



robert mccarter

uvodnik
esej
predstavitev
intervju
natečaj
kritika
pogovor
predavanje
prevodi

zahteva prisotnosti: neuresničena dela louisa i. kahna

demanding presence: the unbuilt works of louis i. kahn

Fotografije: arhiv arhitekta / Photos: architect's archive



Foto: Andraž Kavčič

Robert McCarter je vsestranski arhitekt: projektant, profesor in avtor številnih knjig o arhitekturi. Trenutno predava na Univerzi Washington v St. Louisu, pred tem je predaval na floridski univerzi, bil je tudi asistent dekana in profesor na šoli za arhitekturo na Univerzi Columbia v New Yorku. Robert McCarter je velik poznavalec arhitekture Frank Lloyd Wrighta, o njem in njegovih projektih je napisal kar nekaj knjig. Leta 2003 pa je pri založbi Phaidon izšla njegova velika monografija o Louisu Kahnu.

Robert McCarter is a versatile architect: a designer, a professor, and the author of numerous books on architecture. Currently, he lectures at the Washington University in St. Louis; prior to that, he lectured at the University of Florida. He was also Assistant Dean and professor at the Columbia University School of Architecture in New York.

Robert McCarter is an authority on architecture of Frank Lloyd Wright and wrote several books about him and his projects. In 2003, his in-depth monograph on Louis Kahn was published by Phaidon Press.

Arhitektura gotovo spada med najbolj zahtevne discipline, saj mora loviti ravnotežje med nezdržljivimi zahtevami umetnosti in znanosti, hkrati pa je tudi najbolj javna od umetnosti ter za svojo uresničitev zahteva sodelovanje mnogih ljudi, čeprav pogosto izhaja iz poetične vizije posameznika. Temu navkljub pa je delež neuresničenih projektov med Kahnovimi deli nenavadno visok, neuresničenih je kar 150 od 230 projektov, njihova kakovost pa je presenetljiva. Če za trenutek pozabimo Kahnova zgrajena dela in se posvetimo le nezgrajenim projektom, njegov opus še vedno predstavlja enega največjih v arhitekturi 20. stoletja.

Arhitekturni zgodovinarji, kritiki in dejavni arhitekti večinoma zanemarljajo neuresničena dela, saj si ne želijo ali pa ne znajo prepoznati njihovega teoretskega pomena, ustvarjalnega potenciala ali kritiške pomembnosti za razvoj določenega arhitekta. Opozarjam, da je to intelektualno in kulturno nesprejemljiva slepa pega zgodovine arhitekture, ki jo povzroča nezmožnost izobraževalnega

Architecture is unquestionably among the most difficult of disciplines, balanced as it is between the incommensurable demands of art and science, and being the most public of acts, requiring the participation of many to realize, yet often originating in a single individual's poetic vision. Even so, the number of unrealized designs among Louis I. Kahn's total commissions is unusually high—150 unbuilt out of 230 designs—and their quality is simply staggering. I would maintain that if we were to leave aside Kahn's built works and evaluate only his unbuilt designs, these works would still constitute one of the most significant contributions to twentieth-century architecture.

Architectural historians, critics and practitioners have generally tended to ignore unbuilt designs by architects, being unwilling or unable to recognize either their theoretical insights, generative potential, or critical importance in an architect's development as a designer. It is my contention that the loss of our disciplinary history represented by the failure of educators, practitioners, critics and historians to study

sistema, arhitektov samih, kritikov in zgodovinarjev, da bi raziskali in se učili iz ključnih del, ki so le zaradi neugodnih okoliščin ostala neuresničena. Teoretski uvid in gradbene zamisli utelešene v neuresničenih projektih, kot je na primer Le Corbusierjeva bolnišnica v Benetkah, mora arhitektura kot disciplina znova prepoznati.

V svoji monografiji o Louisu Kahnju obravnavam dvanajst najpomembnejših neuresničenih projektov, za katere sem prepričan, da so enakovredni dvanajst zgrajenim, ki jih predstavljam v isti knjigi. Ob raziskovanju Kahnovih projektov v kronološkem zaporedju se pokaže, da je Kahn ravno v ključnih nezgrajenih, a le redko obravnavanih, delih razvijal temeljne zamisli reda, ki so kasneje postale temelj za njegova, slavna in pogosto obravnavana, zgrajena dela. Kahn je v neuresničenih projektih razvijal zamisli, ki so kasneje postale značilnosti njegovih del, na podoben način, kot so zgodnji, arhaični grški templji neobhodno potrebni za uresničitev tega, kar zdaj štejemo kot višek grške arhitekture, Partenon:

»Ne verjamem, da je lepoto mogoče ustvariti zavestno. Lepota izhaja iz volje po biti, ki se je prvič izrazila v arhaičnem. Primerjajte tempelj v Paestumu s Partenonom. Arhaični Paestum je začetek. Je obdobje, v katerem so se razmaknili zidovi, nastali stebri in, ko Glasba vstopi v arhitekturo. Paestum je bil navdih za Partenon. Partenon se nam zdi lepši, toda meni je Paestum še bolj všeč, saj je začetek, ki vključuje vsa čudesa, ki mu sledijo.«¹

Tako niti ne preseneča, da je bil Kahnov odnos do lastnih nezgrajenih del prežet z mero optimizma:

»Projekt, ki se ne zgradi, ni zares izgubljen. Potem ko se enkrat oceni njegovo vrednost, ne moremo več zanikati njegove zahteve po prisotnosti. Projekt pa le čaka na prave okoliščine.«²

Z obravnavo Kahnovih najpomembnejših neuresničenih del, štirinajstih izmed 150, kar pomeni manj kot desetino njegovih neuresničenih naročil, in z razumevanjem pomena, ki ga imajo za sodobno arhitekturo, znova preučujemo Kahnovo vizijo arhitekture. V kratki predstavitvi štirinajstih projektov bom pokazal oblikovna vodila, ki jih je Kahn odkrival v vsakem od projektov in, kjer bo to mogoče, pokazal, pri katerem od kasnejših projektov jih je upošteval.

Začenjamo s **Središčem Judovske skupnosti (Jewish Community Center) v Trentonu**, New Jersey, 1954-58. Kahn si je glavno zgradbo zamislil kot serijo drug na drugega naloženih in med seboj povezanih osemkotnikov, hkrati pa je naredil tudi projekt za kopališče v obliki križa, sestavljenega iz kockastih volumnov, ki so se med seboj prekrivali; ta del projekta so tudi zgradili. Kahn je konec leta 1955 svoje projekte pokazal dvema mladima članoma Univerze v Teksasu, Austinu, Colinu Roweju, britanskemu arhitekturnemu zgodovinarju in kritiku, ki je študiral pri Rudolphu Wittkowerju, in Robertu Slutzkyju, ameriškemu

and learn from these transformative works—unrealized only by chance and circumstance—is intellectually and culturally unsustainable. The insights and constructive concepts embodied in unbuilt designs such as Le Corbusier's Venice Hospital must be re-engaged by the discipline of architecture.

In my comprehensive monograph on Louis Kahn, I examine twelve major unbuilt works that I hold to be of equal importance as the twelve great built works I present. As becomes clear when examining Kahn's architectural designs in chronological order, it was almost inevitably in these pivotal—but almost never studied—unbuilt projects that Kahn first evolved the fundamental ordering concepts that would later form the foundation for his famous—and often studied—built works. For Kahn, these unbuilt designs established the principles that would later characterize his built works, in the same way that the earliest, archaic Greek temples are necessary for the realization of what we today consider the epitome of the architecture of that period, the Parthenon:

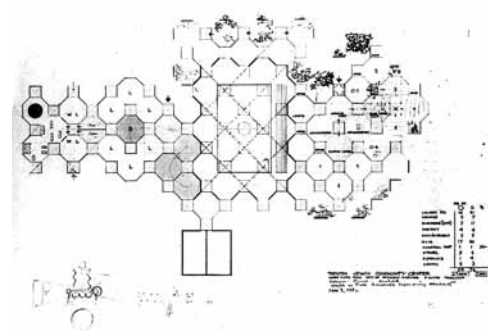
"I do not believe that beauty can be deliberately created. Beauty evolves out of a will to be that has its first expression in the archaic. Compare Paestum with the Parthenon. Archaic Paestum is the beginning. It is the time when the walls parted and the columns became, and when Music entered architecture. Paestum inspired the Parthenon. The Parthenon is considered more beautiful, but Paestum is still more beautiful to me. It presents a beginning within which is contained all the wonder that may follow in its wake."¹

Thus it is perhaps not so surprising to find that Kahn's attitude towards his own unrealized designs was one of unfailing optimism:

"That which is not built is not really lost. Once its value is established, its demand for presence is undeniable. It is merely waiting for the right circumstances."²

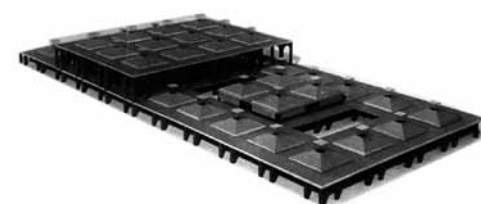
By studying the most important of Kahn's unbuilt designs—14 out of a total of 150, or less than one tenth of his unrealized commissions—and understanding the value they hold for contemporary architecture, we may be able to re-engage Kahn's vision of architecture as a new beginning in our time. In the brief presentation of these fourteen designs, I will indicate the ordering principles that Kahn discovered in each unrealized design, and, where appropriate, point to his later built works where these ordering principles are engaged.

We begin with the **Jewish Community Center in Trenton, New Jersey**, of 1954-58. Kahn began the design of the main building by evolving a series of stacking and interlocking octagonal forms, even as the design of the bath house, which was built first, developed as a cruciform plan of overlapping square volumes. In late 1955, Kahn presented the designs to two young faculty members from the University of Texas, Austin, Colin Rowe, British architectural

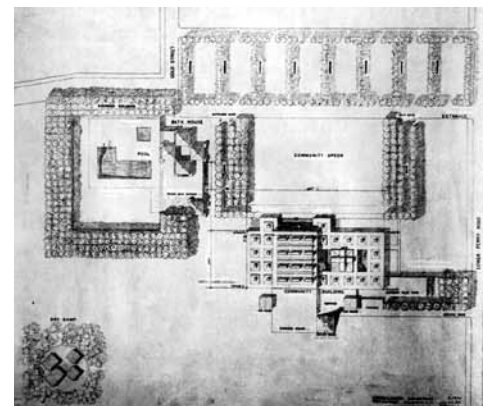


Idejni projekt glavne zgradbe, Center judovske skupnosti, 3. 11. 1955. Na tlorisu so vidni osemkotni 'služeni prostori' in kvadratni 'služni prostori'. Situacija je v levem spodnjem kotu.

Preliminary plan of the main building, Jewish Community Center, 3 November 1955. The plan has octagonal 'served spaces' and square 'servant spaces'. The site scheme appears as a diagram in the lower left corner.

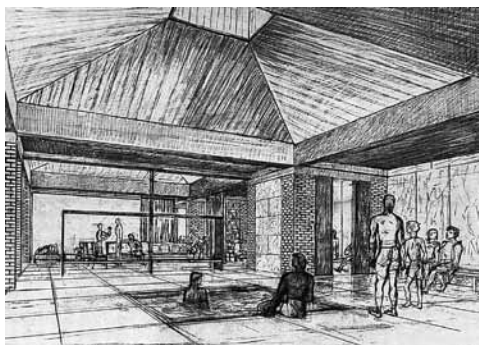


Maketa Centra judovske skupnosti, tretji projekt, 1956. Model of the Jewish Community Center, third scheme, 1956.



Situacija Centra judovske skupnosti, 1. 7. 1957. Na tlorisu je vidno, gosto drevje, ki določa in zakriva zunanje prostore, zasajeno v pravilni mreži, kakor ga je predvidel Kahn.

Site plan of the Jewish Community Center, 1 July 1957. The plan indicates Kahn's extensive use of trees, planted in girded masses, to enclose and define exterior spaces.



Perspektivna skica tipičnega interjerja: terapevtska kopel s slačilnico za moške, tretji projekt, 1956, Kahnova skica. *Perspective sketch of typical interior space, therapy bath in men's locker rooms, third scheme, 1956, drawing by Kahn.*



Pogled navzgor iz vhodne avle, Središče za britansko umetnost, Yale. *View looking up from the entry court, Yale Centre for British Art.*



Maketa konzulata (levo) in ambasadorjeve rezidence (desno), Ambasada ZDA, Angola. *Model of the Chancellery (left) and the Residence (right), US Consulate, Angola.*

slikarju, ki je študiral pri Josefu Albersu. Pripomnila sta, da je videti, da hoče Kahn zgradbo vzgojiti, kot bi bila nekaj organskega. Predlagala sta mu, naj se, glede prekrivajoče se strukture kopališča, zgleduje po tlorisih Andrea Palladia, pri načrtovanju prostorov pa po »sistemu niš«, kakor je to poimenoval Kahn. Kahn je za tem razvil dokončno shemo glavne zgradbe v vzorcu tartana, torej kot sistem manjša-večja-manjša niša, s skupinami trimetrskih stebrov, ki so obdajali 36 m² velike glavne prostore, kar je pravzaprav prva artikulacija ene Kahnovih najpomembnejših arhitekturnih zamisli, koncepta služnega in služenega prostora. V projektu za Središče Judovske skupnosti iz leta 1956, pa tudi pri kopališču, ki je bilo njegov del in, ki je bilo zgrajeno istega leta, je vsak od večjih, 36 m² velikih, služenih prostorov pokrit s piramidastim svetlobnikom z okulusom v sredini, obiskovalcem pa jasno predloči celotno strukturo prostora. V kopališču so v vseh štirih vogalih »votli stebri«, v katere so vstavljeni vhodi ali servisni prostori, kar pomeni, da je Kahn tu prvič izrecno izpeljal svojo zamisel služenih in služnih prostorov. Leta 1953 je Kahn napovedoval posledice, ki jih bo imel njegov mali projekt kopališča: »V gotiki so arhitekti gradili z masivnimi kamni, danes pa gradimo z votlimi.«³

Pri projektu za Središče Judovske skupnosti s kopališčem bi strop in streha neposredno določala, kako doživljamo prostor. Rowe je v svojem eseju »'Neoklasicizem' in moderna arhitektura« iz leta 1957 zapisal, da projekt v Trentonu direktno nasprotuje modernistični definiciji »prostega tlorisa«, saj ga je določala mreža stebrov in plošča stropa. Rowe opaža, da je Kahn tu izpeljal v modernistični arhitekturi do tedaj najuspešnejšo uresničitev želje po vnovični uporabi stropne prostorske strukture, s prostorskimi celicami, strukturnimi nišami in horizontalnim strukturnim ritmom.

Kahnov namen, ki se kaže pri vseh njegovih nadaljnjih projektih, izvira iz pogledov navzgor iz leta 1760, aksonometričnih prereзов, ki jih je Auguste Choisy leta 1899 objavil v *Histoire d'architecture*, učbeniku, iz katerega se je Kahn učil kot študent in ga na svojih knjižnih policah obdržal do konca življenja. V teh risbah je predstavljen način, kako se je arhitektura skozi čas ukvarjala z oblikovanjem notranjega prostora s pomočjo združevanja zidov in stropa – strehe, torej zgornje površine. Kahn je to lekcijo vseskozi nosil s seboj; kakor je pojasnil svojim študentom, je stopnja civilizacije določena z višino, obliko in strukturnim redom stropov – višji je strop in bolj je arhitekturno izoblikovan, civilizacijsko višje je družba, ki prebiva spodaj.

Na projektu v Trentonu je Kahn prišel še do enega zelo pomembnega odkritja – odkril je nov način ustvarjanja arhitekture, pri katerem oblika prostora in njegova gradbena struktura nastaneta

historian and critic, trained by Rudolph Wittkower, and Robert Slutzky, American painter, trained by Josef Albers. The two told Kahn that it seemed he was trying to grow the building, as an organic entity, and they suggested that, based upon the overlapping grid of the bath house, Kahn should rather look at the plans of Andrea Palladio, and what Kahn called "the bay system" of room-making. Kahn went on to develop the definitive scheme for the main building based upon a tartan or small-large-small bay system, with 10-foot square column clusters that housed the service spaces surrounding 20-foot square primary functional spaces—the first articulation of one of Kahn's most important concepts, servant and served space.

In the 1956 design for the Community Center, as well as in the bath house which was finished that same year, each of the 20-foot square served spaces was covered by a pyramidal dome, topped by a central oculus, and the inhabitants would have been able to clearly perceive the structure with which the room was made. In the bath house, the "hollow columns" at the four corners held the services and entries, and are the first clear built example of Kahn's servant and served conception. In 1953, Kahn had anticipated the implications of this little bath house design when he said: "In Gothic times, architects built with solid stones. Now we build with hollow stones."³

The Community Center and bath house's powerful definition of the space and our experience of it by the roof and ceiling overhead, as Rowe noted in his 1957 essay, "Neo-Classicism' and Modern Architecture," went directly against the dominant definition of "free plan" space in the Modern movement, determined as it was by the flat slab and column grid. Rowe notes that with this design, Kahn presents the most definitive solution to date for the desire to reintroduce overhead spatial structure, with spatial cells, structural bays, and a horizontal structural rhythm, into Modern architecture.

This intention of Kahn's, which would characterize all his subsequent designs, originated in the 1760 up-view, section-axonometric diagrams of Auguste Choisy's *Histoire d'architecture* of 1899, the textbook Kahn studied as a student, and kept in his library throughout his life. These drawings present architecture from throughout time as being focused on the formation of interior space through the fusing of the walls and ceiling-roof—the overhead surface. This was a lesson Kahn carried with him throughout his career, as evidenced by his statement to his own students that the level of a civilization is registered in the height, shape, and structural order of its ceilings—the taller and more structurally-shaped, the more cultivated the society they housed.

Kahn made one further critically important discovery while working on the Trenton project, and that was a new way of making, where structure and space were formed together. In 1944, in his essay



obenem. Že v svojem eseu »Monumentalnost« iz leta 1944, Kahn kritizira standardno jekleno konstrukcijo iz I-nosilcev, saj naj ne bi bila kos eleganci strukturnega diagrama raznosa obtežbe. Napoveduje tudi tehnologijo prednapetih montažnih betonskih elementov, ki prostor hkrati strukturirajo in oblikujejo, ki se je takrat šele razvijala. Šele leta 1956, ko je delal na projektu v Trentonu, je prvič srečal gradbenega inženirja Augusta Komendanta. Kahn je svoje študente peljal na ogled Komendantove tovarne montažnih betonskih elementov in pri tem ugotovil, da je ravno to ključni material, s katerim lahko obenem oblikuje bivalni prostor in uporabi monolitne strukture. V končnem načrtu za Trenton in leta 1958, Kahn predvidi piramidaste svetlobnike in dolge nosilne tramove kot vnaprej ulite betonske elemente, postavljene na betonske zidake, ter na mestu lite betonske stebre, med seboj povezane z nenosilnimi zidovi iz betonskih blokov.

Kahn je prvič do konca izpeljal svoj nov način gradnje, ki je oblikovanje prostora združeval s strukturo, v svojem projektu za Stolpnico Zdravstvenih laboratorijev v Pennsylvaniji (Pennsylvania Medical Laboratory Towers), 1957-62, pri kateri je celoten strukturni okvir sestavljen iz vnaprej ulitih, prednapetih betonskih elementov. Tekom gradnje je Eero Saarinen vprašal Kahna, če gre za arhitekturni ali inženirski projekt, na kar je Kahn odgovoril, da je to zanj eno in isto. Kasneje v karieri se je Kahn spet vrnil k svoji zgodnejši zamisli polja piramidastih svetlobnikov, z osvetlitvijo od zgoraj, ki jih želel uporabiti v Trentonu; uporabil jih v projektu za zgornje nadstropje Središča za britansko umetnost Yale (Yale Center for British Art) med leti 1969-74, torej pri svojem zadnjem projektu, katerega gradnjo je še doživel.

Pri projektu za **Ambasado Združenih Držav v Angoli** (United States Embassy in Angola), 1959-62, je Kahn najprej preučil, kako se prebivalci Luande ščitijo pred močnim in vročim soncem. Opazil je, da se prebivalci obrnejo s hrbtom proti močni direktni sončni svetlobi, ki prihaja skozi okna, ter raje delajo pri indirektni svetlobi, ki se odbija od zidov. Prepoznal je okoljsko inteligenco tradicionalnega angolskega sistema gradnje, ki z dvoplastno streho zagotavlja dobro prezračeno prostor med spodnjo in zgornjo plastjo, omili vročino sonca in je manj spusti v notranjost hiše. Kahnovi načrti za Ambasado in za ambasadorjevo rezidenco so imeli dvojno plast zaščite pred sončno toploto in svetlobo – zgornjo, sončno streho, vzdignjeno nad dežno streho ter dvojne zidove: zunanji, iz vnaprej ulitih betonskih elementov, ki je senčil notranje, zastekljene prostore. Porožna senčna streha, ki je delovala kot drevo, sestavljena iz pasov glinastih listov z malimi razmiki, je v polovici notranjosti hiše – torej v zgornjem delu, ki je bil odprt navzgor – ustvarjala difuzno svetlobo, ki se le opoldne spremeni v tanke žarke

“Monumentality,” Kahn had criticized standard I-section steel construction as lacking the ability to conform to the elegant shapes of the structural stress diagram. At that time he anticipated the newly-emerging construction technology of pre-cast concrete, pre-stressed and post-tensioned, could be capable of forming space and structure as an integrated design. Yet it was only in late 1956, during the time he was designing the Trenton project, that Kahn first met the structural engineer August Komendant. Kahn brought his students to visit Komendant's concrete pre-casting plant, and he realized that this material held the key to simultaneously shaping inhabited space and monolithic structure. Kahn's final design for the Trenton project, of 1958, employs precast concrete for the pyramidal domes and the folded-plate long-span beams, which are carried by concrete masonry bricks and cast-in-place columns, with large concrete masonry block non-bearing walls.

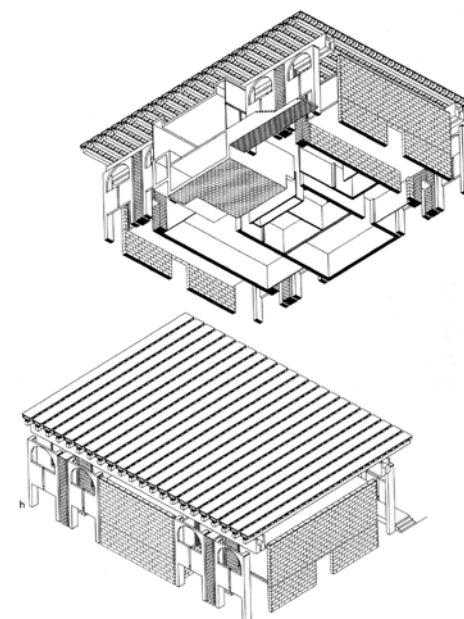
Kahn first realized this new way of making that joined space and structure in his design for the University of Pennsylvania Medical Laboratory Towers of 1957-62, where the entire structural frame was built with precast, post-tensioned concrete. During the construction, Kahn was asked by Eero Saarinen whether this was an architectural or structural design, to which Kahn answered that, for him, they were one and the same. Late in life, Kahn returned to this early concept of a field of pyramidal, top-lit domes of the Trenton project in his design for the upper floor of the Yale Center for British Art of 1969-74, the last project Kahn saw built.

In the design for the **United States Embassy in Angola**, of 1959-62, Kahn began with his observations regarding the way in which the inhabitants of the city of Luanda dealt with the intensely bright and hot sunlight. He noted that the residents turned away from the glare of the direct sunlight coming through the windows, and worked with the indirect light that bounced off the walls. He also recognized the environmental intelligence of the traditional Angolan construction system that provided a ventilated space between an upper and lower roof so as to allow the heat from the sunlight striking the roof to be exhausted and not be taken into the interior of the house.

Kahn's design for the Embassy and the Residence for the ambassador involved a system of double layers for protection from the heat and glare of the sun—a double roof of sun-roof above a rain-roof, and double walls of precast concrete sun-shields surrounding glazed volumes within. The porous, tree-like shade canopy of the roof, constructed of bands of clay tile “leaves” with a narrow slot between, would have characterized the experience of the half of the interior volume that was open to the roof with a diffused light punctuated by thin lines of direct light at noon. The even more porous sun-shield walls, articulated by semi-circular openings at their top,



Računalniška rekonstrukcija pogleda na osrednje dvorišče skozi senčne zasloni Ambasada ZDA, Angola. Computer reconstruction of view through sun shields to central court, Chancellery, US Consulate, Angola.



Izometrični prerez konzulata, pogled navzgor (zgoraj) in nazdol (spodaj). Na risbi je viden odnos med senčno streho in bivalnimi prostori; risba nastala pod nadzorom avtorja.

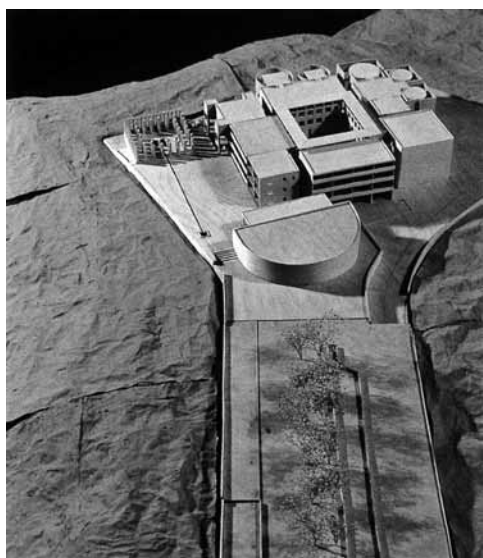
Isometric cut-away section drawings of the Chancellery, up-view (above) and down view (below). The drawings show the relation of the sunshade roof to the inhabited spaces; drawn under author's supervision.



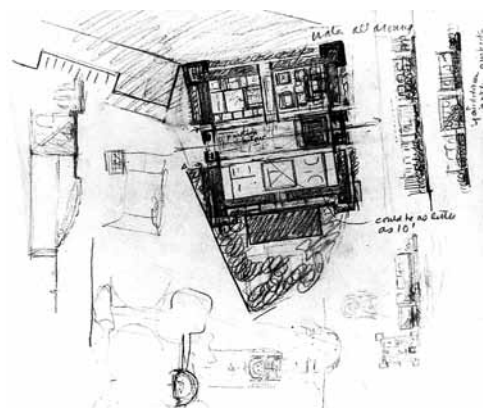
Glavno stopnišče zgradbe s predavalnicami, Indijski inštitut za menedžment. Main stair hall of a classroom building, Indian Institute of Management.



Perspektivna risba čitalnice (desno) in jedilnice (sredina), Družabno središče, Salkov inštitut; Kahnova skica. *Perspective sketch of reading rooms (right), and the dining rooms (centre), Meeting House, Salk Institute; drawing by Kahn.*



Maketa Družabnega središča, Salkov inštitut, pogled proti zahodu; maketa nastala pod nadzorom avtorja. Na maketi je viden drevored, ki služi kot vhodni trg. *Model of the Meeting House, Salk Institute looking west; built under author's supervision. This model shows the approach plaza with its line of trees.*



Zgodnja skica Družabnega središča, 1961; Kahnova skica. Arhitektura spominja na Dioklecijanovo palačo v Splitu, Hrvaška. *Early sketch plan of the Meeting House, 1961; drawing by Kahn. The design is reminiscent of Roman emperor Diocletian's Palace at Split, modern day Croatia.*

direktne svetlobe. Še bolj prepustni senčni zidovi, med seboj povezani s polkrožnimi odprtini na vrhu, so stali 3 metre pred do tal zastekljeno steno, ki naj bi ščitila notranje hišne prostore in, skozi katero bi prebivalci lahko uživali uokvirjene poglede na pokrajino ter igro svetlobe in senc na svetlem dvorišču. Kahn je svojo najpomembnejšo zamisel za projekt povzel takole: »Okrog hiše sem želel oviti ruševine.«⁴

Kahn je svoje prelomno odkritje, da lahko arhitekturne plasti hkrati zavarujejo hišo pred njenim okoljem in obogatijo izkustvo arhitekture v notranjosti, uresničil v projektu za Unitarijansko cerkev v Rochestru (Rochester Unitarian Church), 1959-69, kjer je glavni oltar obkrožil s serijo učilnic, oblikovanih iz zgibanega zidu, ki hkrati daje senco okenskim odprtina in ustvarja prijetne niše. Kahnovo zgodnje zavračanje mehanskih klimatskih naprav je sovpadalo z njegovo ugotovitvijo, da so lahko tudi zgradbe v vročem in vlažnem podnebju prijetne za prebivanje, če imajo zagotovljeno zadostno prezračevanje in so dovolj dobro osenčene. Kahna je ta ugotovitev pripeljala do projekta, kakršen je Indijski Inštitut za menedžment (Indian Institute of Management), 1962-72, kjer so prostori za komunikacijo sicer pokriti, ampak odprti, tako da uporabniki ves čas hladijo prijetne sapice.

Načrti za **Družabno središče za Salkov inštitut bioloških znanosti** (Meeting House of the Salk Institute for Biological Studies) v La Jolli, Kalifornija, 1959-65, izhaja iz pobude Jonasa Salka, naročnika, da Kahn pripravi projekt za najmodernejšo znanstveno laboratorijo. Zraven naj bi zgradili tudi prostore, kamor bi Salk lahko povabil Picassa, da se sreča z njegovimi znanstveniki. Salk si je to zamislil, ker je bil prepričan, da se pomembni znanstveni preboji pogosto zgodijo, ko se znanstveniki soočajo z ljudmi, katerih razumevanje sveta in način presojanja reči sta popolnoma različna od znanstvenega. Prve perspektivne skice celotnega kompleksa Salkovega Inštituta kažejo, da je imel Kahn Družabno središče za daleč najpomembnejši element celotnega projekta, saj je narisana od blizu, v ospredju in najbližje morju, laboratoriji pa so dobesedno potisnjeni v ozadje. Tloris Družabnega središča je še eno Kahnovo arhitekturno odkritje. Zastavljen je kot skupek neodvisnih volumnov oziroma zgradb z lastno strukturo, ki so precej ohlapno zbrane okoli kvadratnega dvorišča. Pravilno kvadratno dvorišče z ohlapnim nepravilnim zunanjim robom za Kahna pomeni nov način kompozicije prostorov. Posamezni prostori so jasno čitljivi, hkrati pa obstaja tudi notranja prostorska struktura, ki jih razporedi okoli osrednjega dvorišča. Način, kako so samostojne sobe-zgradbe povezane med seboj s številnimi obširnimi prostori, namenjenimi obtoku ljudi in priložnostnim neuradnim srečanjem, ki so skoraj enako obsežni kot zaprti primarni prostori,

standing ten feet in front of the full-height glazed walls of the enclosed spaces, through which the inhabitants would have seen both framed views of the landscape and the play of light and shadow in the light court, emerged from Kahn's most important conceptual realization of the project; "I thought of wrapping ruins around buildings."⁴

This pivotal discovery of the ability of architectural layers to both temper the environment and enrich interior experience was realized in Kahn's design for the Rochester Unitarian Church of 1959-69, where he surrounded the central sanctuary with a series of classrooms formed by a folding masonry wall that both shaded the window openings and provided habitable niches. Kahn's early rejection of mechanical air-conditioning paralleled his realization that buildings in hot, humid climates could be made habitable through naturally ventilation and shading; a realization that led to Kahn's designs for works such as the Indian Institute of Management of 1962-74, where the covered, open-air spaces of circulation allow the inhabitants to experience the prevailing breezes.

The design for the **Meeting House of the Salk Institute for Biological Studies** in La Jolla, California, of 1959-65 was the result of the request by the client, Jonas Salk, that Kahn design the most advanced scientific laboratories as well as a place where Salk could invite Picasso to meet his scientists. This request arose from Salk's understanding that breakthroughs in science often occur when scientists are confronted with someone possessing an entirely different worldview and way of evaluating things. The early perspective view of the entire Salk Institute complex clearly indicates that, for Kahn, the Meeting House, seen close in the foreground, at the edge of the ocean, was by far the most important element of the overall design, while the laboratories are seen in the distance, literally in the background of the Meeting House.

The plan of the Meeting House presents another new discovery for Kahn—the conception of the plan as an assembly of independent, self-structured volumes or buildings, rather loosely gathered around a square courtyard. With its square, regular centre and irregular outer edge, the plan represents a new way of composing spaces for Kahn, one that allows individual rooms to be read clearly while also establishing a sense of interior spatial structure ordered by the central courtyard. A second conceptual discovery in this design is the way the independent room-buildings are joined together with an extensive set of spaces for circulation and informal meeting—what Kahn called "the architecture of connections"—which are equal in dimension to the enclosed primary rooms. Both these insights into plan-making were at least partly inspired by the full-size imaginary "reconstruction" of the Campus Martius section of ancient Rome, made by Giambattista Piranesi (born in the city of Piran) in 1762,



je drugo veliko konceptualno odkritje tega projekta - Kahn ga je poimenoval »arhitektura povezav«. Navdih za obe novosti v oblikovanju tlorisa vsaj deloma prihaja iz velike domišljajske »rekonstrukcije« preraza Rimskega Campusa Martiusa, ki jo je Giambattista Piranesi (ki je bil rojen v Piranu) napravil leta 1762, Kahn pa jo je v svoji osebni pisarni obesil na zid nasproti delovne mize. Piranesijev tloris, sestavljen iz neskončne variacije skupin geometričnih oblik, je imel Kahn pred očmi, kadarkoli je vzdignil glavo od svojih načrtov.

Ob Družabnem središču, na rob s pogledom na Pacifik, je Kahn namestil skupino valjastih betonskih senčil, ki so pred soncem ščitili do tal zastekljene, pravokotne čitalnice in serijo pravokotnih senčil, za katerimi so bile prav tako od stropa do tal zastekljene valjasto zaobljene jedilnice. Notranji zastekljeni prostori naj bi zakrili še z lesenimi naoknicami, ki bi ohranjale prijetno temperaturo znotraj, zunanji senčni zid pa naj bi bil iz na mestu litih betonskih elementov z vstavki iz travertina, ki bi simbolizirali častni status notranjih sob. Družabno središče je bilo vseskozi organizirano tako, da poudarja, naj se znanstveniki ukvarjajo s problemi, ki segajo dlje od njihovih laboratorijev: od dvorišča, odprtega proti nebu, ki deluje kot dvorišče kakšnega renesančnega Palazzo, vse do zaobljenih zastekljenih jedilnic, spravljenih med pravokotne senčne zidove s svojim lastnim trgom, za katere je Kahn trdil, da ni boljšega prostora za pouk, kot je jedilnica. Kakor je povzel Kahn: »V osnovi je (Salkov Inštitut) sicer zgradba z laboratoriji, vendar pa ne smemo pozabiti, da je prostor za srečanja prav tako pomemben.«⁵

Razporeditev med seboj neodvisnih sob-zgradb okrog osrednjega, častno dominantnega primarnega volumna, ki ustvarja pravilno središče z nepravilnim robom, združitev strukturno neodvisnih volumnov v »arhitekturo povezav« ter zamisel prosto stoječih iz betona vlitih senčnikov, ki pred soncem ščitijo zastekljene prostore za njimi, so vse zamisli, ki jih je Kahn razvijal na projektu za Družabno središče. Uresničil pa jih je šele kasneje s projektom za Skupščino v Bangladeški prestolnici Dhaka (Assembly Building of the Bangladesh National Capital Dhaka) med leti 1962-74.

Kahnov prvi projekt za **Kemijski oddelek Univerze v Virginiji** (University of Virginia Chemistry Building), 1960-63, kaže, kako pomemben je bil zanj Frank Lloyd Wright, čeprav se tega ponavadi ne poudarja. Tloris kemijskega oddelka je blizu Wrightovemu Unity Temple iz leta 1906. Kahnov končni načrt za Kemijski oddelek predvideva osrednje dvorišče s fakultetnimi pisarnami ob obeh daljših stranicah, kar je nekoliko podobno Salkovemu laboratoriju (Salk Laboratories), pa tudi prvotni zgradbi Univerze v Virginiji Thomasa Jeffersona. Vzdolž zunanega roba tlorisa, zadaj za pisarnami, je Kahn postavil dva podolgovata volumna, v katerih naj bi se nahajali laboratoriji,

which Kahn hung on the wall of his personal office in Philadelphia, directly across from his desk. Piranesi's plan, composed of an endlessly varied series of clusters and assemblies of pure geometric forms, filled Kahn's field of vision whenever he looked up from his own drawings.

At the edge of the Meeting House overlooking the Pacific Ocean, Kahn placed a series of cylindrical concrete sun-shields housing cubic, full height glazed reading rooms for the library, as well as a series of rectangular concrete sun-shields housing cylindrical, full-height glazed dining rooms. The inner glazed rooms were to be given wooden shutters for control of the microclimate, and the outer sun-shield walls were to be built of cast-in-place concrete with travertine stone insets, denoting the honorific status of these rooms. From the courtyard, open to the sky and centring the building exactly like a Renaissance palazzo, to the cylindrical glazed dining rooms set within their square outer shell walls—of which Kahn said, there is no better seminar than a dining room—the Meeting House was organized to allow the scientists to engage larger issues outside their laboratories. As Kahn said; "Essentially (Salk Institute) is a laboratory building, but you must not forget that the place of meeting is of utmost importance."⁵

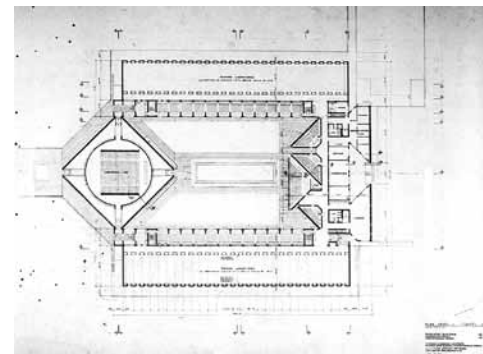
The ordering of independent room-buildings around a central, honorifically-dominant primary volume to form a regular centre and irregular outer edge; the joining together of these independent structural volumes with the "architecture of connections;" and the concept of free-standing, cast concrete sun-shields forming shaded spaces protecting glazed apertures within, all these concepts developed for the Meeting House would later be realized in Kahn's Assembly Building of the Bangladesh National Capital at Dhaka of 1962-74.

Kahn's first design for the **University of Virginia Chemistry Building** of 1960-63 indicates the generally unacknowledged importance of Frank Lloyd Wright for Kahn, as the plan is very close to that of Wright's 1906 Unity Temple. Kahn's definitive scheme for the Chemistry Building proposed a central court with faculty offices lining both long sides—not unlike the Salk Laboratories, but also related to Thomas Jefferson's original building of the University of Virginia. Along the outer edge of the plan, behind the faculty offices, Kahn placed two long laboratory volumes, the structure for which was an attempt to re-use the laboratory structure originally proposed for Salk Institute—a precast concrete folded plate structure that would house the services in its deep V-shaped ceiling, and allowing light to enter between the structural beams on the upper floor.

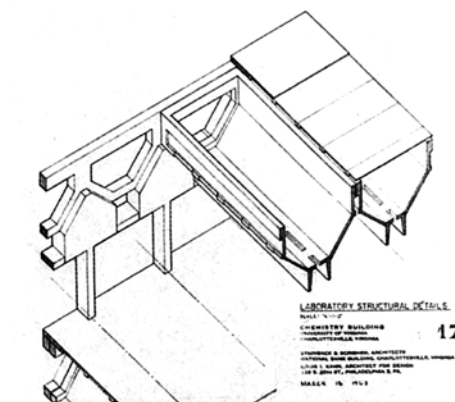
This elegant folded plate structure, fully worked out for the Salk Laboratories by Komendant, was abandoned after the decision was made to not build the Meeting House. Kahn said he felt a terrible sense



Pogled preko jezera na Narodno prestolnico Bangladeša; valjasta zgradba jedilnic z dvojnimi opečnimi stenami je v sredini, na desni pa so prenočišča. View across the lake to the Bangladesh National Capital; the cylindrical, double-shell brick dining halls are in the centre and the hostels are on the right.



Tloris nezgrajene Zgradbe kemijske fakultete, Univerza v Virginiji, Charlottesville, Virginia, 1960-63 (sever je na levi); končni tloris je nastal junija 1963. Ground plan of the unbuilt University of Virginia Chemistry Building, Charlottesville, Virginia, 1960-63 (north to left); this final scheme plan was drawn in June 1963.

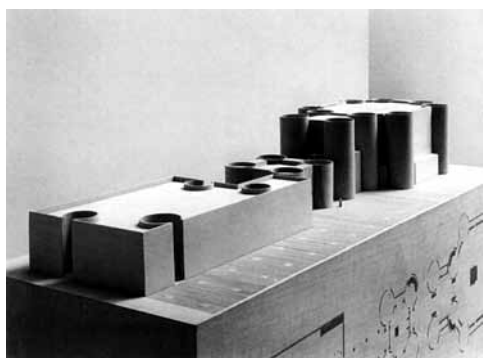


Aksonometrični prerez zgubane betonske plošče, iz katere naj bi nastala streha in tla zgradbe, Zgradba kemijske fakultete, Univerza v Virginiji, končni projekt, 15. 3. 1963.

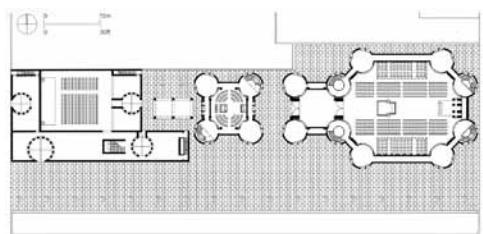
Cut-away axonometric section of folded plate concrete roof and floor structure, University of Virginia Chemistry Building, final scheme, 15 March 1963.



Pogled na Kimbellov muzej umetnosti z jugozahoda. Bazen in stebrišče vodita do dvorišča, s katerega je glavni vhod v muzej.
View of the Kimbell art Museum from the south-west. With portico and pool leading to the entry court.



Lesena maketa sinagoge Mikveh Israel, četrti in končni projekt, 1962-3.
Wooden model of the Mikveh Israel Synagogue, fourth and definitive scheme, 1962-3.



Tloris sinagoge Mikveh Israel, četrti in končni projekt, 1962-3; risba nastala pod nadzorom avtorja.
Plan of the Mikveh Israel Synagogue, fourth and definitive scheme, 1962-3, redrawn under author's supervision.

kjer Kahn skuša uporabiti podobno strukturo kot pri Salkovem Inštitutu – torej vnaprej vlita zapognjena betonska plošča, z instalacijami, skritimi v stropu V-oblike, ki v zgradbo spusti svetlobo skozi razmike med podpornimi tramovi v zgornjem nadstropju.

Elegantna zapognjena betonska plošča, ki jo je za Salka že izdelal Komendant v svoji tovarni, je postala odveč, potem ko so se odločili, da Družabnega središča ne zgradijo. Kahnu se je zdelo potratno zavreči to ploščo. Ko je postalo jasno, da je pri gradnji Salkovega inštituta ne bodo uporabili, je ploščo skušal uporabiti pri kakšnem od svojih naslednjih projektov, tudi pri Kemijskem oddelku. V končni fazi jo je spremenil v zaobljeno, galebemu krilu podobno, školjkasto strešno konstrukcijo za Kimbellov Muzej (Kimbell Museum), 1966-72, kjer je uspel izpeljati tudi svojo zamisel, da bi svetloba v prostor vstopala na sredini oboka.

Kahnovi projekti za neuresničeno **Sinagogo Mikveh Israel** (Mikveh Israel Synagogue), 1961-72, ki naj bi jo zgradili v Philadelphiji, v mestu, v katerem je prebival, so predvidevali svetišče, obkroženo z vrsto valjastih svetlobnih celic. V zgodnjih načrtih iz betona vlite svetlobne celice delujejo, kot da ob zunanjem robu zgradbe lebdi nad tlemi, kar jasno kaže, da nimajo nobene nosilne vloge. To še poudarjajo žarki svetlobe, ki jih ločijo od polnih nosilnih zidov svetišča. Notranji zidovi svetlobnih celic imajo serijo obokanih odprtín z zaobljenimi robovi zgoraj in spodaj, nekakšnih »obrnjenih obokov«, ki kažejo, da ti loki niso nosilni, ampak da predstavljajo, kako je svetloba izdolbila njihovo notranjost, ter nas spominjajo na polkrožno pot sonca prek neba.

Streha – strop Kahnovega projekta je skriti notranji okvir z zgornjim in spodnjim licem iz ulitega betona in je eliptična, tako v prerezu kot v tlorisu. V nasprotju s skoraj z vsemi ostalimi Kahnovimi verskimi objekti, a podobno kot v Le Corbusierjevi kapeli v Ronchampu, ki jo je Kahn prvič obiskal leta 1959, se v sinagogi Israel Mikveh strop približa tlem svetlega prostora, svetloba pa nanj pada s stranskih valjastih svetlobnih celic. Svetlobne celice so morda najboljši primer tega, čemur sam pravim Kahnovi »zidovi, ki dajejo svetlobo«. Ker iz notranjosti uporabniki nimajo nobenega pogleda ven v višini oči in je svetloba, ki se odbija od zaobljenih sten v notranjosti, direktna in indirektna obenem, se zdi, da prihaja od vsepovsod, orientacije sonca pa ni mogoče določiti. Znotraj sinagoge uporabniki plavajo v morju svetlobe, ločeni od svojega običajnega okolja.

Zamisel valjastih svetlobnih celic, ki varujejo in osvetljujejo notranjo dvorano, je Kahn uporabil pri gradnji Skupščine v Dhaki, 1962-74, še posebej v Dvorani za molitve (Prayer Hall), kjer štiri valjaste svetlobne celice osvetljujejo kockasti prostor. Podobna zamisel je vodila tudi oblikovanje pisarn, razporejenih okoli svetlobnega dvorišča,

of loss when they could not employ this structural design at Salk, and he continued to endeavour to deploy it on subsequent projects, including the Chemistry Building, and it would ultimately evolve into the curved, gull-wing-shaped, cast concrete shell roof structure of the Kimbell Museum of 1966-72, where the initial idea of bringing light in at the centre of the vault would also be realized.

Kahn's unbuilt designs for the **Mikveh Israel Synagogue**, intended to be built in his hometown of Philadelphia of 1961-72, are all characterized by the sanctuary being formed by a series of cylindrical, light-filled chambers. In the early designs, these cast concrete light chambers seem to float above the ground at the outer edge of the building, clearly indicating their non-structural nature. This is emphasized by the slices of light that cut the cylindrical light chambers away from the structural solid side-walls of the sanctuary. On the inner walls of the cylindrical light chambers, Kahn designed a series of arched opening, with the curves at both top and bottom, "reversed arches" that suggest the non-structural nature of the arches, the erosion of the concrete shells by light, and the arc of the sun as it crosses the sky.

The ceiling-roof of Kahn's design proposed a structure that was elliptical in both plan and section, an internal, hidden truss with top and bottom faces of cast concrete. Similar to Le Corbusier's Ronchamp Chapel, which Kahn had first visited in 1959, and contrary to almost all other religious structures, the ceiling comes down into the sacred space, catching the light from the cylindrical light chambers to the side. These cylindrical light chambers are perhaps the best examples of what I have called Kahn's "light-giving walls." Inside the Synagogue, the inhabitants would have had no eye-level views out, and the sunlight would have been both direct and bounced off the curving walls, seeming to come from all sides, so that solar orientation would become confused. In this space, the inhabitants would be detached from their surroundings, distanced from the outside world, floating in a sea of light.

This conception of cylindrical light chambers, protecting and illuminating internal rooms, would be realized in Kahn's design for the Assembly Building at Dhaka, of 1962-74, particularly in the Prayer Hall, where four cylindrical light chambers illuminate a cubic room. A similar conception is at work in the light courts around which the offices are arrayed, and the light chambers that occur in the hollow spaces of the structural buttresses of the assembly hall itself.

The **Levy Memorial Playground**, developed from 1961-66 and proposed to be built in Riverside Park in New York City, was designed by Kahn in association with the Japanese-American sculptor Isamu Noguchi. Noguchi introduced Kahn to the use of plasticine clay, which Kahn immediately adopted for his site models, and as a result all of Kahn's later



ter same skupščinske dvorane s svetlobnimi celicami v votlih prostorih med nosilnimi tramovi.

Igrišče Levy Memorial (Levy Memorial Playground), ki ga je Kahn skupaj z japonsko-ameriškim kiparjem Isamom Noguchijem, razvijal med leti 1961-66, naj bi bilo postavljeno v parku Riverside Park v New Yorku. Noguchi je Kahnu pokazal plastelin, ki ga je Kahn takoj začel uporabljati za svoje makete. Pri vseh njegovih kasnejših projektih se to pokaže, saj Kahn v začetni fazi projekta veliko bolj poudarjeno označi prostor za gradnjo, uporabi močnejše temelje ali celo piedestal, ter zemljo vključitvi kot prvo dejanje gradnje. Kot povzetek njunih šestih let sodelovanja, ki niso bila niti najmanj enostavna, saj ju je stalno oviral Robert Moses, mestni urbanist, ki je načrtoval park in ceste, Kahn pravi:

»Jaz nisem govoril o arhitekturi, Noguchi ni govoril o kiparstvu. Oba sva zgradbo čutila kot obris, ki ni le en sam, ampak je bolj poigravanje obrisov, ki so tako mehki in domači, da zgradbe ne opredelijo niti kot arhitekturo niti kot kiparstvo.«⁶

Interama Inter-American Community, Miami, Florida, 1963-69, je projekt za del velikega razstavišnega prostora, ki je vključeval zgradbe mnogih vodilnih ameriških arhitektov. Kahn je predlagal vrsto samostojnih zgradb-volumnov, ki so obkrožali trikotni trg s pogledom preko zaliva na središče Miamijs. Ob severni strani je bila nanižana vrsta »Hiš narodov« (»Houses of Nations«) s kulturnimi in razstavnimi prostori z naravnim prezračevanjem. Njihovi tlorisi so imeli obliko črke Y, tako da so na morski obali oblikovale majhna dvorišča. Na južnem delu je stala glavna zgradba z vkopanim osrednjim dvoriščem in polžastimi stopnicami, katere tloris in prerez sta temeljila na zamisli služnih in služnih prostorov. Posebej moramo opozoriti na prekrizane nosilne tramove, ki obkrožajo vrh glavnega prostora. Poleg tega, da nosijo streho in skrivajo prezračevalne odprtine, v osrednji prostor odbijajo svetlobo. Zamisel razčlenjenega uporabnega zidu, ki spodbuja naravno kroženje zraka, zgrajenega okoli javnega prostora, je bila uresničena v Kahnovem projektu za članski hotel in jedilnice v bangladeški prestolnici Dhaki, 1962-74.

S projektom za **Dominikanski samostan** (Dominican Motherhouse), v mestu Media, Pennsylvania, 1965-69 Kahn skuša preoblikovati tradicionalni program in tip samostana. Prepričan je bil, da je samostanski tip primeren za stanovanjsko gradnjo in za mnoge druge programe, kar je na primer mogoče videti pri Salkovem inštitutu ali pri Indijskem inštitutu za menedžment (Indian Institute of Management), vendar pa je tokrat prvič imel priložnost zares projektirati samostan. V prvih skicah razvija tipično vrsto med seboj neodvisnih prostorov-zgradb, potem pa pri oblikovanju tlorisa naredi logičen korak naprej, torej zgradbe med seboj loči in jih prosto prerazporedi. Nastali

projects show a dramatically increased emphasis on the initial marking of the ground, on the making of an anchoring base or plinth for the building, and on the engagement of the earth as the first act of construction. In summarizing their six often frustrating years of collaborative work—when they were repeatedly blocked from realizing their designs by Robert Moses, the park and highway planner of the city—Kahn said:

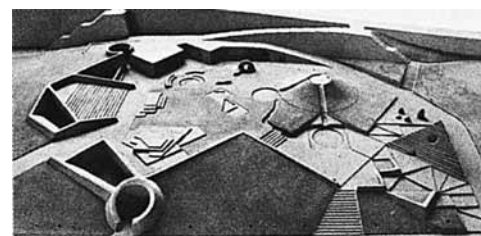
”I did not speak in terms of architecture. He did not speak in terms of sculpture. Both of us felt the building as a contour; not one contour but an interplay of contours so folding and harbouring as to make, by such a desire, no claim to architecture, no claim to sculpture.”⁶

The **Interama Inter-American Community**, designed in 1963-69 for Miami, Florida, was part of a large exposition site involving buildings by many of the leading architects in the US. Kahn’s proposal was for a powerful series of independent building-volumes which framed a triangular plaza with views across the bay to downtown Miami. A line of “Houses of Nations,” whose Y-shaped plans housed naturally-ventilated exhibition and cultural spaces, marched along the western side of the site, forming small courtyards on the water’s edge. The main building, at the southern end of the site, with a central sunken court and pinwheeling stairs, employed servant and served spaces in both plan and section. Of particular note are the X-shaped structural beams that encircle the top of the main space, which, in addition to carrying the roof and housing ventilation ducts, also act to bounce the sunlight into the central room. The conception of an articulated, naturally-vented, inhabited masonry wall framing a public space would be realized in Kahn’s designs for the members’ hotels and dining halls at the Bangladesh National Capital in Dhaka of 1962-74.

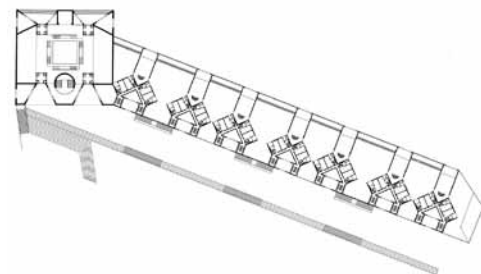
The **Dominican Motherhouse**, designed for Media, Pennsylvania in 1965-69, is a re-composition and transformation of both the traditional program and building type of the convent. As can be seen in the Salk Institute and the Indian Institute of Management, Kahn believed that the monastic plan was an appropriate type for use in housing many other programs, but this was his first chance to design an actual monastic enclave. In an early drawing, after developing his typical series of independent room-buildings, Kahn took the logical next step in this way of making plans, and cut them apart so as to be able to freely re-arrange them. The resulting plan has a regular outer edge, formed by the cells of the sisters, and an irregular centre, where Kahn has placed the common rooms such as the chapel, refectory, library, and schoolrooms in what would, in a traditional convent, have been the open courtyard. The result is a reversal of his own plan for the Salk Institute Meeting House, with its irregular outer edge and regular centre. The result is also an inversion of the traditional plan of the monastic type.



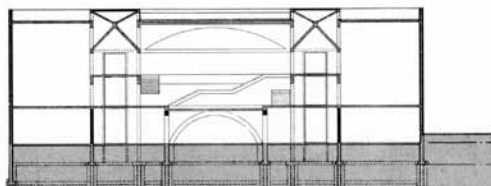
Računalniška rekonstrukcija vhodne dvorane in svetišča, sinagoge Mikveh Israel, četrti in končni projekt, 1962-3. Computer reconstruction of the entry hall to the sanctuary, Mikveh Israel Synagogue, fourth and definitive scheme, 1962-3.



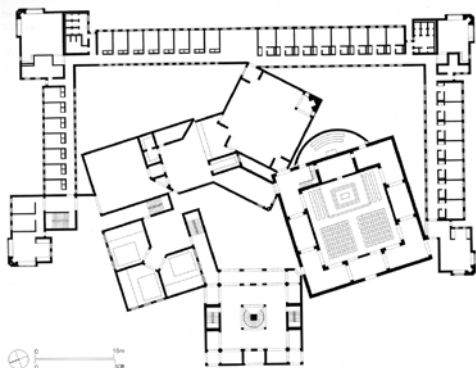
Maketa igrišča Levy Memorial, park Riverside, New York, 1961-5, Louis Kahn in Isamu Noguchi. Model of Levy memorial Playground, Riverside Park, New York, 1961-5, Louis Kahn and Isamu Noguchi.



Tloris zgradbe razstavišča (levo) in 'Hiš narodov' za projekt 'Interama', Inter-American community, Miami, Florida, 1963-9 (sever na levi strani); risba nastala pod nadzorom avtorja. Projekt ni bil nikoli zgrajen. Plan of the main exhibition building (left) and 'Houses of Nations' for the 'Interama' project, Inter-American Community, Miami, Florida, 1963-9 (north to left); redrawn under author's supervision. The project was never built.



Prerez glavne zgradbe, projekt 'Interama'.
Section of the main building, 'Interama' project.



Tloris Dominikanskega samostana, končni projekt, 1967; risba nastala pod nadzorom avtorja. Zasebni prostori ustvarijo pravokotno dvorišče, v katero so postavljeni javni prostori: šola (levo), vhodni stolp (spodaj), jedilnica (zgoraj) in kapela (desno).

Ground floor of the Dominican Motherhouse, final scheme, 1967; redrawn under author's supervision. Private rooms create a rectangular courtyard into which are placed the public rooms – school (left), entry tower (below), refectory (above) and chapel (right).

tloris ima pravilen zunanji rob, ki ga oblikujejo celice samostanskih sester, in nepravilno oblikovano središče, kamor je Kahn razmestil skupne prostore: kapelo, refektorij, knjižnico in učilnice, na mestu, kjer bi v tradicionalnem samostanu prostor za notranje dvorišče. Takšen izid je preobrat Kahnovega lastnega tlorisa za Družabno središče v Salkovem inštitutu, ki bi imela nepravilen zunanji rob in pravilno središče, pa tudi inverzija tradicionalnega samostanskega tipa gradnje.

Kahnov predlog je bil, da ima Dominikanski samostan zidane nosilne zidove, nad okenskimi in vratnimi odprtini pa so ploske, en zidak debele preklade. Preklade so v višjih nadstropjih vse daljše, zidovi med njimi pa vse krajši, kar naj bi predstavljalo manjšanje strukturne obtežitve. Gre za statično hierarhijo nosilnih zidov, način gradnje, ki ga je Kahn izpeljal pri gradnji Exeterske knjižnice (Exeter Library), 1965-1972. Zamisel tlorisa kot trka med seboj neodvisnih čistih volumnov pa je uresničena pri hiši Fisher (Fisher House) leta 1967.

Poslovna stolpnica v Kansasu (Kansas City Office Tower), 1966-74 je eden redkih Kahnovih poskusov projektiranja v tistem času dominantnega gradbenega tipa, poslovne stolpnice. Zdelo se mu je, da za stolpnice tipična jeklena konstrukcija ni dovolj masivna, Miesove in SOM-ove zgradbe pa je celo oklical za »gradnjo iz konzerv«. V Kansasu sta Kahn in Komendant predlagala štiriindvajset nadstropno stolpnico, zgrajeno s pomočjo tehnike drsečega opaža, kar je cenejši in hitrejši način gradnje od jeklene konstrukcije. Štirje dvojni stebri v kotih zgradbe bi nosili prednapeto strešno paličje, zgradba pa bi bila zgrajena od zgoraj navzdol s pomočjo sistema opažev, ki jih je mogoče večkrat uporabiti. Kahn je na strani zgradbe, ki je gledala na cesto, oblikoval manjše prostore, saj je bil prepričan, da bo tako stolpnica videti manjša in bolj primerna merilu mesta. Leta 1974 so SOM prepričali naročnika, da jim preda projekt, Kahn, ki pa za to odločitev ni vedel, je še nekaj časa delal na svojem projektu. Za Kahna je ta epizoda pomenila vzorčni primer »tega, kar je v našem poklicu narobe: je brez vsake etike.«⁷

Kahnove skice za vrh kansaške poslovne stolpnice prikazujejo ljudi na vrhnji terasi nad streho iz parabolično ukrivljenega strešnega paličja. To idejo je prenesel na svoj kasnejši projekt za Kongresne palače v Benetkah. Zamisel, da bi stolpnico zgradil od zgoraj navzdol in obešal posamezne stropne, je navdihnila številne druge arhitekta, če omenimo le enega med njimi: Norman Foster in njegova Šanghajska banka (Shanghai Bank) v Hong Kongu.

Predlog za **Spomenik šestim milijonom judovskih mučnikov** (Memorial to Six Million Jewish Martyrs) v New Yorku, 1966-72, je vrsta steklenih kock z robom 3 m, ki bi prepuščale svetlobo, hkrati pa metale svetlobne sence. Kahn je za spomenik nameraval uporabiti prepleteno strukturo iz

Kahn proposed to build the Dominican Motherhouse with masonry bearing wall construction, using flat "jack" arches over the window and door openings, with openings becoming larger and the piers becoming smaller as it rises to reflect to diminishment of the structural loads. This method of constructing statically hierarchical load-bearing walls would be realized in Kahn's design for the Exeter Library of 1965-72, while the conception of the plan as the collision of independent pure volumes would be realized in Kahn's Fisher House of 1967.

The **Kansas City Office Tower** of 1966-74 was one of Kahn's very few attempts to come to terms with the dominant building type of his time, the high-rise office tower. Kahn felt that typical steel-frame high-rise construction was not substantial enough, calling the buildings of Mies van der Rohe and SOM "tin-can construction." For Kansas City, Kahn and Komendant proposed to build the 24-story tower using slip-form concrete construction, which would have been less expensive and required less time to build than steel construction. Four corner double columns would have supported a post-tensioned truss structure at the roof, and the building would have been constructed from the top down with re-useable formwork. Of particular note was Kahn's provision of smaller scale spaces at the street edges to mitigate the large scale of the tower in the city. In 1974, SOM convinced the client to give them the project; Kahn, who was not informed of this decision for some time, continued to work on the design. For Kahn, this episode exemplified "what is wrong with our profession: no ethics."⁷

Kahn's sketch drawing of the top of the Kansas City Office Tower, showing people on the roof-top terrace above the curving catenary roof truss, was transferred to his own later Palazzo dei Congressi project, which we will discuss in a moment. His concept of building a tower from the top down, and hanging the floors of an office building, would inspire a number of other architects—to name only one, the design by Norman Foster for the Hong Kong Shanghai Bank.

The **Memorial to Six Million Jewish Martyrs** in New York of 1966-72, proposed a series of glass cubes, ten feet on a side, which would transmit light while also casting light-filled shadows. Kahn intended to build the Memorial using a woven structure of 6-inch by 6-inch by 6-feet long cast glass blocks, which would have been cloudy and finished with a non-reflective surface. The glass blocks would have been assembled without mortar, using interlocking pin-and-holes like the marble sections of the column of a Greek temple. In describing the quality of light he intended for this project, Kahn described the experience of the Pantheon in Rome; "The light is so strong as to feel its cut."⁸ In this, Kahn seemed to suggest that he conceived of the cast glass a frozen or solidified light, which had been cut and shaped into masonry



15x15 cm širokih in 1,5 m dolgih ulitih steklenih kvadrov, ki bi bili znotraj motni in tudi njihova površina bi bila matirana. Za gradnjo ne bi uporabili malte, ampak bi jih sestavili s pomočjo zatičev, na podoben način, kot so bili v grških templjih spojeni marmorni bloki stebrov. Ko je Kahn opisoval, kakšno svetlobo bi ustvarjal njegov spomenik, je opisal svoje doživetje rimskega Panteona: »Svetloba je tako močna, da lahko čutiš, kako reže.«⁸ Videti je, kakor, da si je Kahn zamislil steklene oblike kot zamrznjeno ali okamnelo svetlobo, ki so jo razrezali v zidake. Spomenik v celoti je oblikovanje svetlobe, ki masivna in gosta proseva skozenj. Eden Kahnovih najbolj sijajnih neuresničenih projektov so načrti za **Sinagogo Hurva** (Hurva Synagogue), 1967-74, ki bi jo zgradili v Jeruzalemu. Stala naj bi na griču nasproti Tempeljskega hriba, Kahn pa je bil zelo pozoren na to, da ne bi preseгла višine pomembnih svetišč drugih dveh religij – islamske Kupole na skali in krščanske Bazilike Svetega groba, ki stojita na vrhu Tempeljskega hriba. Kahn je napravil natančen tloris in prerez situacije ter glinast model celotnega osrednjega dela starega Jeruzalema, da bi se prepričal, če je njegov projekt res primeren tudi v širšem kontekstu.

Projekt je zelo introvertiran. Zunanji zid sinagoge sestavlja šestnajstih velikih pilonov iz Jeruzalemskega kamna – tistega iz katerega je bil prej zgrajen tudi zahodni zid Tempeljskega hriba – od katerega bi se odbijala sončna svetloba in vstopala v svetišče, ki bi žarelo v zlati svetlobi. V sinagogo bi se vstopalo v vogalih med piloni s patino, ob katerih se nahajajo manjše kapele, kar nekoliko spominja na egipčanske templje. V notranjosti štiri dežnikaste betonske strešne konstrukcije, votle in temne, določajo notranji prostor, vendar ga ne omejujejo. Med seboj se namreč ne stikajo, tako da sončna svetloba v svetišče vstopa skozi ozke reže med robovi nepravokotnih betonskih školjk strehe.

Kahova zgradba združuje sodobno votlo ojačano betonsko konstrukcijo s starodavnim zidom iz masivnih zidakov. Spomni nas na vse, kar Kahnova arhitektura dolguje Le Corbusierju. Kahn je Le Corbusierja, tik preden je izvedel za njegovo smrt, opisal skorajda jasnovidno izjavo, ki o njem samem in njegovi lastni arhitekturi, pove skoraj toliko kot o Le Corbusierju:

»V mojem razmišljanju o Le Corbusierju se združita groba neposrednost arhitekture gradov in glasbeno ritmična podoba grških templjev. Prepričan sem, da Le Corbusier, tudi v luči svojih čudovitih razkritij v arhitekturi, šele zdaj začena s svojimi najboljšimi deli. Upal bi si zamisliti zgradbo, ki bi jo lahko zgradil Le Corbusier, velikansko zgradbo, v katero so od vrha do tal na različnih mestih vrezani različni prostori različnih oblik. Ne bi pozabil niti gradu niti reda templjev. Zgradba bi svetlobo prepuščala v vse prostore in v vse prehode, ki bi

blocks. The whole design is a monument of light—massive, thick, translucent light.

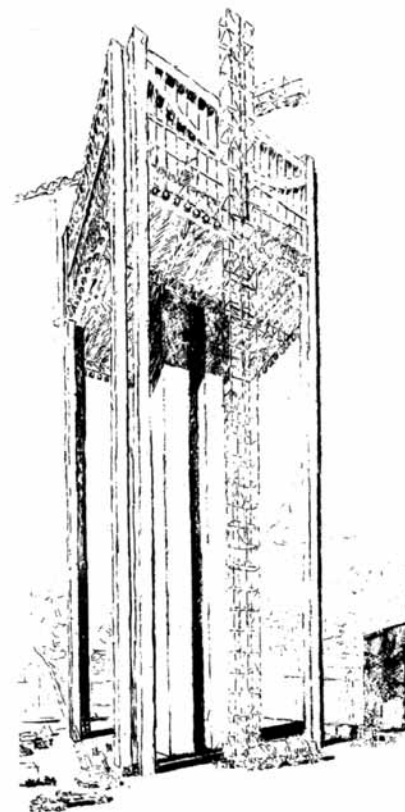
One of Kahn's greatest unrealized works is his design for the **Hurva Synagogue**, proposed to be built in Jerusalem in 1967-74. Sited on the hill opposite the Temple Mount, Kahn carefully kept the height of his building no more than the two great religious sites of Islam, the Dome of the Rock, and Christianity, the Church of the Holy Sepulchre, which stand atop Temple Mount. Kahn painstakingly made a large site plan, site section, and clay model of the entire central portion of ancient Jerusalem, to assure that his design was appropriate to the larger context.

The design is remarkably introverted, the outer wall composed of sixteen massive pylons made of Jerusalem stone—the same stones used to build the Western Wall of the Temple Mount—off of which the sunlight would have bounced to enter the sanctuary within, giving it a golden glow. One would have entered the Synagogue at the corners, between these battered pylons, remarkably similar to those on Egyptian temples, which housed small chapels at their bases. Inside, four massive, concrete umbrella-like roof structures, hollow, lightless, and dark, define but do not enclose the space of the sanctuary and its square and cruciform plan. The four umbrella-like roof structures would not have touched, and light would have entered the sanctuary through the thin slots between the edges of the bevelled concrete roof shells.

This structure joins modern reinforced hollow concrete construction to ancient battered-wall masonry mass, and brings to mind Kahn's debt to Le Corbusier, and the remarkably prescient statement Kahn wrote in 1965, shortly before learning of Le Corbusier's death that same year, which is as much about Kahn's own architecture as about anything Le Corbusier might design:

"The stark architectural directness of the castle and the musically rhythmic image of the Greek temple combine in my mind a thought about Le Corbusier. I believe Le Corbusier, even in light of his marvellous revelations in architecture, is just beginning to create his greatest work. I dare to think of a building he might make, a great block of a building, which is cut into from top to bottom in varied places of varied shapes, neither forgetting the castle, nor the order of the temple, giving light to spaces and passages on the immediate interior and leading to a glorious central and single space, the walls and their light left in faceted planes, the shapes the record of their making, intermingled with the serenity of light from above."⁹

At the time of Kahn's death in 1974, Jerusalem mayor Teddy Kolleck had just written to Kahn of his eagerness to start the building of the Hurva Synagogue. The concept of the umbrella-like concrete roof shells, an idea Kahn had been interested in since he visited Wright's Johnson Wax Building in 1959, were realized in a very different form in the



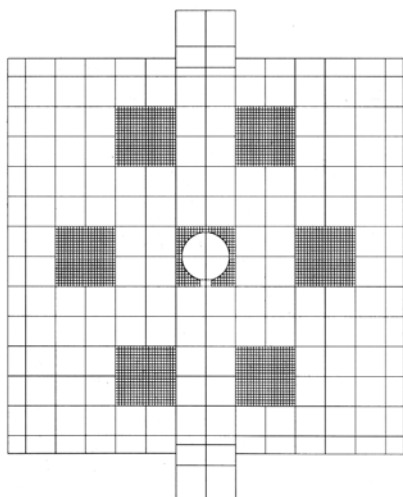
Perspektivna risba Poslovne stolpnice Kansas City, Missouri, 1966-74 med gradnjo, ki poteka od zgoraj navzdol; Kahnova skica.

Perspective drawing of Kansas City Office Tower, Missouri, 1966-74, under construction being built from the top down; sketch by Kahn.



Pogled na Poslovno stolpnico Kansas City z ulice Baltimore Street.

Baltimore Street view of the Kansas City Office Tower.

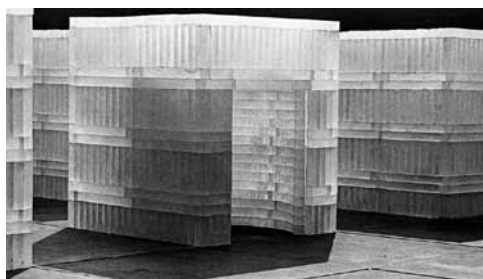


Tloris Spomenika šestim milijonom judovskih mučnikov, na katerem je vidnih sedem stebrov z vhodi na sredini, končni projekt, spomladi 1968; risba nastala pod nadzorom avtorja.

Plan of the Memorial to Six Million Jewish Martyrs showing seven piers with central entries, final scheme, spring 1968; redrawn under author's supervision.



Računalniška rekonstrukcija Spomenika šestim milijonom judovskih mučnikov z newyorškim pristaniščem (New York Harbor) v ozadju, končni projekt, spomladi 1968. *Computer reconstruction of the Memorial to Six Million Jewish Martyrs with New York Harbor beyond, final scheme, spring 1968.*



Maketa popisanega osrednjega votlega steklenega stebra s kapelo iz pleksi stekla. Spomenik šestim milijonom judovskih mučnikov, končni projekt, spomladi 1968. *Plexiglas model of the hollow glass central chapel pier with inscriptions, Memorial to Six Million Jewish Martyrs, final scheme, spring 1968.*

vodili v veličastni osrednji prostor, v katerem bi zidovi odbijali svetlobo od mnogih malih površin, oblike in zapis njihove stvaritve pa bi se prepletale s čistostjo svetlobe od zgoraj.»⁹

Ko je Kahn leta 1974 umrl, mu je jeruzalemski župan Teddy Kolleck ravno pisal pismo, da komaj čaka na začetek gradnje Sinagoge Hurva. Zamisel dežnikastih strešnih školjk je bila ideja, s katero se je Kahn spogledoval že, odkar je leta 1959 obiskal Wrightovo Hišo Johnson-Wax (Johnson-Wax Building), na precej drugačen način pa jo je uresničil v projektu za tovarno Olivetti-Underwood, pri kateri je sodeloval z mladim Renzom Pianom. Piano trenutno pripravlja projekte za prizidek h Kahnovemu Kimbellovemu muzeju.

Projekt za **Kongresno palačo** (Palazzo dei Congressi) v Benetkah, 1968-74, je Kahn začel z glinasto maketo mesta, na kateri se je jasno dalo prebrati le tri od znamenitosti: Markov trg, Le Corbusierjevo bolnišnico (ki je bila v tistem času še vedno predvidena za gradnjo) in njegovo lastno Kongresno palačo v Giardinih. Kahn je v Giardinih, ki so bujno zasajeni z drevjem, predlagal vzdignjeno kongresno dvorano, pod katero bi bili umetniški ateljeji. Zaobljena tla dvignjene kongresne dvorane je navdihnili Kahnova študija skledastega trga Campo v Sieni, kar kaže široki most, ki se iz dvorane spušča, ne pa se vanjo dvigne, kot je to v navadi v Benetkah. Tla dvorane bi bila iz betonske plošče v obliki parabolične krivulje, skoraj natančno takšne, kot jo je predlagal za vrh poslovne stolpnice v Kansasu.

Čeprav je mesto samo predlagalo, da bi Kongresno palačo postavili v razstavišče beneškega bienniala Giardine, je bil projekt na tej lokaciji zavržen, Kahna pa so prosili, če lahko projekte prilagodi za novo lokacijo – Arsenale, nekdanjo ladjedelnico v lasti mesta. Kahn je tu predlagal, da bi se kongresna dvorana raztezala prek enega od kanalov, kar je zamislil viseče dvorane dalo več smisla. Na strehi zgradbe nad tremi malimi kupolami je Kahn predlagal vzdignjen vrt in razgledno teraso. Skupaj z notranjostjo kongresne dvorane, ki jo je razumel kot most-trg, je Kahn sledil misli svojega prijatelja Alda van Eycka, ki trdi, da ko ljudje obiščejo vrh griča, so odprti za pogled daleč, ko pa se zberejo v dolini, kot je na primer notranjost zaobljene kongresne dvorane, pa se ozrejo navznoter drug proti drugemu in se zberejo v prostoru.

V času, ko je Kahn delal na projektih za Kongresno palačo, so ga povabili, da pripravi predavanje na strehi Doževe palače, kjer si je lahko do blizu ogledal strehe Markove bazilike. Ker je tu streha zaobljenih oblik zdržala več kot tisoč let, se je prepričal, da je gotovo primerna tudi za sodobne zgradbe. Sodeč po Kahnovih zapiskih o velikosti plošč in načinu montaže, je Kahn uporabil isti material in način montaže zaobljene strehe kot pri Kimbellovemu Muzeju. Kongresna palača v Benetkah je prvi od njegovih poznih projektov, v

Olivetti-Underwood Factory of 1966-70, on which the young Italian architect Renzo Piano worked with Kahn. Piano is now designing the addition to Kahn's Kimbell Museum.

The **Palazzo dei Congressi**, designed for Venice, Italy in 1968-74, began with Kahn's clay site model of the city of Venice, with only three monuments clearly legible: the Piazza San Marco, Le Corbusier's Hospital (which was still intended to be constructed at that time), and Kahn's Palazzo dei Congressi on the Biennale Giardini site. In the heavily treed Giardini site, Kahn proposed an elevated congress hall and an artists' workshop on the ground. The curving floor of the elevated congress hall was inspired by Kahn's studies in 1950 of the bowl-shaped Campo in Siena, as well as suggesting a large bridge, hanging down rather than rising up as those in Venice. The floor structure of the congress hall was to be a post-tensioned cast concrete slab in the form of a catenary curve, almost exactly as he first proposed it in his sketches for the top of the Kansas City Office Tower.

The Biennale Giardini site, proposed by the city, was rejected, and the city asked Kahn to redesign the Palazzo dei Congressi for a site in the city-owned Arsenale, the former ship-building precinct of the Venetian empire. Here Kahn was able to propose that the Palazzo dei Congressi span across a canal, giving the conception of the suspended congress hall a much clearer rationale. On the roof of the building, above the three smaller domed halls, Kahn proposed an elevated garden and viewing terrace. Together with the interior of congress hall, understood as a piazza-bridge, the roof terrace engaged Kahn's friend Aldo van Eyck's insight when people occupy hilltops, they face outwards to the distant view, while when people occupy valleys, such as the curving congress hall, they face inwards towards each other, and are gathered together in the space. During the time Kahn worked on the Palazzo dei Congressi, he was invited to give a lecture on the roof of the Doge's Palace, where he was able to observe at close hand the lead roofing of San Marco Basilica. Noting that this roof had lasted a thousand years on these curving forms, Kahn said he felt it was certainly appropriate for use on a contemporary building. Based upon his notes as to sheet size and installation methods, Kahn used the same material and methods of installation on the curving roofs of his Kimbell Museum. The Palazzo dei Congressi was also the first late design where Kahn proposed, rather than deeply recessed glazing, a flush-glazed façade and a stainless steel skin, both of which he would later employ on his Yale Center for British Art. The design for the **Graduate Theological Union Library** in Berkeley, California, of 1971-74, intended to house the world's largest collection of books on religion, was in many ways a return to Kahn's 1956 design for the Washington University Library, a pyramid for books, but in this case also housing



katerih je, namesto nazaj pomaknjene zasteklitve, predlagal okna v isti ravni z oblogo iz nerjavečega jekla, kar je kasneje uporabil tudi v projektu za Središče za britansko umetnost, Yale (Yale Center for British Art).

Projekt za **Knjižnico Teološke zveze za podiplomske študente** (Graduate Theological Union Library) v Berkeleyu, Kalifornija, 1971-74, v kateri naj bi bila spravljena največja svetovna zbirka knjig s področja religije, je v mnogih pogledih povratek h Kahnovemu projektu za Knjižnico washingtonske univerze (Washington University Library), piramidi za knjige, vendar pa ima tudi osrednji vertikalni prostor, kakor v Exeterski knjižnici (Exeter Library). Kahn je tokrat prvič predvidel, da bi bile okenske odprtine zasenčene z zunanjo vrsto dreves, »zelenim filtrom«, ki bi vrt naredil za del zgradbe. Gre za zelo pozen Kahnov projekt, ki je, potem ko je Kahn umrl, ostal v zelo zgodnji fazi. Zgradbo so lokalni arhitekti precej spremenili in dokončali med leti 1977-78.

Dokončana zgradba, kar se tiče volumnov, sicer sledi izvirnim projektom, vendar pa niso upoštevali skoraj nobene druge Kahnove zamisli. Rezultat je najbolje mogoče opisati kot karikaturo Kahna. V svoji monografiji o Kahnu sem sicer vztrajal, da moramo knjižnico, kljub popačenosti, šteti kot zadnje Kahnovo zgrajeno delo, vendar pa sem se po nedavnem obisku prepričal, da to nikakor ne drži. Najbolje bi bilo, da Kahnova nezgrajena dela ostanejo nezgrajena, razen če bi se jih gradilo točno po njegovih načrtih.

Spomenik Franklinu Delanu Rooseveltu (Franklin Delano Roosevelt Memorial), 1973-74, naj bi stal na južnem rtu otoka Roosevelt Island na reki East River v New Yorku, na kraju, ki se ga vidi iz zgradbe Združenih narodov (United Nations Building). Za Kahna projekt pomeni vrnitev k začetkom, saj je svojo kariero začel z gradnjo stanovanj za Rooseveltov New Deal in do leta 1945 projektiral več kot 2500 hiš in stanovanj, financiranih s strani vladnih programov. Kakor je zapisal neki naročnik: »Kahn je ljubil Roosevelta in o njem vedel veliko več od nas.«¹⁰ Kahn je kmalu imel jasno zamisel za spomenik:

»Zamislil sem si, da bi spomenik moral imeti sobo in vrt ... Vrt je bolj oseben, je osebni način nadzora narave, zbiranje narave. Soba pa je začetek arhitekture.«¹¹

Vhod v spomenik je na severni strani skozi dolg, navzdol nagnjen perspektivni vrt, ki bi se zdel daljši, kot bi bil v resnici. Na drugi strani je soba brez strehe s pogledom na reko na jugu, zgrajena iz masivnega kamna. Kahn je predvidel dva Rooseveltova kipa: stoječo figuro naravne velikosti, ki bi jo srečali zunaj sobe, in večjo figuro Roosevelta na vozičku, ki bi jo srečali, ko bi vstopili v sobo. 5,5 m² velika soba je arhaičen prostor s 3,5 m in 1,5 m debelimi zidovi iz polnih granitnih blokov, tako da je hkrati mestu primerno monumentalna,

an Exeter Library-like central vertical space. Kahn proposed here for the first time that the apertures of the building would be shaded by rows of trees—a "green filter" that incorporates a garden into the building. This late design had only reached a very preliminary stage when Kahn died, and the building was later realized, in a significantly modified form, by local architects from 1977-87.

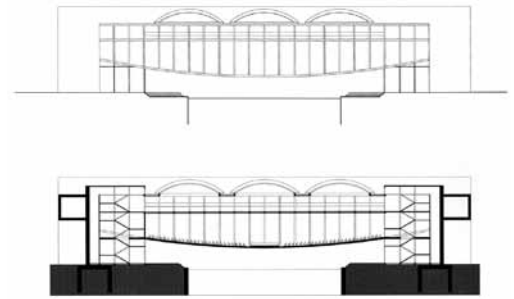
While the resulting building follows Kahn's design in general massing, almost none of his specific ideas from the preliminary design were employed, and the result may best be described as a caricature of Kahn's design. While in my monograph on Kahn, I held that, even in its modified form, the library should be considered Kahn's last built work, having recently revisited the building, I have now come to the opposite conclusion, and feel it is best that Kahn's unbuilt designs remain so unless they can be realized exactly as he left them.

This brings us to the **Franklin Delano Roosevelt Memorial**, proposed for the southern point of Roosevelt Island in the East River of New York in 1973-74. Its site is within view of the United Nations Building. This project represented a return to beginnings for Kahn, who had begun his career as a housing architect for Roosevelt's New Deal, designing more than 2500 houses and apartments for government-sponsored projects by 1945. As the client noted; "Kahn loved Roosevelt and knew much more about him than most of us."¹⁰ Kahn's conception for this memorial came early and clearly:

"I had this thought that a memorial should be a room and a garden... The garden is somehow a personal nature, a personal kind of control of nature, a gathering of nature. And the room is the beginning of architecture."¹¹

The site is entered from the north end, where we would move through a long, downward-sloping, perspectival garden, appearing longer than it in fact is. At the other end is a roofless room set out into the river, made of massive stones, opening to the south. Kahn proposed two statues of Roosevelt, a life-sized standing figure we would encounter outside the stone room, and a larger-than-life-sized figure of Roosevelt sitting in a wheelchair we would encounter upon entering the stone room. The 60-foot square room is a truly archaic space, with twelve-foot tall walls that are six feet thick, made of solid granite blocks—the room at once both monumental, scaled to the city, and intimate, scaled to the human figure standing at the centre of the river.

After Kahn's death in 1974, the Roosevelt Memorial design, like all of Kahn's unbuilt projects, was abandoned. Yet Kahn's design of the room and the garden was completed through construction documents—ready to be built—and fundraising efforts continued for more than a decade. In the 1980's, the basic work of grading the island point was accomplished before funding as exhausted. Then, one year ago, construction began again in earnest



Pogled (zgoraj) in vzdolžni prerez (spodaj), Palazzo dei Congressi, drugi in dokončni projekt, lociran v Arsenalu, 1972. Zgradba naj bi bila obešena preko kanala Canale delle Galeazze, na zahodni strani lagune arzenala; risba nastala pod nadzorom avtorja.

Elevation (above) and longitudinal section (below), Palazzo dei Congressi, second and definitive scheme, Arsenale site, 1972. The building was to be suspended over Canale delle Galeazze, on the western side of the Arsenale lagoon; redrawn under author's supervision.

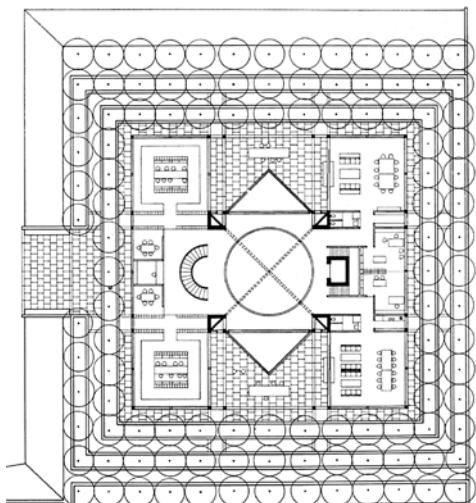


Računalniška rekonstrukcija pogleda po stranskih 'ulicah' glavne kongresne dvorane s sedeži na desni, Palazzo dei Congressi, drugi in končni projekt, lociran v Arsenalu, 1972.

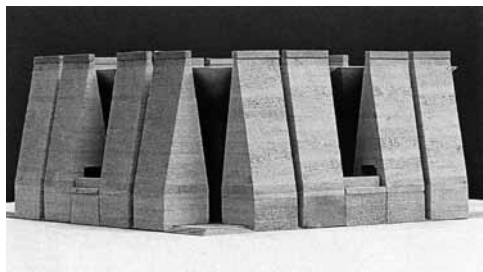
Computer reconstruction showing the view down the side 'streets' of the main congress hall with the seating to the right, Palazzo dei Congressi, second and definitive scheme, Arsenale site, 1972.



Maketa Knjižnice teološke zveze za podiplomske študente, Berkley, Kalifornija, 1971-4, pogled s severozahoda.
Model of the Graduate Theological Union Library, Berkley, California, 1971-4, viewed from the north-west.



Tloris zgornjega nadstropja Knjižnice teološke zveze za podiplomske študente (sever je na levi strani).
Upper level floor plan, Graduate Theological Union Library (north to left).



Maketa sinagoge Hurva, ki prikazuje ozek vhod med piloni na vogalih; prvi in končni projekt, 1967-9.
Model of the Hurva Synagogue showing narrow corner entry between pylons, first and definitive scheme, 1967-9.

vendar pa tudi intimna, narejena po meri človeka, ki se nahaja na sredini reke.

Po Kahnovi smrti leta 1974 so projekte za Rooseveltov spomenik opustili, tako kot tudi vse ostale njegove nedograjene projekte. Načrti za spomenik so popolnoma zaključeni in imajo vso potrebno projektno dokumentacijo za izvedbo. Več kot desetletje se je skušalo zbrati denar za začetek gradnje. V osemdesetih so pripravili teren na koncu rta, potem pa je denarja spet zmanjkalo. Pred letom dni se je gradnja začela znova, posadili so drevesa ob obali otoka in ulili temelje za sobo. Kakor se je o projektu izrazil že Kahn »ne moremo več zanikati njegove zahteve po prisotnosti. Čaka le na prave okoliščine.«

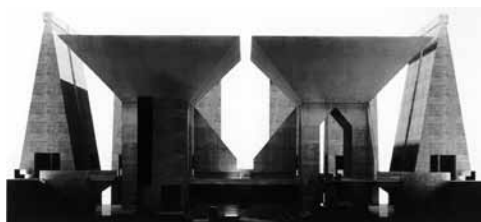
Opombe

- 1 Louis I. Kahn, citat iz Alexandra Tyng, *Beginnings: Louis I. Kahn's Philosophy of Architecture* (New York: Wiley, 1984), p.108.
- 2 Louis I. Kahn, citat iz John Lobell, *Between Silence and Light* (Boston: Shambala, 1979), 84; v Romaldo Giurgola in Jaimini Mehta, Louis I. Kahn (Boulder: Westview Press, 1975), p.183.
- 3 Louis I. Kahn, Alessandra Latour, Louis I. Kahn: *Writings, Lectures, Interviews* (New York: Rizzoli, 1991), p.45.
- 4 Louis I. Kahn, Latour, op. cit., p.123.
- 5 Louis I. Kahn, Latour, op. cit., p.108.
- 6 Louis I. Kahn, Latour, op. cit., p.205.
- 7 Louis I. Kahn, citat iz August Komendant, *18 Years with the Architect Louis I. Kahn* (Englewood: Aloray, 1975), p.103.
- 8 Louis I. Kahn, Latour, op. cit., p.227.
- 9 Louis I. Kahn, Latour, op. cit., p.205.
- 10 Theodore Liebman, citat iz Paul Goldberger, "Design by Kahn Picked for Roosevelt Memorial Here," *The New York Times* (25. april 1974).
- 11 Louis I. Kahn, Latour, op. cit., p.321.

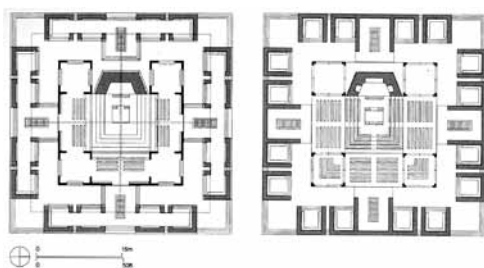
on the Memorial, with test trees being planted on the edges of the island and the foundations of the room being cast. The Memorial is now expected to be completed in the next several years, beginning with the room. As Kahn said, the design's "demand for presence is undeniable. It is merely waiting for the right circumstances."

Endnotes

- 1 Louis I. Kahn, quoted in Alexandra Tyng, *Beginnings: Louis I. Kahn's Philosophy of Architecture* (New York: Wiley, 1984), 108.
- 2 Louis I. Kahn, quoted in John Lobell, *Between Silence and Light* (Boston: Shambala, 1979), 84; and Romaldo Giurgola and Jaimini Mehta, Louis I. Kahn (Boulder: Westview Press, 1975), 183.
- 3 Louis I. Kahn, Alessandra Latour, Louis I. Kahn: *Writings, Lectures, Interviews* (New York: Rizzoli, 1991), 45.
- 4 Louis I. Kahn, Latour, op. cit., 123.
- 5 Louis I. Kahn, Latour, op. cit., 108.
- 6 Louis I. Kahn, Latour, op. cit., 205.
- 7 Louis I. Kahn, quoted in August Komendant, *18 Years with the Architect Louis I. Kahn* (Englewood: Aloray, 1975), 103.
- 8 Louis I. Kahn, Latour, op. cit., 227.
- 9 Louis I. Kahn, Latour, op. cit., 205.
- 10 Theodore Liebman, quoted in Paul Goldberger, "Design by Kahn Picked for Roosevelt Memorial Here," *The New York Times* (25 April 1974).
- 11 Louis I. Kahn, Latour, op. cit., 321.

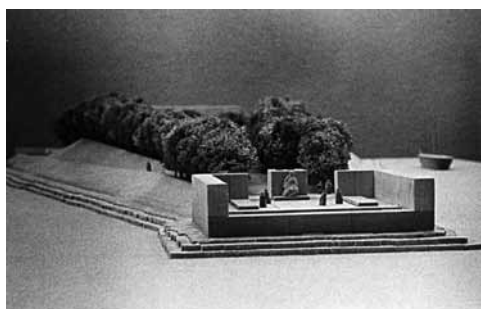


Računalniška rekonstrukcija perspektivnega prereza, sinagoga Hurva, prvi in končni projekt, 1967-9.
Computer reconstruction of perspective section, Hurva Synagogue, first and definitive scheme, 1967-9.



Tloris sinagoge Hurva, ki prikazuje kapeli in mezzanin v zgornjem nadstropju (na levi) in vhod s svetiščem v pritličju (na desni), prvi in končni projekt, 1967-9; risba nastala pod nadzorom avtorja.

Plans of the Hurva Synagogue, showing the chapel and mezzanine on the upper floor (left), and the entry and sanctuary on the ground floor (right), first and definitive scheme, 1967-9; redrawn under author's supervision.

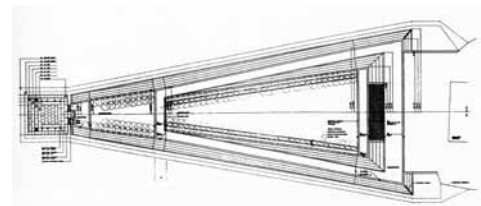


Maketa spomenika F. D. Rooseveltu, končni projekt, druga faza, spomladi 1974; pogled v prostor na koncu vhodnega vrta s sedečim kipom Roosevelta.

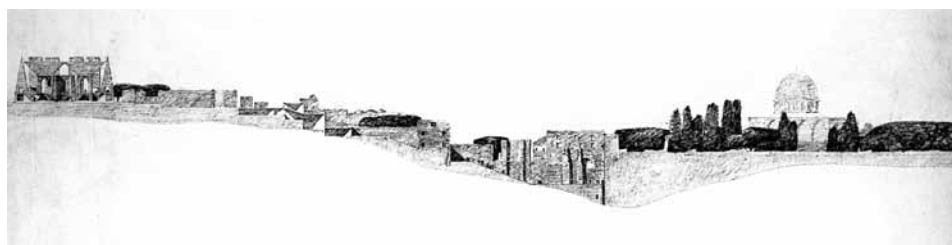
Model of the F. D. Roosevelt Memorial, final scheme, second phase, spring 1974; view into the room with the seated statue at the end of the approach garden.



Perspektivna risba Rooseveltovega spomenika z dvema skupinama štirih stebrov znotraj sobe in silhueto Manhattana v ozadju, končni projekt, prva faza, poleti 1973.
Perspective drawing of the F. D. Roosevelt Memorial, final scheme, first phase, summer 1973, with two sets of four columns in the room and the Manhattan skyline beyond.



Tloris Rooseveltovega spomenika, končni projekt, prva faza, poleti 1973.
Plan of the Roosevelt memorial, final scheme, first phase, summer 1973.



Prerez panorame Jeruzalema s prerezi sinagoge Hurva (na levi), Zahodnega zidu (na sredini desno) in Tempeljskega hriba (na desni), v daljavi lahko vidimo Kupolo na skali; prvi in končni projekt, 1967-9.

Fig. 32: Section through Jerusalem with the section through the center of the Hurva Synagogue (left), the Western Wall (center right) and Temple Mount (right); The Dome of the Rock can be seen in the distance, first and definitive scheme, 1967-9.



Maketa prereza, Palazzo dei Congressi, prvi projekt, lociran v Giardinah, 1969.

Model of elevation, Palazzo dei Congressi, first scheme, Giardini pubblici site, 1969.