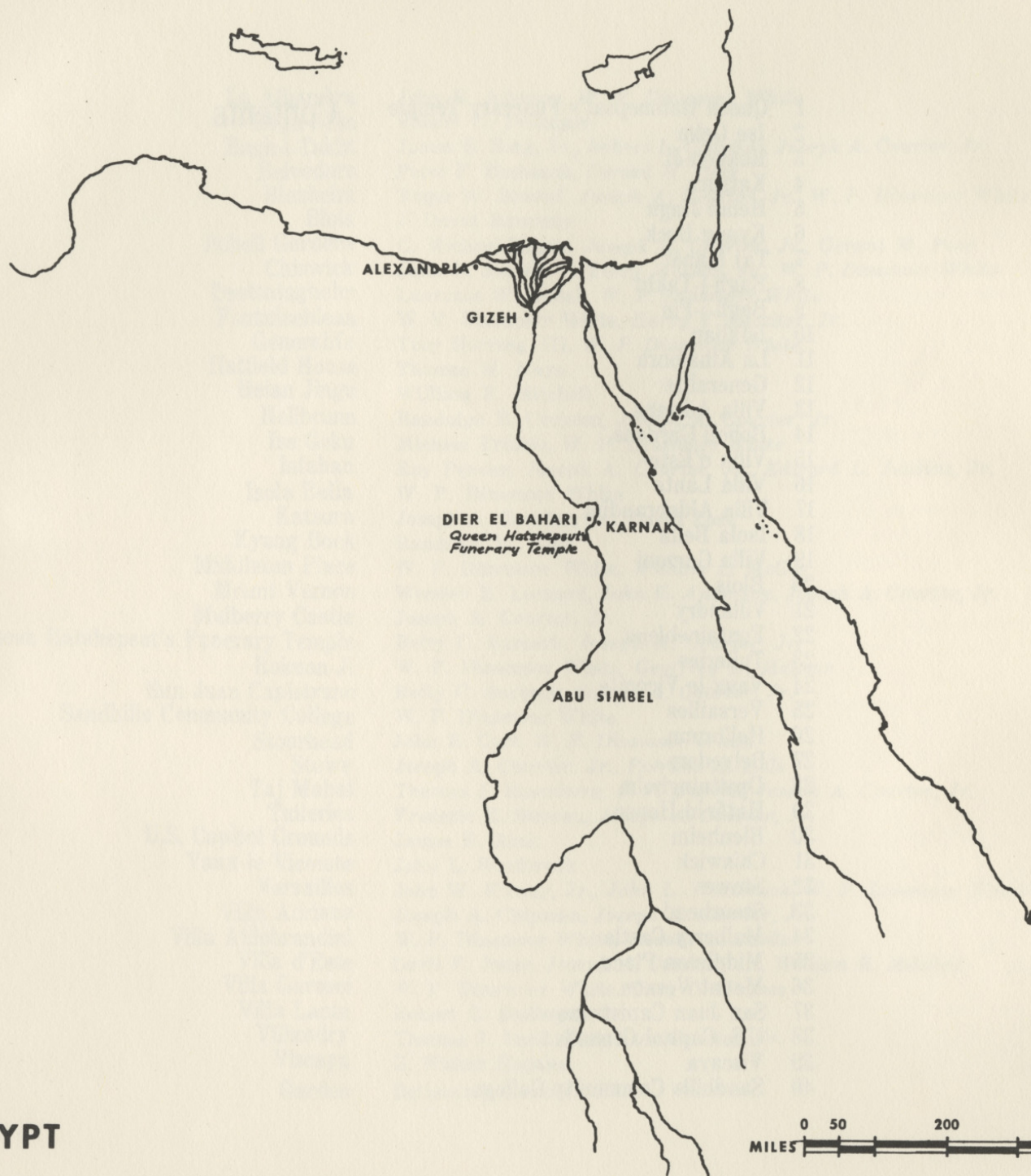
All of the gardens are shown to the comparative scale of one inch equals two hundred feet (1"=200'). We believe that an awareness of scale is essential to the understanding of the landscape planning of various cultures with different geographical and ecological conditions.

The construction of a landscape garden was, and still is, a formidable undertaking, requiring immense quantities of time and energy. Past civilizations have often used gardens to make significant statements of their highest ideals and cultural achievements. Today, formal landscape gardening has been superseded by city planning, regional planning, and a host of other fields which mark the beginning of a totally planned environment. The isolated showpiece becomes an anachronism in our fast moving, imploding world. Our society will be judged not by isolated triumphs of design or engineering, but by the success of our efforts to reach and enrich the whole of mankind. These forty gardens present in microcosm our rich heritage of totally planned environments.

La Alhambra	John K. Aderson, <i>W. P. Dinsmoor White</i>
Bagh-i-Fin	Robert C. Dellinger
Bagh-i-Takht	James E. Rink, Jr., <i>Robert L. Chartier, Joseph A. Courter, Jr.</i>
Belvedere	Peter F. Bochenek, <i>Gerard W. Peer</i>
Blenheim	Roger W. Strobel, <i>Joseph A. Courter, Jr., W. P. Dinsmoor White</i>
Blois	J. David Ramseur
Boboli Gardens	C. Michael Hager, <i>Joseph A. Courter, Jr., Gerard W. Peer</i>
Chiswick	John C. Brown, <i>C. Terry Jackson, Jr., W. P. Dinsmoor White</i>
Drottningholm	Laurence W. Bunch, <i>W. P. Dinsmoor White</i>
Fontainebleau	W. P. Dinsmoor White, <i>Harry V. Lassiter, Jr.</i>
Generalife	Troy Herring, III, <i>W. P. Dinsmoor White</i>
Hatfield House	Thomas M. Mayo
Heian Jingu	William R. Mitchell
Hellbrunn	Randolph R. Croxton, <i>Joseph A. Courter, Jr.</i>
Ise Geku	Michael Tribble, <i>W. P. Dinsmoor White</i>
Isfahan	Roy Pender, <i>Joseph A. Courter, Jr., Edward L. Jenkins, Jr.</i>
Isola Bella	W. P. Dinsmoor White
Katsura	Joseph A. Courter, Jr., <i>David Lose</i>
Kyung Bock	Randolph W. Ellis
Middleton Place	W. P. Dinsmoor White, <i>William L. McGee</i>
Mount Vernon	Wendell H. Leonard, <i>John K. Anderson, Joseph A. Courter, Jr.</i>
Mulberry Castle	Joseph A. Courter, Jr.
Queen Hatshepsut's Funerary Temple	Betty C. Surbeck, <i>Joseph A. Courter, Jr.</i>
Rokuon-Ji	W. P. Dinsmoor White, <i>Geoffrey D. McLean</i>
San Juan Capistrano	Betty C. Surbeck, <i>Joseph A. Courter, Jr.</i>
Sandhills Community College	W. P. Dinsmoor White
Stourhead	John E. Cort, <i>W. P. Dinsmoor White</i>
Stowe	Joseph A. Courter, Jr., <i>Patricia R. Hale</i>
Taj Mahal	Theresa J. Rosenberg, <i>J. F. Warren, Joseph A. Courter, Jr.</i>
Tuileries	Frederic E. Stresau, <i>Joseph A. Courter, Jr.</i>
U.S. Capitol Grounds	James E. Rink
Vaux-le-Vicomte	John L. Westbrook
Versailles	John W. Kinney, Jr., <i>John L. Westbrook, W. P. Dinsmoor White</i>
Villa Adriana	Joseph A. Chipman, <i>Joseph A. Courter, Jr.</i>
Villa Aldobrandini	W. P. Dinsmoor White, <i>Donald E. Basile</i>
Villa d'Este	Davil F. Jones, <i>Joseph A. Courter, Jr., William R. Mitchell</i>
Villa Garzoni	W. P. Dinsmoor White, <i>Gary D. Haynes</i>
Villa Lante	Robert C. Dellinger
Villandry	Thomas J. Land, <i>Joseph A. Courter, Jr.</i>
Vizcaya	G. Walter Hagans
Garden	Delineator, <i>Assistor</i>

Contents

- 1 Queen Hatshepsut's Funerary Temple
- 2 Ise Geku
- 3 Rokuon-Ji
- 4 Katsura
- 5 Heian Jingu
- 6 Kyung Bock
- 7 Taj Mahal
- 8 Bagh-i-Takht
- 9 Bagh-i-Fin
- 10 Isfahan
- 11 La Alhambra
- 12 Generalife
- 13 Villa Adriana
- 14 Boboli Gardens
- 15 Villa d'Este
- 16 Villa Lante
- 17 Villa Aldobrandini
- 18 Isola Bella
- 19 Villa Garzoni
- 20 Blois
- 21 Villandry
- 22 Fontainebleau
- 23 Tuileries
- 24 Vaux-le-Vicomte
- 25 Versailles
- 26 Hellbrunn
- 27 Belvedere
- 28 Drottningholm
- 29 Hatfield House
- 30 Blenheim
- 31 Chiswick
- 32 Stowe
- 33 Stourhead
- 34 Mulberry Castle
- 35 Middleton Place
- 36 Mount Vernon
- 37 San Juan Capistrano
- 38 U.S. Capitol Grounds
- 39 Vizcaya
- 40 Sandhills Community College



EGYPT

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MILES

A relentless sun, a harsh desert terrain, and a dearth of plant life all contributed to making the tree a treasured item in ancient Egypt. Tree plantings were ceremonial occasions, such as the *Meb-seb* (Jubilee Festival) when eight sycamores were planted at the temple adjacent to Queen Hatshepsut's during the Eleventh Dynasty. The precious shade of these sycamores was used to shelter eight statues of the pharaoh. Queen Hatshepsut, supposedly at the request of god Amon, went to great extremes to import incense-bearing trees from the land of Punt. The trees were potted in the spring before they budded and then transported by ship to Queen Hatshepsut. According to narrative paintings, the trees fared the journey well and thrived to bear incense gum which was collected by the Egyptians. Monkeys were trained to help gather the harvest from the fig, date and other valued fruit trees. The importance of trees cannot be overemphasized, for trees were the main feature of the rare Egyptian pleasure garden.

The site of Deir el-Bahari is an amphitheater, formed by cliffs and fallen rocks, that opens toward the Nile River. The temples were necessarily built higher than the Nile to escape the floods, this being the only place trees could survive. The architecture and terracing of the temples harmonize superbly with the dramatic sculptured setting. Senmut, designer of Queen Hatshepsut's temple, was obviously influenced by the adjacent temple of Mentuhotep to the south which was built some 500 years earlier. Horizontals are consistently dominant throughout the complex.

Queen Hatshepsut's temple is approached from the direction of the Nile River by a wide causeway with a double row of sphinxes and acacias. The first level of the temple consists of a large forecourt with two T-shaped pools on either side of the ramp that leads to the second terrace. The colonnade on either side of the ramp serves as a retaining wall for the terrace on the second level.

The terrace echoes two features of the forecourt: a ramp leading to the third level, and colonnades on either side for retaining walls. The ramp is bordered by statues of the Queen bearing attributes of god Osiris. Sanctuaries for god Anubis and goddess Mathor are at either end of the colonnade. On the north side of the terrace is another colonnade, the protodoric, that checks the rubble of the cliff above. Remains of tree trunks have been found on this terrace, although more complete garden

Queen Hatshepsut's Funerary Temple

1

Deir el-Bahari, Thebes, Egypt
c.1500 B.C.

ARCHITECT: *Senmut*
CLIENT: *Queen Hatshepsut*

LAT: 26° N LONG: 33° E ALT: 300 feet
CLIMATE: *subtropic, very dry*
PRECIPITATION: *1/25 inch per year*
TEMP: *high 96° low 47° mean 74° F*

SITE: *at base of steep cliffs facing the Nile River 1.8 miles east; maximum change in elevation of 75 feet.*

reconstruction is available for the temple of Mentuhotep.

The third and highest level of the temple is the most complex and ornate. A pillared courtyard dominates the center of the terrace, with subsidiary shrines on either side. The principal shrine is hollowed out of the cliff and lies on the main axis of the temple. The color of the ornamental friezes in some of these shrines has remained intact. The shrine on the north side has a sham vaulted ceiling decorated with stars, and walls ornamented with cobras and symbolic hieroglyphs.

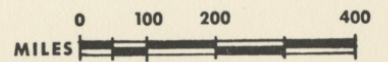
The walls of the corridor on either side of the entrance to the principal shrine tell the story of Queen Hatshepsut and how she came to build this temple and garden. The pictures report that god Amon instructed the Queen to build a memorial to herself and her deeds in his honor. This house was to have a garden large enough for Amon to walk in, and it was Amon who demanded the special incense-bearing trees.

The result was a fine funerary temple, with as many statues of the Queen as of the gods, that housed the tombs of Queen Hatshepsut and her father, Tuthmosis I. After her death, Queen Hatshepsut's son, Tuthmosis III, and a lesser wife eradicated her name from the temple buildings, although it was a popular sanctuary for Amon long afterwards.

Much of the temple has been preserved naturally due to the location of the site. There has also been a considerable amount of excavation and restoration at Dier el-Bahari. The element most wanting is the precious trees.



KOREA JAPAN



Ise Geku

Kyoto, Japan
c.250-720

CLIENTS: *Princess Toyo-sukiiri-hime, Princess Yamato-hime, Prince Yurayku*
LAT: 35° N LONG: 135° E ALT: 140 feet
CLIMATE: *temperate, warm summer monsoons, sudden weather changes*
PRECIPITATION: *64 inches per year*
TEMP: *high 81° low 37° mean 57° F*

SITE: *at the foot of the hill of Takakura near the Isuzu River; a flat site in dense pine forests*

Ise Geku and Ise Naiku form a complex known as the Ise Shrine. Naiku is located on the banks of the Isuzu River, while Geku is four miles away in the hills of Ise and at the foot of the hill of Takakura. Both are similar in planning and appearance.

According to legend, Ise Geku was built from about 249 to 280 A.D. by Toyo-Sukiiri-hime, the daughter of Emperor Sujin. Later, Yamato-hime, daughter of Sujin's successor, settled upon Ise as the location for a shrine to the Great Deity. Although the methods of worship and deities have changed through time, the form at Ise has been consistent. Each major change in worship has resulted in an alteration and expansion of the site. Finally, toward the middle of the 5th century during the reign of Yuryaku (457-479), the form of Ise became fixed. The deities became firmly established about the end of the 7th century, and the chronicles Kojiki and Nihon Shoki were completed at the end of the 8th century, the time generally given to the completion of the form development of the Ise as an architectural prototype.

Today the shrine is used for the veneration of Toyouke-Omikami, the Goddess of Cereals. Every aspect of the form at Geku, as at Naiku, is a symbolic representation of the myth relating to the deity. Such devotion to detail imparts Ise with a unity and a spatial order that places it at the very roots of Japanese architecture. It has been said that the tradition of harmony, the sensitivity to structural proportion and the feeling for spatial order can all be traced to the Ise forms.

Ise Geku can be approached via several northern routes which all culminate at a group of out buildings, not part of the shrine itself. By walking around these buildings and turning to the west one arrives at the 150 x 300 foot site. This rectangle, with its long north-south axis, is defined by a wood fence, and inside this is a series of successively smaller rectangles similarly defined. The style is known as "shinmei-zukuri", in which all proportions are the same and size is the index of relative importance. Access to each of the rectangles is achieved either through buildings or through elaborate gates until the smallest rectangle, the Inner Precinct, is reached. Here at the center of the complex is the main sanctuary.

Characteristic of the buildings and landscaping at Geku is a supremely high level of craftsmanship. Every building is a masterpiece of Japanese carpentry, and the land forms are neatly and precisely defined. Pebbles

and gravel are used in place of grass, and even the evergreen forests and the trees on the site seem to be "well crafted".

The gardens at Rokuon-Ji were developed on the grounds of an early temple, Saion-Ji, by the third Ashikaga Shogu (War Lord), Yoshimitsu, who lived between 1358 and 1408. After 27 years of rule, Yoshimitsu decided to retire to a life dedicated to leisure and the arts, and to direct the business of government without having to participate in ceremony. He felt that Rokuon-Ji, meaning "deer park", would be an appropriate theme for his retirement palace. The garden is located at the foot of Mount Kinugasa (Silk Parasol Hill) which provides an outstanding background and contributes to the romance of the setting.

It is apparent that Yoshimitsu was his own landscape architect and designer, and that Rokuon-Ji was a product of the interchange of ideas between Japan and China. Much Chinese symbolism is evident throughout the gardens, for at this stage of Japanese garden development it was stylish to exhibit a knowledge of Chinese ideas and possession of Chinese artifacts. Yoshimitsu used the services of two advisers in the development of Rokuon-Ji: Soami, whose role is undefined, but to whom this title of gardner is ascribed; and Kyuei, whose planting activities are thoroughly documented.

Two outstanding features are the Kinkaku-Ji (Gold Pavilion), which gives the garden its second name, and the $1\frac{3}{4}$ acre pond on which it is situated. Kinkaku-Ji is so named because its top story, which forms a sweeping roof over the lower two floors, was covered entirely with gold leaf. These lower two stories, larger in size, open onto the pond. A principle use of this pavilion was for viewing the garden as a whole, as well as for meditation, and the recitation of the poetry and literature of the day.

Within the pond are several islands which represent various sea animals, such as tortoises and carp. At the foot of the waterfall which feeds the pond is a large narrow fish-shaped stone, placed as if it were trying to jump up the falls. The whole is symbolic representation of the Chinese ideal of virtue. The successful, according to legend, become great spirits.

Boating was the principal activity of the pond, and floating parties were

Rokuon-Ji

Kyoto, Japan
1394-1408

CLIENT: *Ashikaga Yoshimitsu*

LAT: 35° N LONG: 136° E ALT: 140 feet
CLIMATE: *temperate, warm, summer monsoons, sudden weather changes*
PRECIPITATION: *64 inches per year*
TEMP: *high 81° low 37° mean 57° F*

SITE: *in a valley at the foot of Mount Kinugasa*

Katsura

Kyoto, Japan
1615-1658

CLIENTS: *Prince Tomohito, Prince Tomotada*

ADVISORS: *Kobori Enshu, Hosokawa Yusai, Nakanuma Sakyo, Ogawa Bojo Shunsho*

LAT: 35° N LONG: 136° E ALT: 150 feet

CLIMATE: *temperate, high humidity, summer monsoons, dry winter, sudden and violent weather changes*

PRECIPITATION: *68 inches per year*

TEMP: *high 81° low 39° mean 60° F*

SITE: *Katsura River valley on a flat site rimmed with hills; maximum change in elevation of 30 feet*

often held while people recited and read from contemporary literature. The changing panorama includes stone formations and grottoes which cannot be seen except by boat. Perspective is altered by making the vistas from the pond busy in the foreground and uncomplicated in the distance, thus making the small space seem larger than it really is. The reflected sky and trees also enhance this feeling, while the changing relationship of all the elements contribute to the effect of a continuity of experience.

The Katsura Imperial Villa is situated adjacent to the Katsura River on a relatively flat site rimmed with hills. The estate was once held by Hideyoshi, military unifier of Japan, and given by him in 1950 to Prince Tomohito, a younger brother of the current emperor. Although himself a cultured and talented man, Prince Tomohito had many noblemen and priests advise him in planning the garden. Notable among these were Kobori Enshu, Hosokawa Yusai, and Nakanuma Sakyo, supervisor for the first stage of construction. Work on the garden began about 1615 with the general features having been laid out by Prince Tomohito's death in 1629. Using priest Ogawa Bojo Shunsho as adviser, Prince Tomotado, Tomohito's son, completed the garden in 1658 adding the tea rooms, stone work, and lanterns.

The garden site is encircled by dense groves of bamboo which eliminate distant views and direct attention into the garden itself. Water from the Katsura River was introduced into the garden by digging a lake bed about six feet below ground level and then piling the soil to form small islands and miniature mountains 30 feet high. The form of the lake with its many tributaries and arms was carefully designed for variety and contrast, leaving only small portions of the two acres of water open to view from any one vantage point. Further enriching the water and earth formations are the many stone patterns and the plantings which include mosses, grasses, maples, cherry trees and various pine trees.

Beginning with the northeast wing, the main palace consists of the Ko-shoin, Chu-shoin, and Shin-shoin (the old, middle, and new halls). It is approached from the Onarigomon (Front Gate) at the northern edge of the garden through a keyhole-shaped court to the Miyukimon (Imperial Gate) which opens onto the Imperial Approach leading southwest across a bridge to the central palace building. In addition to the ceremonial Onarigomon approach there is an alternate route for

everyday use through a gate slightly further to the west. Both of these approaches lead to the Central Gate at the northeast corner of the Ko-shoin and then to the Mikoshiyose (Imperial Carriage Stop) and on across a path of formal stepping stones to the main entrance to the palace.

Situated at intervals throughout the garden are various small cottages or tea houses which served as retreats for the Prince and his guests, the largest being the Shōkin-tei. Here the beauty and solitude of the garden would inspire the philosophical pursuits of the participants. Each of the eight tea houses is connected to the central palace by meandering paths of stepping stones which follow the contours of the lake and create a unity of the tea house style and palace style gardens. Each tea house has a stone water basin and 23 stone lanterns grace the gardens. High arched bridges were built so that boats could be used on the lake. Traveling from palace to tea house thus involved a miniature journey which would be taken on land or sea.

The name Katsura was derived from the name of a tree which, as legend has it, grows in the light of the moon. Hence the moon becomes the only strong influence coming from outside the garden. Tsukimidai, a bamboo platform for moon viewing, was built onto the southeastern extension of the main palace. Here in the early evening the Prince and his guests would sit on cushions and compose verse. Also demonstrating the moon influence is the Gepparo (Moon-Wave Pavilion) on the east side of the Ko-shoin.

When, almost 80 years ago, the last of the line of Katsura princes died, the garden became an imperial estate. It is maintained as such today, having been changed very little since the time of Prince Tomohito and his son.

Heian Jingu, or Heian Shrine as it is sometimes called, is located near the River Kamo only a few miles from the center of Kyoto. It was begun in 1895, when the people of Kyoto felt something was needed to commemorate the city's 1100th birthday. Lacking a major figure for commemoration they chose the Emperor Kwammu, an early ruler who was the founder of the capitol city and was responsible for its location at Kyoto. The shrine takes its name from the early name of Kyoto,

Heian Jingu

Kyoto, Japan
1895

LANDSCAPE ARCHITECT: *Ogawa Jihei*
CLIENT: *city of Kyoto*

LAT: 35° N LONG: 136° E ALT: 140 feet

CLIMATE: *temperate, warm, summer monsoons, sudden weather changes*
PRECIPITATION: *64 inches per year*
TEMP: *high 81° low 37° mean 57° F*

SITE: *a few miles from Kyoto near Kamo River*

Heian-kyo, and is the site of an annual festival which reveals the pageantry and stateliness of the early courtesans of the new capitol.

The buildings on the site are intended as a reproduction of the Emperor Kwammu's Hall of State. These elaborate halls are surrounded by three gardens to form the Heian Jingu and are named East, Central and West for their relationship to the shrine itself. The three gardens are interrelated, and are best known for their flowers.

The first two gardens completed were the Central and West ones. The former has a large pond known as Seiryu-chi, or the Blue Dragon Pond, and it is characterized by the round stepping stones and the zig-zag stone bridge used to traverse it at a very narrow point. The West garden has a smaller lake known as Byakko-Chi, or White Tiger Pond, and is similar to the Central Gardens. Each lake had walkways around it and constantly changing views are offered of the entire complex.

The East garden is built around the Seihochi, the Phoenix Pond, and is the largest of the three. This pond is traversed by a long covered bridge known as a "corridor bridge," and in the center had a raised pavilion with a roof ornamented at the top with a phoenix.

The entire complex was designed by Ogawa Jihei, in the Horai style, and maximizes seasonal variation. There is not the intense symbolism found in earlier Japanese gardens, but there was an attempt to use dramatic planting. The cherry trees, and the use of iris and lotus are most notable. Trees, evergreens, and water are plentiful on the five acre site, and show off the flowering plants to their best advantage. The gardens occupy only half of the site; the remainder is devoted to the shrine itself, and is sparsely planted.

6

Kyung Bock

Seoul, Korea
1394 and after

CLIENT: *Yi dynasty*

LAT: *38° N* LONG: *127° E* ALT: *285 feet*
CLIMATE: *temperate, humid, summer monsoons, cold winters*

Kyung Bock Palace was the first royal palace to be built by the Yi dynasty (1392-1911). It was the largest among those built in this dynasty, and is representative of the design philosophy of this Korean era. It is located in Seoul, the capital during the Yi dynasty, and is surrounded by high walls into which were cut eight grand entrances.

The buildings of the Yi dynasty exhibit the influences of two great oriental philosophers, Confucious and Tao. Although opposites, these ideas produced complementary effects in city design and in landscape

planning. The city, and the house as well, were guided by Confucian ideas of formality, symmetry, straight line, heirarchy of importance, clarity, conventionality, and generally a man-made order. The garden and the landscape were guided by Taoist ideas of irregularity, asymmetry, curvilinear, undulating and zig-zag forms, mystery, and an affinity for untamed nature.

The palace is located on the north side of the city at the foot of Bukak Mountain. It was begun in March 1394, and completed 13 months later. Since then it has been added to and rebuilt many times. The basic plan is symmetrical about an axis through the Keun Jung (Throne Hall), the place of administration. Two lotus ponds stand on each side of the main avenue to the Keun Jung which rests upon two stone terraces.

Northwest of the Keun Jung is a reflecting lake with the Kyung Hoe, a two-story open air meeting pavilion and entertainment hall, connected by stone bridges to the gardens. Further to the north is another lake with an octagonal pavilion.

Other features of the palace are the Sa Jung, the policy-planning hall; Ja Kyung, the dwelling hall of the Queen; Jip Okjae, the Royal Library and storage place; and finally the Aha Mi, a man-made mound constructed in 1456 by a later Yi dynasty king for a pleasure garden.

Kyung Bock Palace is smaller in scale than many Chinese palaces, but the plan and details are similar. There is a greater simplicity in design, however, reflecting the ideas of the Yi dynasty and the Korean artists.

PRECIPITATION: 49 inches per year

TEMP: high 87° low 15° mean 52° F

SITE: at base of Bukak Mountain



• TEHRAN

• KASHAN
Bagh-i-Fin

• ISFAHAN
the Imperial Isfahan

• SHIRAZ
Bagh-i-Takht

NEW DELHI •

AGRA •
Taj Mahal

KARACHI

BOMBAY

IRAN INDIA

0 100 200 400
MILES

The enclosing red sandstone walls of the Taj Mahal face the River Jumna on the north and small cell-like buildings on the south. These buildings were probably not part of the original plan, but are used today as stables, guard quarters and nurseries. The marble inlaid "Great Gateway" on the south opens into the grounds of the Taj Mahal.

The garden plan is completely symmetrical, with a major axis extending from the "Great Gateway" to the Taj and a cross axis intersecting at the middle. The axes are delineated by long reflecting canals that radiate in four directions from an elevated central tank. Rows of fountains and marble walks edged with clipped yews and cypress line the canals. The four rectangular flower beds are filled with colorful flowers.

At the north end of the garden, the great mausoleum stands on a raised marble platform with a delicate minaret rising from each corner. The magnificent white dome of the Taj is dramatized in the dark reflecting pools. Inside the domed structure is an atmosphere of cool retreat where subdued light filters through double lattice walls of white marble. A wealth of colorful and exotic jewels is inlaid in intricate designs in the marble. To the west of the mausoleum is a mosque, and to the east is its identical, symmetrical "answer", a jawab. Both of these buildings are of red sandstone and further set off the white splendor of the Taj.

The Taj Mahal was begun by Shah Jehan in 1632 in memory of his favorite wife, Mumtaz-i-Mahal, who had died a year earlier. For 20 years about 20,000 workers labored daily on the mausoleum and grounds. Gifts of sapphire, agate, onyx, turquoise and carnelians were sent from Ceylon, Tibet, Arabia and Persia. A black twin to the Taj was to be built across the river, but Jehan fell from power before this could take place. The tombs of Shah Jehan and his wife now lie in the Taj.

Bagh-i-Takht, the Garden of the Throne, is built on a rocky hillside in formidable desert land. Water is the major element of the garden, used to soothe the senses from the scorching sun and sands. Water was used by the Persians to give dimension to their dull arid environment; water could fall and splash, water could lie still and deep in reflecting pools, and water could be flung into the air to form tiny droplets that fleetingly caught the sun. Water, and the life it nourished, made gardens a paradise on earth for the Persians.

Taj Mahal

7

Agra, India
1632-1653

ARCHITECT: *Ustad Isa*
CLIENT: *Shah Jehan*

LAT: 27° N LONG: 78° E ALT: 550 feet
CLIMATE: *subtropic, dry winters, maximum temperatures precede summer monsoons*

PRECIPITATION: *37 inches per year*
TEMP: *high 95° low 57° mean 77°*

SITE: *100 miles southeast of Delhi on a flat alluvial plain bordered by the Jumna River on the north; maximum change in elevation of 20 feet*

Bagh-i-Takht

8

Shiraz, Iran
11th century

CLIENT: *Atabek Qaracheh*

LAT: 30° N LONG: 53° E ALT: 5100 feet
CLIMATE: *subtropic, arid*
PRECIPITATION: *15 inches per year*

TEMP: high 83° low 44° mean 63° F

SITE: a rocky hillside with a spring at the top, surrounded by desert; maximum change in elevation of 100 feet

At Bagh-i-Takht, a stream springs from a rock at the top of the hill and falls over marble slabs into stone edged cisterns. At the bottom of its course, the water is collected in a large pool, called a daryacheh or little sea, where small boats were kept in which to escape from the arid shores. To cool the air and delight the eye and ear, water was fed through an elaborate system of nozzles that could be opened intermittently to create various spray patterns.

The garden was rich with fruit trees and the favorite Persian flower, the rose. Cypress shaded the terrace walks. Pavilions and the arches and pillars of the terrace retaining walls ornamented the garden. Terraces, which become smaller toward the top of the hill, are connected by covered stairways built into the terrace walls.

Bagh-i-Takht did not acquire its name until after 1850, although construction on the site is recorded as early as the 11th century under a local ruler, Atabek Quaracheh. The gardens were described in the 17th and 18th centuries under different names and various rulers. Until 1789, when Agha Mohammed, the first Shah of Kahar, built new gardens, there existed an enclosed area for antelope and other game. Although limited restoration has been attempted, today Bagh-i-Takht is generally in ruins and the great pool is dry.

9

Bagh-i-Fin

Kashan, Iran
c.1504

CLIENT: Shah Abbas

LAT: 34° N LONG: 52° E ALT: 4800 feet

CLIMATE: subtropic, arid

PRECIPITATION: 10 inches per year

TEMP: high 80° low 42° mean 60° F

SITE: an oasis in the desert

The oasis at Fin provides water for nearby Kashan, and at one time supported a fine Persian garden. The foliage appeared especially lush with vivid color and varied texture in its setting of desert monotones and monotextures. In the formal style, and like the Persian garden carpets, axial symmetry contrasts sharply with areas of dense growth. Cypress and plane trees bordering the walks, water channels lined with blue tiles, fountains, pools, brilliant flowers and painted plaster all enriched this perfected garden. The exterior walls contained stables, baths and women's quarters, but now all that can be seen are the ruins of the central pavilion.

The first time Bagh-i-Fin was known to have been used was for a royal reception in 1504. Shah Abbas erected structures at the site in 1547, but the present remains are attributed to Fath Ali Shah, who ruled from 1799 to 1834. An unfortunate incident happened in the garden in 1853 when an honest prime minister was put to death. After this tragedy the

gardens were neglected until 1935 when Bagh-i-Fin was named a national monument and repairs were begun.

The expansive site of Isfahan slopes gently down to the Zayandeh River at its southern extremity. The focal point is the axial north-south promenade called the Avenue of the Chahar Bagh (Four Gardens) that extends for about one mile to the river where a bridge crosses to the royal estate of Hazar Jerib (One Thousand Acres). The grand promenade is 180 feet wide, and across its breadth were spaced eight rows of poplar and plane trees and five water courses. The change in level of the water courses is marked by variously shaped pools and fountains and the wide, central water course is lined with cut stone.

A variety of gardens line the promenade. On the northeast side of the promenade is the large, lovely Garden of the Nightingale, where nightingales still sing to lovers who walk in the moonlit garden. The latticed hedges were planned so that strollers on the promenade could catch brief glimpses of the garden interiors. The character of the other gardens lining the promenade is revealed by their names, such as Garden of the Octagon, Garden of the Throne, Garden of the Vineyard, Garden of the Mulberries and Garden of the Dervishes. Game and birds were housed in the gardens along the river.

The magnificent bridge that crosses the river was decorated with ornamental tile. The massive piers contained galleries where picnickers could rest in the shade, bathed by the river breezes and the sounds of moving water. This bridge carries truck traffic today.

The focal point for the living areas of this royal establishment is the Maidan-i-Shah (Imperial Square) in the northeast section of Isfahan. This huge plaza (1710 feet by 525 feet) is one of the world's largest and was used as a market place. At the north end of the Maidan is the monumental entrance to the bazaar and on the south is the Masjid-i-Shah (Imperial Mosque). On the east side is another Mosque (Shaykh Lutfullah, constructed 1603-1919) and on the west is the Ali Qapu.

The Ali Qapu, unusual for Iran because it is six stories high, leads to the palace grounds and gardens beyond. The palace grounds, generally the area between the Maidan and the promenade, include the royal apartments, the harem, the king's children's apartments, guest apart-

Isfahan

Isfahan, Iran
1598 and after

CLIENT: *Shah Abbas*

LAT: 33° N LONG: 52° E ALT: 5750 feet

CLIMATE: *subtropic, hot, arid*

PRECIPITATION: *9 inches per year*

TEMP: *high 85° low 36° mean 64° F*

SITE: *a plain adjacent to the Zayandeh River*

ments and numerous pavilions for entertaining and lovemaking. One of the finest, and few remaining pavilions is the Chehel Sutun (Palace Pavilion) in the center of a garden at the northern part of the palace grounds. This pavilion, the site of many royal receptions, is noteworthy for its integration of indoor and outdoor spaces that make it easy to enjoy the surrounding gardens.

Shah Abbas conceived of the plan for Isfahan, an imperial city, in 1598 and building began immediately. The eight rows of trees that spanned the Chahar Bagh were supposedly planted in the presence of Shah Abbas and fertilized with gold and silver coins. Shah Abbas lived in the upper stories of the Ali Qapu and could survey the whole of the Maidan from his balcony.

Other construction was carried on throughout the 17th Century, and by 1670 it was reported that Isfahan comprised 162 mosques, 48 religious schools, 1,802 caravan hostels, 273 public baths and 600,000 inhabitants. Building and rebuilding continued throughout the 19th century. Although much is altered or in ruin today, some of the outstanding monuments remain. Unfortunately the grand promenade is now an asphalt highway that carries heavy traffic with commerce thriving along its sides. Of the many pavilions, only the Hasht Bihest (eight Paradises Pavilion) in the Garden of the Nightingale remains, its time-worn frame surrounded by modern shops.



SPAIN

0 50 100 200
MILES

La Alhambra

Granada, Spain
1248-1354

CLIENTS: Mohammed I, Yusef I, Mohammed V

LAT: 37° N LONG: 4° W ALT: 2300 feet
CLIMATE: subtropic, warm summers, cool winters

PRECIPITATION: 20 inches per year
TEMP: high 80° low 40° mean 59° F

SITE: in the foothills of the Sierra Nevada Mountains on a plateau on the side of El Cerro del Sol, Granada lies to the southwest and the Darro River to the northwest

La Alhambra covers about 35 acres on the side of El Cerro del Sol in the foothills of the Sierra Nevadas. The palace is situated on a plateau that commands a view of Granada on the southwest. The River Darro runs deep in a ravine to the northwest.

The general pattern of La Alhambra is a patio series of flat gardens and rectangular courts, both open and covered. The architecture is simple in plan, but the facades and decor are quite intricate. The perimeter is defined by a fortifying wall and 13 towers. The name Alhambra, which is Arabic for "the red" is thought to be derived from the color of the sun-dried bricks that form this outer wall.

From the Puerta de las Granadas (Gate of Pomegranates), a 15th century triumphal arch outside Granada, one ascends past the pillar of Charles V to the main entrance of Alhambra at the southwest edge. This main entrance, called Puera Judiciaria (Gate of Judgement), is a horseshoe archway with a square tower and was used by the Moors as a court of justice.

One passes through the Palacio Arabe, subsequently the Palace of Charles V, to the Patio de los Arrayanes (Court of Myrtles). This court was built during the reign of Yusuf I (d. 1354) and is one of the most beautiful and few remaining courts at La Alhambra. A rectangular pond in marble pavement lined with myrtle hedges extends down the center. A subtle golden hue, suggested by the goldfish in the pond and the orange trees, pervades the court. At the north and south ends are galleries supported by graceful colonnades, and several alcoves intended for quiet pastimes. An easy flow between indoor and outdoor space, serenity, and seclusion are all achieved in this fine Moorish court.

Beyond the Patio de los Arrayanes is a large reception room, Sala de los Embajadores (Hall of the Ambassadors). The 75 foot high dome of this hall housed the throne of the sultan.

To the east of the Patio de los Arrayanes is the Patio de los Leones (Court of the Lions), built by Mohammed V (1334-1391). This court is dominated by an elaborately decorated fountain with 12 marble lions. There is a hall on either side, the north one being the Sala de las dos Hermanas (Hall of the Two Sisters). From this hall the ladies of the adjacent harem could look down from a latticed balcony to the grand

court below. Color abounded in the stucco work, especially blues, reds and yellows.

To the north of the harem area was the Lindaraja garden. This garden exemplified typical Moorish planting of myrtle, cypress, citron trees and roses with green as the dominant tone.

Further to the north were the magnificent marble baths. The baths were decorated with glazed tile, radiant with floral design. A star-shaped aperture let light into the baths from above.

It is easy to imagine the rich, secluded life the Moors created for themselves within the boundaries of La Alhambra. The idyllic retreat did not thrive long, however, for the palace was surrendered to Ferdinand and Isabella in 1491, and the Moors were expelled from Spain the following year.

Vandalism on the grounds of La Alhambra ensued; furniture was destroyed, part of the baths burned, and much of the intricate openwork filled in with whitewash. Charles V (1516-1556) destroyed part of the old palace to erect his own discordant structure. Under Philip V (1700-1756), areas of La Alhambra were Italianized, others blocked off. Earthquakes and gunfire added their share of damage. In 1812, the Duke of Wellington planted dense with elm areas that the Moors had once laid out with myrtles, citrus trees and roses.

Restoration of La Alhambra was not begun until 1828 when Ferdinand VII lent his support. The work was commissioned to architect José Contreras (d. 1847) whose son and grandson continued the restoration.

Generalife, the Garden of the Architect, is situated high on the slopes of El Cerro de Sol above the Alhambra. A bridge once crossed the ravine that separates the Alhambra from Generalife, but now the lofty pleasure gardens are approached by a narrow avenue lined with tall cypress trees. The icy mountain streams that freely feed the estate are connected by canal to La Alhambra where the waters are used again.

The Generalife was built as a summer retreat for the Granada Kings and their harems. Many additions have been made, but the villa proper, called the Palace of Recreations, and its enclosed court is attributed to the Moor, Oman in the late 13th century. Although the architecture is

Generalife

Granada, Spain
c.1275

CLIENTS: *Moorish Kings*

LAT: 37° N LONG: 4° W ALT: 2500 feet

CLIMATE: *subtropic, warm summers, some snow in winter*

PRECIPITATION: *20 inches per year*

TEMP: *high 80° low 40° mean 59° F*

SITE: steep rocky and wooded hillside of El Cerro del Sol, supplied with water by a mountain stream above, overlooking the Alhambra to the southwest and the Darro River valley to the north; a maximum change in elevation of 70 feet

not outstanding, the grounds are a fine example of a Moorish hillside garden consisting of open terraces and sequestered courts.

From the cypress avenue, one passes through the gate lodge to the central garden court, with service quarters to the right, the promenade and view of La Alhambra to the left, and the modest villa at the opposite end. The court is bisected by a three foot wide marble canal with a row of jets on either edge that spray rainbow arches of water over the canal. Gravel walks cut through the court with the spaces between densely planted with colorful flowers and shrubs. Views, both into the court and out to the surrounding countryside, are a major attraction of this garden room. Views into the court are either framed by filigree arches and graceful pillars or complimented by the vantage point of balconies above. Outward views over La Alhambra and the Darro River valley are encouraged from the promenade, the exterior balconies and a mirador. The indoor and outdoor spaces are so beautifully integrated that the whole seems like a large room.

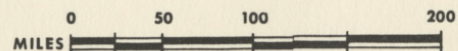
To the east, past the service wing, is the Patio de los Cipreses (Court of the Cypresses) also called the Canal Garden. The court consists chiefly of a large canal that surrounds three small islands on which myrtle hedges and flowering shrubs grow. The giant cypresses that grow against the northwestern wall of the court reflect in the canal and give an impression of depth.

Other courts, open and enclosed, have developed above and below the Patio de los Cypress and are connected by steps. On an upper level the mountain water runs down a groved parapet lined with tile in a water stairway, an uncommon feature for a Moorish garden.

According to an old inscription, King Ismail restored the villa and gardens in 1319 after seizing the throne from his uncle, Al-Nazar. At the time of the Christian reconquest (1491), a Moor was given the villa by the Catholic kings in reward for his help. Although the gardens have been restored several times, many fine trees have been destroyed during the intervening years.



ITALY



13

Villa Adriana

Tivoli, Italy
125-136

CLIENT: *Emperor Hadrian*

LAT: 42° N LONG: 13° E ALT: 760 feet
CLIMATE: *temperate, warm, sunny
summers, rainy winters*
PRECIPITATION: 32 inches per year
TEMP: high 90° low 45° mean 67° F

SITE: 20 miles east northeast of Rome
on a plateau at the foot of the hill of
Tivoli near the Aniene River, guarding
the pass into the mountains

Villa Adriana lies at the foot of the hill of Tivoli, about 20 miles east of Rome. The extent of the complex is not yet known, for there are no explicit records and excavations continually uncover more details.

The Emperor Hadrian's grounds were undoubtedly vast, as they extended up the slope from the main approach from Roma to his palace and beyond. Many parts of the villa were named after places the Emperor had traveled, and symbolized his dream to recreate an empire. Hadrian did not have long to enjoy his gardens for he died in 138 A.D., two years after the construction was completed. Looting ensued soon after and later, because it was used as headquarters by foreign invaders and bandits, the villa was leveled. Excavations and reconstructions have gone on since Renaissance times.

Among the estate's outstanding features were a 650 foot portico, a hippodrome, an Academy, a temple, a reservoir and baths. Supplementary to these were great pillared halls, pleasure houses, arcades, peristyles and numerous garden terraces. Fine mosaic floors and statuary in niches have also been found. A recent excavation revealed an elongated pool surrounded by the beautiful colonnades of Canopus. At one end are the remains, as evident in the wheel-spoke patterns of planting that dominate nymphaeum is a small building embellished with water, having been derived from outdoor sanctuaries for the nymphs that the Greeks built near springs or pools.

14

Boboli Gardens

Florence, Italy
1549 and after

ARCHITECTS: *Il Tribolo, Buontalenti,
Bartolommeo Ammanati*
CLIENT: *Eleonora de Medici*

LAT: 44° N LONG: 11° E ALT: 175 feet
CLIMATE: *temperate, hot summers, some
snow in winter*
PRECIPITATION: 30 inches per year
TEMP: high 90° low 42° mean 66° F

SITE: on a slope near the Arno River
with a maximum change in elevation of
160 feet

The Boboli Gardens lie behind the Pitti Palace on the left bank of the Arno River. Eleanor of Toledo, wife of Grand Duke Cosimo I, began the gardens when she bought the palace in 1549. Tribolo was commissioned to lay out the gardens, but when he died within the year, Ammanati and Buontalenti carried on the work. Over a period of 150 years, six generations of the Medici family changed and added to these Florentine gardens which created a stage for great shows of their wealth and power.

The garden is laid out in two major sections: the broad upper section extends up to the southeast behind, and on axis with, the palace; the lower section slopes down to the southwest on a wedge-shaped piece of land to the Porta Romana. Geometric design was a strong feature in the garden, as evident in the wheel-spoke patterns of planting that dominate the lower section. In spite of the strong axes that organize the gardens,

the integration between the palace and the gardens has not achieved the unity that developed in later Italian Renaissance gardens.

The upper garden is dominated by a horseshoe-shaped amphitheater built into the hillside that slopes up behind the palace. This amphitheater was the stage for the concerts and pageants that preceded royal fêtes with dancing, great bonfires and other merrymaking. A steep ramp ascends from the far end of the amphitheater to higher levels, one with a pool and a fountain of Neptune and one farther above containing the statue of Abundance. From here there is a wonderful view over the Arno and the Ponte Vecchio to Florence. Early in the history of Boboli, formal gardens were developed along the Arno, but later expansion was necessarily away from the river.

From the upper gardens, a cypress avenue, with alleys leading off into the thick plantings of evergreen and laurels on either side, leads down to a large oval basin with a formal island called Isolotto. The pond is encircled by an ornamental iron railing and crossed by two bridges to the island, which is again encircled by a low wall covered with climbing roses. In the center is a fountain of Oceanus, but lemon trees planted in terra cotta jars along the walls and walks predominate on the lovely Isolotto. At one time, this section of the gardens also included much statuary, fountains, aviaries, a botanical garden, a bowling green and grottos. Most of the statuary and water is now gone and the gardens remain overgrown.

The planting of flowers, as in most Italian Renaissance gardens, was sparse. The intent was to plant evergreens so that the garden would be lovely the year around for fêtes. There were no limits set on grand occasions, such as the wedding celebration of Cosimo III de'Medici to Marguerite Louis d'Orleans in 1651. This pageant supposedly displayed several troops of costumed cavalry, cutting figures to the music of a hundred voices and instruments, and lavishly decorated floats carrying beautiful women.

Exaggerated as the records may be, those were the glorious days of the Boboli gardens. Many changes and additions were made in the 16th and 17th centuries. The gardens were threatened with obliteration by the popular English park style in the 18th century, but fortunately Duke Ferdinand made an attempt to restore the gardens. The garden near the palace, and the amphitheater are used today for outdoor plays and concerts.

Villa d'Este

Tivoli, Italy
c.1550

ARCHITECTS: *Pirro Ligorio, Giacomo della Porta*

WATER ENGINEER: *Orazio Olivieri*

CLIENT: *Cardinal Hippolito d'Este*

LAT: 42° N LONG: 13° E ALT: 760 feet

CLIMATE: *temperate, sunny summers, rainy winters*

PRECIPITATION: *32 inches per year*

TEMP: *high 90° low 45° mean 67° F*

SITE: *20 miles east northeast of Rome on a steep hillside with a river at the summit and surrounded on three sides by the town; a maximum change in elevation of 175 feet*

Villa d'Este is situated on a steep hillside with the Anio River at its summit, and a lovely view toward the Sabine Mountains. The villa and gardens were built as a summer residence and entertainment palace by Cardinal Hippolito d'Este, a son of Lucrezia Borgia, who was appointed governor of Tivoli in 1549. Water, with its numerous delights for the eye and the ear, is the chief feature of this garden.

The Renaissance man's sense of mastery over his environment was evident in the creation of Villa d'Este. Part of the town was demolished and the water engineer, Orazio Olivieri, diverted a branch of the Anio to supply the garden with unlimited water. Never allowed to fall naturally, the water was always controlled in its descent through the gardens. The main axis of the garden was directed slightly into the slope rather than straight down it. This plan necessitated excavation on the east side of the garden with the earth then used as fill for the large retaining wall constructed on the west side.

After the site was arranged to suit the designers, Pirro Ligorio built the villa at the top of the slope above five steep parallel terraces that fell to the garden levels below. The cross axes were reinforced by the flow of water which entered the garden on the upper east side. The dominate axis, however, fell through the center of the palace and was accented on three terraces by elaborate echo gateways that led to grottos, and on the lowest terrace by a large dragon fountain surrounded by broad curving steps. This is one of the earliest Italian achievements of complete integration between the villa and gardens.

Descending from the villa, the first dramatic show of water is on the east side of the third terrace where the cool cascades of water rush over gigantic blocks of tufa into a large oval basin. Under the rock is a semicircular arcade supported by columns and containing statues in niches between the walk and the basin. A narrow passage leads from this water theater, which is enclosed by walls on the other three sides, to the crosswalk of the Hundred Fountains with its lush greenery and numerous stone fleurs-de-lis and eagles of the d'Este family coat of arms. To the west is another water theater and a representation of old Rome, with miniature temples and public buildings.

Descending past the central dragon fountain and down broad sloping steps, four large rectangular basins extend across the gardens. These quiet reflecting pools contrast with the activity of the water in the

other areas of the gardens, and emphasize the flatness of this section. At the east end of the water basins, a series of water jets, fountains and small cascades lead up to the fantastic water organ which plays the same tune over and again. The tendency toward Baroque ornateness and the grotesque is evident in the statuary, such as women's legs that twisted into pilasters.

The lower, relatively level section of garden has seen many changes through the centuries. Originally, lattice-work arbors covered the crosswalks between plantings of herbs, flowers and fruit trees. Now a rondello of tall cypress trees and the remains of fountains and eight statues representing the liberal arts stand in the center of these lower gardens.

The villa remained with the princes of the church until the end of the 18th century. Although much statuary was taken from the grounds by Pope Innocent XIII and others. Neglect and the intrusion of English style planning affected the gardens in the 19th century. Water, especially the music of water, remains the drawing attraction of Villa d'Este.

Villa Lante epitomizes the outstanding features of Italian Renaissance gardening. It is ideally situated on a rough hillside and water is used deftly and dramatically to reinforce the main axis of the garden. Because there are two villas, one on each side of the estate, the garden is allowed uninterrupted development from the loose woodsy area up on the hillside, down to the formal, flat, parterre below. The treatment of water and planting is consistent throughout, being free and more natural higher on the hillside, and more contrived and restrained toward the town below. The movement from wilderness to town is accomplished with grace and sensitivity. Absolute symmetry ensures unity.

The garden originates between twin loggias with a grotto and a nymphaeum that serves as a reservoir for the mountain stream that supplies the garden with water. Here there are avaries and dark planting material is used to harmonize with the pine forests.

The water first emerges from a fountain in a basin, then it plays down a water chain to spill over a series of basins before disappearing. When the water surfaces again, it is in a long, placid table trough. Next the water bursts forth from a circular fountain and moves down water steps

Villa Lante

16

Bagnaia, Italy
c.1564

ARCHITECTS: *Giulio Romano, Giacomo da Vignola*

CLIENTS: *Cardinal Gambara, Cardinal Montalto*

LAT: 42° N LONG: 12° E ALT: 1050 feet

CLIMATE: *temperate, dry hot summers, mild rainy winters*

PRECIPITATION: *32 inches per year*

TEMP: *high 88° low 39° mean 62° F*

SITE: *50 miles north northwest of Rome on a southwest slope, a mountain stream supplies water from above, the town lies on the north and west; maximum change in elevation of 100 feet*

under shade trees. Finally, the water emerges at its destination in four reflecting pools, each with its own statuary ship, in the formal garden below the villas. In the center of the pool is a balustraded island holding an imposing fountain.

To add even further to this imaginative display of water, popular water tricks were hidden throughout the grounds at Villa Lante. For example, water sprayed from the pavement to wet a visitor's legs, or jetted unexpectedly from a fountain or the roof of a loggia. Such tricks were happy surprises for the visitor fighting the heat of the day.

The formal parterre is suitably planted with low-growing, bright flowers and ornamented with stonework. A high wall with a wrought iron gate shelters the garden from the town. It is easy to imagine the pleasure experienced by every sense as one moved from the bustling town outside the gates through the exquisite, but exposed, formal garden, up the steps between the casinos, toward the cool shade of the woods and the splashing mountain stream.

Another typical feature of the Italian Renaissance garden present at Villa Lante is the adjoining enclosed park or bosket designed for shaded walks. The bosket is wild, dense with shrubs and trees, and stands in contrast to the symmetry of the garden proper. Some order is set in the bosket by diagonal paths. Like later English parks, trellises and fountains are scattered throughout, and a large reservoir with a statue occurs at the lower edge.

Villa Lante was originally a 14th century hunting lodge for Ranieri, Bishop of Viterbo. It was added to in the 15th century by Cardinal Ridolfi, but Cardinal Gambara was responsible for the laying out of the garden essentials and the employment of Vignola in 1566. The second casino and grand central fountain was the inspiration of Cardinal Montalto. Today Villa Lante remains well preserved.

17 Villa Aldobrandini

Frascati, Italy
1598-1604

In 1598, Pope Clement VIII gave his nephew, Cardinal Pietro Aldobrandini, some land near Frascati, a small town southeast of Rome. Within five years, the Cardinal had a fine villa built and elaborate gardens laid out. This show of papal wealth and power was intended by the Cardinal as a pledge of peace by the Church.

A lovely wrought-iron and stone fence with oval openings stands before the laurel-lined approach that slopes up to the villa. The villa, designed by Giacomo della Porta, extends across the breadth of the site and is located at the junction of two terraces, so that the ground floor is level with one terrace and the first floor level with the other terrace. There are storage and service areas under the second terrace, including a kitchen with chimneys camouflaged as medieval turrets. The villa is further integrated into the hillside garden site by diagonal stairways and horizontal terraces that are echoed above and below.

The walls of the semi-circular nymphaeum immediately behind the villa appear to retain the hillside above. The elaborate theater consists of pillars, statues in niches and grottos alive with water devices. In one grotto room is a dancing copper ball, kept moving by air rushing through a hole in the pavement. In the center of the nymphaeum is a great Atlas fountain and on the balustrade above, water sprays like a full plume from the points of a star, the crest of the Aldobrandini family.

Above the nymphaeum are two tall columns decorated with mosaic. Water is forced to the top of these columns, spirals down around them in tiny channels, falls down a balustrade that borders the water stairway and then feeds into the nymphaeum. Ilex hedges and thick foliage on either side of the water course integrate easily with the natural growth of the hillside.

The garden extends up the steep hillside, past rustic statuary, water stairways and fountains, one of which attempts to imitate a natural falls. On the highest terrace, the water, which had to be conveyed six miles by canal, cascades forth from a natural grotto of tufa. The Baroque fashion of relaxation between the formal and natural on this hillside is evident in the planting, fountains and contemporary statuary.

During World War II, Villa Aldobrandini became headquarters of a German communications center and consequently a target for Allied bombs.

ARCHITECTS: *Giacomo della Porta, Domenico Fontana*

CLIENT: *Cardinal Pietro Aldobrandini*

LAT: *42° N* LONG: *13° E* ALT: *1050 feet*

CLIMATE: *temperate, hot, sunny and dry summers, rainy winters, no snow*

PRECIPITATION: *32 inches per year*

TEMP: *high 89° low 44° mean 65° F*

SITE: *15 miles southeast of Rome on a northwest slope in rolling countryside; maximum change of elevation of 225 feet*

Isola Bella

Lake Maggiore, Italy
1630-1670

ARCHITECT: *Carlo Fontana*
CLIENTS: *Count Carlo Borromeo, Count Vitalione Borromeo*

LAT: *46° N* LONG: *9° E* ALT: *640 feet*
CLIMATE: *temperate, sunny summers with warm days and cool nights, cold hard Alpine winters*
PRECIPITATION: *40 inches per year*
TEMP: *high 75° low 36° mean 56° F*

SITE: *rocky island in Lake Maggiore in the Alps of northern Italy; maximum change in elevation of 75 feet*

The snow-capped mountains of northern Italy surround Lake Maggiore, where Count Carlo Borromeo chose a small rocky island as the site for his new palace and gardens. The work was begun in 1630, and when the Count died shortly after, his son, Count Vitalione, carried out most of the plans with architect Carlo Fontana. The palace was only recently completed in accordance with the original design, and the fine Baroque gardens stand well preserved on their island retreat.

Laying out the gardens was a challenge. Sharp rocks were leveled, and boatloads of soil were sent from the mainland to be shaped into terraces by many workmen. The result of this sculpturing was superb, for the terracing reflects the horizontal simplicity of the lake. Isola Bella has been compared to a ship, because the lower terraces with their sturdy planting ease naturally into the lake like a ship's hull, and the obelisks on the upper terraces rise like masts from a deck.

The palace, with its two viewing terraces, stands at one end of the oblong island. Behind it an uneven semicircle of steps helps camouflage the transition to the gardens, which are not on axis with the palace. Beyond the formal parterres and a pool is the shallow curve of a grotto cut into the wall that is formed by the backs of the elevated terraces that step down to the lake on the other side. The extravagantly Baroque grotto is faced with pebblework and adorned with large scallop shells and statues in niches and on pillars. A unicorn, the Borromeo family crest, rears at the top.

Steps, that become smaller as they rise, lead to the upper terrace with its grand view. Ten three-sided terraces go down to the lake flanked by a hexagonal turret at either side. The five upper terraces are decorated with statues and obelisks that stand silhouetted against the sky. Low-clipped hedges and balustrades edge the terraces, with vines and lemon trees growing against the retaining walls.

The terraces on the sides of the island are less formal, the arcades in their walls forming intimate retreats. Laurel boskets, an orange garden and a stretch of green lawn with strutting white peacocks are also found on these levels. Many beautiful trees and flowers have been brought to the island over the years, including cedar of Lebanon, Japanese maples and colorful azaleas, camellias, oleanders and tulips. There is little use of water, but it is not missed in these Italian Baroque gardens standing in the midst of shimmering Lake Maggiore.

Villa Garzoni

Collodi, Italy
1652-1663

CLIENT: *Marchese Romano Garzoni*

LAT: 44° N LONG: 11° E ALT: 400 feet

CLIMATE: *temperate, Mediterranean, dry summers, rainy winters*

PRECIPITATION: *39 inches per year*

TEMP: *high 87° low 37° mean 62° F*

SITE: *near Lucca in northern Italy in the foothills of the Alps at the edge of the village of Collodi; maximum change in elevation of 100 feet*

The Baroque style with its wanton extremes is evident in the gardens at Villa Garzoni. The gardens were laid out on an odd-shaped piece of land on a hill overlooking Lucca. The palace, standing near the entrance of the small town, Collodi, was built by Marchese Romano Garzoni on the site of a medieval castle. The palace is on a level with the upper gardens, but the two do not form the unit that had been striven for in many other Italian villas. At best, the gardens can be viewed from the upper stories of the dwelling.

The gardens are approached from below through a grand entrance gate that opens onto the formal parterres that flaunt the curving lines of the French parterre de broderie. Beyond two round pools that throw 40 foot water jets into the air are more porteres, laid out with the Garzoni initials and crest in cut box and colored stone. Every tree and shrub is cut, even the hedges on the sides that are made to look like battlemented walls. Straight ahead are five ascending terraces, heavily ornamented with statuary and the balustrades of the dividing walls and stairways. The main axis through these terraces is marked by niches and grottos and extends to the water stairway, that broadens as it ascends. At the summit is a large cistern and the flying figure of Fame spouting water from her horn. Thick foliage borders the ascent. Strange combinations abound in the garden, such as palms near cypresses and rounded hedges against horizontal retaining walls.

The entertainment facilities were on the upper levels. To the west is an intimate garden theater with one wing formed by clipped evergreens. Farther up were the comic Baroque baths, with an auxiliary music room. From this level the palace could be reached by a path through a shady woody area and a labyrinth full of water tricks.

The gardens, except for the baths, remain well preserved. The disregard for absolute integration and harmony at Villa Garzoni appear as a reaction against the rigidity that had developed in the Italian garden.



Charles VIII returned from his march into Italy glowing with enthusiasm for Italian cultural achievements. He even brought some Italians with him to help introduce Italian accomplishments into France. Charles died three years later in 1498, but his successor Louis XII eagerly carried on the innovations with the aid of the Italians.

Louis XII (1498-1515) was born at Blois in the flat country of the Loire Valley, and when he became king he returned there from Amboise. Upon some ancient Roman foundations he immediately began to build an early "Renaissance style" chateau, surrounded on three sides by a soon dry moat. Under Francis I (1515-1547) the chateau gained added character from a wing designed by Mansart.

To lay out the gardens, Louis XII brought with him from Amboise an Italian gardener priest, Father Pasello de Mercoglian. Pasello developed a garden of three large terraces, each completely enclosed and unrelated to the other garden terraces or the chateau. There were no connecting steps or outward views, only the large separate sections.

The middle terrace, called the Queen's Garden, was entered by a gallery over the dry moat in which fruit trees were planted. This garden was the most elaborate. Wooden galleries covered with greenery shaded the walk around the edge of the enclosing wall, from where one could view the separate parquets bordered with low trellises. In the center was a wooden pavilion sheltering a handsome fountain with two marble shells made in Tours by an Italian Pacchiarotti, in 1503. The waters were engineered by Fra Giocondo, another Italian who had come with Charles VIII. One of the few remains at Blois is the small prayer chapel that stands on the southeast side of the Queen's Garden.

The highest level, the King's Garden, was a large potager that supplied the King's table. Henry II (1547-1559) ornamented this garden with a pergola.

After Henry II, Blois and other chateaux in the Loire Valley were forsaken as the court moved to Paris and the center of political activity. Now only the buttress walls and the tiny chapel remain at Blois. Blois illustrates the struggles of change from medieval, cloistered garden spaces, that provided charm and quiet intimacy, to a more expansive Renaissance concept in which man confidently ordered nature. The larger garden spaces, the terracing and retaining walls, and the engineer-

Blois

Blois, France
1498-1515

ARCHITECT: *Francois Mansart*
LANDSCAPE ARCHITECT: *Pasello da Mercoglian*
WATER ENGINEER: *Fra Giocondo*
CLIENTS: *Louis XII, Francis I*

LAT: 48° N LONG: 1° E ALT: 340 feet
CLIMATE: *temperate, mild summers, cold rainy winters*
PRECIPITATION: *27 inches per year*
TEMP: *high 68° low 36° mean 52° F*

SITE: *on a hill above the mature Loire River valley; maximum change in elevation of 50 feet*

Tours, France
c.1532

CLIENT: *Jean Le Breton*

LAT: 47° N LONG: 1° E ALT: 300 feet

CLIMATE: *temperate, warm summers, cold rainy winters*

PRECIPITATION: 25 inches per year

TEMP: high 68° low 36° mean 52° F

SITE: 12 miles from Tours in the Loire River valley on a flat site facing the Cher River with a steep hillside beside the chateau

ing of water at Blois, all indicate the growing confidence of the French elite in man, the master designer. This confidence would one day produce a Le Nôtre and a Versailles.

Villandry, situated in the Loire valley near Tours and the River Cher, is a fine reconstruction of a 16th century chateau and gardens. In 1532, Jean Le Breton, Francis I's secretary of state, bought the estate. He had the medieval donjon linked to a Renaissance building to form the chateau and had the gardens laid out. During the 18th and 19th centuries the moat was filled in and the gardens succumbed to the English park style. Early in the 20th Century, Dr. J. Carvallo acquired the estate and, based on engravings by Androuet Du Cerceau, reconstructed the gardens and chateau as they were conceived by Jean Le Breton.

The chateau lies beside a hill on which there are three levels of gardens, each of a very different character. The upper level consists of rows of square-clipped trees, an orchard and vineyards. A large shallow pond called "the mirror" lies here, and serves as a reservoir to irrigate the gardens below by way of a canal that flows into the moat around the chateau.

The middle level contains the formal gardens which are laid out at right angles and intersected by the canal. These gardens are composed of designed box, spiralling topiary and gravel walks, with a maze at one end and a Gothic inspired Garden of Love at the other end, near the chateaux. The Garden of Love has four large squares, each symbolizing a kind of love. L'amour tendre is symbolized by box motifs of hearts and flowers; l'amour tragique is symbolized by beds shaped like daggers filled with red roses; l'amour volage, fickle love, is symbolized by stylized butterflies, chrysalids and folded love letters; l'amour folie is symbolized by 12 hearts filled with varicolored flowers, spinning like a pin wheel.

The lower level of gardens is the potager, composed of herb and vegetable plots that once furnished everything from onions to artichokes. The herbs and vegetables are laid out with special attention given to the varying shades of green to create subtle designs. Fruit trees grow against the sun-warmed walls of the garden, and rose-covered bowers arch over the main path intersections.

Fontainebleau lies about 38 miles south southeast of Paris near the Seine and is surrounded by nearly 60,000 acres of beautiful forest land. It was a favorite retreat of many French rulers from Francis I (1515-1547) to Napoleon (1814). Changes and additions were made by several kings, displaying Italian and English influences as well as the contemporary French styles.

From the 12th century, Fontainebleau was the site of royal hunting and recreation grounds, but major innovations were begun by Francis I. A large pond was made out of the marshland south of the chateau, and carp are kept today in this Etang des Carpes. Two banks were formed by the excavated earth on either side of the pond. On the west bank a promenade of pines was planted, called Jardin des Pins, with a formal garden of herbs and flowers in knotted designs beyond. The other bank was less formally planted. At one end of Jardin des Pins, within the walls of the chateau, is an arcaded grotto ornamented in the Italian style with columns and human figures. To the north, and a little below the chateau, was a detailed formal parterre surrounded on three sides by a moat with a Diana statue and a central fountain.

Henry IV (1589-1610) made several significant changes at Fontainebleau that further integrated the gardens. A large formal garden on a platform was built in Etang des Carpes and farther out a pavilion retreat. The garden with the Diana statue was made into an enclosed garden with galleries on three sides. On the fourth side an aviary was constructed in the Italian style with tall trees and shrubs and copper wire roofing. Also in the Italian style, statues were placed in the garden for ornament. For improved viewing, the central parterre was completely surrounded by raised terraces. In addition, the east bank of the Etang des Carpes was laid out as a large elevated parterre with a central canal and a statue of Father Tiber on a rock in the middle.

During the reign of Louis XIV (1643-1715) an orangery was substituted for the aviary in the garden with the Diana statue, and the king had his and the queen's initials cut in the box on the grand parterre. Under the sure guidance of Le Nôtre, the canal on the grand parterre was filled in, and originating with a cascade falling from the large elevated parterre, a new long canal was made that extended eastward into the park. Not only did the canal serve to unify the park with the rest of the grounds, but it opened a dramatic vista.

Fontainebleau

Fontainebleau, France
1530 and after

ARCHITECTS: *Gilles Le Breton, Philibert de l'Orme*

LANDSCAPE ARCHITECT: *André Le Nôtre*
CLIENTS: *Francis I, Henry II, Henry IV, Louis XIV*

LAT: 48° N LONG: 3° E ALT: 275 feet

CLIMATE: *temperate, warm summers, cold rainy winters*

PRECIPITATION: *33 inches per year*
TEMPS *high 67° low 36° mean 51° F*

SITE: *38 miles south southeast of Paris, near the Seine, in a large forest with a stream running through*

Tuileries

Paris, France
1563 and after

LANDSCAPE ARCHITECTS: *Claude Mollet, Jacques Boyceau, André Le Nôtre*
CLIENTS: *Catherine de Medici, Henry IV, Louis XIV*

LAT: 49° N LONG: 2° E ALT: 200 feet
CLIMATE: *temperate, in a border area between harsh continental climate and more temperate coastal climate resulting in very unpredictable weather all seasons*

PRECIPITATION: *24 inches per year*
TEMP: *high 66° low 36° mean 51° F*

SITE: *flat, in the heart of Paris, bordered on the south by the Seine; maximum change in elevation of 20 feet*

The Revolution found Fountainbleau reft of furniture, but Napoleon I refurnished the chateau. It was here in the Cour du Cheval Blanc (White Horse) in 1814 that Napoleon signed his abdication and said farewell to his guards before leaving for Elba. In memory of this event, the Cour du Cheval Blanc is now also called the Cour des Adieux.

During the 15th century, the city's refuse was left on the north bank of the Seine where the people of Paris now enjoy the Tuileries gardens. One of the chief attractions of this urban garden, with its long and varied history, is that it is so alive and fully appreciated.

In 1563, Catherine de Medici bought some of the Tuileries land so she could build an Italian style garden to compliment her new castle. The gardens, enclosed by a wall, were stiff and uninvitingly separate from the castle. The highlight was a grotto made by Bernard Palissy, a potter whom Queen Catherine patronized. Palissy worked with lively glazes of purple, blue, green and a mottled tortoise shell brown. Water spurted from ceramic animals along the edge of pools that were decorated on the sides and bottom with colorful fish, coral and seaweed. Animated translucent glazes were achieved by doing the actual firing in the grotto. The grotto was on an island approached by enameled bridges. This, and other grottos that were thought to exist, were destroyed when Henry IV (1589-1610) made changes in the garden.

One of Henry IV's finest additions was the raised mulberry walk around the garden. Du Perac had returned from Italy in 1582 with the idea that the parterre must be treated as a whole rather than as separate entities; the raised walk enabled the visitor to see the complete pattern of parterres. Claude Mollet, the king's chief gardener, executed the graceful curvilinear parterres de broderie designed by Jacques Boyceau for the Tuileries. These intricate, low relief designs were thought more natural than the geometrical, squared parquets they replaced.

Important and lasting changes were effected during the reign of Louis XIV (1643-1715) by André Le Nôtre who was landscape gardener at the Tuileries, as had been his father and grandfather. Le Nôtre lived in a small house in the gardens and made changes there from time to time throughout his successful career. Here he proved himself as equal a master of the urban vista as he was with the rural vistas so dramatically

evident in his country garden plans. He is responsible for the beautiful vista down the Grande Allée, which now extends from the Arc du Carrousel between two wings of the Louvre in the modern part of the Tuileries, past two fountains, to the Place de la Concorde, and then on down the Champs-Élysées to the Arch de Triomphe. To make the ground seem more level, Le Nôtre built two longitudinal terraces of unequal height. The elevated terrace along the Seine commands other fine views of the river, the Louvre and the gardens themselves.

The tree lined Grande Allée through the Tuileries is flanked by cool lawns with flowering shrubs and trees and is ornamented with statues and fountains. A ditch and balustrade that once separated the part reserved for royalty, near the palace, from the public part still divides the lawns. It is impressive to remember that when Louis XVI fled from the Tuileries during the Revolution in 1792, 600 of his Royal Swiss Guards were massacred in these gardens where nannies now rest and children play.

Vaux-le-Vicomte is a refined achievement in 17th century French gardening, conceived and spurred to completion by Louis XIV's Superintendent of Finances, Fouquet. Three villages were displaced and the course of a river altered to prepare this garden intended as a huge theater for grand fêtes, including everything from poetry readings to firework displays.

The success of the chateau and garden can be attributed to the sure hands of landscape designer André Le Nôtre, architect Louis Le Vau and interior decorator and painter, Charles Le Brun. Within the spirit of discipline of the time, evident in the symmetry of the plan, these artists incorporated the variety and interest necessary for a grand showplace. In spite of the size of the grounds, Le Nôtre effected a sense of theater by giving special attention to the perimeter of the garden proper. The view, from a vantage point on an elevated terrace to the north of the chateau, was halted on both sides by dense foliage and directed down a long vista where it was again terminated by a natural hill and more foliage. This central axis, emphasized by a broad promenade between a chain of parterres, was firmly stopped by a wide, unpassable canal, a grotto with a Hercules statue and a falling column of water on the hill.

Vaux-le-Vicomte

24

Melun, France
1650-1661

ARCHITECT: *Louis Le Vau*
LANDSCAPE ARCHITECT: *André Le Nôtre*
CLIENT: *Nicolas Fouquet*

LAT: 48° N LONG: 3° E ALT: 175 feet
CLIMATE: *temperate, warm rainy summers, cold rainy winters*
PRECIPITATION: *33 inches per year*
TEMP: *high 66° low 36° mean 51° F*

SITE: *33 miles south southeast of Paris on a wooded, gently sloping site; maximum change in elevation of 50 feet*

The chateau is approached by a drive through a park that opens into a wide oval entrance court, flanked by the kitchen, stables and vegetable gardens. The chateau with its high slate roofs is surrounded by a moat, and on the garden facade a majestic staircase leads down from an elevated terrace offering an immense view of the foliage framed gardens, fountains and statues.

There are parterres to either side of the chateau, but they are not so elegant as to distract from the parterre de broderie to the north. The promenade leads through the intricate parterres to a circular basin with a high jetting fountain, then down a few steps across two narrow transverse canals. On either side of the watery road through this slightly lower parterre are large oval basins with fountains, surrounded by lawn edged with flowers and more fountains. The water converges in a large square basin on axis and falls from a lovely surprise cascade, not visible from any previous point due to the drop in levels, into a wide canal. Across the canal is a fine grotto with statues in seven shell-shaped niches of the sandstone facade. This serves as a retaining wall for the terrace above that leads to the Hercules statue. From this point on the hill is another grand vista back toward the chateau.

On either side of the open gardens, bosquets were developed for shady pleasure walks. Fountains and statues were placed here, and to the west of the large square basin is a confessional.

In August 1661, Fouquet gave a grand reception for Louis XIV in the chateau and gardens. The King was unable to tolerate the grand style of living that Fouquet afforded himself in this unparalleled estate created at Melun. Nineteen days after the reception, Fouquet was imprisoned, his property confiscated, and the artists of Vaux taken into the service of the King to create an even grander display at Versailles. Although Fouquet was sentenced to life in prison, his wife was able to recover Vaux. At the death of their son the chateau was purchased by Maréchal de Villars and it survived the Revolution without much damage. Vaux was acquired in 1875 by sugar magnate M. Sonmier, who worked on the restoration of the chateau and grounds.

Although Vaux-le-Vicomte was superseded in size and grandeur by Versailles, it has a sense of unity and perfection never achieved there. Due to the proximity of the Seine, free use of water was made in the

gardens at Vaux, while the problem of an adequate water supply was never solved at Versailles.

Versailles was built by Louis XIV (1643-1715) to flatter his vanity and glorify his position as one of the greatest monarchs of France. Spurred by envy of Fouquet's elegant estate at Vaux-le-Vicomte, Louis XIV commissioned the artists of Vaux (Le Nôtre, Le Vau and Le Brun) to create a grander, more splendid display at Versailles. Louis' restless nature never allowed him to remain content and throughout his reign he continually ordered alterations and extensions at Versailles. Louis even wrote a guidebook to help his visitors find their way around his large, complex grounds.

The site of Versailles was a marshy, forest land where Louis XIII had built a hunting lodge. Because Louis' intent was to build a grand showplace in which to display his wealth and power, the palace at Versailles was actually developed to house the audience for his theater garden, rather than the gardens being created for the palace. Later a town was built to further compliment the complex.

The general concept of the garden was similar to Vaux-le-Vicomte but on a larger scale. The gardens are laid out on a generally east-west axis that bisects the palace facade and is reinforced and extended by the Grand Canal that reaches toward the horizon. Both sides of the garden theater are dense with the foliage of shady boskets which direct the eye to a seemingly infinite vista. The effect is overwhelming, quite as Louis XIV and Le Nôtre intended. Unity of this expansive complex is achieved by the precise geometry so characteristic of Le Nôtre's work. The ornamentation of the garden is more loosely united through its symbolic expression of the theme of the sun, evidenced in the basin of Apollo critically situated on axis at the end of the formal gardens and the beginning of the grand canal.

The approach to Versailles from east is dominated by the imposing palace, worked on by Le Vau (1668), and later Jules Hardouin-Mansart (1678). This palace once housed the Court of Louis XIV, consisting of 1,000 lords, 4,000 servants and at least a 1,000 temporary resident who came to hover round the luminaries.

Versailles

Versailles, France
1661-1715

ARCHITECTS: *Louis Le Vau, Jules Hardouin-Mansart*

LANDSCAPE ARCHITECT: *André Le Nôtre*

CLIENT: *Louis XIV*

LAT: 49° N LONG 2° E ALT: 450 feet

CLIMATE: *temperate, warm rainy summers, cold rainy winters*

PRECIPITATION: *24 inches per year*

TEMP: *high 66° low 36° mean 51° F*

SITE: *12 miles west of Paris on marshy, wooded lowland*

25

a & b

The west facade of the palace opens onto the formal gardens that extend slightly sloping for about $\frac{3}{4}$ mile to the Apollo basin and the mile long Grand Canal. These exposed parterres were usually flooded with sunlight and stood in contrast to the bordering bosquets harboring shady outdoor rooms.

South of the palace lies the flower-filled parterre du Midi. One level lower is the orangerie, designed by Le Nôtre and executed by Mansart, and decked during the summer with potted citrus trees, pomegranates, jasmine and oleanders. Further south is la Pièce des Suisses, a lake carved out of swampy land by a regiment of Swiss Guards, many of whom died of malaria. The excavated earth formed a vegetable garden.

West of the palace lies a water parterre, with pools and statues symbolic of the rivers of France. A horseshoe-shaped stairway leads down to the fountain of Loatna, and beyond this extends the Tapis Vert framed by rows of trees and terminated at the transverse Allée Apollon at the Basin of Apollo.

The vista to the north of the palace was the last to be developed. Tampering with perspective, Le Nôtre disguised the sharp slope of the gardens by making the distant beds smaller and lower than the near ones and by making the long sides of triangles face the chateau. The vista is terminated by the basin of Neptune and, unusual for Versailles, a grille through which the surrounding country can be seen.

The bosquets that surround this formal part of the garden contain open air theaters, music halls, ballrooms and small pavilion retreats, as well as many fountains and statues.

No price was too high, and no problem too difficult for Louis XIV when he wanted something done at Versailles. Flowers were imported from all over Europe. Trees were brought by oxcart from the distant provinces of France, but most of them died. The greatest efforts of all were those made to supply the gardens at Versailles with water. Countless francs and man-hours were spent on various water producing schemes including wind mills and horse mills that drained the water table for miles around, constructing a great pump at Marley to raise water from the Seine, and the beginning of an aqueduct-canal 23 miles long. The water problem was never solved, however, and when Louis XIV and his Court walked through the gardens, the fountains were turned on, and then turned off again after he passed.

Beyond the north end of the Petit Canal, which intersects the Grand Canal, lie the royal retreats, the Trianons. The Grand Trianon, built in six months by Mansart in 1687, has a lovely park where Louis XIV grew Mediterranean flowers and a chestnut grove. A little to the northeast is the Petit Trianon built for Louis XV by Gabriel in 1762, with gardens on the north in the English park style. Louis XVI gave the Petit Trianon to Marie-Antoinette who went there almost every day to escape court etiquette and intrigue.

Louis XVI was the last French sovereign to live at Versailles. During the Revolution the palace was deserted and ransacked. Threatened by demolition, Louis-Phillippe (1830-1848) paid 23 million francs to have Versailles converted to a museum to commemorate the glories of France. After World War I, with aid from J. D. Rockefeller and the Ministry of Fine Arts, a complete restoration was undertaken. Today the main palace and gardens are maintained by the French government as a museum, and the Petit Trianon has been restored to serve as lodgings for guests of the state.

The gardens at Hellbrunn happily display the elaborate extremes of the Baroque era. Grottos, water tricks and strangely shaped pools abound. Italian, French and English characteristics are combined with abandon, some due to changing styles of the times, others apparently just for the sake of variety.

The impressive approach to the castle extends down a long tree lined avenue terminated by a forecourt. The gardens are related to the house so that they may be visually enjoyed from many of the castle windows. Grottos on the ground floor of the castle further integrate it with the grounds.

Directly beyond the castle is a cascade of water that falls over three tiers from a semi-circular theater above to a sunken star-pond below. Leading off to the west of this water theater is a grottoed walk that follows a small canal to the major water parterre. The numerous grottos along this walk exhibit a wide variety of statuary, waterplays and automata. There is a rain grotto, a mirror grotto, and a grotto that harbors a dragon that comes out of a hole, drinks water from a fountain, then disappears again.

Hellbrunn

Salzburg, Austria
c.1613

ARCHITECT: *Santino Solari*

CLIENT: *Marcus Sitticus von Hohenems*

LAT: 48° N LONG: 13° E ALT: 1450 feet

CLIMATE: *temperate, moderate summer, severe winter with snow*

PRECIPITATION: *51 inches per year*

TEMP: *high 64° low -2° mean 47° F*

SITE: *3 miles east of Salzburg in low hills, little change in elevation on site*

Belvedere

Vienna, Austria
1693-1723

ARCHITECT: *Lukas von Hildebrand*
LANDSCAPE ARCHITECT: *Francois Girard*
CLIENT: *Prince Francis Eugene of Savoy*

LAT: 48° N LONG: 16° E ALT: 550 feet
CLIMATE: *temperate, warm summers, cold winters with snow*
PRECIPITATION: *30 inches per year*
TEMP: *high 65° low -2° mean 48° F*

SITE: *before sloping hills in suburban Vienna; maximum change in elevation of 30 feet*

The large water parterre consists of four basins set in small borders of lawn. The two larger basins have unusual shapes and nearly enclose a rectangular area containing a formal French garden parterre, probably added later, and a summer house perched on a round hill approached by 30 steps.

The grounds to the east of the castle are best preserved as they were originally. Three connecting basins lead from the castle to a semicircular theater. Here there is a stone table that gives forth drinking water surrounded by ten seats that squirt water on anyone who attempts to sit down.

Hellbrunn has gone through many changes and has incorporated features from many styles, such as the Italians playful use of water, the French formal parterre and the English park. Yet the gardens maintain the distinct character given them by Marcus Sitticus, Prince Archbishop of Salzburg, and his Italian landscape designer, Santino Solari. Sitticus, the Crafty, began the gardens within a year of the overthrow of his uncle, Wolf Dietrich. The work was completed quickly. Italians might look down upon the lack of sophistication at Hellbrunn, but Sitticus and his guests found delight and amusement in the gardens.

When the Turks were finally turned back in Austria in 1683, it became safe for the nobility to move out of Vienna and gardening began anew. A type of suburban villa developed around Vienna that was chiefly used for holiday retreats and grand fêtes. Many of the gardens were like large outdoor rooms, and were confined rather than extended into parks.

Prince Eugen of Savoy, who prospered as a hero of the Turkish wars, bought some land south of Vienna in 1693. Belvedere was laid out here in front of gently sloping hills with a view toward the towers of Vienna.

The two major parterres and boskets are laid out between the castle and the dwelling house, which confine the gardens at either end. Approached by a grand avenue from the city, the castle looks out over the upper parterres, which form an exposed formal area that was often used as a gigantic dining hall. The parterres are surrounded by a narrow elevated terrace on a level with the castle entrance, and tall hedges and Hermae line the walls. The large upper parterre is connected to the

more simple lower parterre by shallow steps on either side of a beautiful water cascade decorated with water jets and sculpture.

Lower still, and near the dwelling house designed by Hildebrand, are four boskets of hedge and lawn, with avenues of chestnut between. These two contrasting areas, the formal parterres near the castle and the shady boskets near the house, are easily united by a large cascade with grand stairs on either side.

On one side of the castle, but out of view from the grand approach, are the kitchen gardens and menagerie. On the north end of the dwelling house is a terraced orangery, with pretty pavilions and arched trellises. Other areas of shady retreat were designed to fill out the odd shape of the estate.

The Prince never lived in the castle proper so that the elegant entrance gates were opened only on grand occasions. One such occasion, reportedly, was a masked fête held at Belvedere in 1700. In order to accommodate 6,000 dancers in the great dining hall of the upper formal parterre, some 17,000 yards of linen was purchased and painted to cover the area. The Prince of Savoy died in 1736, but the imperial family acquired the estate and continued to hold grand fêtes there.

Drottningholm, situated on an island in Lake Mälaren, is typical of many Swedish castles that owe much of their charm to the surrounding expanse of water. The gardens at Drottningholm, however, are clearly dominated by the French style.

During the mid-seventeenth century, Queen Christina of Sweden greatly encouraged French ideas in her country. She employed in her service André Mollet, third generation of the renowned French gardening family. Mollet, his writings, and engravings of gardens from France, all had a strong impact on the 17th Century Swedish garden.

In 1661, Hedwig Elenora found the medieval castle of Drottningholm and immediately began alterations and extensions of the castle and its grounds. The castle stands on a raised terrace and is approached by water through an oval-shaped harbor. The garden is laid out to the south behind the castle. A strong resemblance to Versailles is evident in this plan. Other characteristics of the French garden, including those

Drottningholm

Lake Mälaren, Sweden
c.1661

CLIENT: *Hedwig Elenora*

LAT: 59° N LONG: 18° E ALT: 30 feet
CLIMATE: subarctic, cold, 4 months of below freezing weather with snow, limited sunshine: 1 hour in winter, 8 hours in summer

PRECIPITATION: 12 inches per year
TEMP: high 62° low 27° mean 42° F

SITE: on part of an island in Lake Mälaren 20 miles west of Stockholm, relatively flat; maximum change in elevation of 20 feet

adopted from the Italians, are obvious as one walks south from the castle.

The first parterre is done in patterned box and bordered by clipped trees and flowers. Central steps lead up to a Hercules fountain. The second parterre, a bit lower, is a water parterre featuring four round and four oval basins and fountains. Beyond the water parterre are elaborate bosquets. To the east of the water parterre is a water road, oval basin, and cascade that blocks the view. At the southeastern extremity is a menagerie laid out in concentric circles. To the west of the water parterre is a large pond with an island, and beyond this to the south is a deer park cut through by straight paths.

During the second half of the 18th century the gardens at Drottningholm were again given special attention. Louisa Ulrica, sister of Frederick the Great, was responsible for the work and had a small Chinese garden added. However, the island site remains the most Swedish characteristic of the Gardens at Drottningholm.



ENGLAND

Hatfield House

Hertfordshire, England
1607-1640

LANDSCAPE ARCHITECT: *Montagu Jennings*
HYDRAULIC ENGINEER: *Solomon de Cruss*
CLIENT: *Robert Cecil*

LAT: 52° N LONG: 0° ALT: 150 feet
CLIMATE: *temperate, moderate summer, cool winter, rainfall evenly distributed throughout year, fog and mist, meager supply of sunshine*
PRECIPITATION: *24 inches per year*
TEMP: *high 64° low 38° mean 52° F*
SITE: *20 miles north of London, generally flat*

Hatfield House was in the domain of the church from the tenth century until the mid-sixteenth century, when in 1538, Henry VIII transferred the property to the royal holdings. The house was the favorite residence of various sovereigns until James I, who was desirous of the estate of Robert Cecil, Earl of Salisbury. A trade was effected, and Cecil immediately began the present Hatfield House and gardens.

The present house, started in 1607, is a period mansion of three wings, with a closed court in front featuring trellis work, balustrades and a broad entrance path with grass plots on either side. A bishop's palace that had been on the site since the 15th century was converted into stables. Hatfield House has remained in the hands of Cecil's descendants.

The site is relatively flat and uninspiring and the sharp seasonal changes are not conducive to variety in planting. Therefore, special effort was made to make the gardens interesting. The water engineer, De Cruss, diverted a stream to bring water to the estate, and Lord Salisbury sent his Dutch gardener, Tradescant, abroad to Holland, Belgium, France and Italy to collect fruits and flowers for the garden.

The western section of the gardens best retain their old character. Clipped limes enclose one 250 foot square and overhang the "lime walk". In the center is a parterre defined by a low hedge with a beautiful fountain. In front of the stables is a small rose garden.

The gardens to the east of the house are newer. Next to the house is a formal garden parterre in the French style. Further east is a bowling green, a sunken maze of yew, taller than man, and an Italian-like water garden.

The gardens were more extensive in their day, and Lord Salisbury also cultivated a fine vineyard and imported mulberry trees. The mansion and patterned gardens are a good example of the early 17th century English country estate.

Blenheim

Woodstock, Oxfordshire, England
1705-c.1750

ARCHITECT: *Sir John Vanbrugh*

Queen Anne, with the consent of Parliament, gave the estate of Blenheim, formerly Woodstock Manor, and £240,000 in public funds for construction, to the Duke of Marlborough for his victory over the French and Bavarians in 1704. The palace was begun in 1705, but because of heated disagreements between the Duchess of Marlborough and architect Vanbrugh,

the palace and gardens were not completed until after the Duke's death in 1722. The documentary evidence is sketchy and contradictory, but at least five landscape architects worked on the garden park at Blenheim over a period of forty years.

The palace itself is an elegant, imposing building. The north front looks out over a gentle valley and a large Palladian bridge of 33 rooms, designed by Vanbrugh, that was grossly out of proportion with the small stream it spanned. Beyond the bridge there extends a grand avenue lined with cedar and oak. These trees were planted to represent the arrangement of the troops at the battle of Blenheim.

The south front of the palace overlooks a huge parterre that was designed by Henry Wise. The parterre is dominated by straight intersecting axes, but some attempt toward freedom and naturalness is evident in the curving walks of the side parterres. Boskets cut with diagonal walks lay to the east and west of the formal gardens. East of the palace was Vanbrugh's straight tree-lined side approach. Other notable features were a ha-ha, probably designed by Bridgeman, an ancient well on the north side of the lake called Fair Rosamond's Well, a Temple of Health, a Temple of Diana, and the ruins of the old manor.

The palace grounds did not take on the character of the English park style until they came into the hands of Lancelot "Capability" Brown some forty years later. One of Brown's major changes was to achieve some degree of harmony between Vanbrugh's gigantic bridge and the landscape. This was done by damming the stream so that it flooded the little valley and the lower rooms of the bridge. Consequently, the bridge looked lower and the span over the water was wider. Upstream were cascades and an island.

Brown did away with the tight parterres, grand avenues and boskets, features that had been adopted from Italy and France. The lawns were extended to the base of the palace, quite in keeping with the current English landscaping ideals of simplicity and integration with the countryside. Brown also had a variety of trees planted on the grounds to make the pastoral scene more complete.

Alterations did not terminate with Brown, however. The grand approach was replanted by the ninth Duke of Marlborough in 1905, and in the 1920's André Duchene designed formal terraces and a water parterre

LANDSCAPE ARCHITECTS: *Henry Wise, Charles Bridgeman, William Chambers, Stephen Switzer, Lancelot "Capability" Brown*

CLIENTS: *Duke and Duchess of Marlborough*

LAT: 52° N LONG: 1° W ALT: 200 feet

CLIMATE: *temperate, moderate summers, cool winters with snow, rainfall evenly distributed throughout the year, fog and mist, meager supply of sunshine*

PRECIPITATION: 25 inches per year

TEMP: high 64° low 38° mean 52° F

SITE: *on the western edge of the town of Woodstock on a plateau among rolling hills; maximum change in elevation of 75 feet*

Chiswick

Brentford and Chiswick,
Middlesex, England
1717-1729

LANDSCAPE ARCHITECTS: *Charles Bridgeman, William Kent*
ADVISOR: *Alexander Pope*
CLIENT: *Lord Burlington*

LAT: 51° N LONG: 0° ALT: 75 feet
CLIMATE: *temperate, moderate summers and winters, some snow, rainfall evenly distributed throughout the year, fog and mist, meager supply of sunshine*
TEMP: *high 64° low 38° mean 52° F*

SITE: *several miles west of London, now suburban, near the Thames River*

for the east front of the palace. It is difficult to recreate the original Blenheim, but the landscaping activity that took place in 18th century England is evident in the work done here.

The Palladian Villa and gardens at Chiswick were conceived by Lord Burlington after his return from Italy in 1715. Lord Burlington was an architect and a connoisseur of the arts who sponsored William Kent as decorator, designer and student of Italian classicism. Kent was Lord Burlington's chief designer at Chiswick, but the advice of Charles Bridgeman and Alexander Pope also influenced the development of the gardens.

The gardens at Chiswick were transitional gardens struggling to break from tight geometrical patterns into a more natural gardening style. Some of the attempts to create easy, free flowing design appear contrived, such as the paths that meander whimsically in the gardens. Though the gardens never achieved the success of an English landscape garden, the prime location near London made Chiswick popular and influential in its day.

The gardens which extend north from the villa are divided by the main axis or "Grand Allee". The more formal gardens on the western side of the Allee are attributed to Bridgeman, and the eastern, more picturesque gardens to Kent. The Grand Allee is defined by rows of giant cedars of Lebanon interspersed with statues and stone vases. An exedra, adorned with statues and hedges, terminates the vista. Pavilions also terminate the secondary avenues that extend from the center of the Grand Allee to the northeast and northwest.

Immediately west of the Grand Allee is a broad grass walk bordered with evenly planted trees that leads to a semicircular alcove, the "Poet's Corner." Here are statues of Caesar, Pompey and Cicero and marble seats that were brought from near Rome. Other formal features of this western section of the gardens are the parterre near the villa and the three ponds. Two rectangular ponds set in ornamentally trimmed grass and hedges are near the banks of the river. A circular pond, with an obelisk in the center, is on a higher level in an amphitheater arrangement. A domed temple stands to the southwest of this pond, and terraces that were once planted with orange trees slope up to the northeast.

While the southern portion of the eastern section of the gardens are dominated by a linear plan, the northern areas have a looser order. The hedges are unclipped, there are few flowers, and the gravel paths meander between clumps of trees and shrubs. The attempt is to achieve a nature-like effect.

On the west side of the man-made river and lake, which are fed by a stream that eventually flows into the Thames, the gardens come even closer to simulating nature. Across the fine classical bridge, avenues branch out in three directions and grass paths lead off into the woods, among dense foliage and open spaces.

Since the days in the 18th century when Chiswick was at its height of fashion, the gardens have become continually more overgrown. Many paths are indistinguishable, the round pond over-run with flowering plants, and perspectives cut off by wild vegetation. Much of the statuary was removed by the Duke of Devonshire to his Chatsworth estate. Suburbia has now encroached on the boundaries of the gardens that once looked out over sweeping fields to the north. Chiswick was the home of the horticultural society during its first 100 years until 1904. What is left of these historically significant gardens are now maintained by the Ministry of Works and open to the public as a park.

Work was begun at Stowe in 1713 for Sir Richard Temple, later Lord Cobham. Extensions and alterations continued over a period of more than forty years under the guidance of several architects and landscape architects. It is often difficult to determine who made what contribution, but as a rough outline: Vanbrugh (d. 1748), and Bridgeman (d. 1738) began at Stowe, Kent (d. 1748) came in 1734, and Brown (d. 1783) began work on a large scale about 1750.

As laid out by Bridgeman and Vanbrugh, the gardens were tight compared to later alterations but freer than the conventional, enclosed, patterned gardens. The main north-south axis ran from the house at the north through a straight avenue of trees to an octagonal pond on the south. To the west of the pond was a French-style ornamental lake for boating with a vista to the north to Vanbrugh's Rotunda. On the far western corner of this the more formal half of the estate were Vanbrugh's Boycott Pavilions, so called because they replaced a hamlet of that name. The eastern half of the gardens were freer in plan and included a

Stowe

Buckingham, Buckinghamshire,
England
1713-c.1760

ARCHITECTS AND LANDSCAPE ARCHITECTS:
Sir John Vanbrugh, Charles Bridgeman, William Kent, Lancelot "Capability" Brown

CLIENT: *Sir Richard Temple*

LAT: 52° N LONG: 1° W ALT: 250 feet
CLIMATE: temperate, moderate summers, cool winters with snow, rainfall evenly distributed throughout year, fog and mist, meager supply of sunshine
TEMP: high 64° low 38° mean 52° F

SITE: north of London, 2 miles from Buckinghamshire across rolling park, Ouse River runs through site

meandering watercourse and natural groupings of trees.

Here at Stowe, Bridgeman introduced two outstanding characteristics of the English landscape park: the ha-ha and the belt. The ha-ha was a sunken fence or wall that separated the countryside and the livestock from the pleasure park, and yet did not obstruct the view. This achieved a visual integration between the park and the landscape beyond. The belt was an often irregular row of trees that surrounded a garden, or a part of it, thus forming a walk or drive around the perimeter and enhancing the inward view toward the grounds and house. Another feature of the 18th century English landscape garden that was used by Bridgeman at Stowe was the termination of open avenues with classical architectural "eye catchers."

Kent's major innovation was the creation of two large irregular lakes in place of the ornamental boating lake and the octagon pond. These were fed by a stream called the "River Styx" that sprung forth from a grotto north of the Octagon Lake. The avenue of trees on the north-south axis was partially broken up and consequently the Octagon Lake became the focal point of the vista across a broad lawn on the south front of the house. The larger, western lake was dominated on its southern edge by the Temple of Venus, designed by Kent. Kent added other temples, monuments, pavilions and bridges totaling thirty "eye catchers." These ranged from the Temple of British Worthies housing the busts of twelve famous men at Elysian Fields near the River Styx, to the hut or witch-house painted inside with frescoes by the family butler.

"Capability" Brown completed the idealization of the landscape garden at Stowe. Brown was originally the kitchen gardener at Stowe and probably was influenced by the landscape architects who preceded him. He usually improved upon gardens already begun and thus earned his name by taking advantage of the "capabilities of improvement" of a project.

At Stowe, Brown gave more natural movement to the lakes and rivers by breaking up the banks with curves and streams. All traces of formality were removed by eliminating all regular forms and planting many trees. Brown's achievements were to soften the landscape garden by unifying the various areas and incorporating the architectural features. His simplifications resulted in the ultimate sophistication of the English park style of gardening.

The gardens at Stowe were the most talked about gardens in mid-18th century England. Few changes or repairs were made during the 19th century. At the end of World War I, the house and grounds were purchased from Lord Buckingham's heirs for a large boys boarding school. There has been little upkeep since. Some of the architectural monuments have been destroyed while others are hidden by trees and shrubs. The ideal harmony between the buildings, grounds and countryside has been lost.

Stourhead is the first true English landscape garden, and remains an outstanding example of this style. The gardens are essentially the creation of Henry Hoare (d. 1785) who took over the estate in 1740, after the death of his father, Henry Hoare, Sr. and his mother. The estate lies in the southwest corner of the green, hilly Salisbury plain near the Stour river.

The site is cupped in folding hills, with the Palladian villa by Colin Campbell on a slight rise on the northeast edge. On the valley floor Hoare created an irregular lake of 20 acres by damming the Stour River at the southwest corner of the estate. This three-armed lake is the focal point of the garden-park, and all the walks, views and architectural features are planned around it.

The walk around the lake consists of a sequence of carefully composed views in the manner of paintings by Claude. Fir and beech trees were carefully planted along the shore to frame the scenes across the lake, usually focusing on a classical building or architectural object. Special efforts were made to eliminate fuzzy undergrowth so that the scenes would maintain idealized classical purity and the reflections in the water would be clear. The planting consists chiefly of earth, water and sky colors, such as greens, browns, blues and greys, rather than brilliant colors that would jar the pastoral mood. The walk moves naturally around the undulating banks of the lake, its curves quite uncontrived.

Entering the garden at the east gate by the Bristol Cross, one descends through the hedges of laurel trees to the path along the lake. Following the path to the northwest, with the lake to the left, one approaches the Temple of Flora with its Doric portico and fine view across the water. Continuing on, there is a higher lake to the north with other ornamental architecture "incidents".

Stourhead

33

Wiltshire, England
1740-1770

ARCHITECT: *Colin Campbell*

CLIENTS: *Henry Colt Hoare, Henry Colt Hoare Jr.*

LAT: 51° N LONG: 2° W ALT: 250 feet

CLIMATE: *temperate, moderate summers, cool winters, rainfall evenly distributed throughout year, fog and mist, meager supply of sunshine*

PRECIPITATION: 30 inches per year

TEMP: high 64° low 38° mean 52° F

SITE: *among wooded hills in the southwest corner of the Salisbury Plain near the Stour River*

The next outstanding feature is the grotto, on the northwest side of the lake, approached by an alley of trees. The grotto is framed by jagged rocks and extends through a tunnel of tufa and flint with holes pierced in the walls and ceilings to create theatrical lighting effects. Inside the grotto there is an icy spring that rises from the Stour River and drips water round a sculptured marble nymph under a domed alcove. There are other statues and an inscription by Alexander Pope in this large, delightful grotto.

One emerges from the grotto into the light and continues on to a rustic Watch Cottage, then a Pantheon, a miniature fashioned after its Roman namesake, by Henry Flitcroft. The walk passes over an iron bridge, with a smaller lake lying to the south, then climbs a hill to the circular Temple of the Sun. The temple is surrounded by dense plantings of beech and fir on the lakeside and the view is directed down across the bridge of five arches to the Temple of Flora, the origin of the walk. A leisurely day could be spent here, strolling, and picnicking at one of the viewing points.

The whole is a perfect picturesque landscape park. Stourhead remains well preserved, although much planting has been introduced that alters the natural tones of the original garden. Many of the fir trees have died and the landscape is now full of rhododendrons and other flowering shrubs, and daffodils in the spring. Henry Hoare built an inn on the east side of the grounds so that visitors might enjoy the park at their pleasure. The inn is there today and the grounds are open to the public.



USA

Mulberry Castle

Oakley, South Carolina
1714-1730

CLIENT: *Thomas Broughton*

LAT: 33° N LONG: 80° W ALT: 40 feet.
CLIMATE: *subtropic, warm humid summers, cool winters, rare snow*
PRECIPITATION: 48 inches per year
TEMP: high 80° low 49° mean 64° F

SITE: 25 miles north of Charleston on a slight hill on the coastal plain along the Cooper River; maximum change in elevation of 35 feet

Mulberry is a fine and well preserved example of a Southern garden plantation. When Mr. and Mrs. Clarence Chapman became owners of the estate in 1915, they hired an architect and landscape architect to do the restoration. Today one can visit the unmolested grounds at Mulberry and see it much as it must have been 200 years ago.

Mulberry was built in the early part of the 18th century, as were many of the garden plantations in the Charleston coastal area, when the cultivation of rice, indigo and cotton was begun. For this low country, Mulberry had an unusually advantageous site on a hill that overlooked a bend in the winding Cooper River. Entrance to the plantation was achieved either by the mainland entrance or by the small canal between the river and the grounds.

The land approach to Mulberry leads eastward down a long drive that is overhung with gnarled live oaks, originally planned by a Scotch gardener. The drive leads around to the front, or south, of the house which landscape architect Briggs embellished with square brick entrance posts, pittosporum hedge and cedar.

The house stands today as it was built by Thomas Broughton in 1714. The fortress-like structure has four flanking towers with iron weather vanes, and the thick brick walls used to shelter neighboring women and children from Indian raids.

To the northeast of the house, on the river side, is a small formal garden rich with violets, jonquils, hyacinths, bluebells and roses and bordered with box. There are small paved terraces at either edge of the formal garden that afford a fine view of the river and a choice of sun or shade on a pleasant day. Two curved paths, lined with azaleas and camellias, lead down the slope to intersect a broader walk that parallels the canal. This canal walk also flaunts a profusion of colorful azaleas in the spring, and soft Spanish moss hangs from the arched oak boughs overhead.

To the south of the house is the lower garden, which is scooped out of the hillside like a small amphitheater. A narrow path from the formal garden leads to a paved terrace, flanked by cedar trees, that overlooks a circle of green grass several steps below. Statue and iron work ornament this open lawn that is surrounded by flowering shrubs. A few descending steps from the grass circle lead to the canal walk. Follow this pleasant walk around the estate along the inner bend of the Cooper River and the tour of charming Mulberry is complete.

The estate of Middleton Place, on the Ashley River near Charleston, was acquired by Henry Middleton through marriage to Mary Williams in 1740. Henry Middleton, later President of the First Continental Congress, sent to England for a skilled landscape gardener to develop the grounds. With the gardener came the French style of André Le Nôtre that was quite adaptable to the flat marshy river site of Middleton's rice plantation. It took 100 slaves nine years to execute the large formal plan.

The house is approached from the west by a long drive flanked by an expanse of green turf and densely planted oaks which direct the view. The drive forms part of the main axis that cuts through the center of the house and extends down a broad walk that is continued, after descending the grassy terraces, between two "butterfly lakes" and from there extends into a view down the Ashley River. The house, with its two wings, is situated to take full advantage of the view across the lawn, sparsely planted with azaleas. The lovely "butterfly lakes" were an ideal transition from the man-made gardens to the surrounding wilderness. Utilitarian as well as tasteful, an artificial waterfall from one of the little lakes operated the adjacent rice mill.

More gardens were developed to the northeast of the house. Outstanding are the octagonal garden, formerly a bowling green; the mount with the magnificent old "Middleton oak"; a flower garden laid out like a wheel, the spokes being paths, with a sundial in the middle; small bosquets; and a long reflecting canal.

From the north end of the canal, an intimate camellia covered walk leads to a small informal pool overhung with flowers. This section, with its cypress and oak draped with Spanish moss, is like a secret garden.

The plantation suffered the ravages of the Revolution, when the British soldiers destroyed most of the statuary, and the Civil War. A fire in 1865 destroyed all of the house but the southern Tudor wing, and in 1882 a violent earthquake left the gardens in ruins. In spite of this, the Middleton family kept extending and improving the gardens and introduced many beautiful flowers with the help of French botanist André Michaux (c. 1785). In 1916, restoration was begun by J. J. Pringle Smith, a Middleton cousin, and today the gardens are open at certain times for visitors.

Middleton Place

Charleston, South Carolina
1740-1749

CLIENT: *Henry Middleton*

LAT: *33° N* LONG: *80° W* ALT: *60 feet*

CLIMATE: *subtropic, warm humid summers, light winters*

PRECIPITATION: *48 inches per year*

TEMP: *high 80° low 49° mean 64° F*

SITE: *10 miles northwest of Charleston, flat coastal plain on Ashley River; maximum change in elevation of 55 feet*

Mount Vernon

Mount Vernon, Virginia
1759-1799

CLIENT: *George Washington*

LAT: *38° N* LONG: *77° W* ALT: *125 feet*

CLIMATE: *temperate, hot summers, cool winters with some snow*

PRECIPITATION: *40 inches per year*

TEMP: *high 79° low 37° mean 57° F*

SITE: *on a gentle slope overlooking the Potomac River; maximum change in elevation of 120 feet*

Mount Vernon, on a lovely site overlooking the Potomac River, belonged to the Washington family from 1674. Not until George Washington settled there with Martha Curtis in 1759, however, did significant garden development take place. With his extensive interest, knowledge, financial flexibility and generous friends, Washington was able to exploit the ideally temperate climate and plant a variety of trees and flowers seldom equalled in colonial days.

George Washington was the chief planner of his home and gardens. The mansion is especially noteworthy for the piazza that extends across the east front and affords a fine view of the Potomac. An enclosed park lies on the gentle slope to the river.

The west front of the mansion faces a circular courtyard that is partially enclosed by outhouses and by covered walkways planted with honeysuckle. The courtyard opens onto an expansive stretch of lawn, the bowling green, that is bordered on each side by a serpentine drive planted with ash, tulip poplar, hemlock, holly, buckeye, boxwood and Kentucky coffee-bean trees. One of Washington's chief concerns was the grading at the west entrance of the bowling green where a ha-ha, a folding gate in a sunken wall, camouflaged the separation between the mansion's pleasure grounds and the plantation beyond. Workmen came from neighboring plantations to carry out this feature, so typical of the English landscape garden, that enabled an unobstructed vista.

For the formal gardens on either side of the serpentine drives, Washington sent to England, Germany, Holland and Scotland for competent gardeners and information about plants and garden styles. The kitchen garden on the south was laid out about 1760 with vegetable beds planted in geometric patterns edged by herbs, with brick and turf paths between. The flower garden to the north was laid out several years later and the greenhouse on its northern edge, for the storage of potted citrus trees and semi-tropical plants, was completed in 1789. The fashionable French parterre de broderie is evident in the low "fleur-de-lis" motif in two parterres in the flower garden. The rest of the garden consists of rose gardens and plantings of flowers edged with box. Evergreens and shrubs screened the kitchen and flower gardens from the serpentine drives. After the Revolution, Washington had each garden enclosed by curving walls which terminated in an octagonal summer house.

While away during the Revolution, Washington instructed his manager about the groves to be planted to the north and south of the mansion. The north grove was planted with locust trees and the south with flowering trees interspersed with evergreens. These groves effected an easy transition between the formal grounds and the surrounding countryside.

Over the years, new and different plants were introduced to this country and Washington purchased many for Mount Vernon. Friends who knew of his gardening interests sent him unusual plants. The great variety of planting and the pleasant blend of formal and informal on the grounds are outstanding achievements.

Mount Vernon began to fall into disrepair when Martha Washington died in 1802, three years after George. Restoration was not begun until 1858 when Miss Ann Pamela Cunningham of Charleston, South Carolina, became outraged at the sad condition of the First President's home. Miss Cunningham organized and incorporated an association that raised money to buy the mansion and grounds and to restore them as they existed in Washington's day. It is due to the continued efforts of this association that Washington's estate is preserved and open to visitors today.

The mission of San Juan Capistrano was founded 45 miles south of Los Angeles in low, fertile hills overlooking a valley to a natural port and the sea. The site was temporarily established in 1775, but an Indian attack in San Diego put off construction until 1776. The mission grew successfully from that time until a disastrous earthquake in 1812.

The padres planned and supervised the construction while the native Indians did the actual work. The large, enclosed patio has unequal sides because it was paced off by the padres rather than measured with surveyor's instruments. In the center of the patio is a small fountain and trees for fruit and shade. A cool arcade of enduring cut stone and hard burned brick surrounds the patio. Off the arcade were various utility areas for food supplies, an olive press, a winery a wine cellar, and shops for soap, shoe, blanket and harness making as well as eating and sleeping facilities for the padres. The long wing off the south of the patio were guest rooms, soldiers' quarters and a powder magazine. The patio garden was the life center of the small community.

San Juan Capistrano

37

San Juan Capistrano, California
1776-1806

CLIENTS: *Padre Junipero Serra, Padre Pablo Mugartegin, Padre Greforio Amurrio*

LAT: 34° N LONG: 116° W ALT: 300 feet
CLIMATE: *subtropic, hot summers, warm winters, seldom freezes*
PRECIPITATION: *15 inches per year*
TEMP: *high 71° low 53° mean 65° F*

SITE: *45 miles south of Los Angeles in a valley surrounded by the foothills of the Santa Ana Mountains on the east, facing the Pacific Ocean several miles away*

38 U.S. Capitol Grounds

Washington, D. C.
1874-1892

ARCHITECT: *Edward Clark*
LANDSCAPE ARCHITECT: *Frederick Law Olmsted*
CLIENT: *U. S. Government*

LAT: *38° N* LONG: *76° W* ALT: *90 feet*
CLIMATE: *temperate, hot summers, cool winters with some snow*
PRECIPITATION: *41 inches per year*
TEMP: *high 79° low 37° mean 57° F*

SITE: *relatively flat, faces the Potomac River to the west southwest, slight slope of the site to the west; maximum change in elevation of 30 feet*

The large church in the shape of a Roman Cross was the outstanding structure on the site. Over a period of nine years (1797-1806) the Indians, men, women and children, carted, hauled and carried sandstone boulders and rocks from a quarry six miles away to build the church. The cathedral-like building (180' x 40') supported seven domes and a tall bell tower with four bells. Six years after its completion, the beautiful church collapsed in an earthquake. Forty of those assembled for morning mass were killed, including the boys ringing the bells.

The bells, two large and two small, were salvaged and now hang in a low companionario in the small, peaceful patio of the padres to the west of the ruins of the church's transept.

When the Indians were "emancipated" in 1833, the mission was secularized and rapidly fell into disuse. Tiles and timbers were stolen and the adobe buildings deteriorated rapidly. Several attempts were made at restoration in the 1860's and 1890's, but the best work was carried out by Father St. John O'Sullivan in the 1920's. A handsome Moorish-style fountain was built in the plaza south of the enclosed patio, buildings repaired and the gardens laid out and planted. The beauty of the old mission is enhanced by the ruins, climbing vines, doves and brilliant flowers.

Washington, D. C., the city of vistas, is chiefly the work of Pierre Charles L'Enfant, a temperamental French engineer. At the age of 23, L'Enfant came to help the American colonists fight for their independence. His talents were quickly recognized by General Washington at Valley Forge (1778) and when Washington became President he commissioned L'Enfant to lay out the capitol city on the Potomac in 1791. L'Enfant's scheme echoes Versailles, with its long east-west axis, reinforced by a canal, stretching from the capitol building to the river, and the grid pattern of the streets intersected by radiating avenues. Because of his defiant, uncooperative nature, L'Enfant's commission was terminated in 1792, yet it is due to his genius that the U. S. Capitol is situated as magnificently as it is.

The site of the capitol, on a slight hill that slopes down to the west, takes maximum advantage of the vista down the Mall to the Washington Monument. Extension of the capitol was begun in the mid-19th century

and the completion carried on until 1902. Landscape architect Frederick Law Olmsted was employed in 1794 to lay out the capitol grounds and establish a unity between the capitol, with its unfinished base, and the surrounding grounds.

Olmsted had the grounds graded and planted and had drives and walks laid out symmetrically on the east-west axis, quite in keeping with the classical architecture of the capitol. L'Enfant's vistas were also kept in mind, for the planting emphasizes the views by directing the eye toward them. On the east was a broad plaza to accommodate the majority of the capitol traffic. This work was completed by 1881.

Olmsted's plan for integrating the capitol with the grounds was architectural in nature and thus was executed by the capitol architect, Edward Clark. The plan called for a great marble stairway and two terraces on the west front of the capitol to cover the existing granite base and accommodate the ground slope. Ninety-three rooms, chiefly for storage, would be created beneath the terraces. Ten would be committee rooms, with windows facing in on Italian winter garden courts and the capitol walls. The two terraces at the top of the marble stairway surrounded the capitol on three sides but were four feet different in level. An 8 foot wide channel between the terraces would contain low planting, so as not to obstruct the fine view.

The plan was accepted and work begun on the foundations in 1883 when 194 twenty-four foot wells were sunk and filled with concrete. Olmsted left the service of the capitol in 1885, although the terraces and marble stairway were not completed until 1892. The fountains, lamp pedestals, gate posts and ornamentation, designed by Thomas Wisedell, are too stylized to harmonize with the classical style of the project. Olmsted's solution, however, was both practical and aesthetically pleasing.

Vizcaya was carved out of the flat, tropical jungle on the edge of Biscayne Bay, south of Miami. This site for a grand mansion and gardens was chosen by millionaire James Deering to escape the harsh Chicago winters. Deering traveled in Europe for several years accumulating priceless furniture, statuary, gates, fireplaces and other art objects which were the guiding inspiration for the architects who built his mansion and designed the gardens. The gardens were patterned after

Vizcaya

Miami, Florida
1914-1921

ARCHITECTS: *F. Burrall Hoffman, Paul Chalfin*

LANDSCAPE ARCHITECT: *Diego Suarez*

CLIENT: *James Deering*

LAT: 26° N LONG: 80° W ALT: 12 feet
CLIMATE: subtropic, hot dry summers,
warm dry winters, much rainfall all
year characterized by violent storms
and hurricanes

PRECIPITATION: 56 inches per year
TEMP: high 82° low 67° mean 75° F

SITE: flat and forested on Biscayne
Bay, 2½ miles south of Miami; maxi-
mum change in elevation of 15 feet

Italian and French styles and were executed by numerous European workmen under the direction of Diego Suarez.

The major axis of the formal gardens extends to the southeast from the center of the tiled inner court of the mansion to a casino on the edge of the lake. Along the axis from the mansion, steps lead down to elaborate parterres de broderie that fan out on either side of a wide avenue of live oaks. The parterres are designed in jasmine, rather than box as in Europe, and the flowers are laid in beds containing designs executed in colored sand. Between the live oaks is a basin of water, decorated with statuary, and two bridges leading to a large island of lawn. Beyond, steps lead up either side of a water cascade to a grassy mound and the casino. To either side, behind the trees that frame the casino, are small oval water parterres. On the lake side, steps lead down to a landing and a Baroque grotto complete with pebble work and grotesque statuary. The casino is on one of the highest levels of the garden and offers a fine view of the grounds, as does the second floor dining room of the mansion.

Secondary axes, that radiate out on either side of the lake, lead to a large plaza on the northwest and through a semicircular rose garden and elongated marine gardens to tennis courts on the southwest. Other European features include a circular maze, a theater garden with a raised stage and a secret garden enclosed by sculptured walls with stairs that lead down to an orchid garden and grottos dripping with water.

The garden is full of stonework, some executed by an Italian sculptor, other brought from Europe, such as the 17th century fountain from Bassano di Sutri near Rome. There is also extensive sculpture on the peacock bridge and on the stone barge that serves as a breakwater in the bay. The mansion is partially faced with native coral and harmonizes easily with the decorative masonry of the gardens. The whole is very much like the outdoor theater rooms created in the gardens of 16th century Italy and 17th century France.

Deering spent only three months a year in his grand mansion of 69 rooms and 18 baths, from 1916 until his death in 1926. The estate was inherited by his nieces, but it remained vacant until 1952 when it was acquired by Dade County and opened to the public as an art museum.

Contemporary landscape design is closely attuned to the needs and desires of 20th century life. Today's designers must find aesthetically satisfying solutions to complex functional problems. These range from cities and superhighways to college campuses and children's playgrounds.

An objective of the Sandhills Community College program is to provide an enriching environment for a heterogeneous student body pursuing a wide variety of technological curricula. This pleasing grouping of buildings in an indigenous background provides a rich educational experience for the commuting students.

The three buildings are grouped around a fountain court which serves as a space for large gatherings. Each building has a smaller central control area reflecting the activities in the surrounding rooms. The whole is serviced by parking areas dispersed around the periphery allowing only pedestrian circulation within the college courts and immediate vicinity of the central complex. The surrounding vegetation and ecology is retained in its natural equilibrium.

Sandhills Community College

Southern Pines, North Carolina
1964-1966

ARCHITECTS: *Hayes, Howell, & Associates*

LANDSCAPE ARCHITECTS: *Lewis Clarke Associates*

CLIENT: *North Carolina State Board of Education*

LAT: *35° N* LONG: *79° W* ALT: *200 feet*

CLIMATE: *subtropic, hot humid summers, sudden rainstorms, cool winters, little snow*

PRECIPITATION: *44 inches per year*

TEMP: *high 79° low 42° mean 61° F*

SITE: *flat, coastal sandhills, pine forests, very little water*

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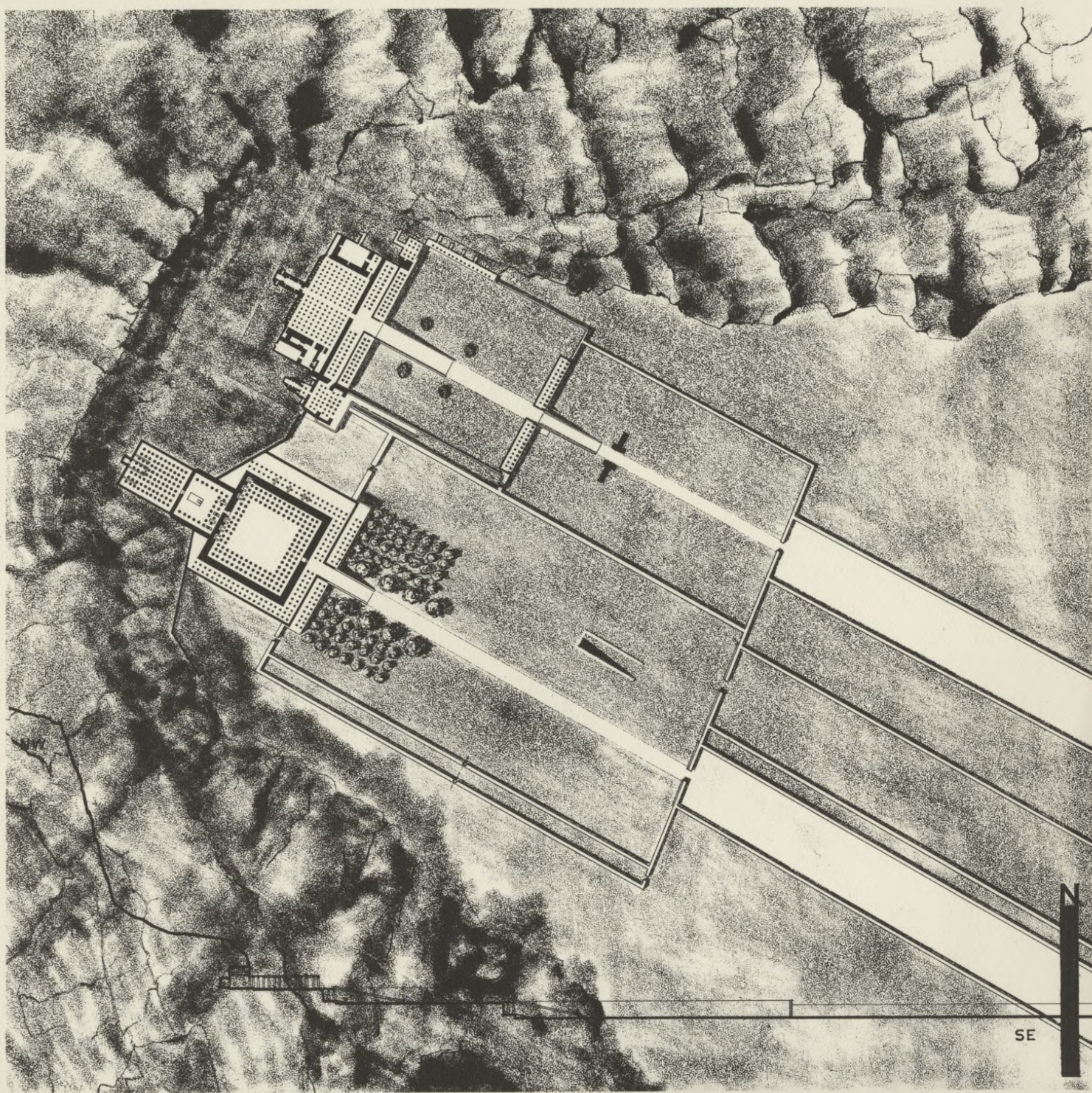
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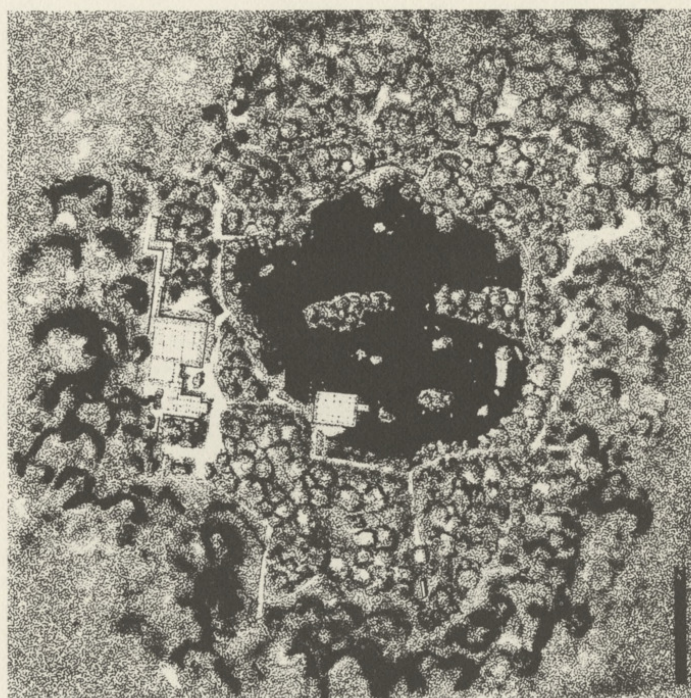
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Inside front cover: an Egyptian garden; back cover: a Persian garden carpet.

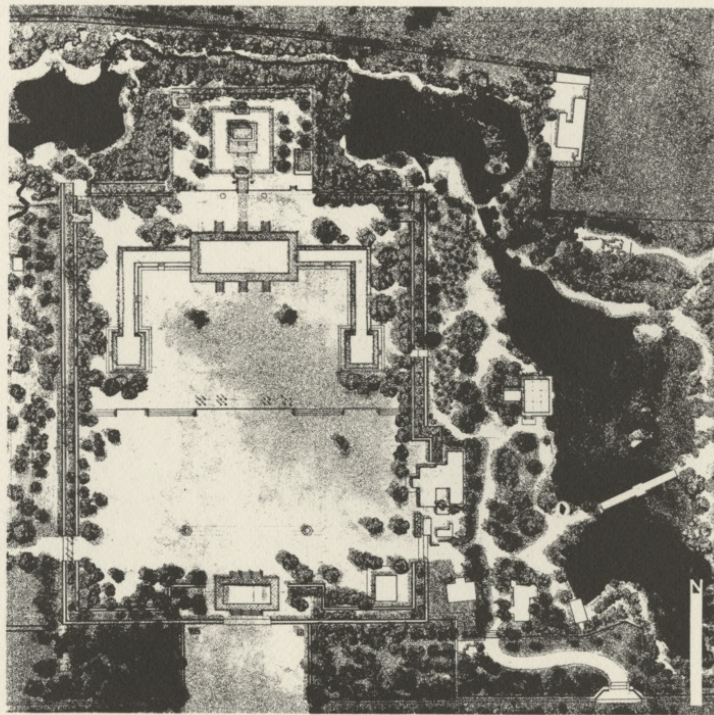
1 Queen Hatshepsut's Funerary Temple



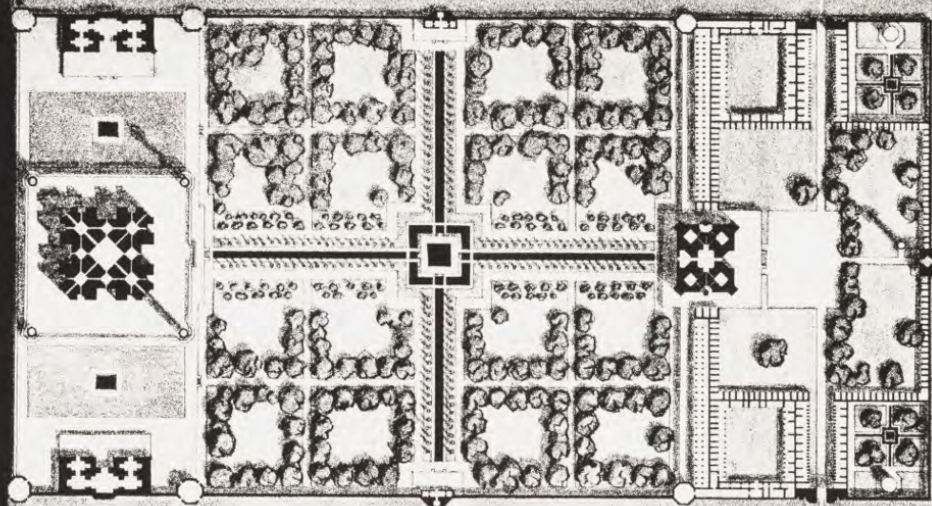


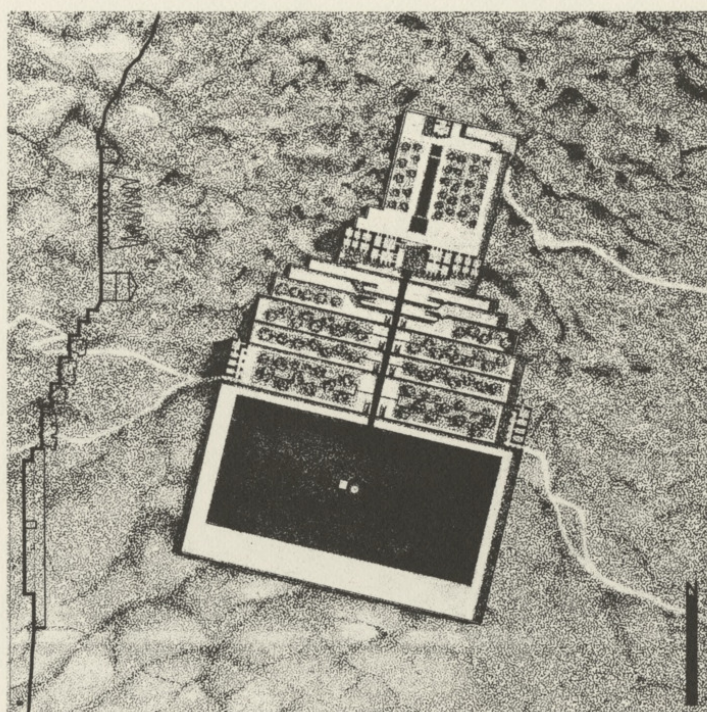


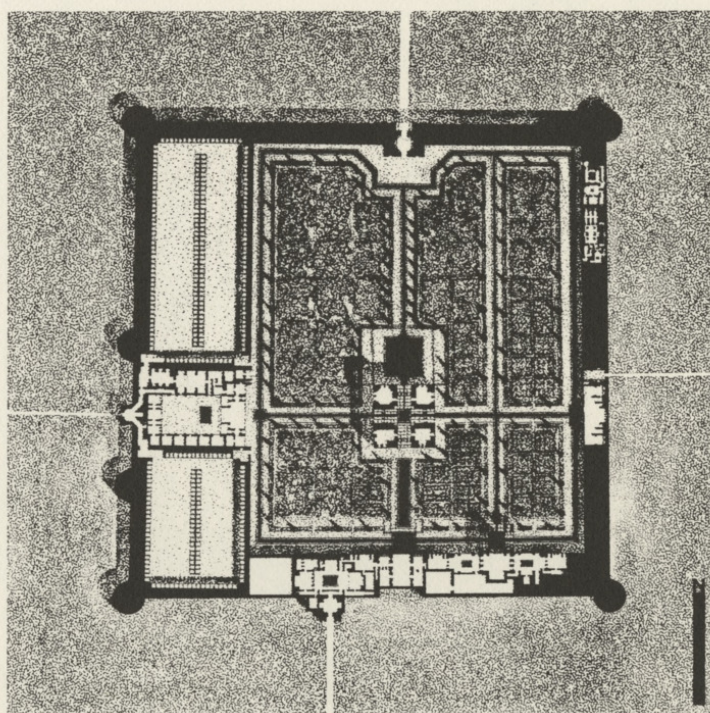


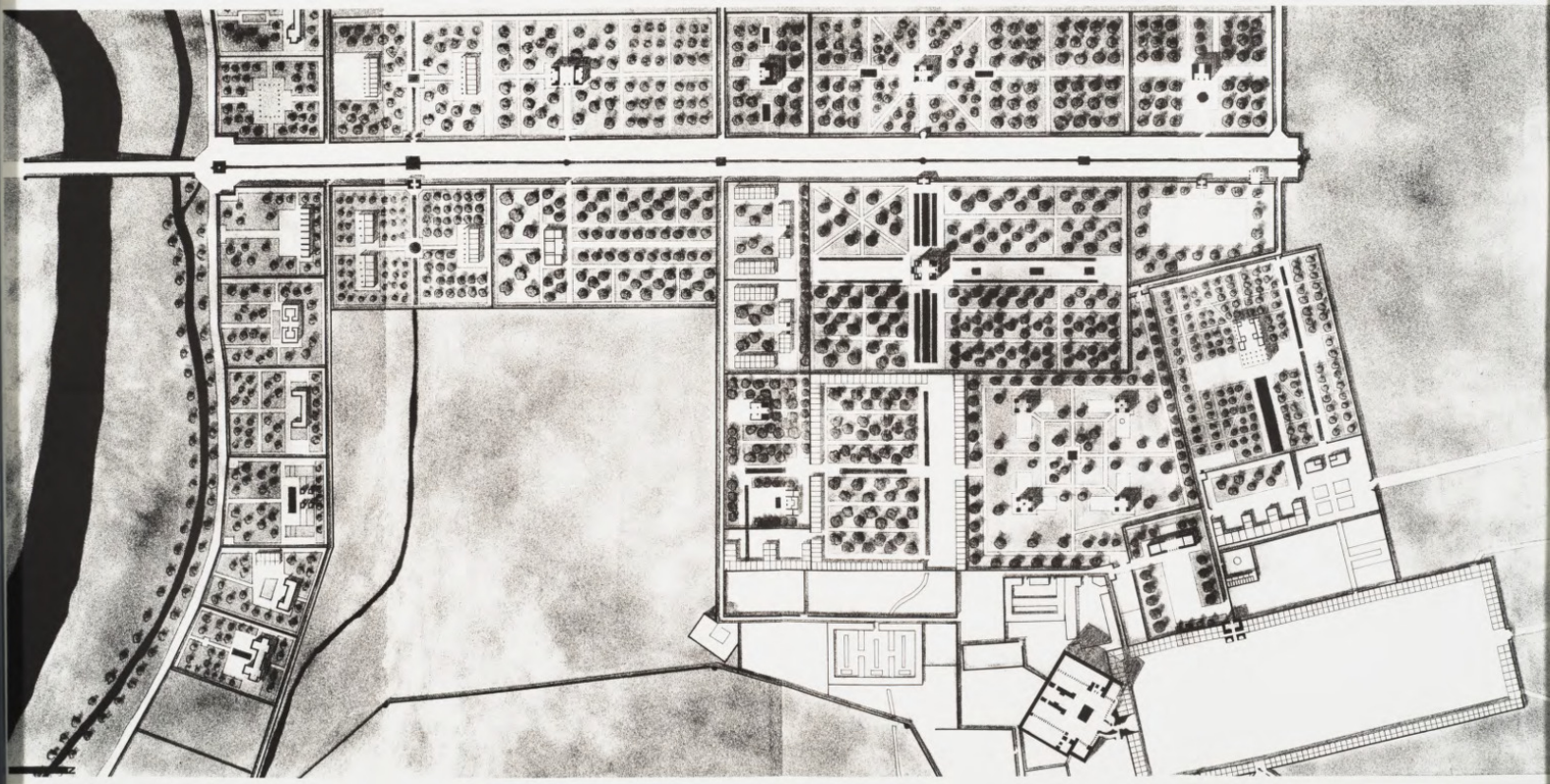


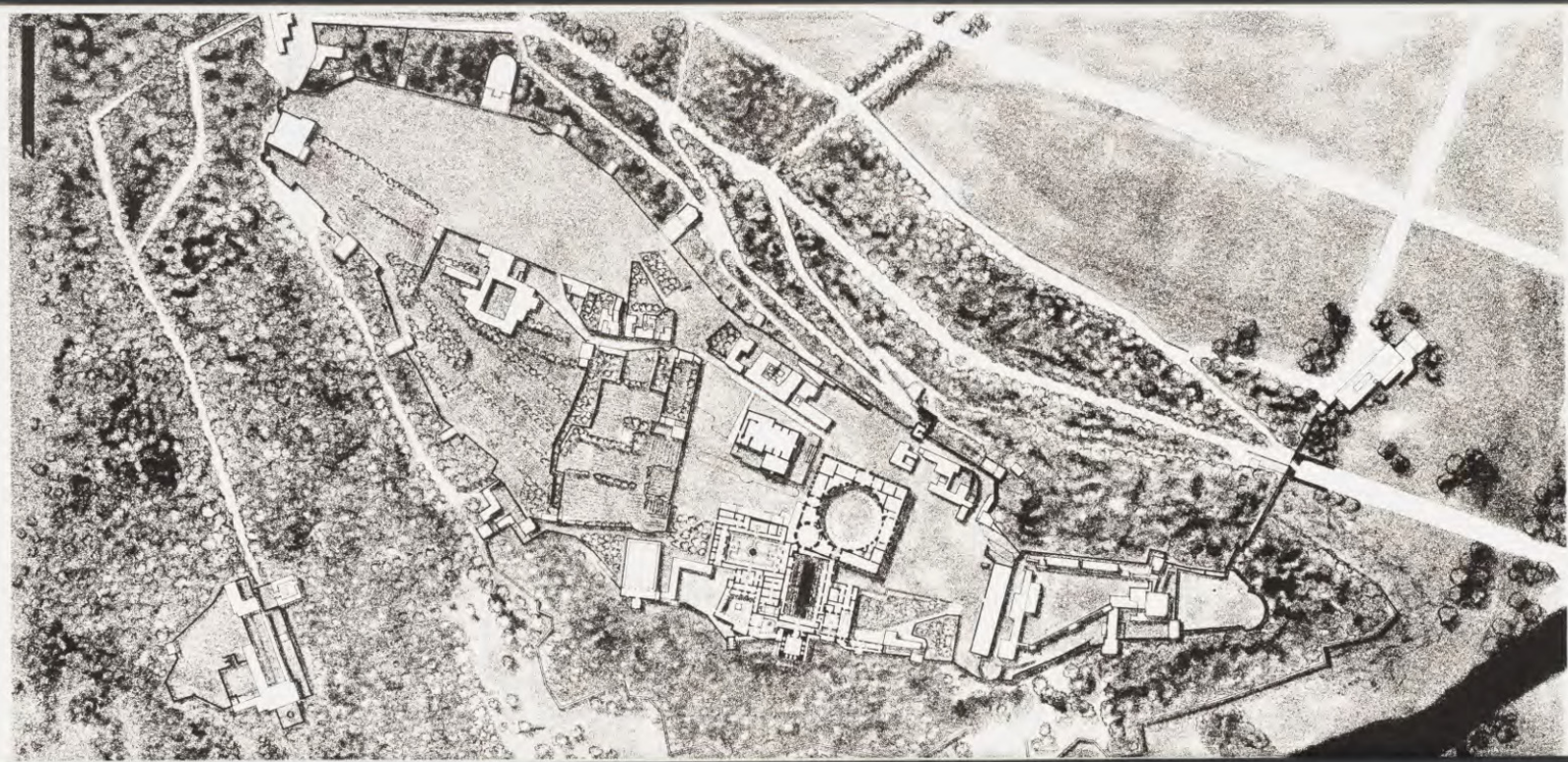


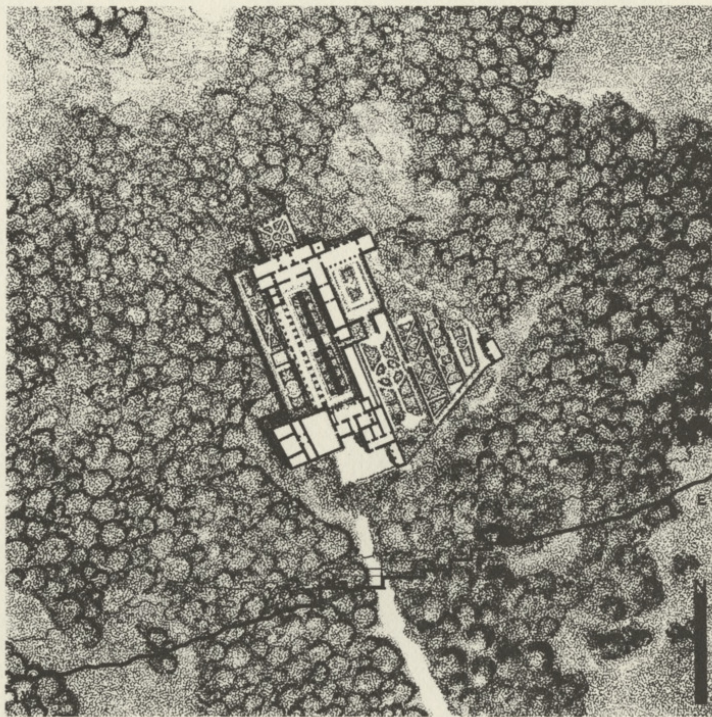


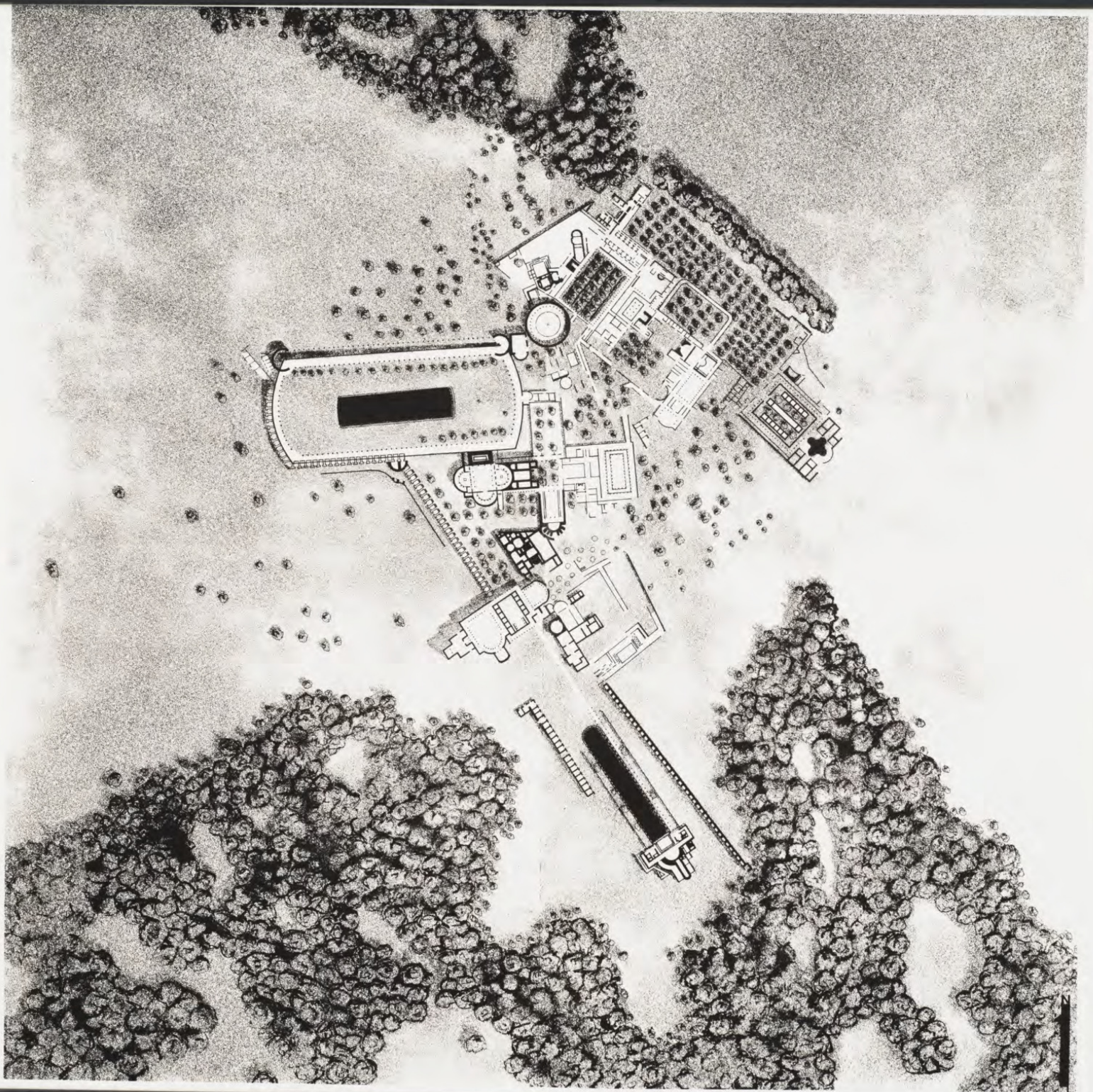


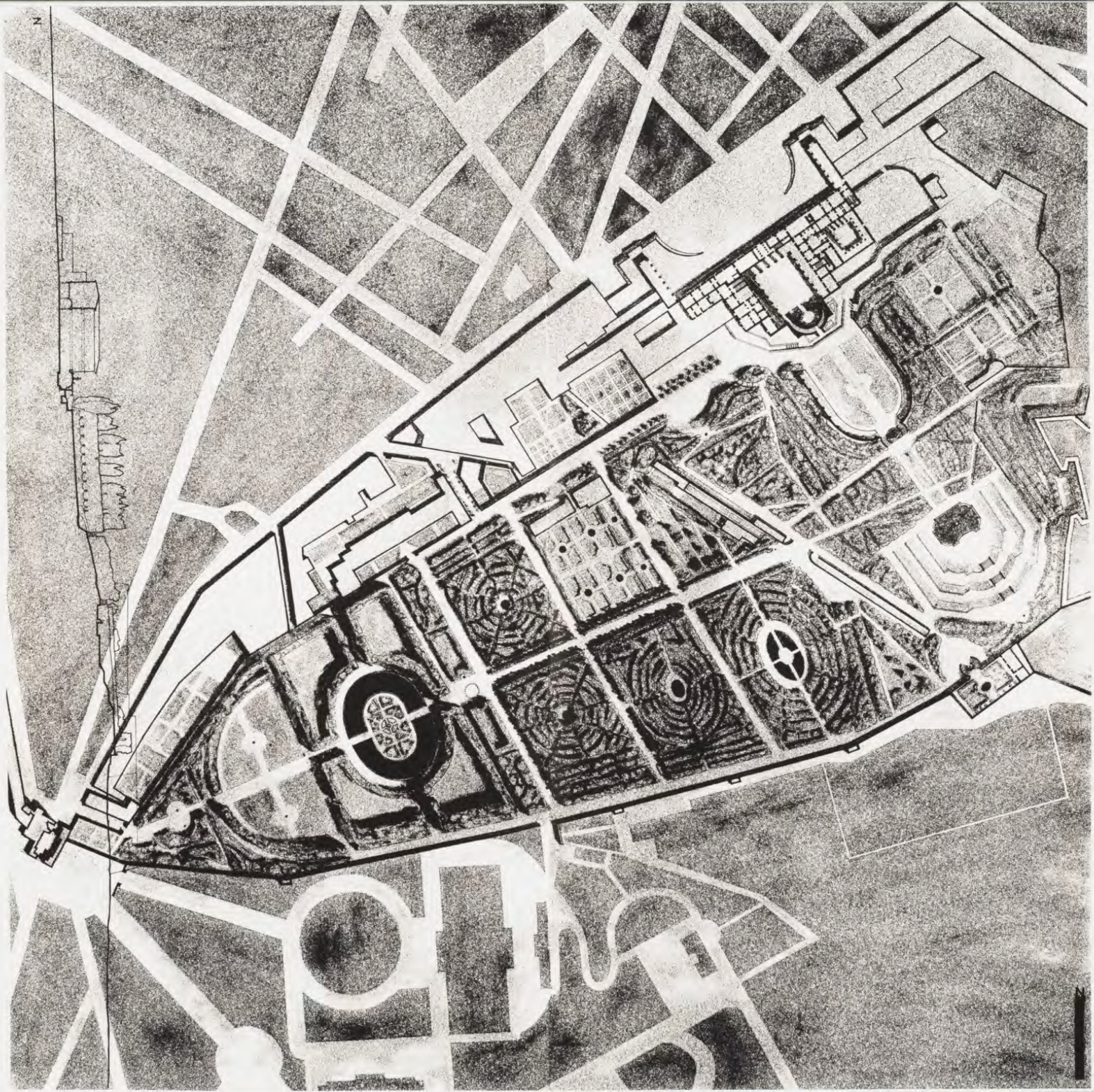


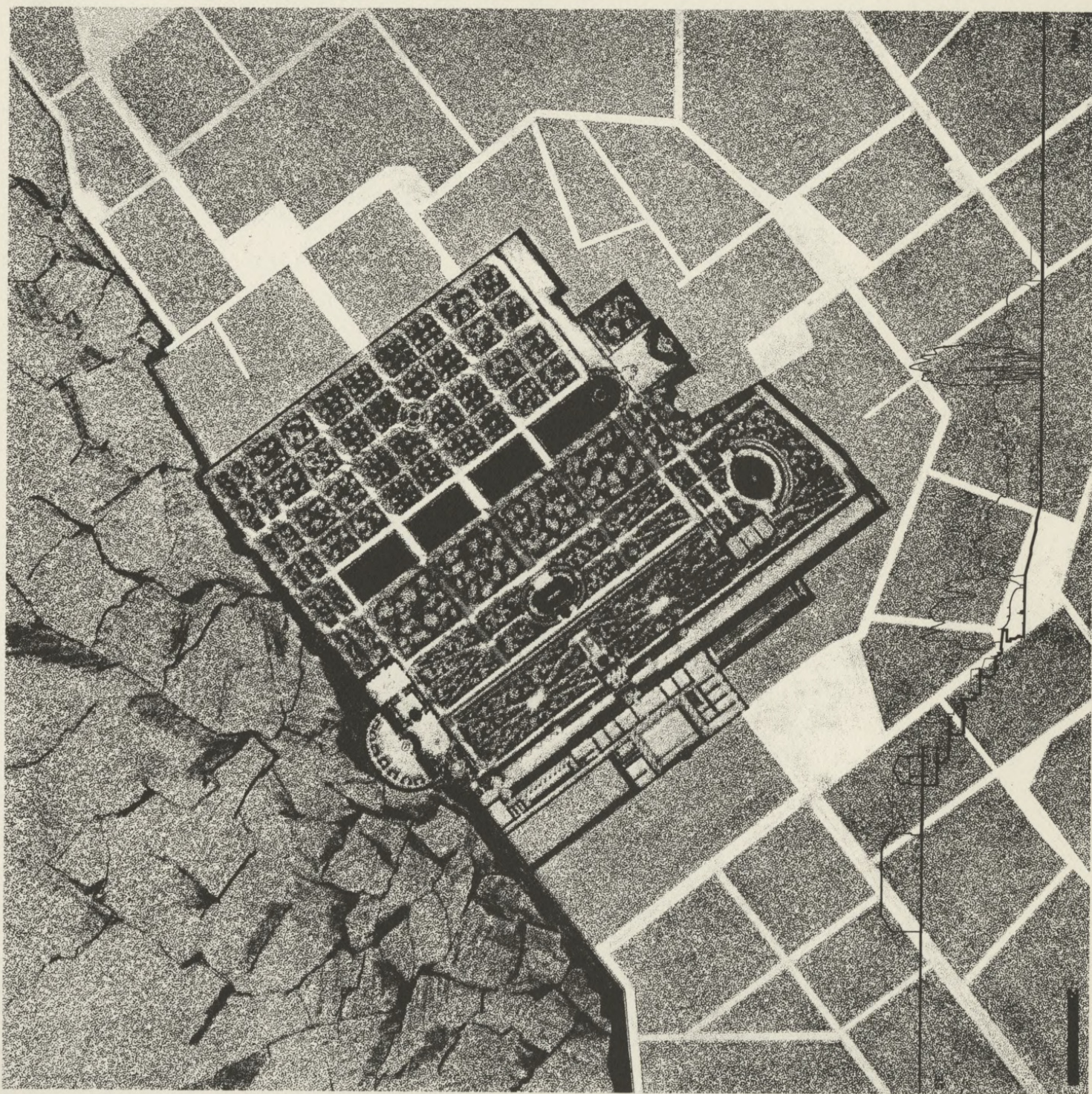


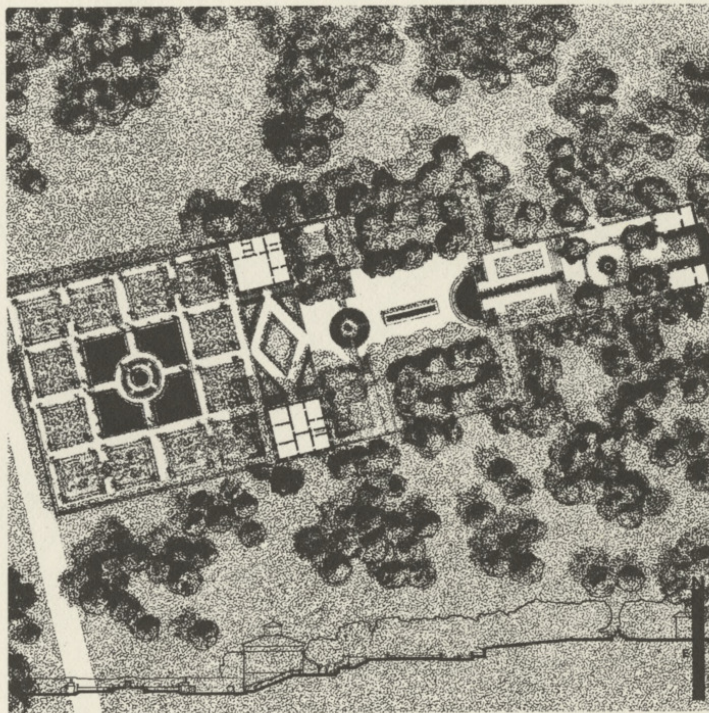


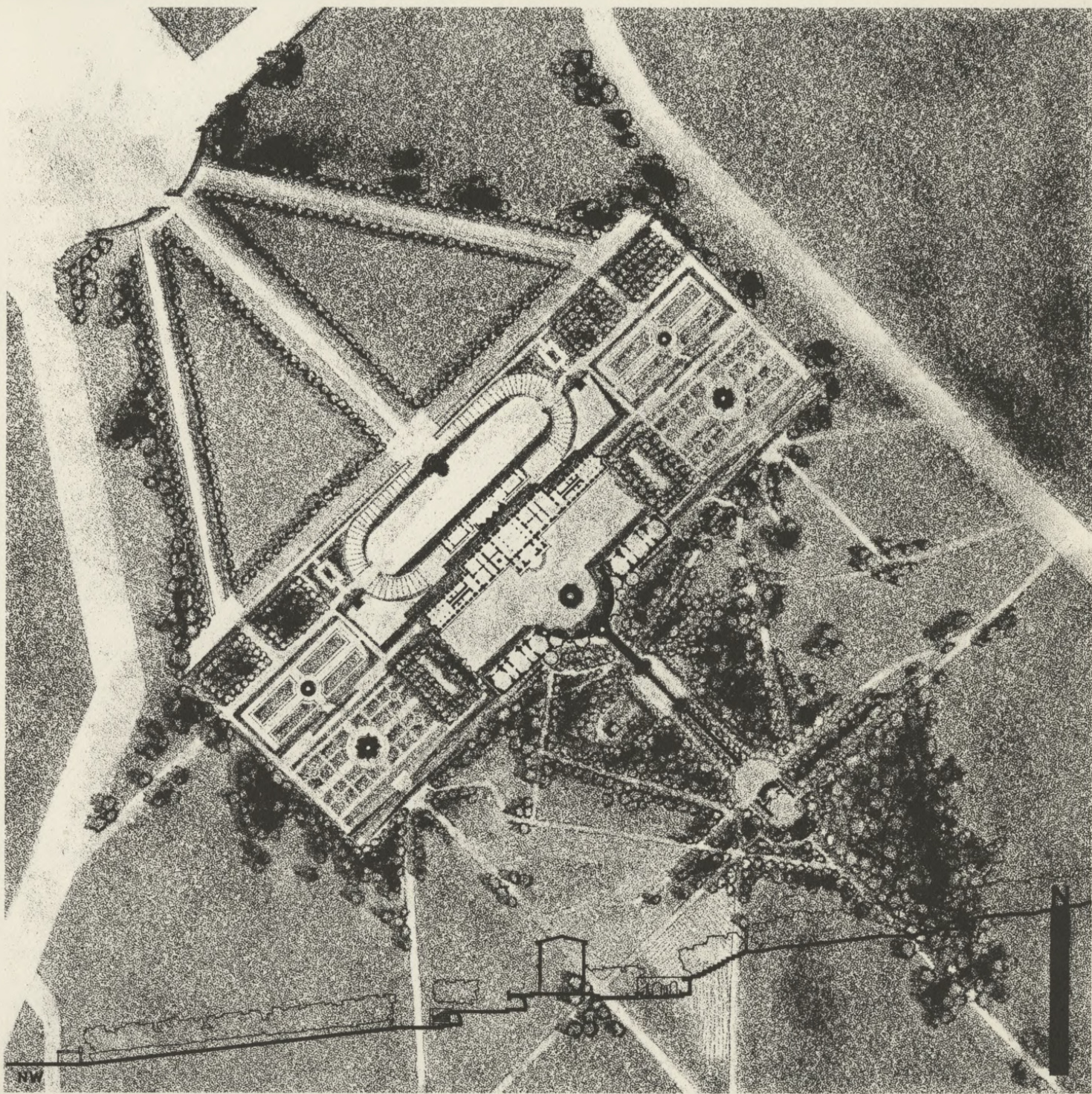




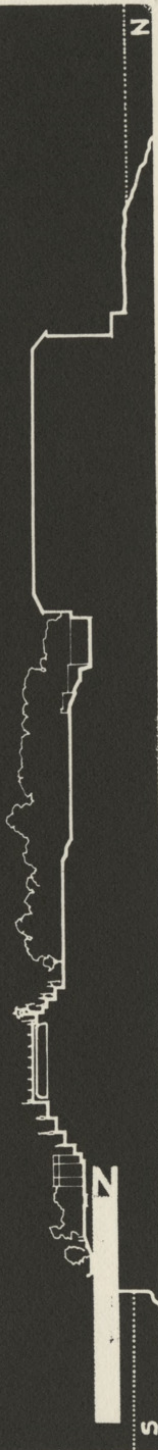


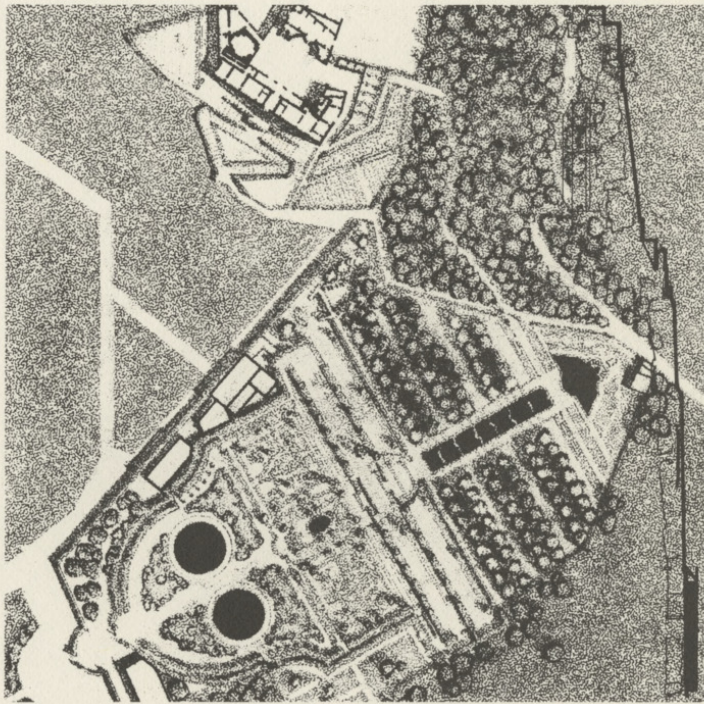


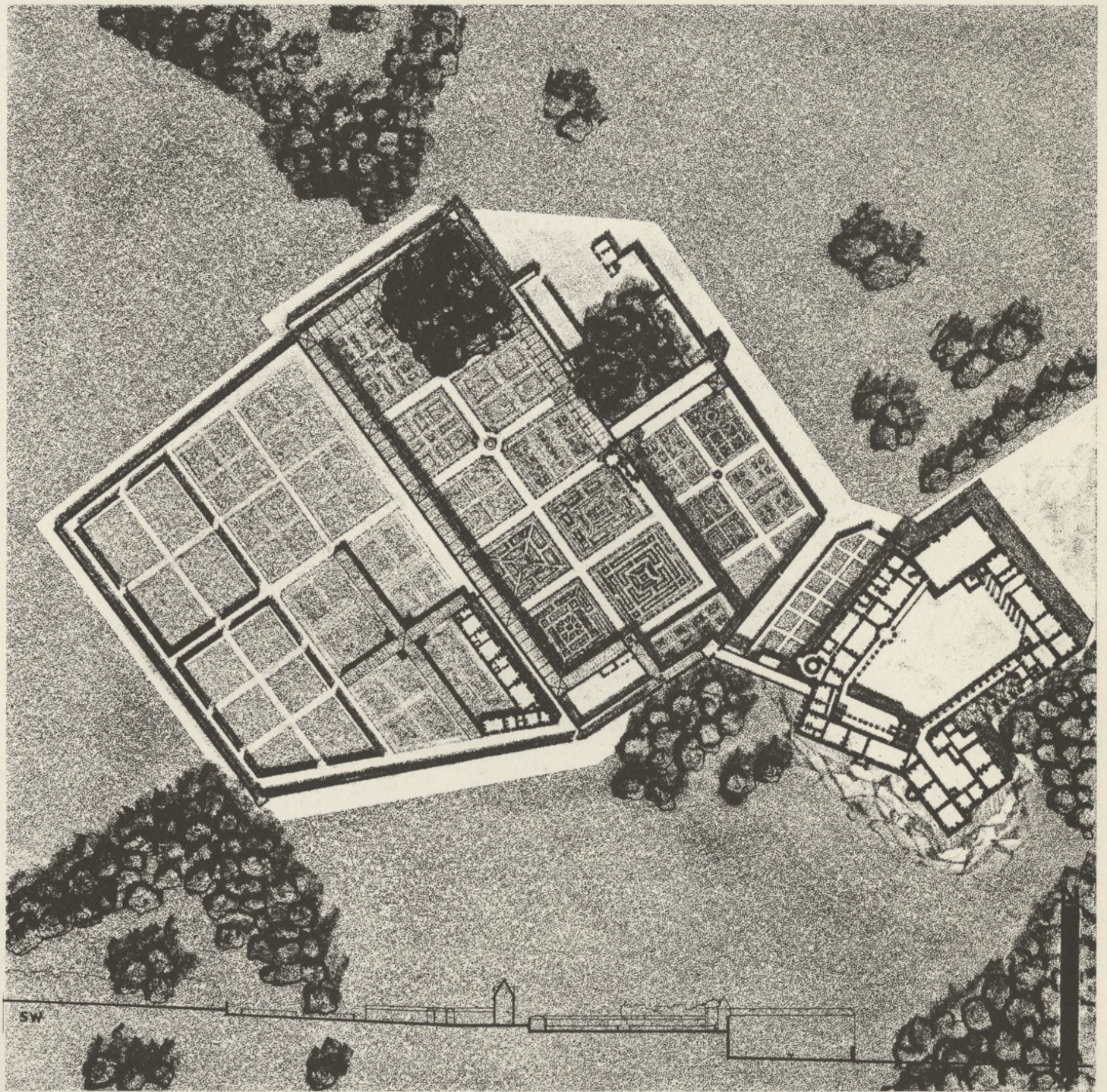


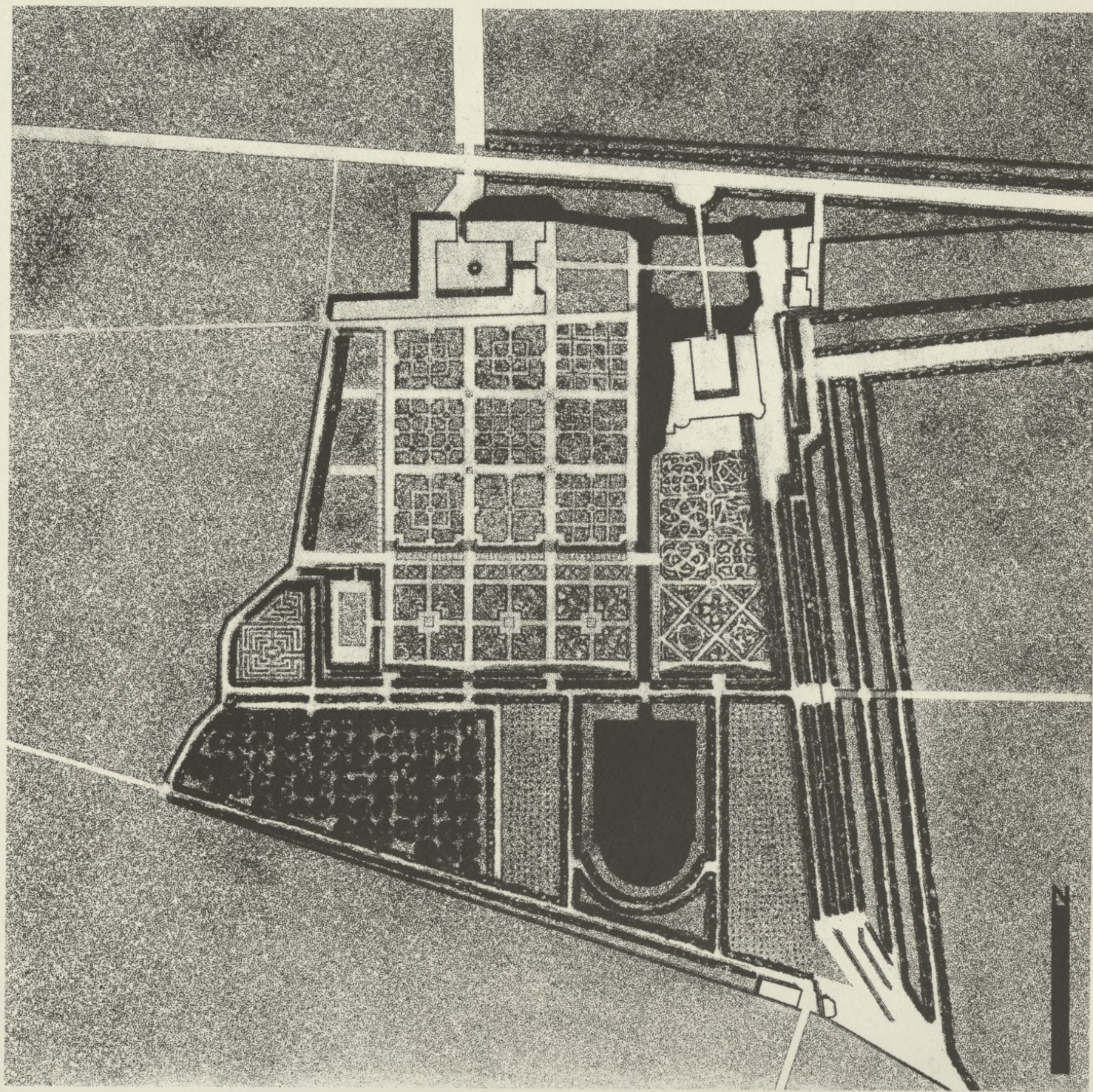


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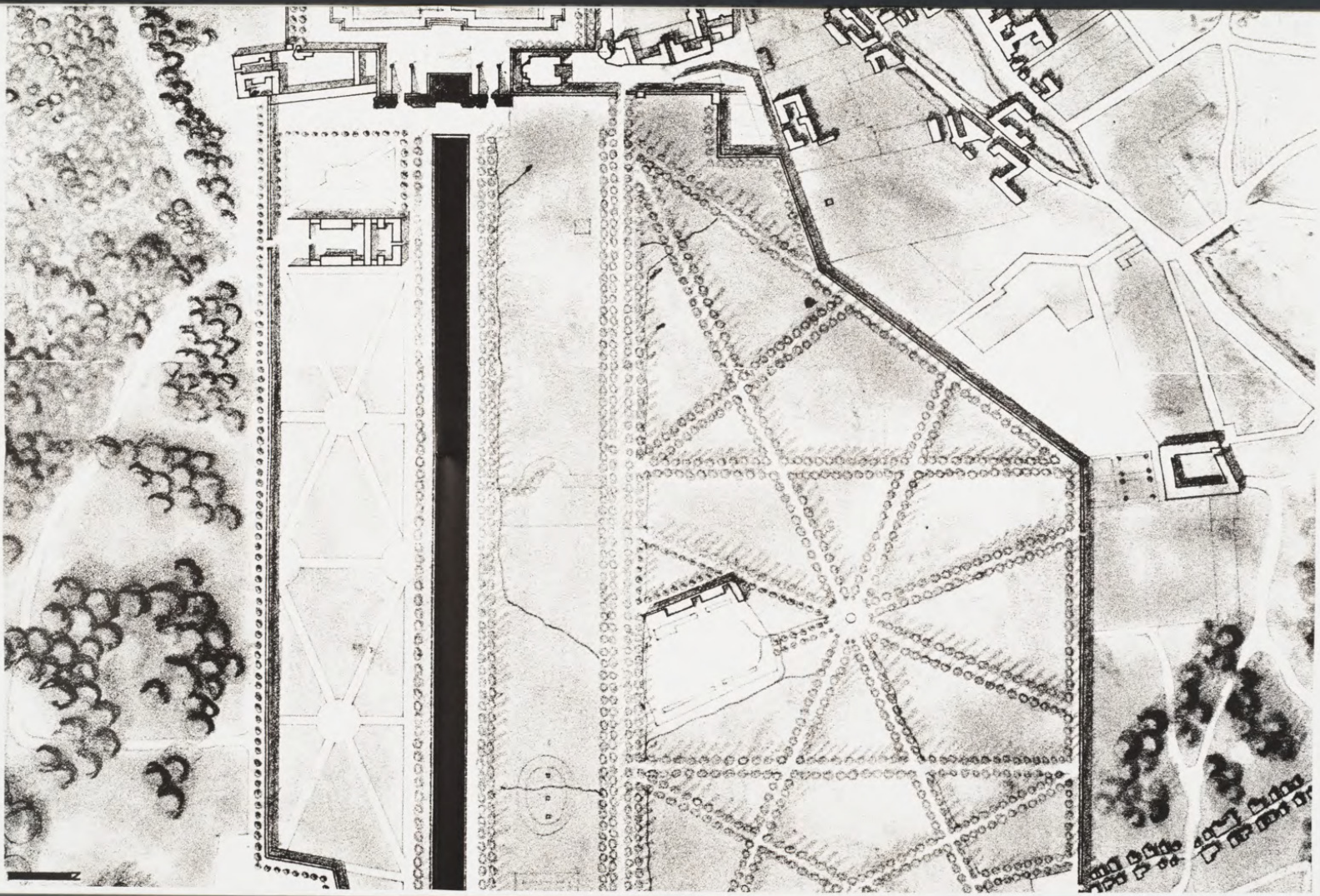




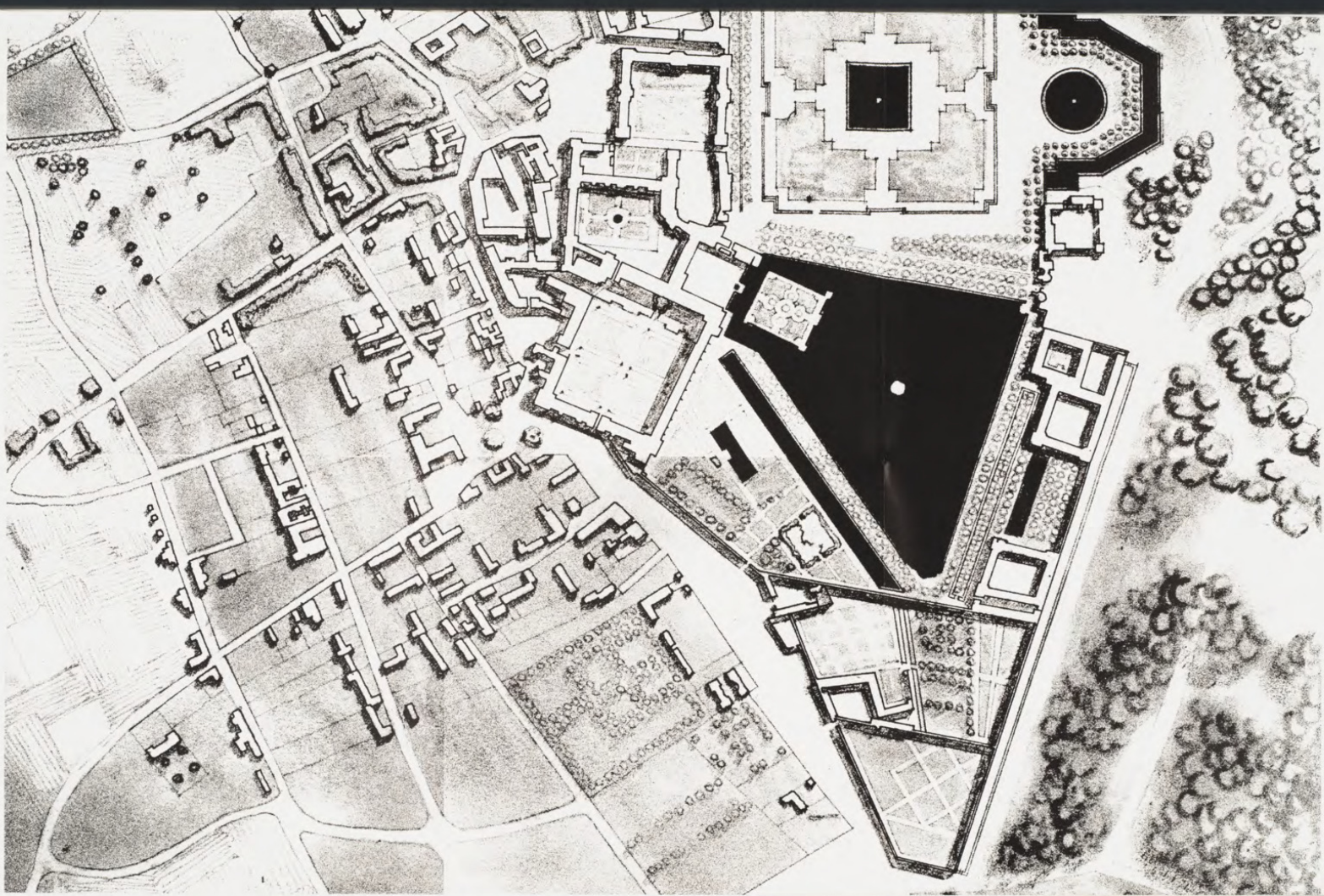


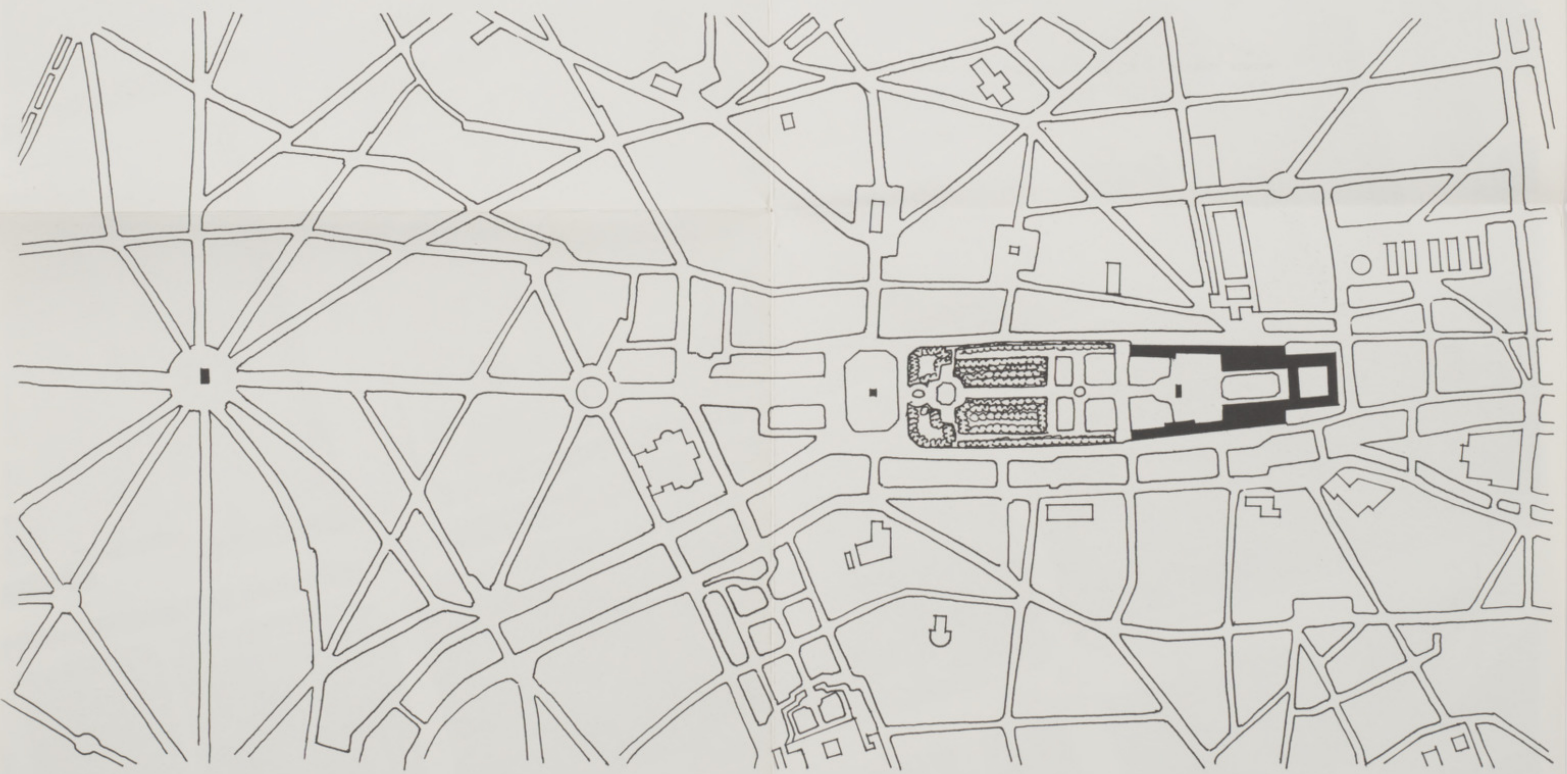


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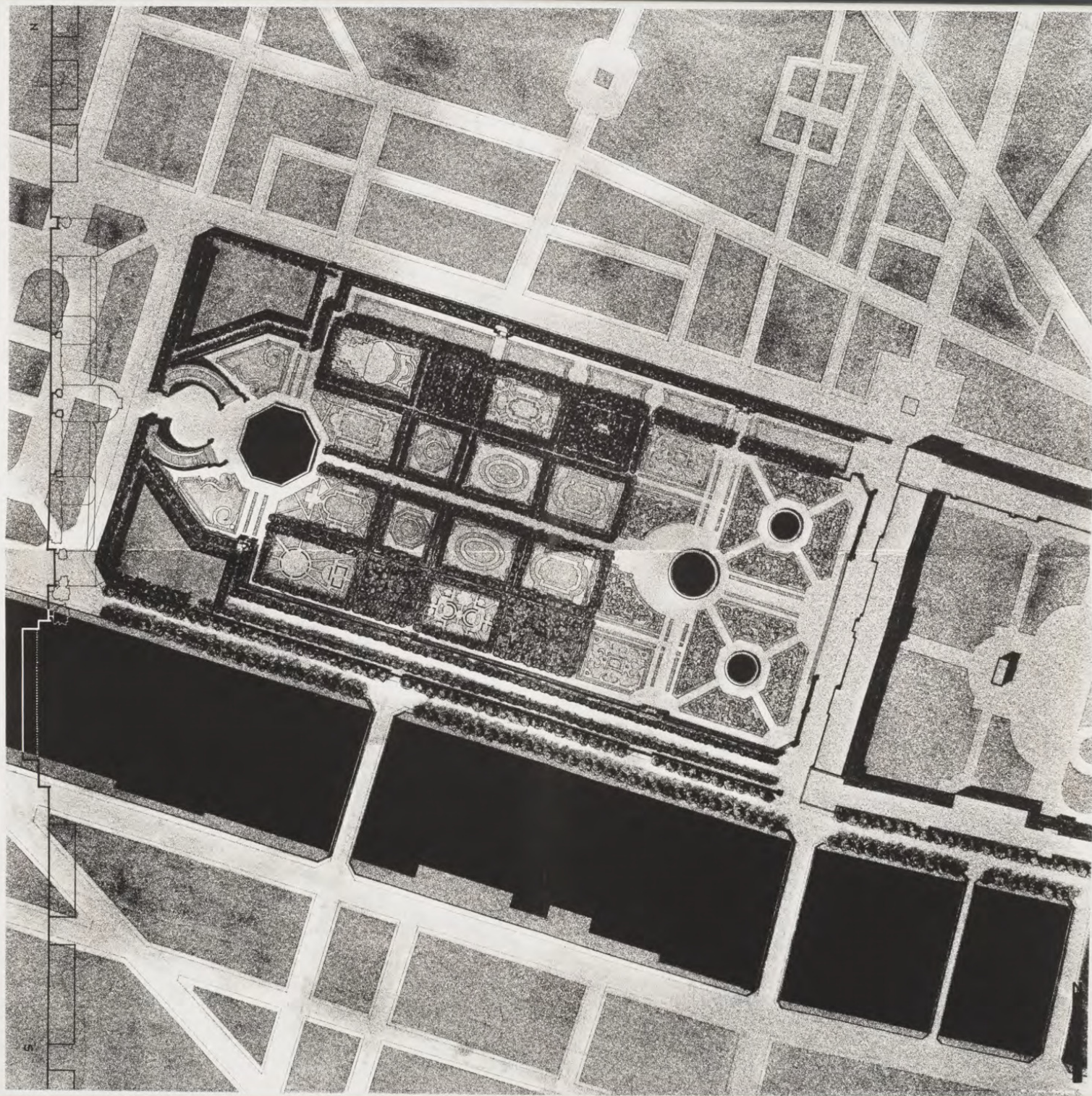


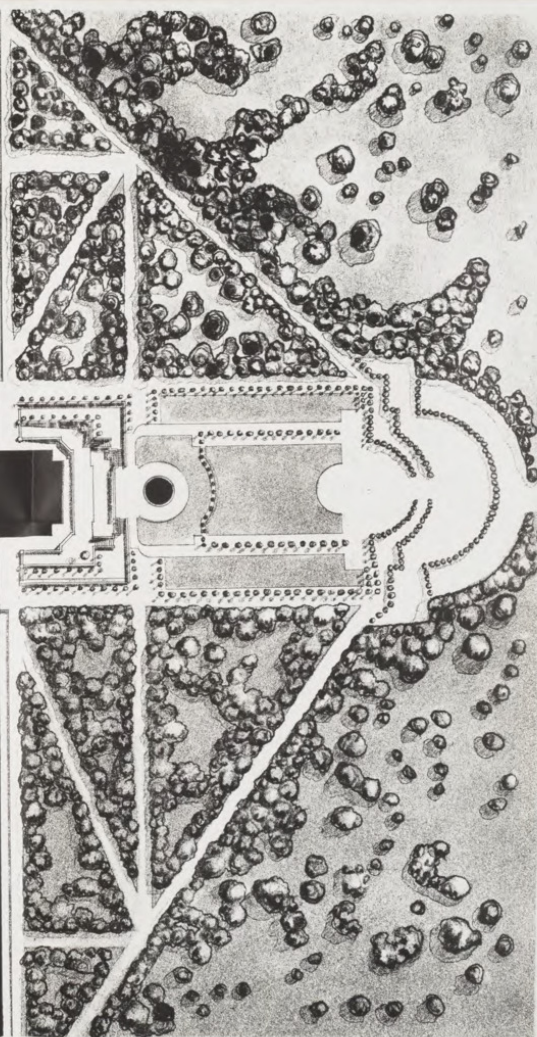
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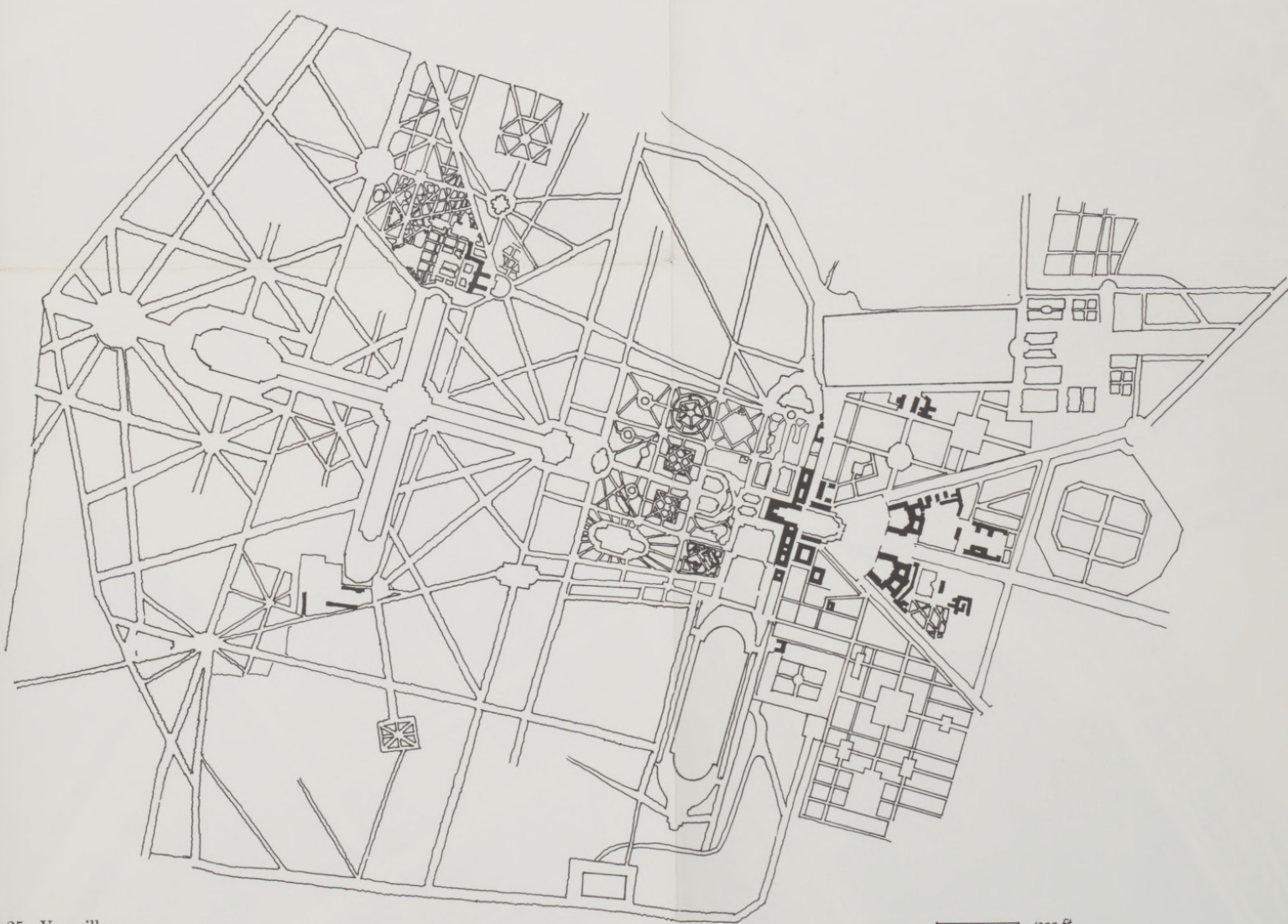




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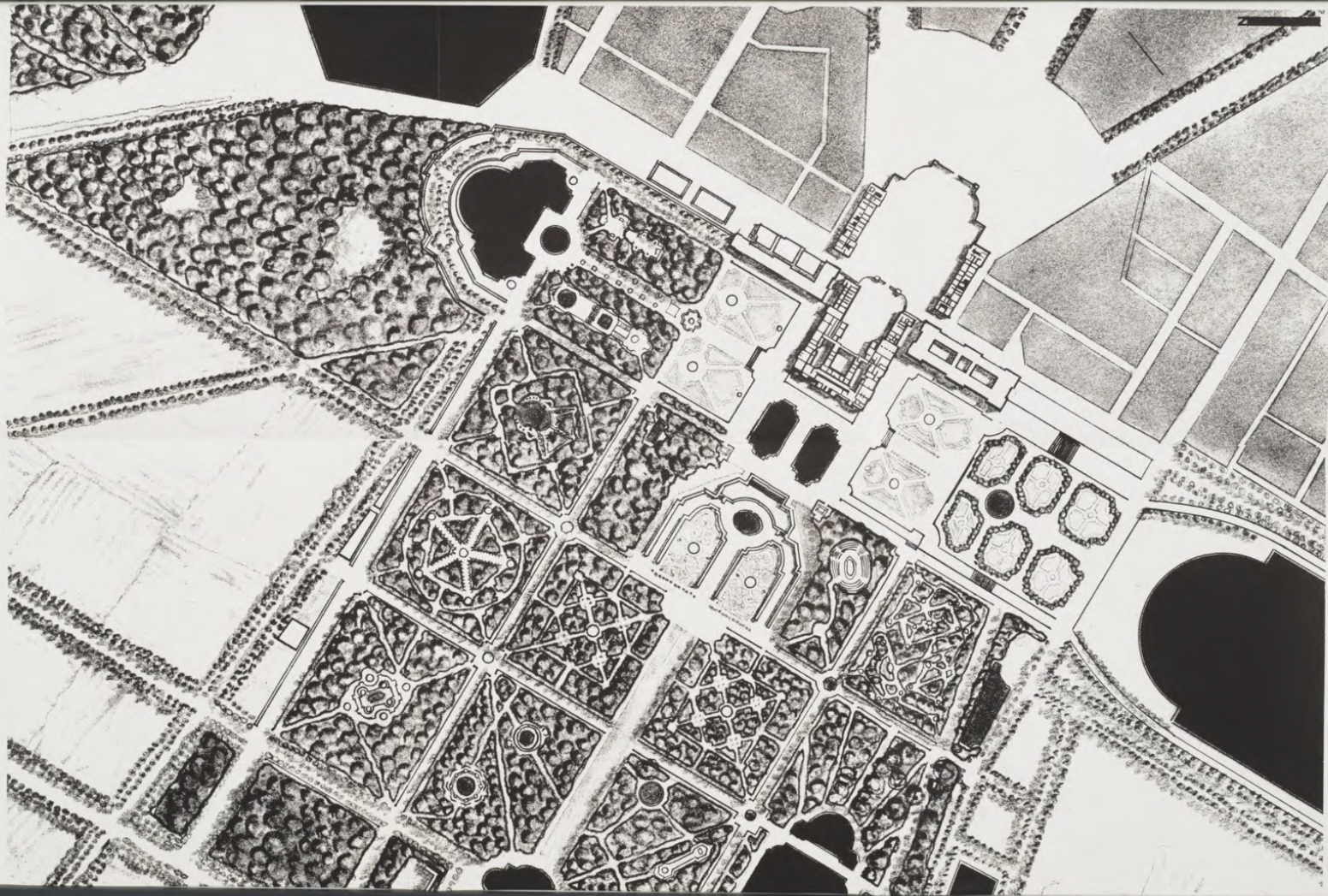


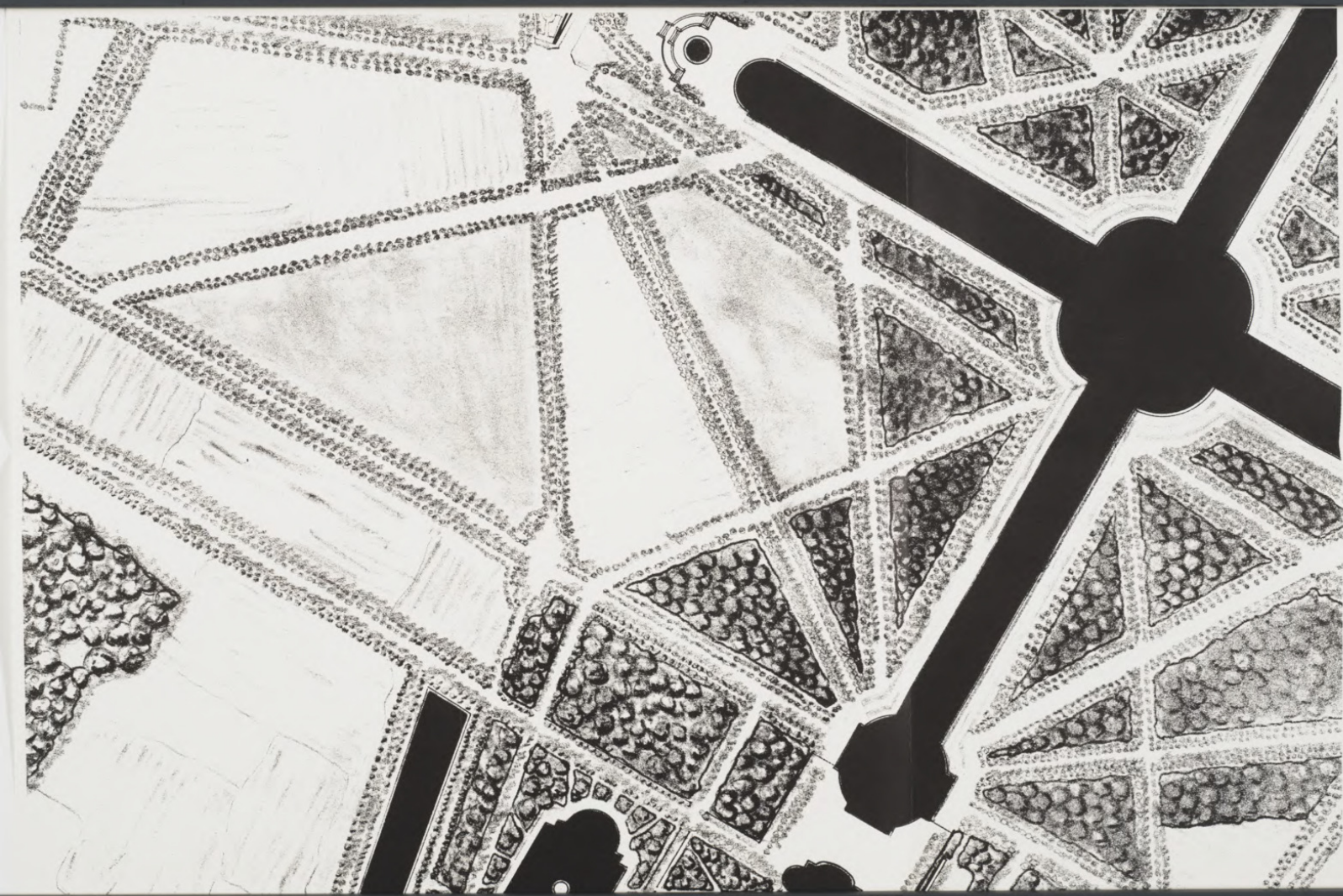


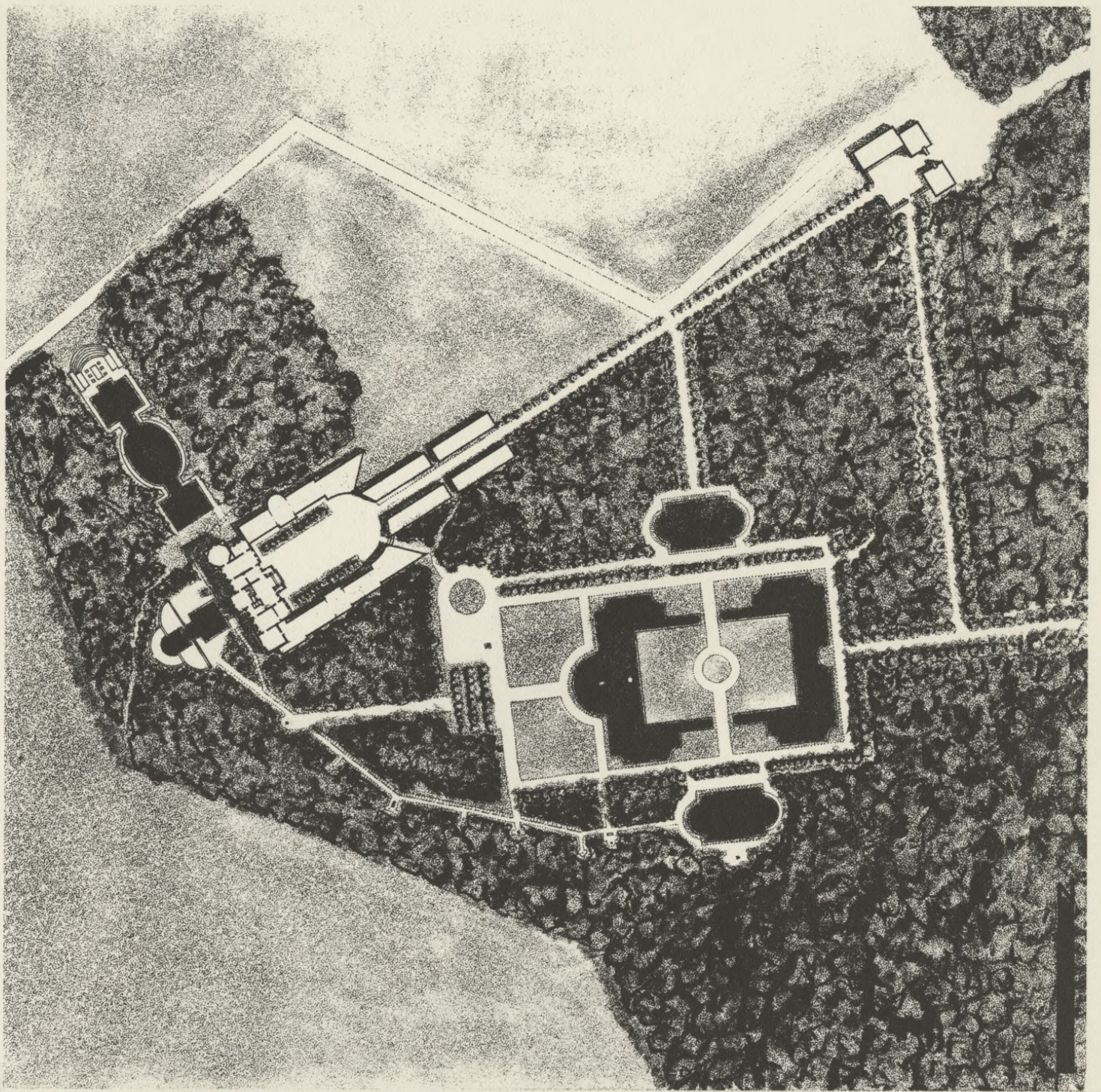


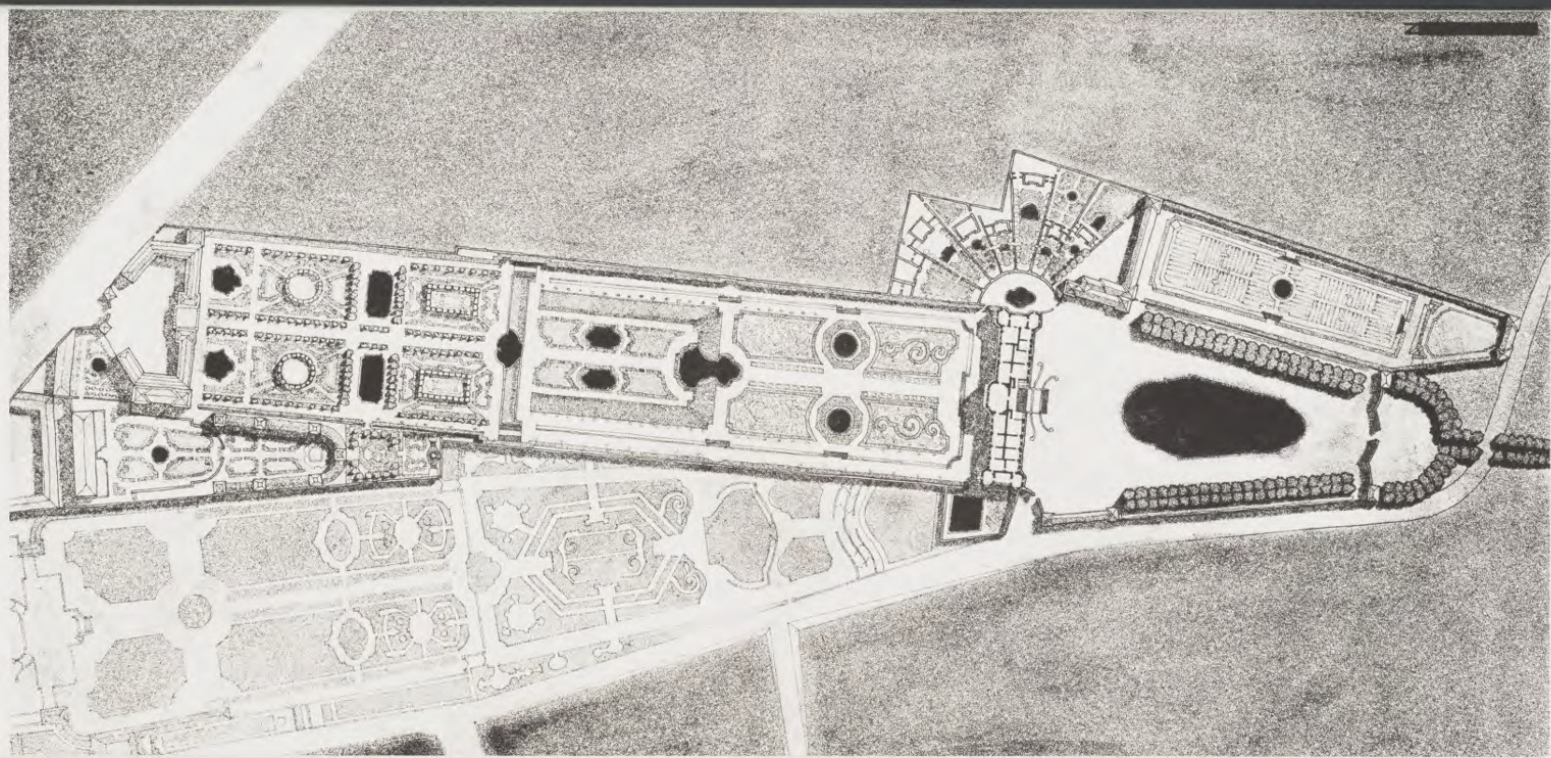
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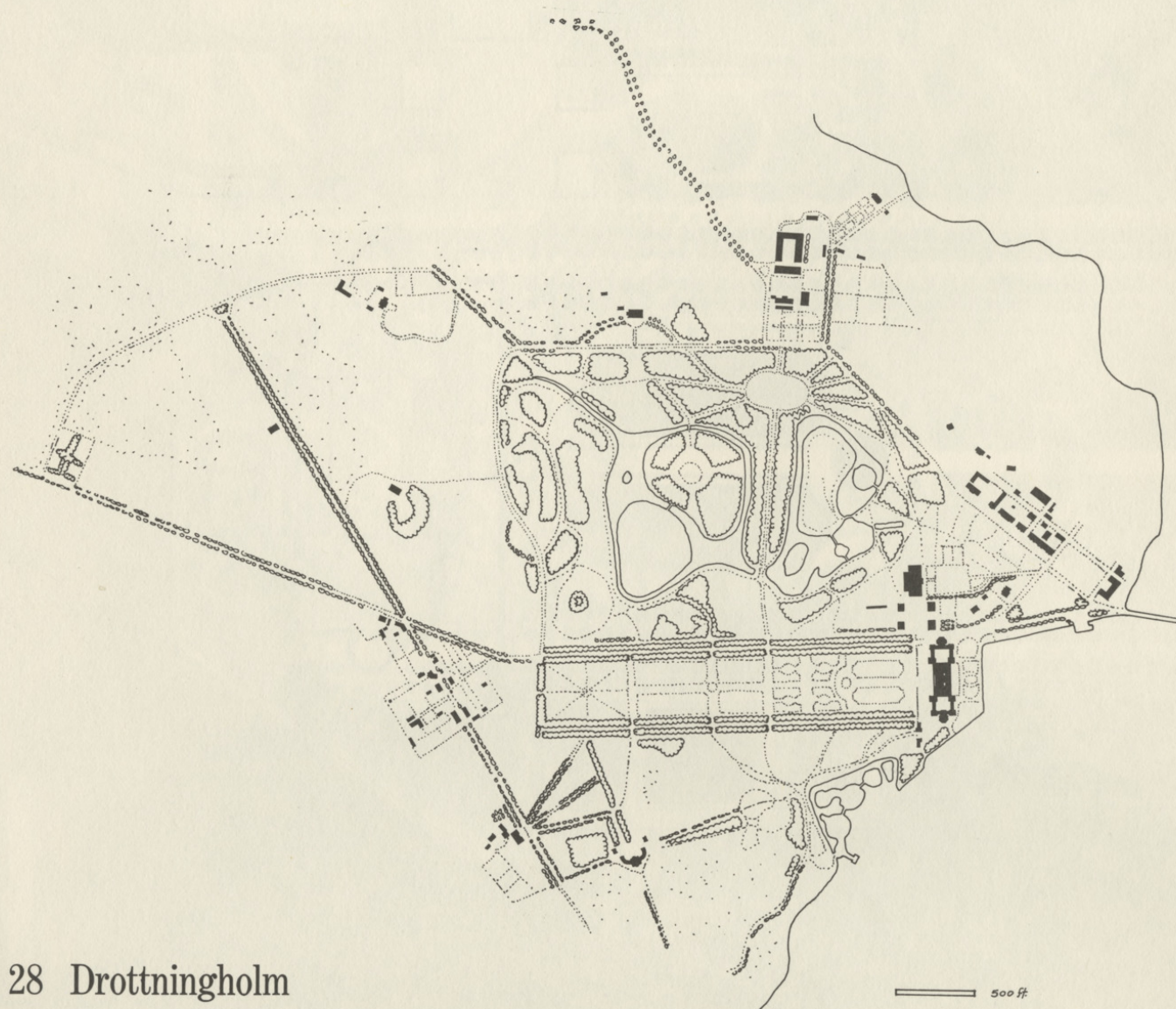
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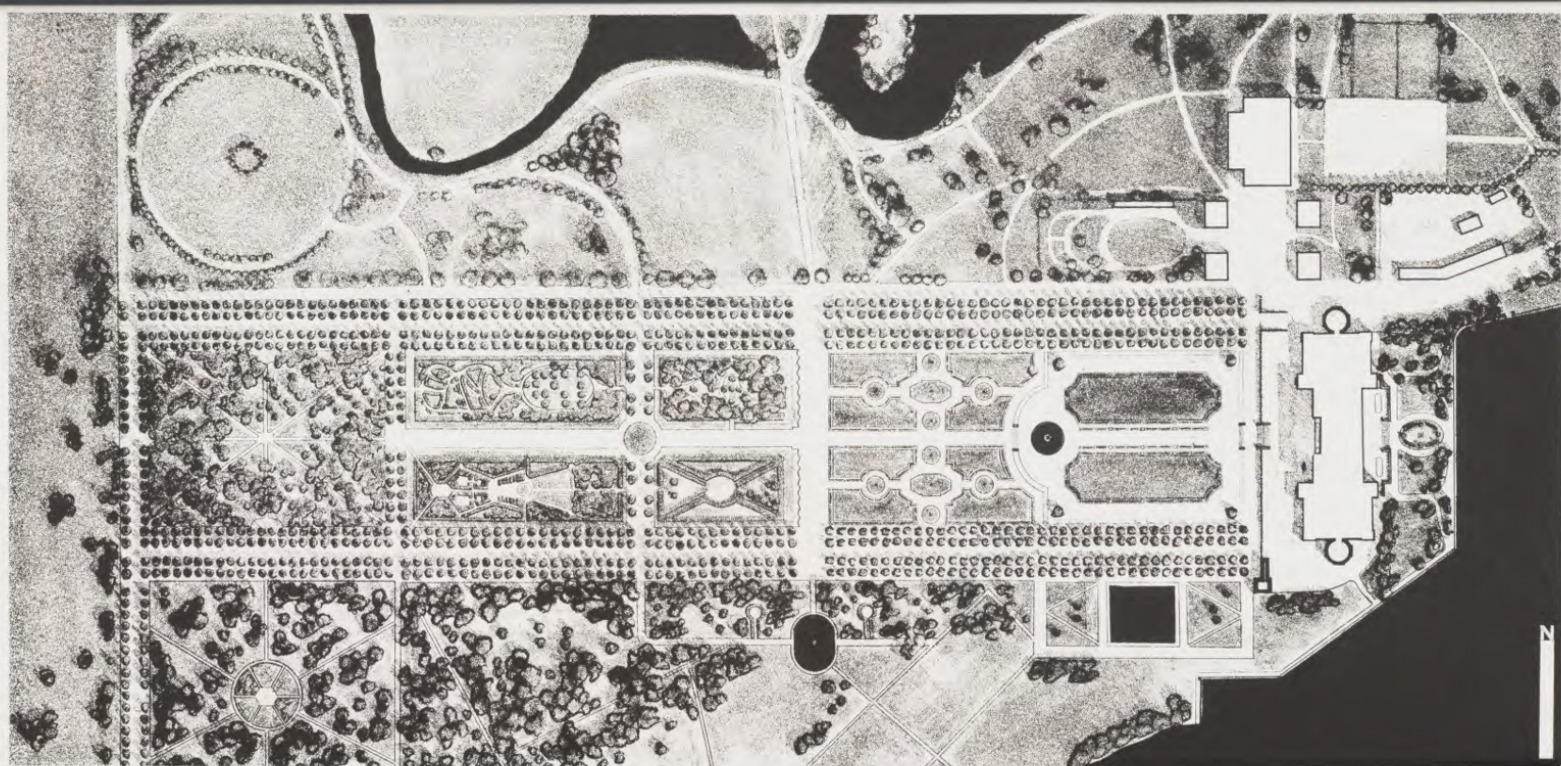


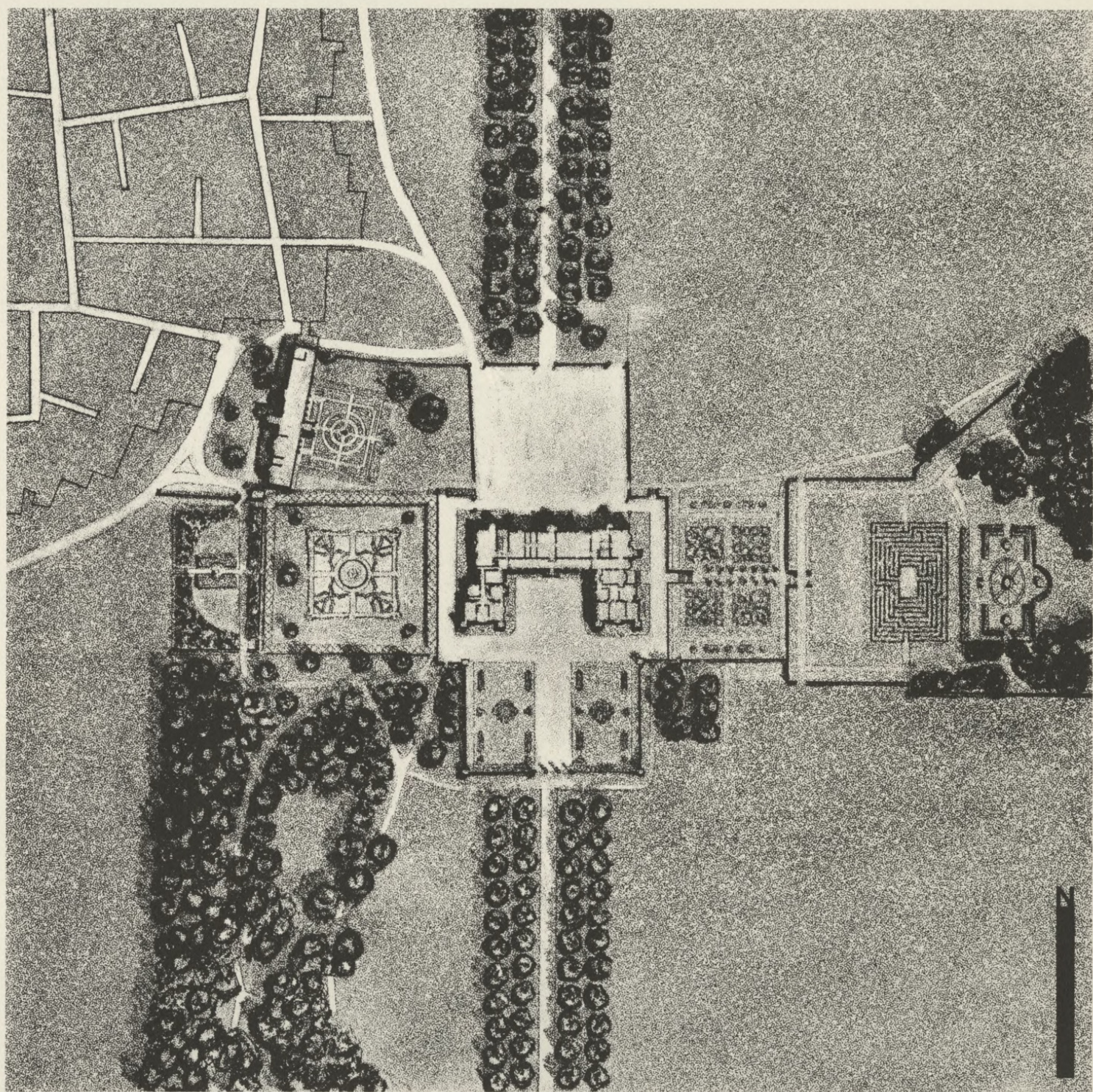


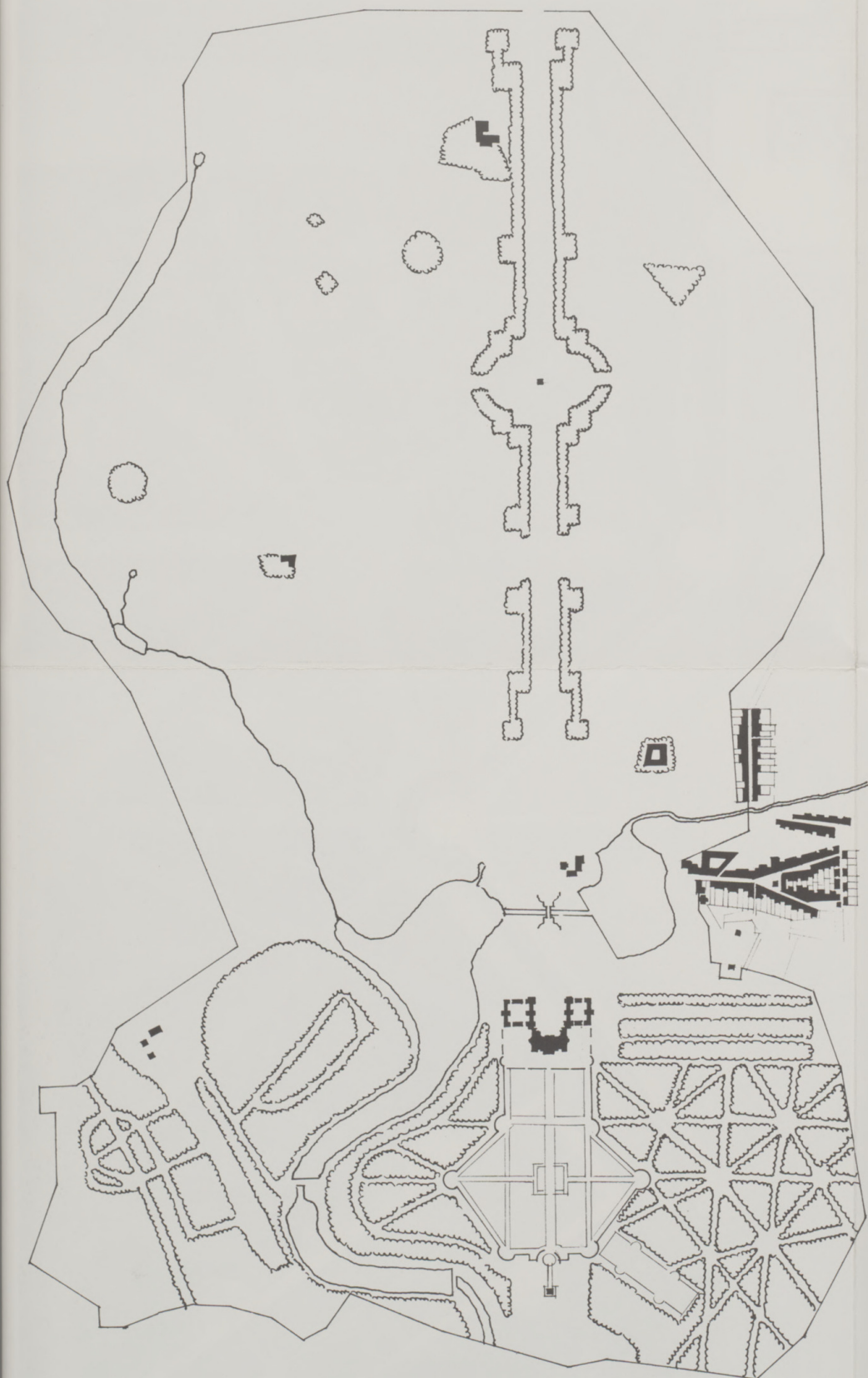


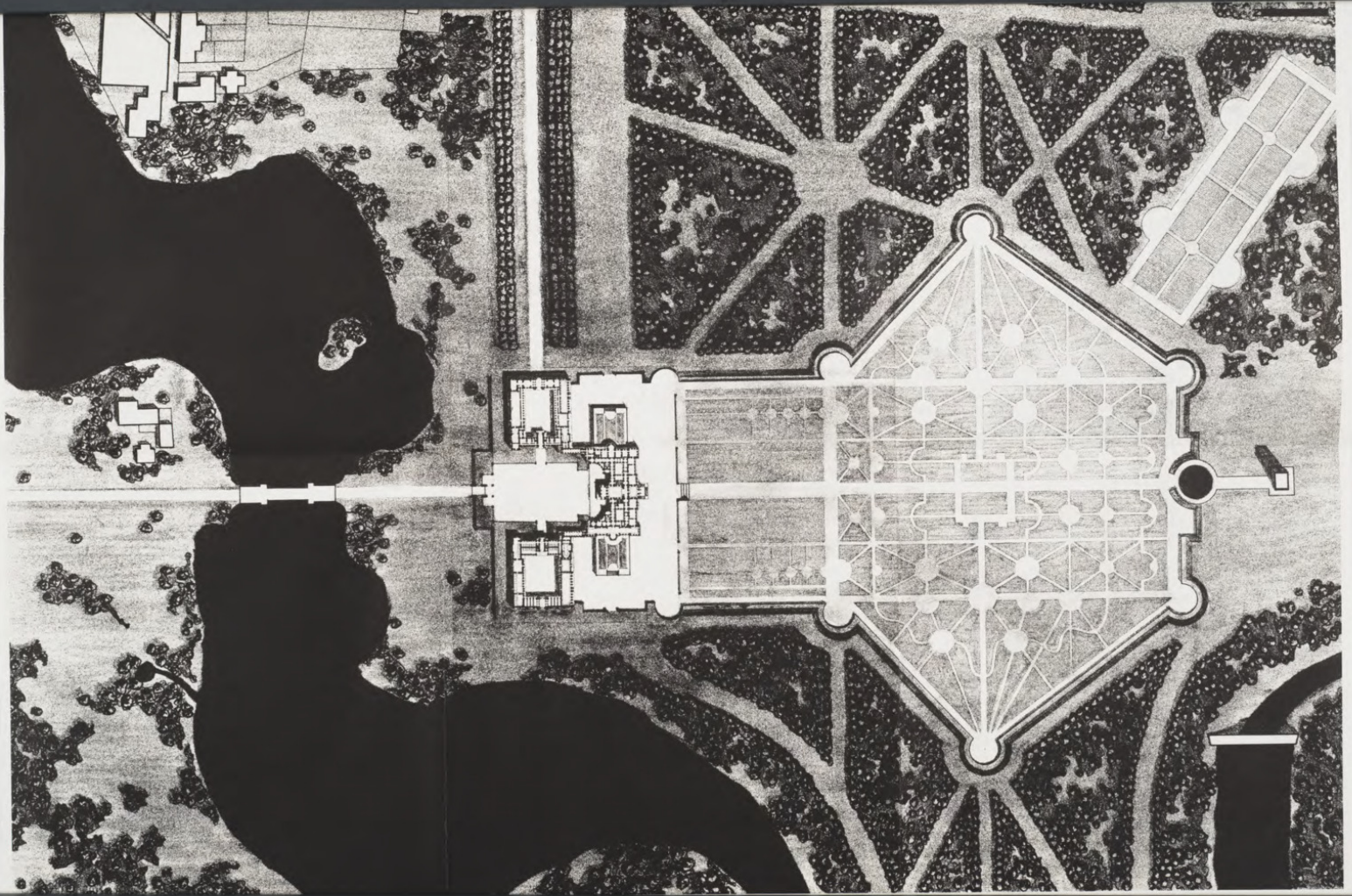


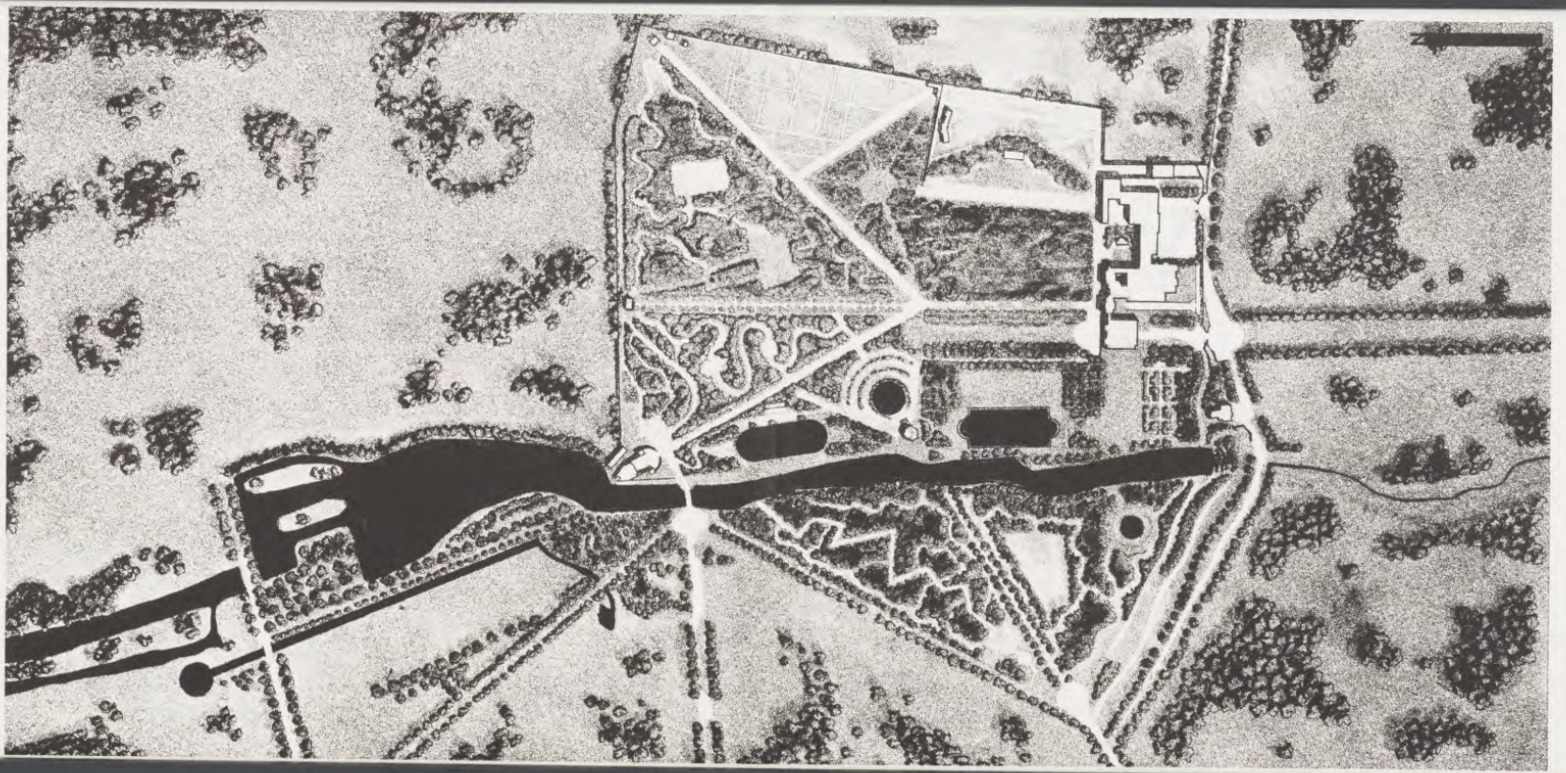
28 Drottningholm

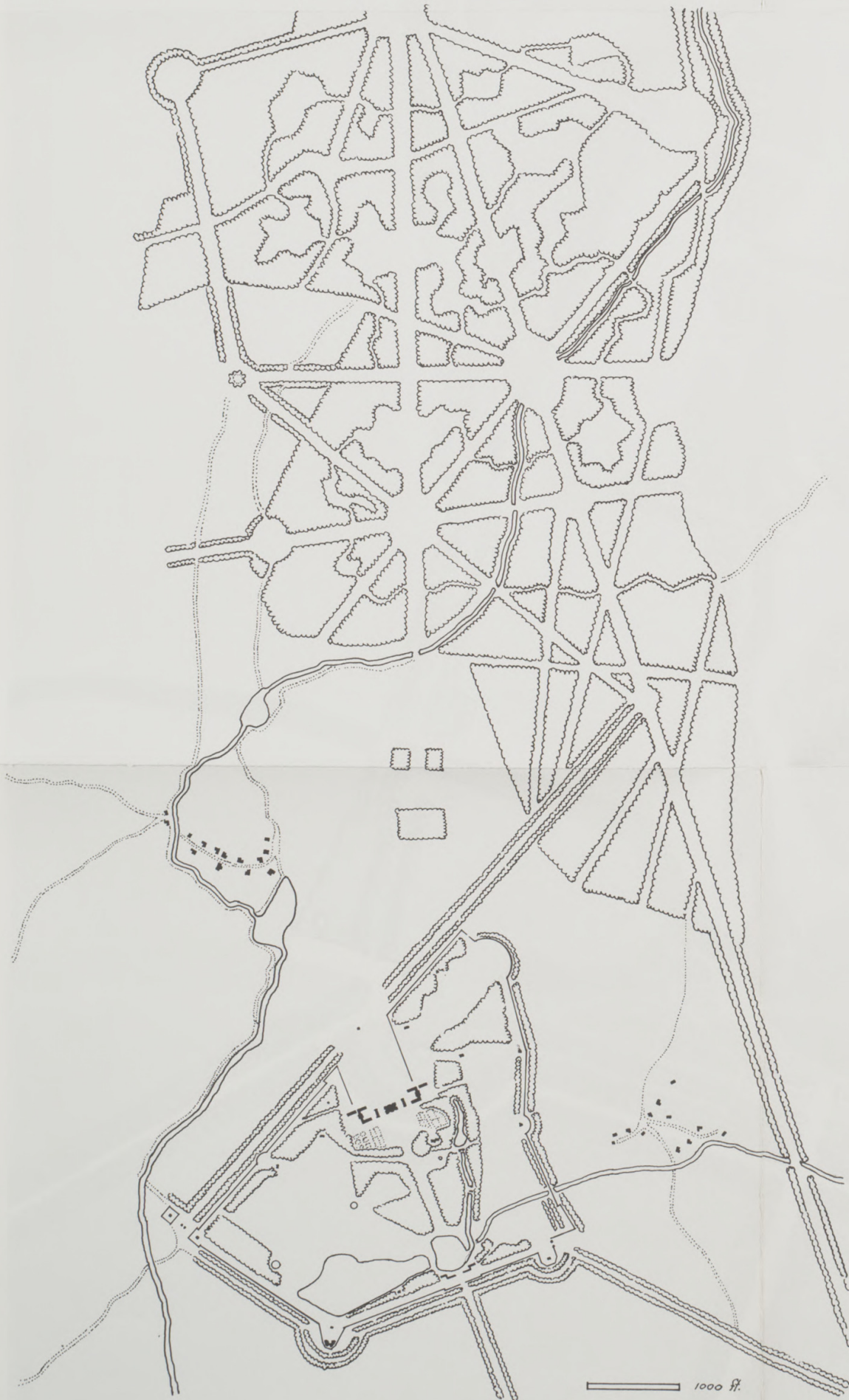


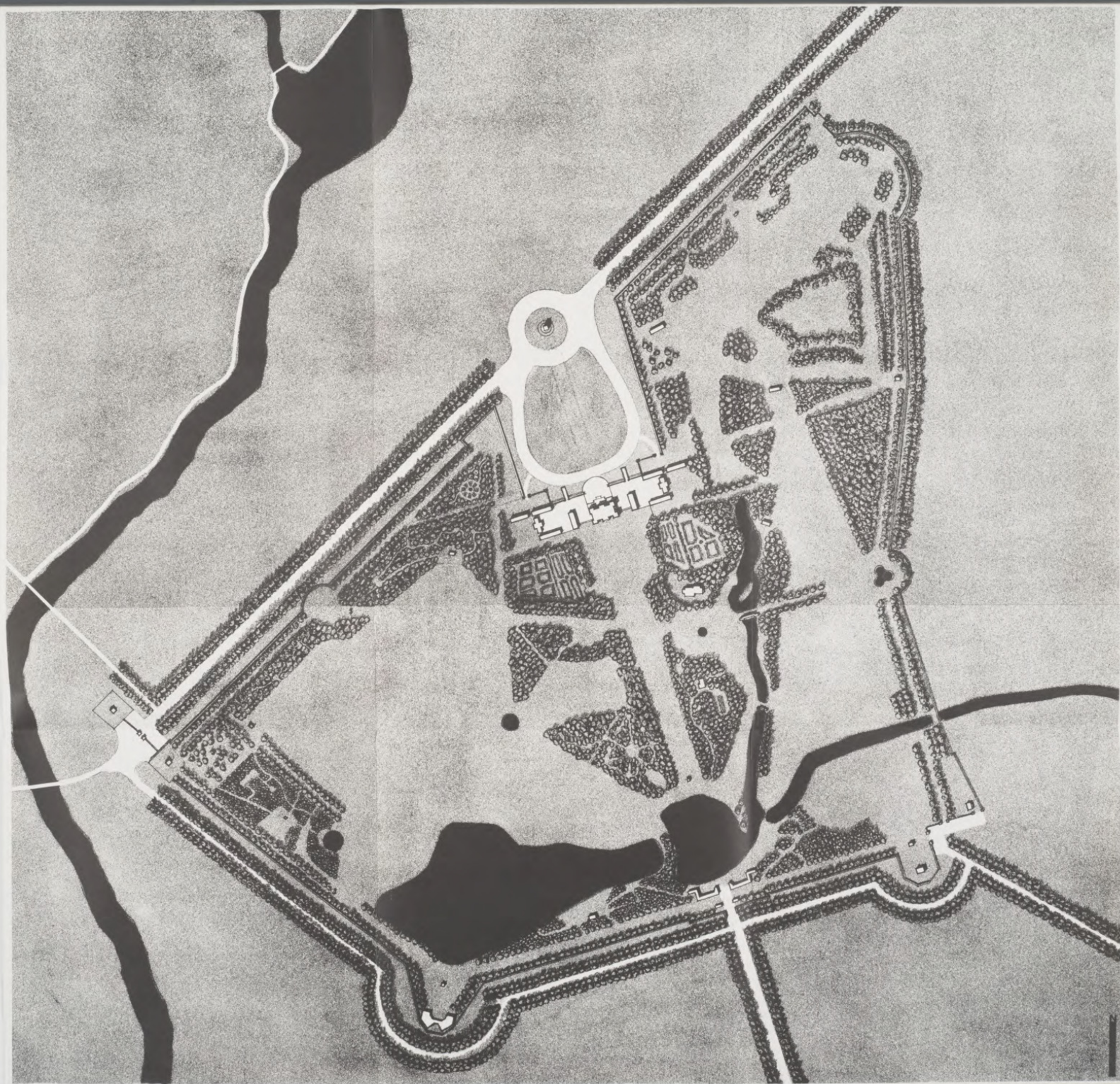










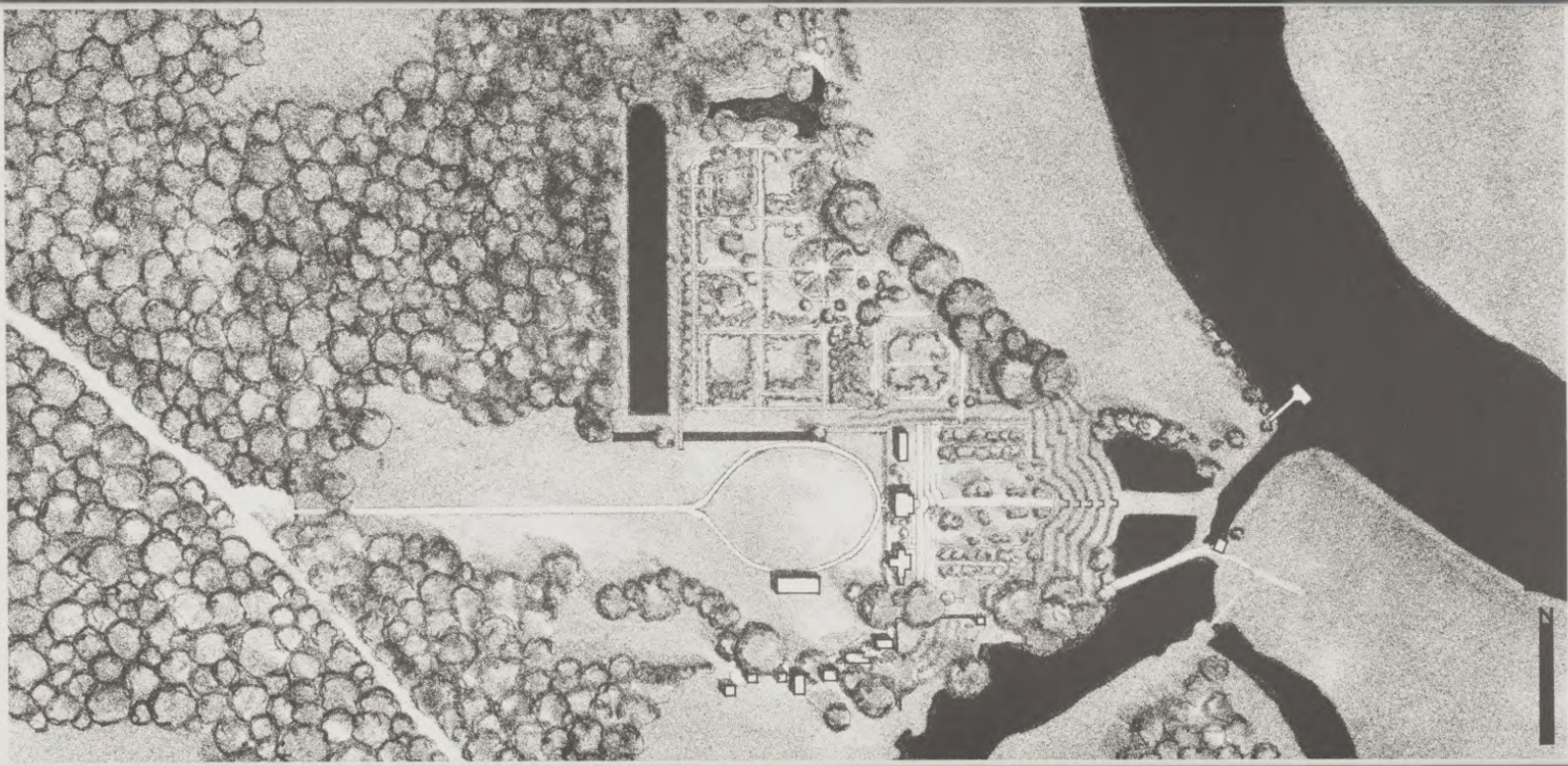


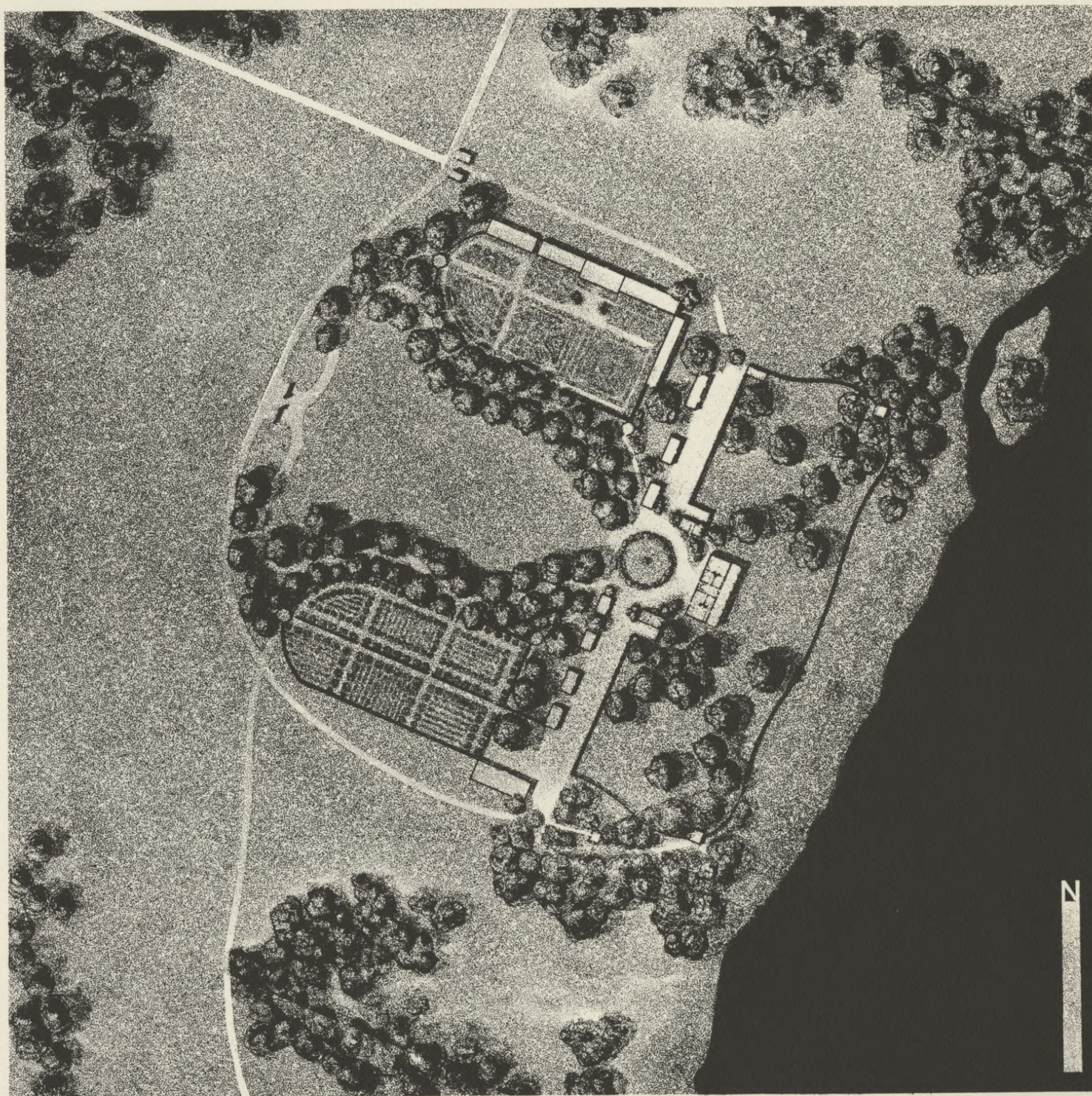






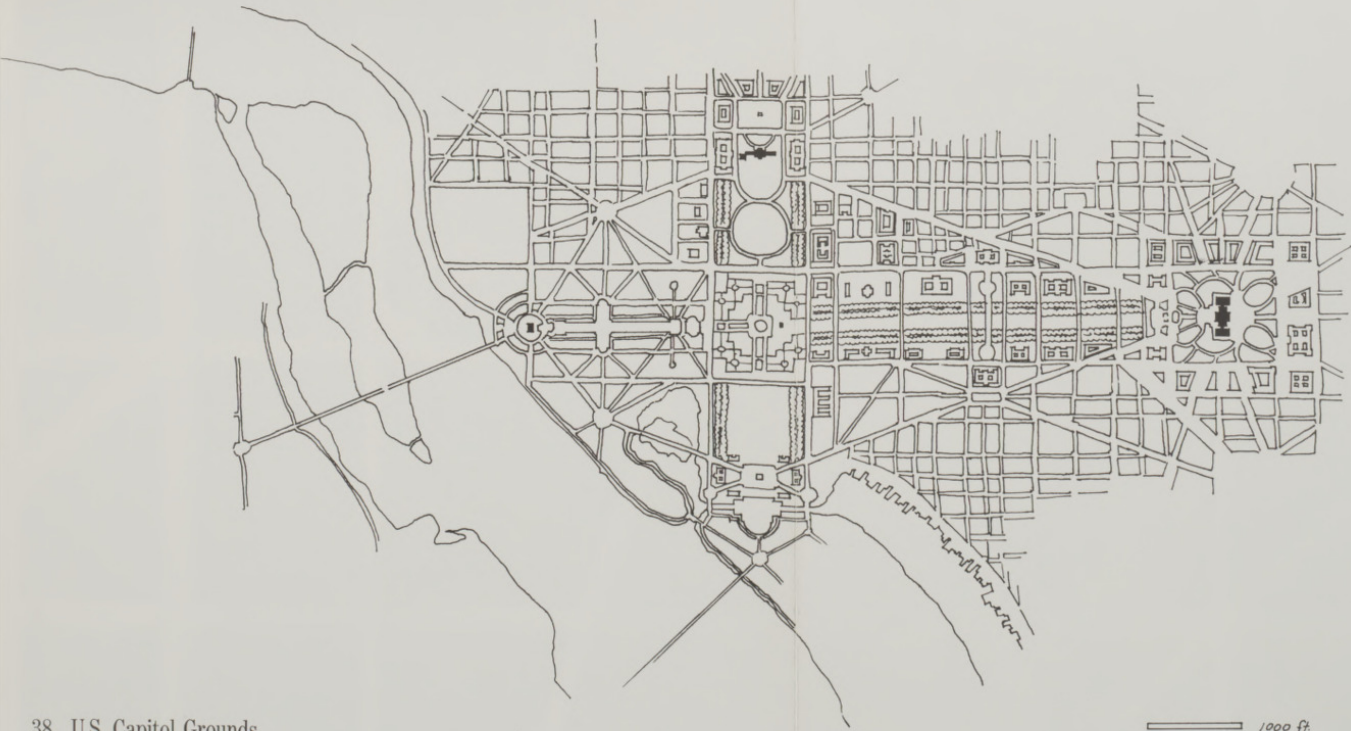
35 Middleton Place



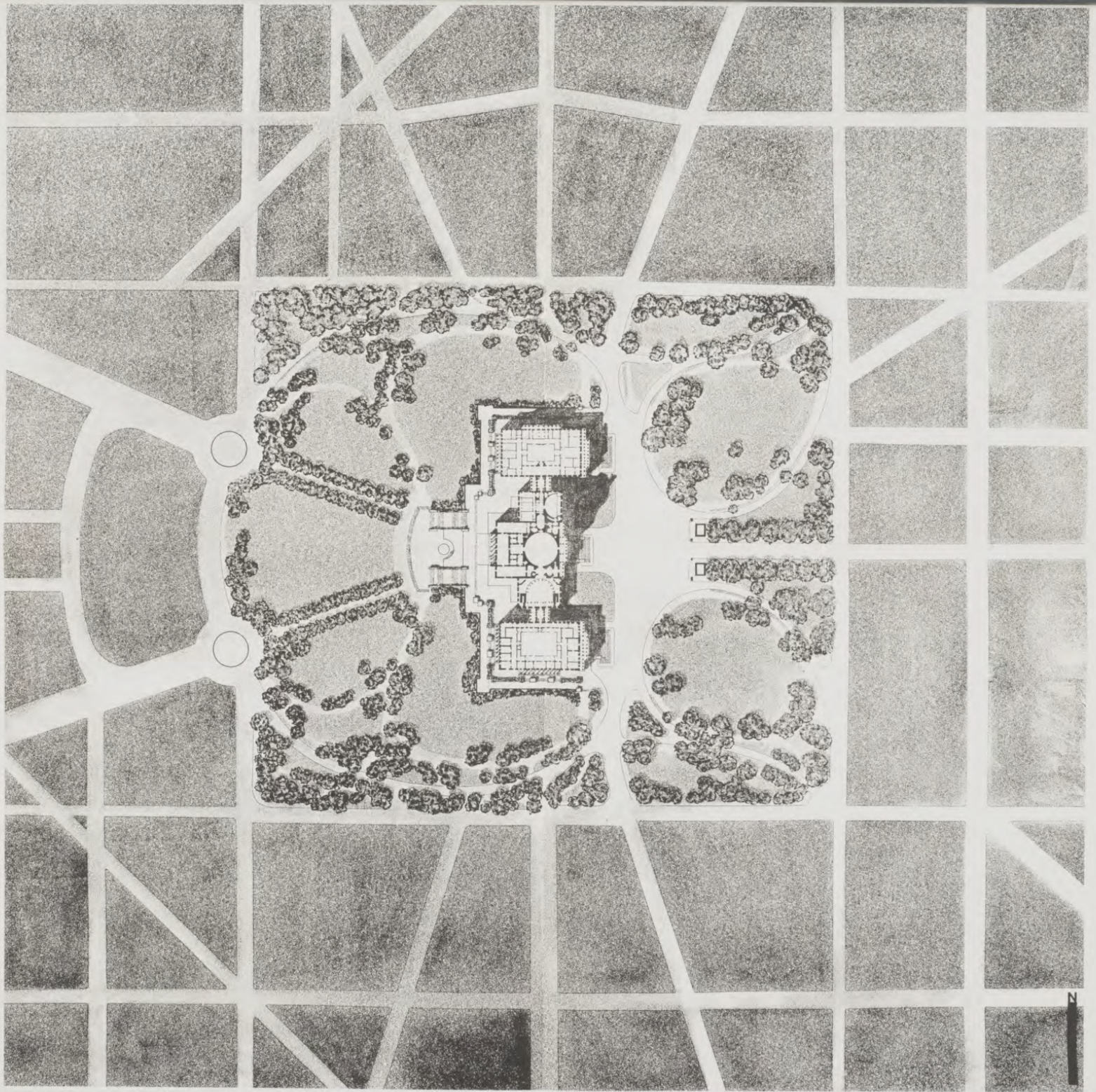


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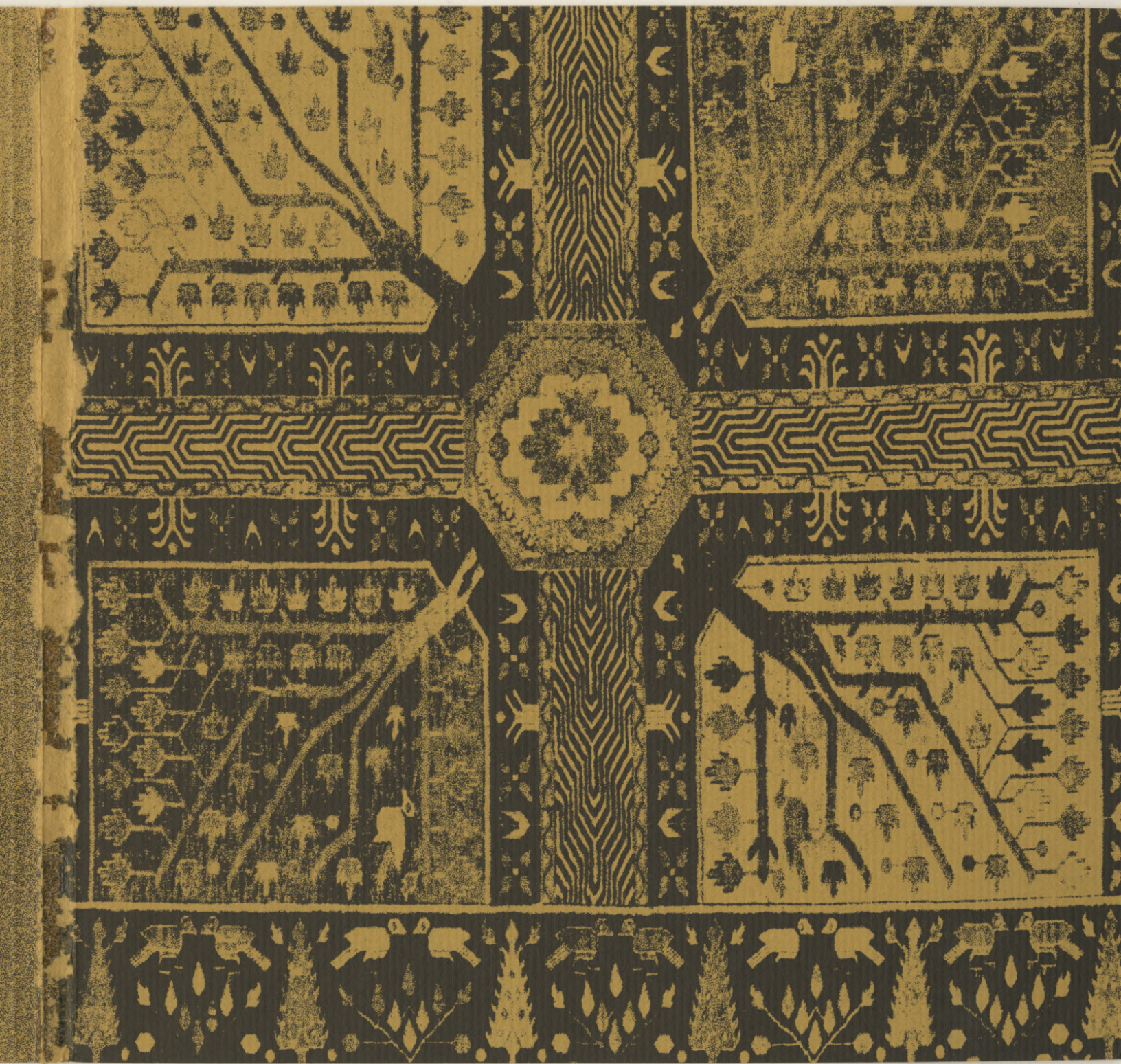


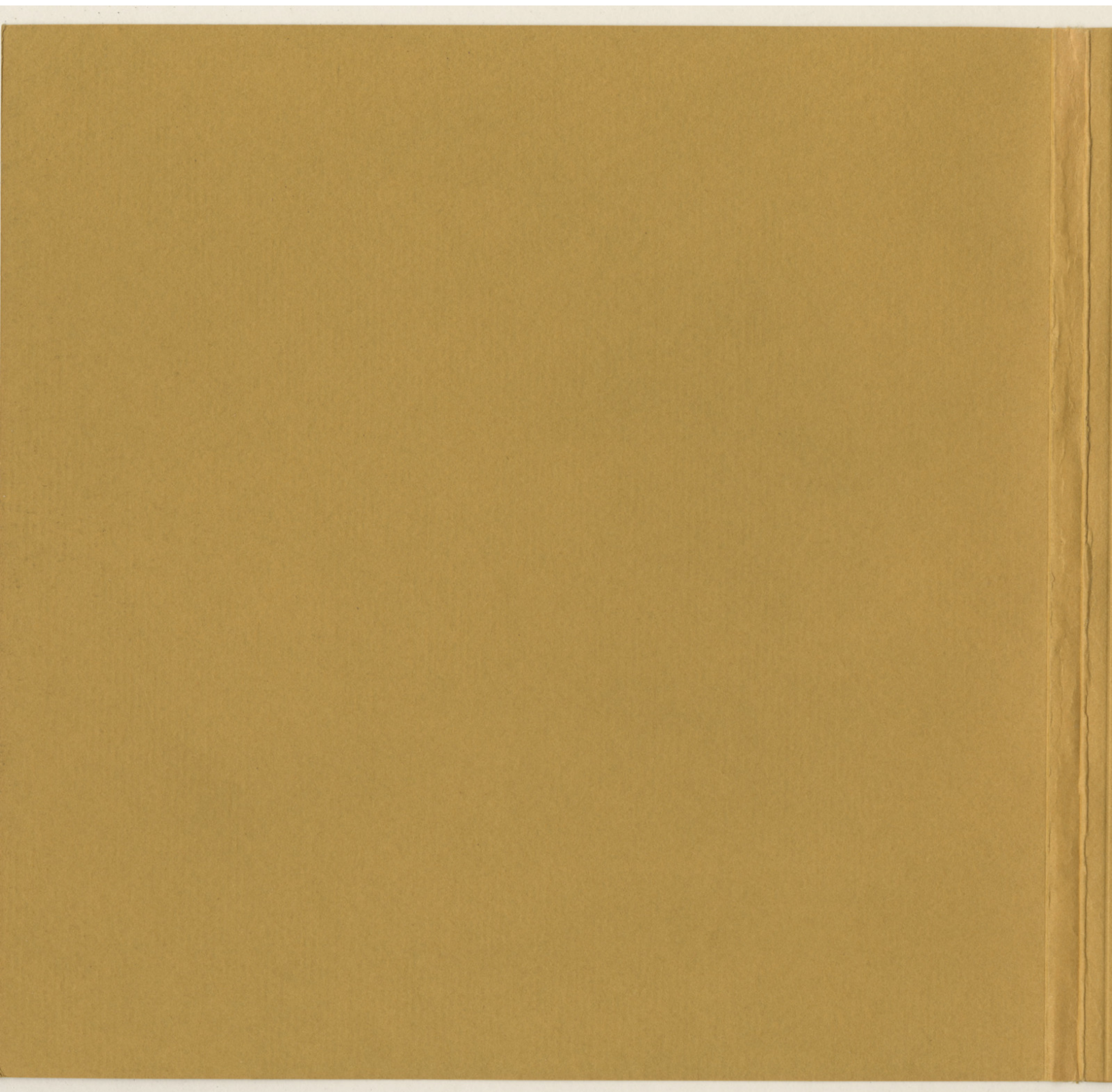
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Forty Gardens



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