SALK INSTITUTE

LA JOLLA, CALIFORNIA

LOUIS I. KAHN

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- **Louis Isadore Kahn** (February 20, 1901 or 1902 – March 17, 1974) was a world-renowned architect of Estonian Jewish origin, based in Philadelphia, Pennsylvania, United States.
- After working in various capacities for several firms in Philadelphia, he founded his own atelier in 1935.
- While continuing his private practice, he served as a design critic and professor of architecture at Yale School of Architecture from 1947 to 1957.
- From 1957 until his death, he was a professor of architecture at the School of Design at the University of Pennsylvania.
- Influenced by ancient ruins, Kahn's style tends to the monumental and monolithic; his heavy buildings do not hide their weight, their materials, or the way they are assembled.

LOUIS KAHN – STYLE OF ARCHITECTURE

- While Louis Isadore Kahn exhibited a compelling concern for structure, Louis Isadore Kahn sought to infuse his buildings with the symbolic meaning of the institutions they housed. Composed of austere geometries, his spaces are intended to evoke an emotional, empathetic response.

- Kahn's architecture is notable for its simple, platonic forms and compositions. Through the use of brick and poured-in place concrete masonry, he developed a contemporary and monumental architecture that maintained a sympathy for the site.

SALK INSTITUTE

INTRODUCTION

- The **Salk Institute for Biological Studies** is a premier independent, non-profit, scientific research institute located in La Jolla, California.

- The campus was designed by Louis Kahn. Salk had sought to make a beautiful campus in order to draw the best researchers in the world.

- The original buildings of the Salk Institute were designated as a historical landmark in 1991. The entire 27 acre site was deemed eligible by the California Historical Resources Commission in 2006 for listing on the National Register of Historic Places.

- Architect Louis I. Kahn
- Location La Jolla, California
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- Building Type research laboratories and offices
- Construction System reinforced concrete
- Climate mild
- context seaside
- Style Modern


Hopkins Dr
Hopkins Ln
John Jay Hopkins Dr
Voigt Ln
North Point Ln
North Campus
County Hwy S21
N Torrey Pines Rd
Northeast Lot
Scholars Dr N
Muir
Lower Lot
Scholars Dr N
Ranger Dr
N Torrey Pines Rd
Keeneland Row
Claiborne Square
Scripps Green Hospital
Salk Institute
Blackgold Rd
Blackgold Rd
La Jolla Farms
La Jolla Farms Rd
CA84

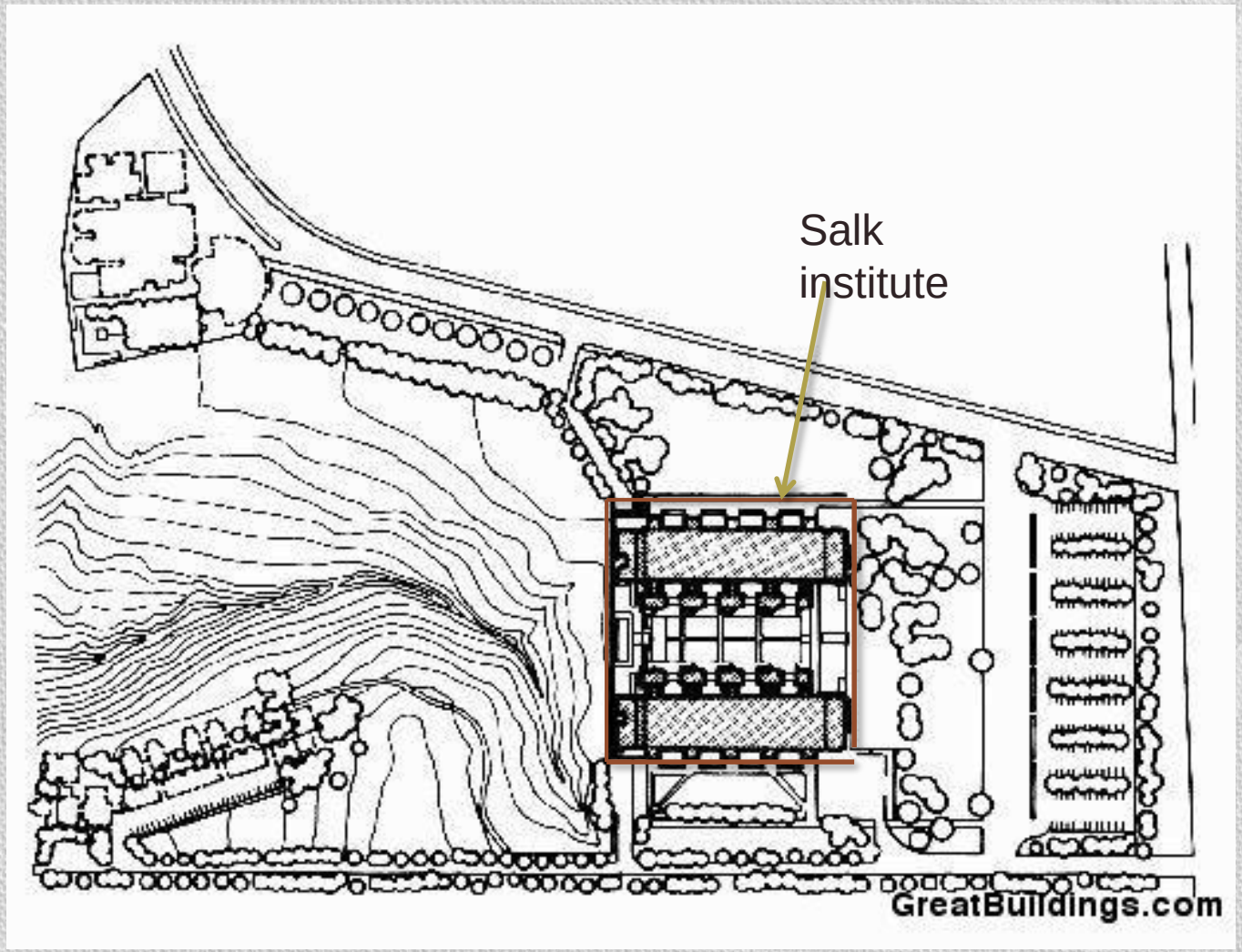

Torrey Pines Scenic Dr
Torrey Pines Scenic Dr
A
N Torrey Pines Rd
Salk Institute Rd
Salk Institute Rd

CONCEPT

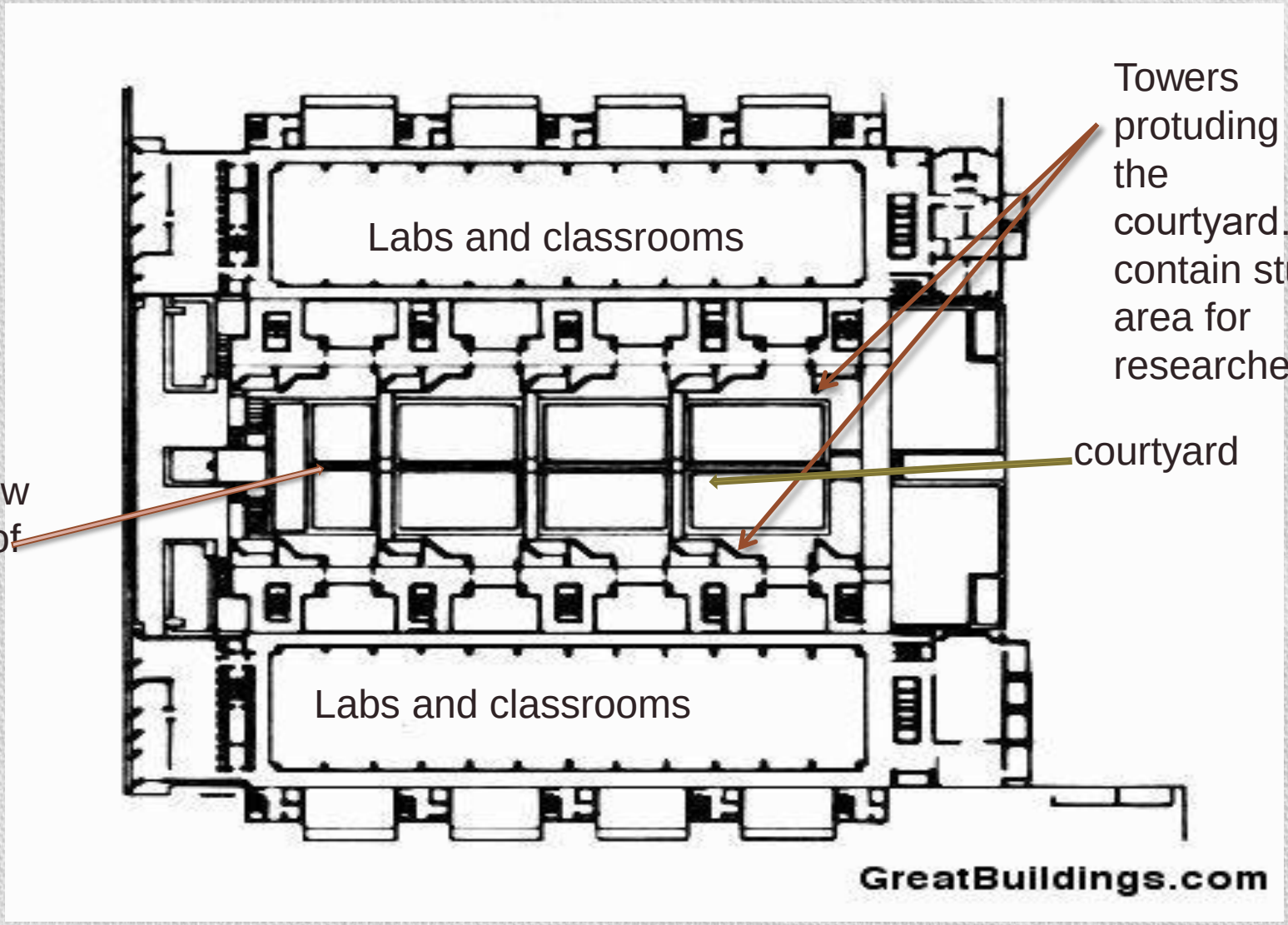
- Before designing, Kahn referenced and studied monasteries in order to build his concept of an “intellectual retreat.”
- The institute was designed as a mandala which in Oriental art represents natural order and hierarchy through the use of a series of concentric geometric shapes.
- This building radiates inward from the exterior service spaces (body); through the biological laboratory spaces (mind); through the walkways which represent places for meeting (society); through the private teak screened offices of the scientist with their ocean views; to the central court with its simple band of water running through it, which is a place of stillness, a façade to the sky, a roofless cathedral (spirit).

  Thus, the progression from body to spirit and the representation of the whole human being.

SITE PLAN



PLAN


Towers protuding into the courtyard…… contain study area for researchers
courtyard
Narrow strip of water
Labs and classrooms
Labs and classrooms
GreatBuildings.com

- Kahn's creation consists of two mirror-image structures that flank a grand courtyard.
- Each building is six stories tall.
- Three floors contain laboratories and the three levels above the laboratory floors provide access to utilities.
- Protruding into the courtyard are separate towers that provide space for individual professorial studies.
- The towers at the east end of the buildings contain heating, ventilating, and other support systems.
- At the west end are six floors of offices overlooking the ocean.
- Together, there are 29 separate structures joined together to form the Institute.

- In response to Salk's request that the Institute provide a welcoming and inspiring environment for scientific research, Kahn flooded the laboratories with daylight.
- He built all four outer walls of the laboratory levels out of large, double-strength glass panes, producing an open, airy work environment.
- Local zoning codes restricted the height of the buildings so that the first two stories had to be underground.
- This did not, however, prevent the architect from bringing in daylight: he designed a series of light wells 40 feet long and 25 feet wide on both sides of each building to bring daylight into the lowest level.

CLASSROOMS AND LABS

entrance

Entrance of the office facility of the salk institute

INTERIOR

- The buildings themselves have been designed to promote collaboration, and thus there are no walls separating laboratories on any floor.
- The lighting fixtures have been designed to easily slide along rails on the roof, in tune with the collaborative and open philosophy of the Salk institute's science.
- Each laboratory block has five study towers, with each tower containing four offices, except for those near the entrance to the court, which only contain two.
- A diagonal wall allows each of the thirty-six scientists using the studies to have a view of the Pacific, and every study is fitted with a combination of operable sliding and fixed glass panels in teak wood frames.

OFFICE INTERIOR

Lab interior

STAIRCASE

MATERIALS USED

- The materials that make up the Salk Institute consist of concrete, teak, lead, glass, and steel.
- The concrete was poured using a technique studied in Roman architecture. Once the concrete was set, he allowed no further finishing touches in order to attain a warm glow in the concrete.
- The open plaza is made of travertine marble, and a single narrow strip of water runs down the center, linking the buildings to the vast Pacific Ocean.
- The architect chose an unfinished look for the teak surrounding the study towers and west office windows, and he directed that no sealer or stain be applied to the teak.

Concrete work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SECTION

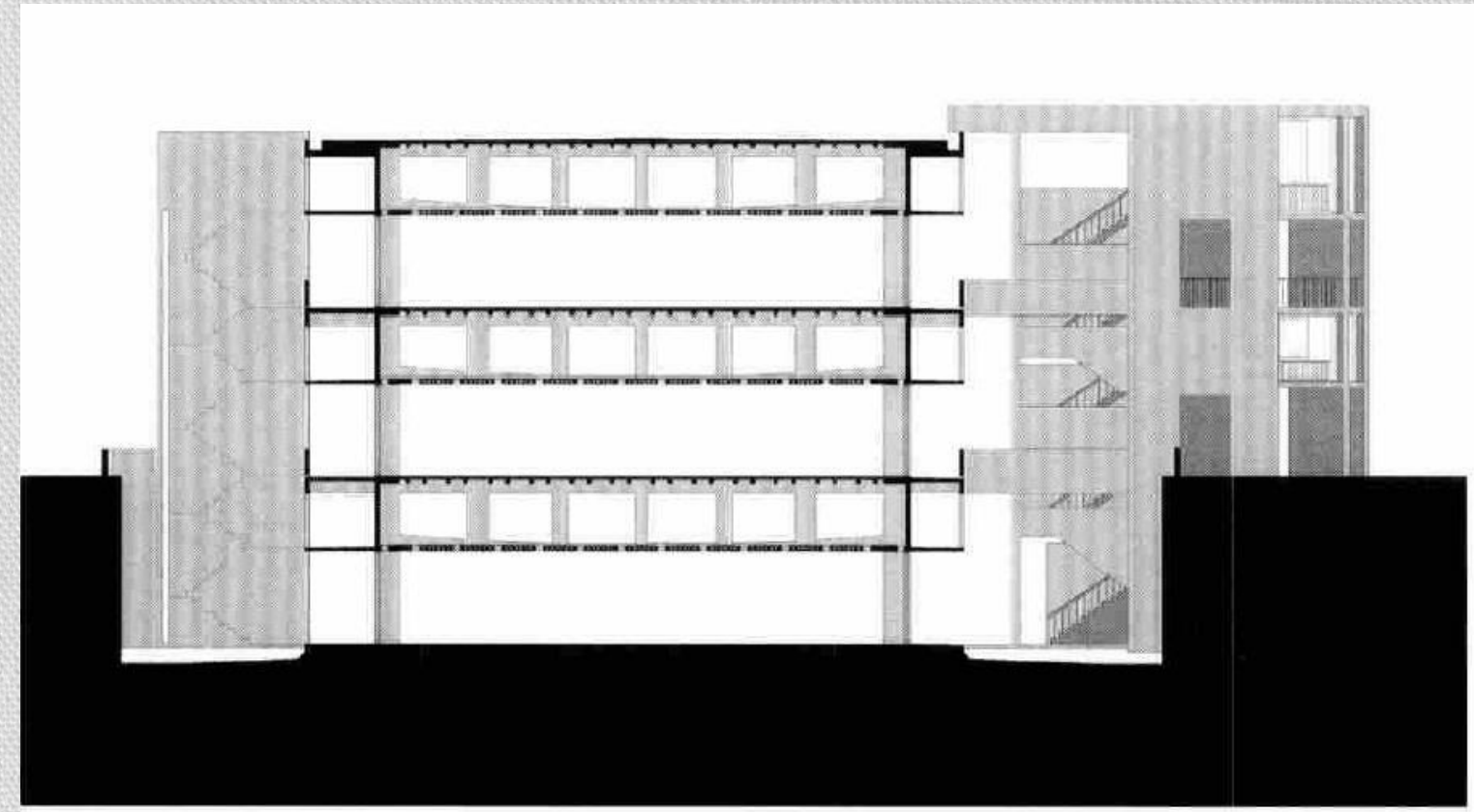
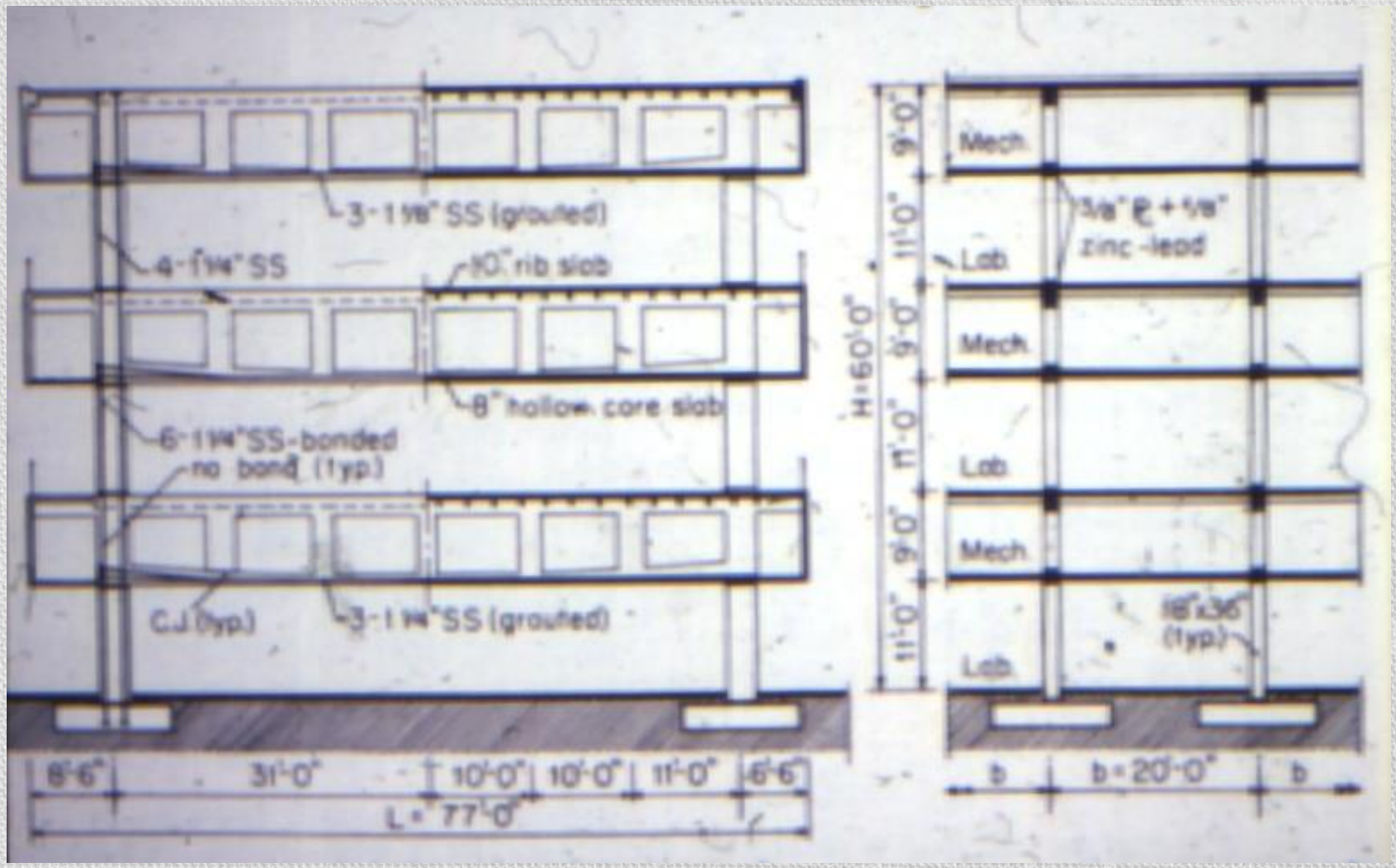
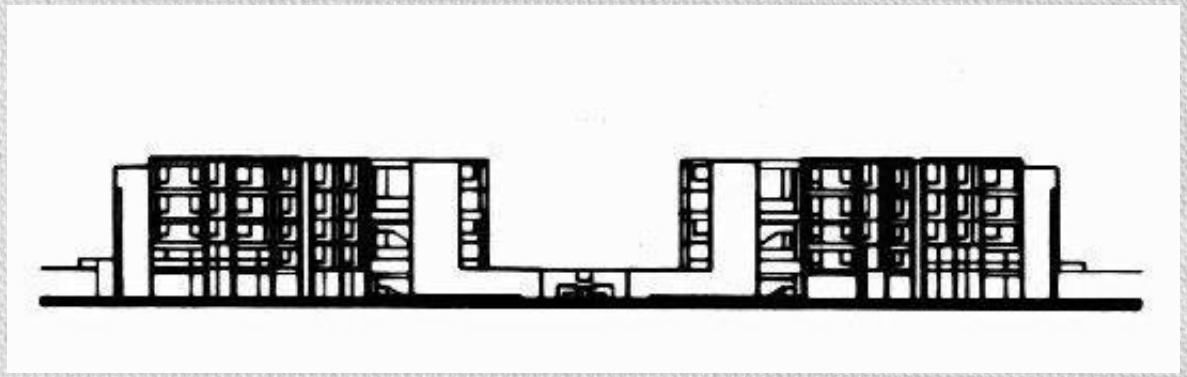


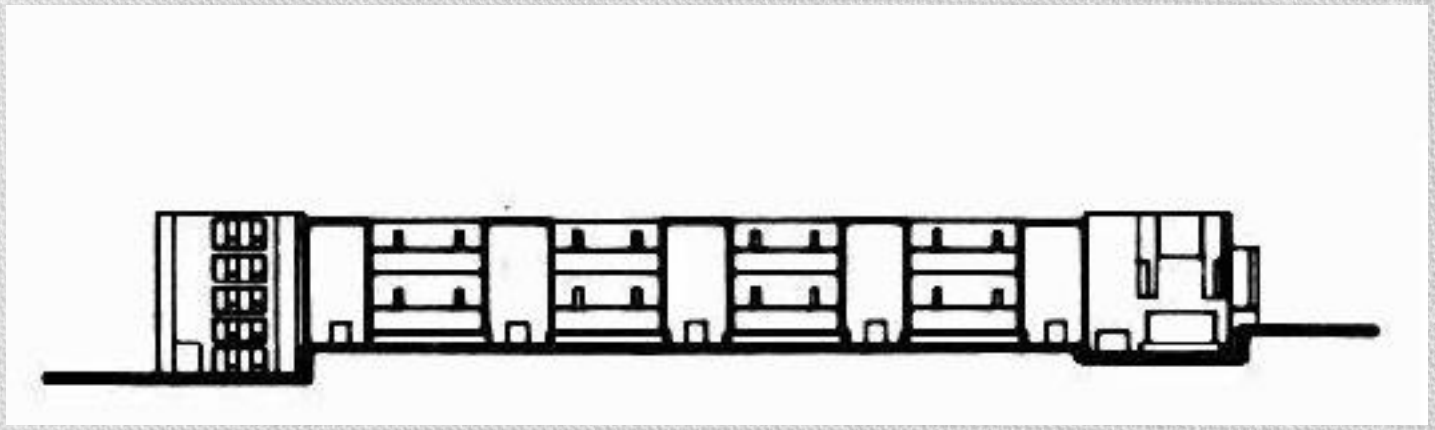
Figure 2. Cross section of the final scheme, developed to provide further flexibility in servicing. (Diagram by the author from drawings in the Louis I. Kahn Collection, University of Pennsylvania.)


3-1 1/8" SS (grouted)
4-1 1/4" SS
10" rib slab
8" hollow core slab
6-1 1/4" SS-bonded
no bond (typ.)
C.J. (typ.)
3-1 1/4" SS (grouted)
8'-6"
31'-0"
10'-0"
10'-0"
11'-0"
6'-6"
L = 77'-0"
H=60'-0"
9'-0"
11'-0"
9'-0"
11'-0"
9'-0"
11'-0"
Mech
Lab
Mech
Lab
Mech
Lab
3/8" ℄ + 1/8"
zinc-lead
18"x36"
(typ.)
b
b = 20'-0"
b

WEST ELEVATION



SOUTH ELEVATION

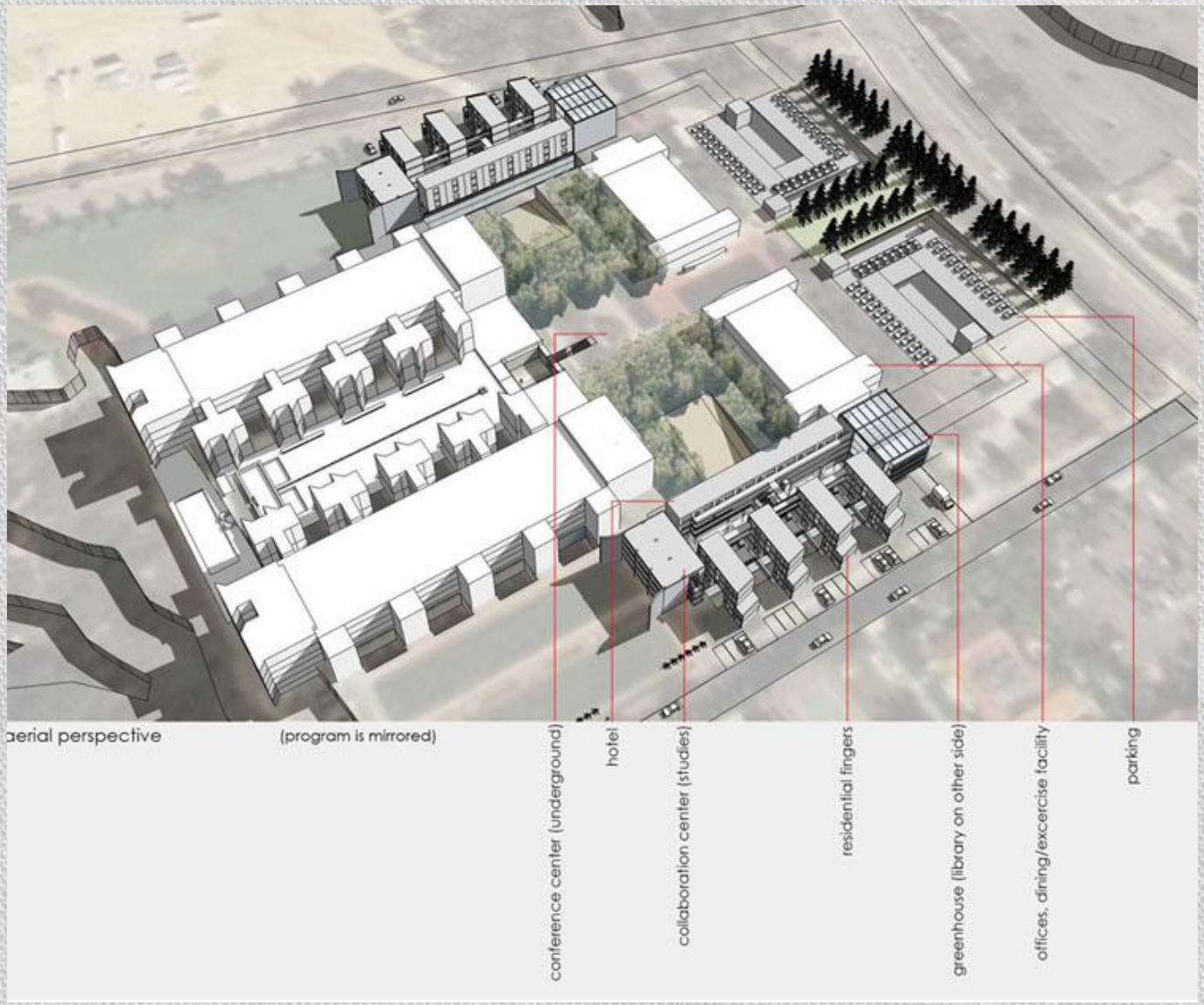


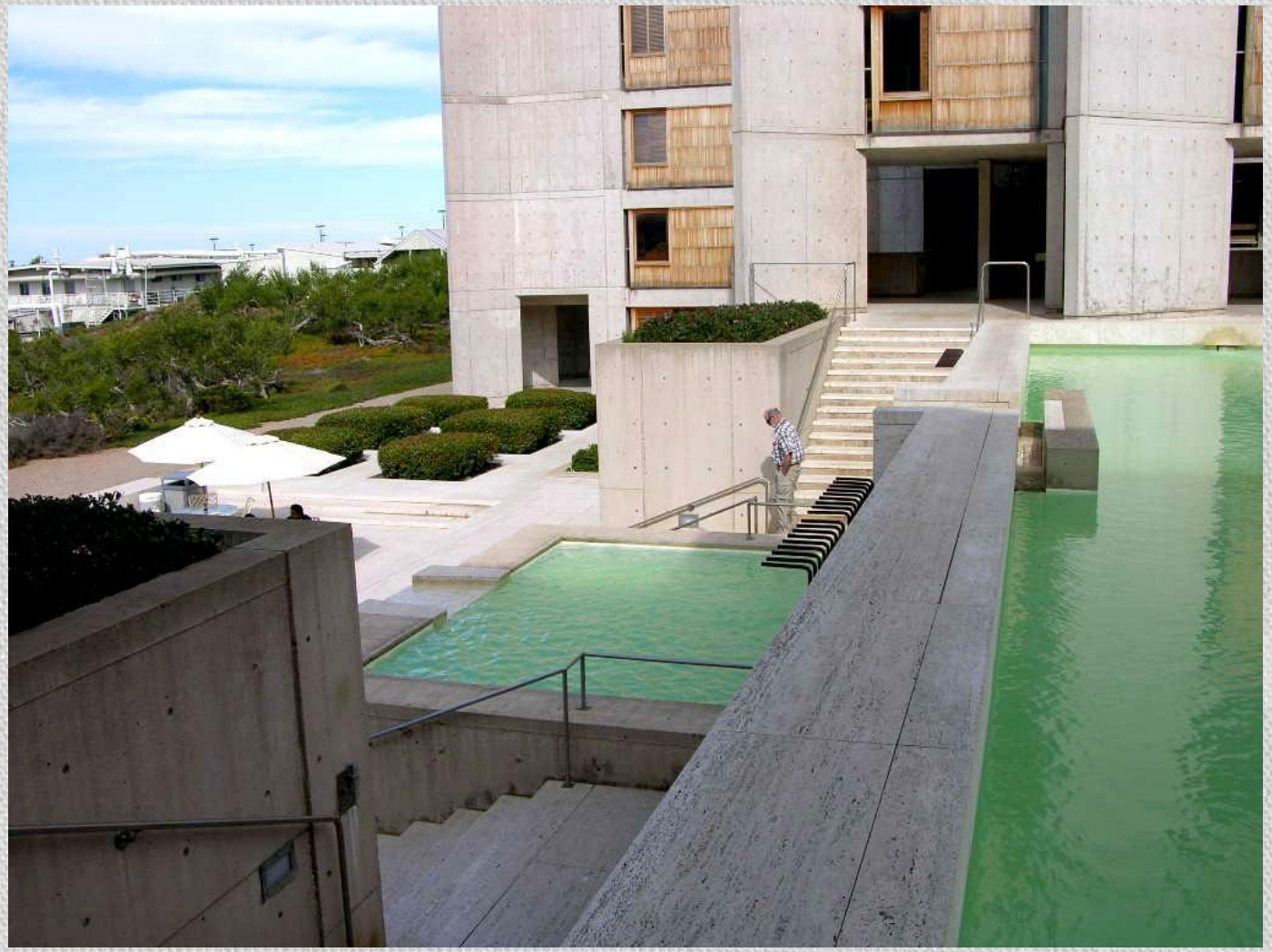
PASSAGE

. Sunken Courts Along Central Courtyard

The towers on the plaza are for professors' offices, they are flanked by towers for laboratories and utilities. Since the plaza is high up, the towers actually extend several floors below it to form these cloisters.

3D VIEW


aerial perspective
(program is mirrored)
conference center (underground)
hotel
collaboration center (studies)
residential fingers
greenhouse (library on other side)
offices, dining/excercise facility
parking



Exterior photo showing building facades facing onto courtyard space