

## A New Royal Library at the Waterfront, Copenhagen

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To copy in an architectural design process is an act of unconscious appropriation which goes on continually at nearly any designers desk. A borrowed quotation from Rosalind Krauss clarifies what I mean:

*"The pattern books that are the backbone of architectural production, so that a building can be cooked up from a detail taken from here and a ground plan drawn from there are just one example of the extent to which production has always been at one level the art of making copies from other art."*<sup>1</sup>

Today these "pattern books" are not the catalogues one used in the last century, but the magazines which supply us weekly with new patterns ready for common consumption.

In Academia, a found text is normally used in quotation marks to serve an argument. The text is then transformed and commented upon to help understand contemporary conditions. But architecture plays the game of the fiction writer, who conceals and transforms the precedent used in a writing process so as to strengthen the myth of authorship as an authentic and original act of art.

In the competition for the Royal Library of Copenhagen this unconscious act of copy has been used as a very conscious methodology. The planimetric and elevational information was directly copied out of the competition brief and historical information was obtained. The two dimensional drawings were then digi-

tized by a computer copy machine and transformed according to need.

The international competition brief, requested by about 400 designers, asked for a doubling of the Royal Library at the waterfront in the center of Copenhagen. In addition they were asked to integrate the library into the inner city and to recognize a mile-long stretch along the waterfront.

The Royal Library's role as a conveyor of knowledge and information has been under permanent transition throughout its history. Its mission changed from primary protector and administrator of books and objects to an institution which arranges and stores information in multiple ways for mass con-

sumption. Since desktop publishing is now a reality, the diversity and mass of pictorial and textural information has become enormous. Information is produced and distributed in a more democratic fashion as access to the media has become easier.

Today, information can be stored in electronic units which use minimal space. In the future, print matter will lose its dominant importance and spatial requirements. Eventually, information will be accessible in nearly all homes without leaving the domestic space. The Royal Library will therefore have to take on an entirely new function, namely to collect and protect information in order to make it accessible for all, as well as to provide a public

space for discourse which is independent of the institution of the university.

The reading room for example will have a new function, as readers will soon be able to receive most information at home at the speed of light, by electronic link. Reading rooms will therefore be used more for their social, festive and architectural value as public space, than as the territory for the study of books and manuscripts.

### Compositional Rules

Today we are able to read, see or hear many more and diverse voices, which earlier were automatically excluded from the informational stream. This development has greatly influenced architectural production. How best to represent a multiplicity in the collection and arrangement of information, a diversity culturally and architecturally, without regressing to a neutral and detached architectural frame void of any expression? This question is to be addressed if design for a new democracy is to be achieved.

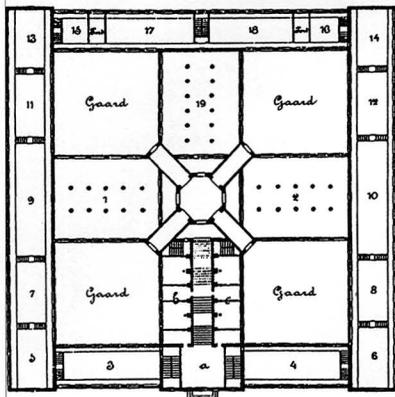
It is difficult to create an architectural representation which speaks inclusively to all members of society. In a new age of information, we have to assume that some of the prevalent ideologies will be neutralized as easy accessible knowledge destroys myths of power. In the design process for the Royal Library my studio therefore started with the material we directly found at the site without judging it in a classical or historical fashion.



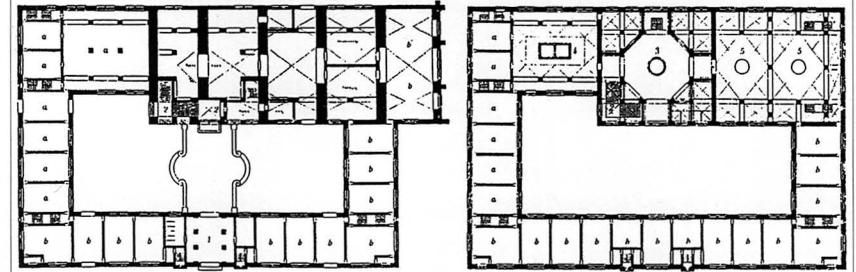
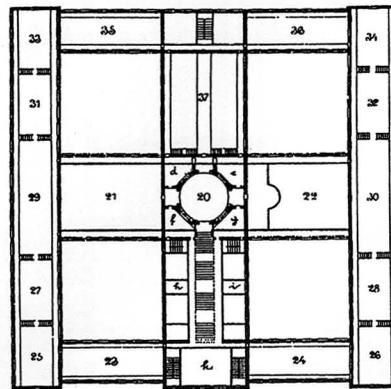
Site Plan—Royal Library and New Concert Hall



*Location Map—Copenhagen, Denmark*



*Ecole des Beaux Arts Plan by Holm, 1880*

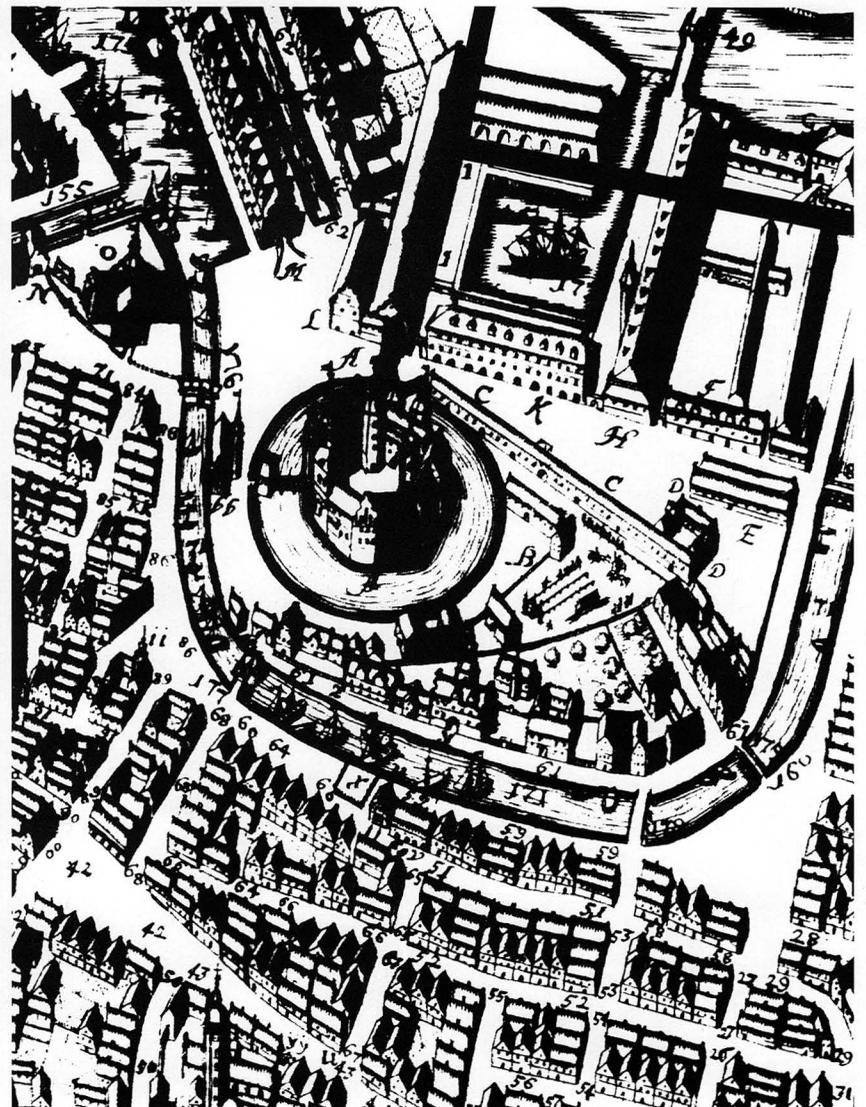


*Preliminary plan attempting to fit library to new site by Holm, 1897*

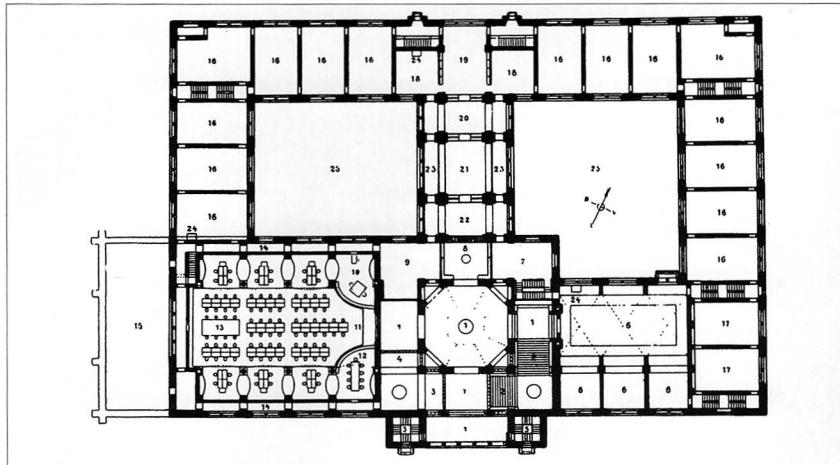
When the library was first planned by the architect Hans J. Holm, in 1880, it was copied after a foreign ideal—the Royal Library in Munich. The architect made a copy of the found library to create an ideal library plan heavily influenced by the Beaux Arts tradition. After he had copied and translated the found Royal Library of Munich, which in turn had been copied after a Florentine Renaissance palace, he had to confront his new plan with a new site, which had been chosen in the meantime. As it was not known at the outset of the planning period where the future library was to be positioned, the architect had to fit his ideal library to a later found site, where, as it turned out, a rather prominent medieval building was located. This building, called the Galley House, had to be entirely integrated into the new library, a process which quickly destroyed the ideal Beaux Arts plan. The found context and history regarded it as a disturbance. This “disturbance” inspired Holm to experiment to a larger degree with the possibility of translating the obtained spatial information culturally, by trying to represent a national Danish identity. The resulting transformation from a clean classical building towards an eclectic structure by the enforced integration of an existing medieval building inspired him to numerous medieval, neo-renaissance and 18th century industrial motives. The win-

dows were inspired by Venetian palaces, the facade by local attempts to find a Danish expression in well detailed uncovered brick constructions, the staircase was taken from the Royal Munich Library (which in turn was inspired by Florentine palaces), some rooms were copied from new French iron industrial market halls, others from a medieval Charlemagne chapel in Aachen, and the entrance was framed by an imitation of Art Nouveau towers.

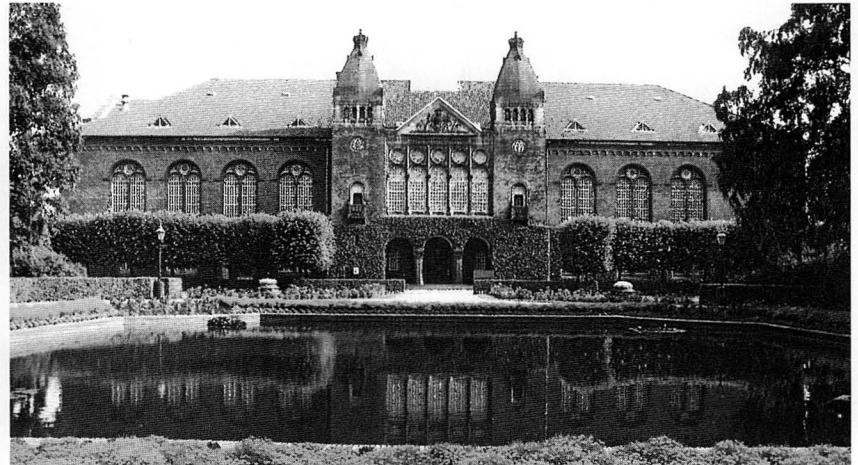
This perhaps insignificant history of the beginning of the Royal Library in Copenhagen shows a break from an, until then, established methodology of form-making, defined by a classical vocabulary of precedence. The tension between classical tradition and historical accurateness, and the search for national identity as a basis for innovative design, surfaced even in countries like Denmark which was not necessarily in the forefront of the cultural vanguard. Holm, a “Royal Architect” was not able or willing to take this intellectual challenge up for critical reconsideration in the sense of a critical search of a cultural identity in its own right. Instead he considered a mixture of motives from so called higher cultures as sufficient to provide him with a collection of un-categorized precedence for his “national library”.



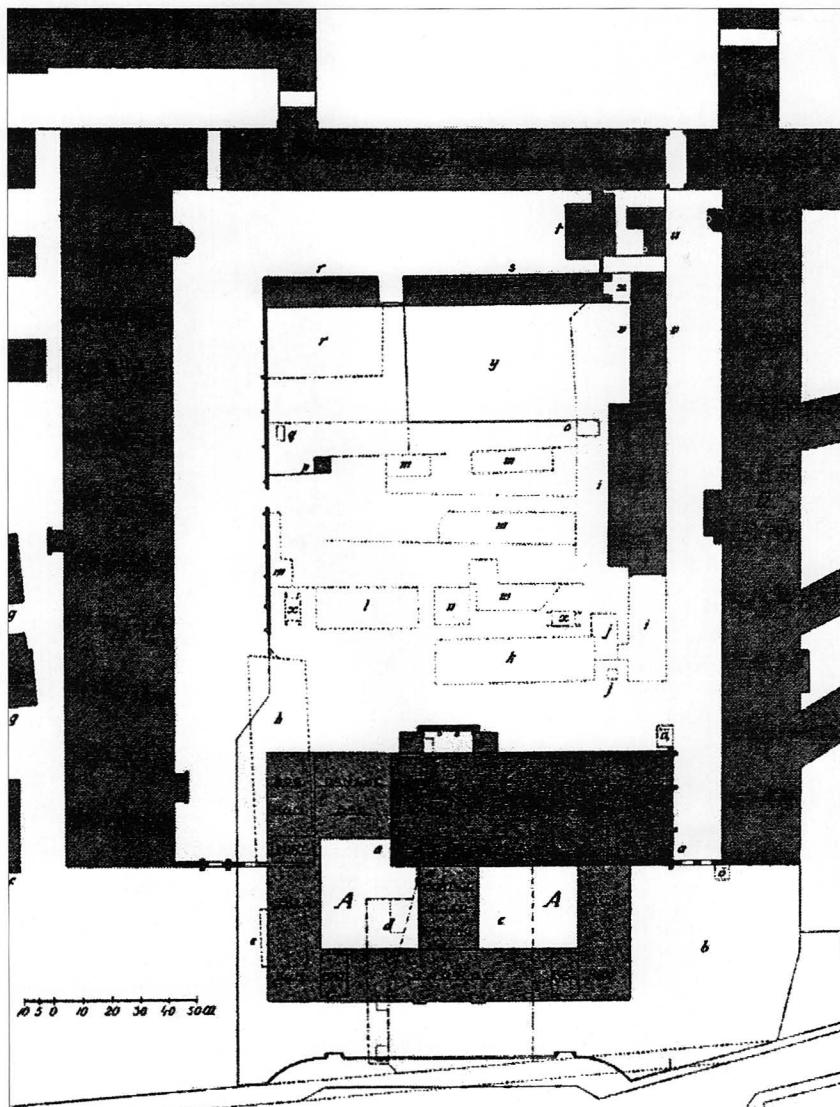
*Copenhagen Center, 1674—prior to Library addition (Galley House at top)*



*Holm's final plan, 1902*



*North Library elevation, fronting garden*



*Holm's Library superimposed onto the old Galley Building*

The circumstance of an existing 14th century building of absolutely no classical origin should have given him a hint that there were other possibilities for form making other than the one he was used to, namely to copy blindly plans and elevations imported by other cultures. The cultures of Germany, France and especially Italy even at this late date entirely dominated Danish cultural production.

This methodology of copying, translation and transformation was done rather unconsciously at the time and resulted in a building consisting of a pastiche of haphazardly assembled cultural fragments.

The new library was opened in 1906. The original plan was considered a half execution of a bilateral cross-plan, which later was to be mirrored in the library garden, should the need arise. This library garden however became a very important and beloved public space in the inner city of Copenhagen and could today no longer be disturbed.

The program for the New Royal Library asked for a new space, that would double the size. This double was to be read as a mirror condition—a mirror—which was used in my studio as a conceptual base for further investigations.

We used the computer's neutral working method to envision a new architecture which goes beyond the ingrained thinking in dichotomies.

We digitized the found plan of the existing library and stretched the plan to the given site's proportion. Instead of using a precedent from the magazines, to help us "cook up a building by taking a detail from here and a ground plan from there", we used the existing library as a found object, an "ideal" which we regarded as a by-chance encounter holding instant information as a base for transformations. The historical plan of eventually mirroring the library plan towards the garden to achieve the perfect Beaux Arts plan inspired us to use the concept of mirror in a more abstract manner towards the water without having the goal to achieve an artificial representation of unity.

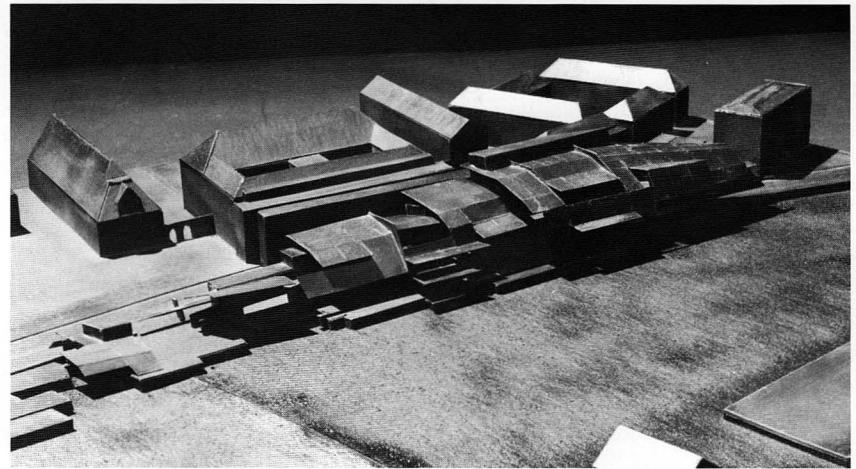
In an analytical phase we formulated new rules of translation according to urban and local conditions.

New realities, such as views to and from the city, access from surrounding activities, security, protection, pragmatic needs and the goal to create a public forum were used to establish new rules after which we then copied, rotated and cut parts of the "ideal" plan. This newly achieved plan gave

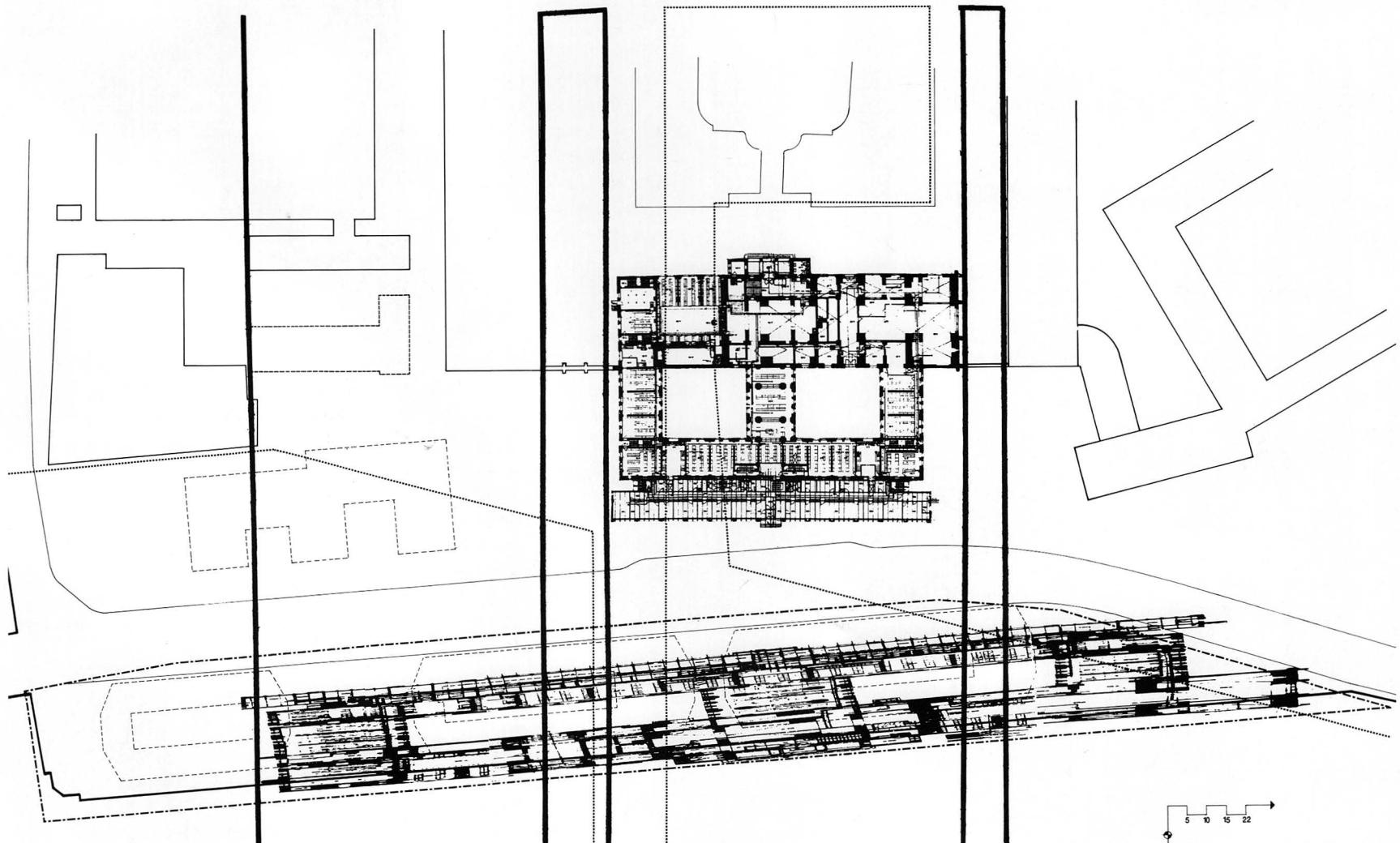
plenty of material for programmatic and spatial interpretation which was then further translated to plan and section, to create a building which exhibits very clear zones, that can be used flexibly.

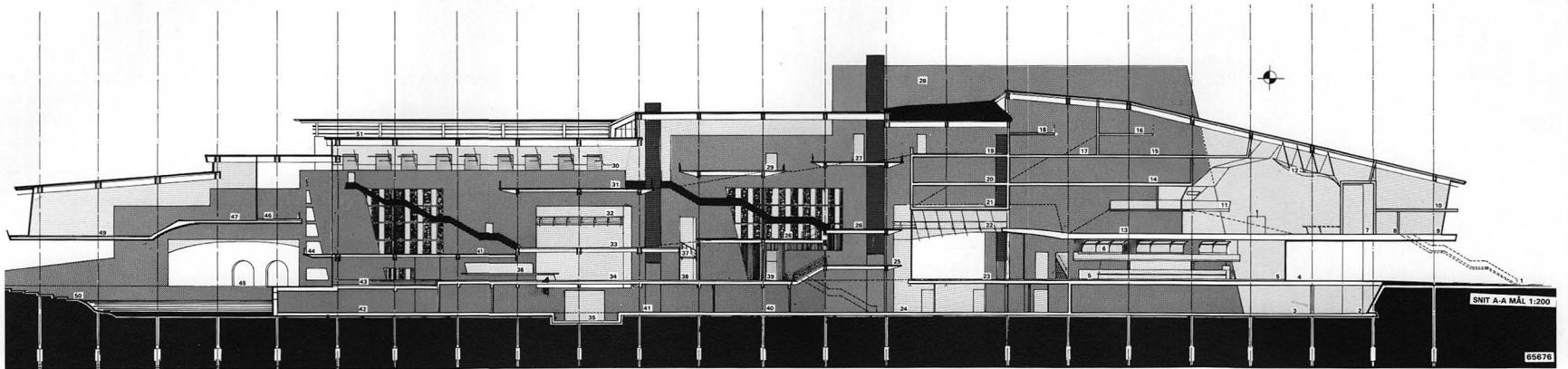
The new stretched library plan is built up in stripes layered parallel to the water. The assigned programs reflect in a mirrored fashion what actually happens in the existing library. From the waterfront the first zone, A-zone, contains the reading rooms with their differentiated rhythmicality and spatial drama derived from the different proportions of the exist-

ing library, which had to integrate the existing Galley building into its plan and section. The second B-zone, defined as the information storage wall, was derived through a transformation of the courtyard voids of the existing library into a solid information wall. The C-zone contains all entrance and circulation activities and was derived through a rotation of the D-zone to accommodate the street, which has to pass underneath the two buildings. This was best and most efficiently achieved by having the two administration wings situated parallel to each other. The last D-zone carries the administra-

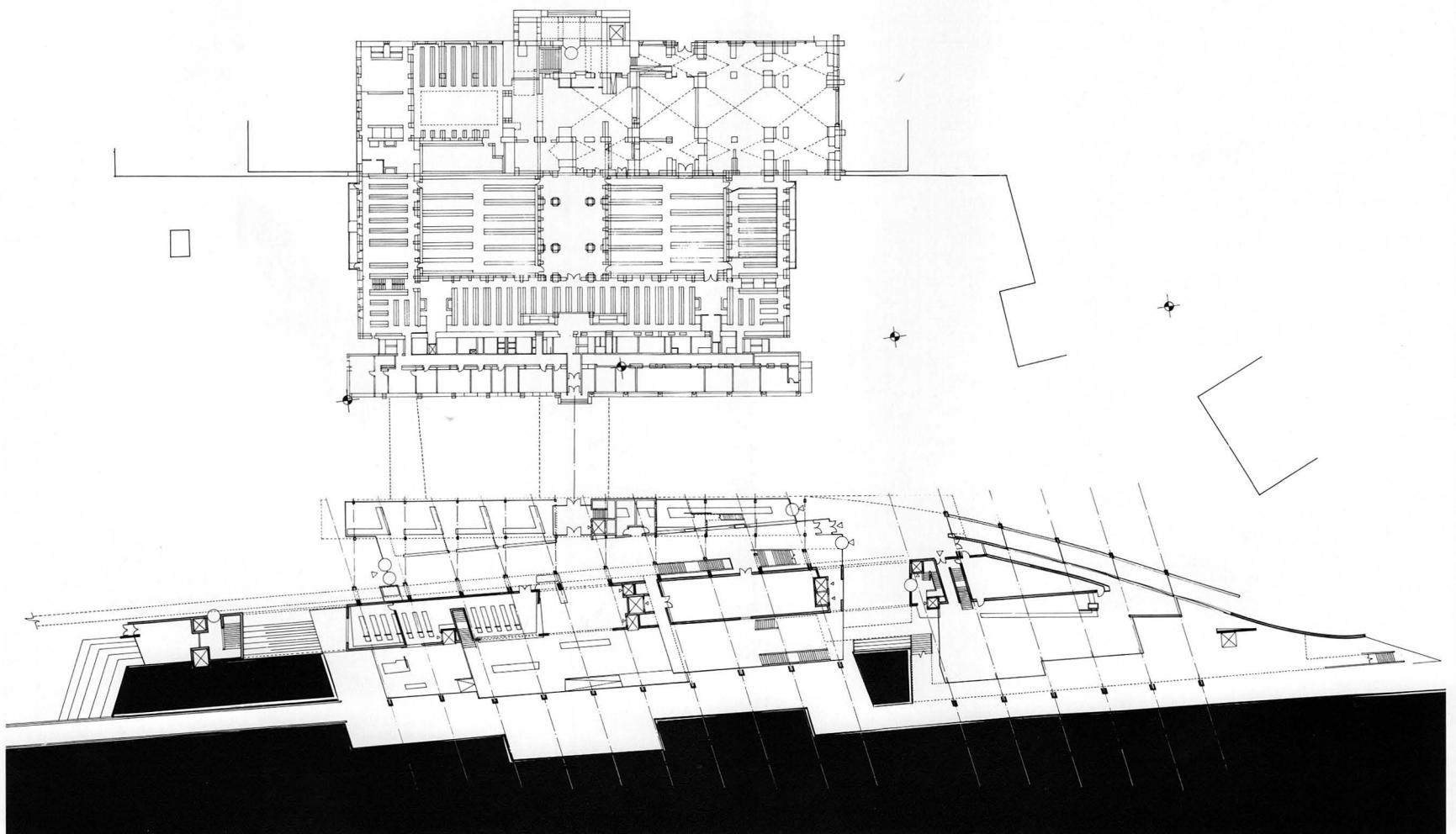


*New Royal Library at waterfront*

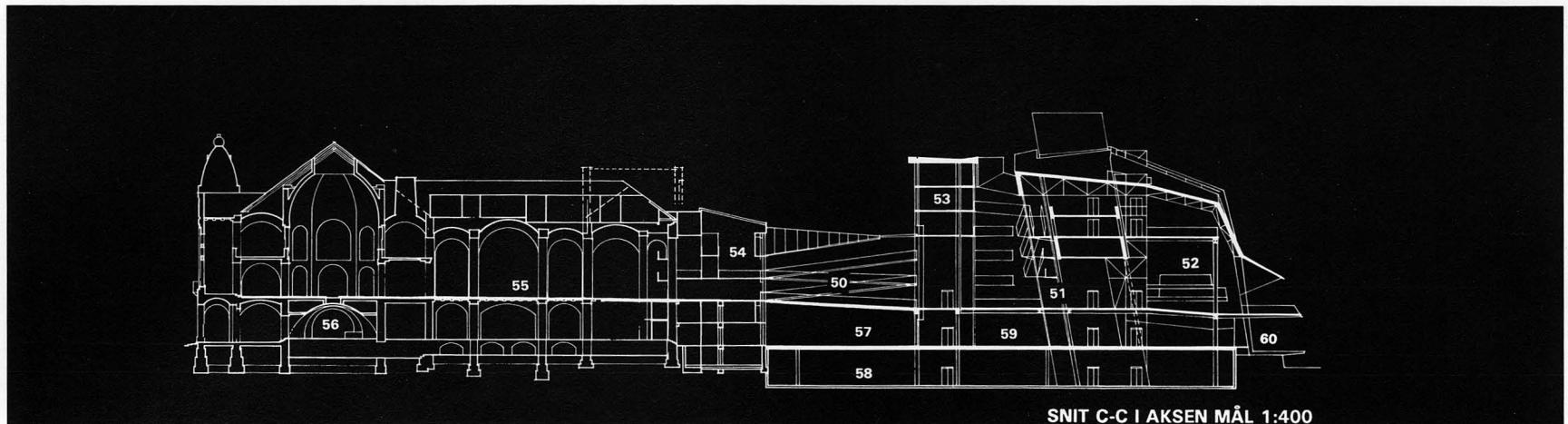




*Longitudinal section through reading area*



*Plan at street level*



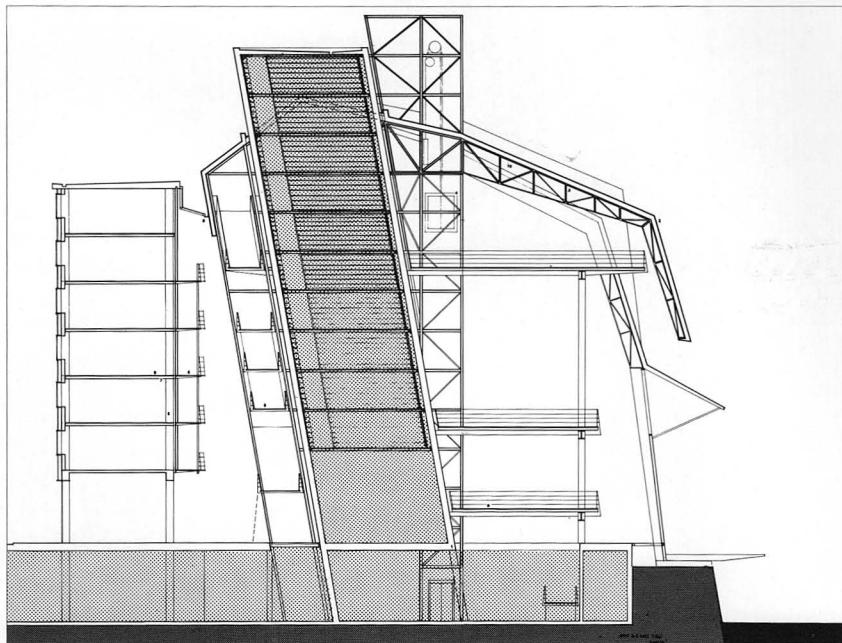
*Cross section through old and new library*

tion and reflects the opposite administration wing with the same small and repetitive partitioning. All different zones A,B,C,D, to A1, B1, C1, D1, are stitched together by two volumes partly cutting voids into the existing and new library, partly hovering as a solid volume above the existing street. It consists of a swarm of ramps connecting the new and existing library, whose floors in section are staggered.

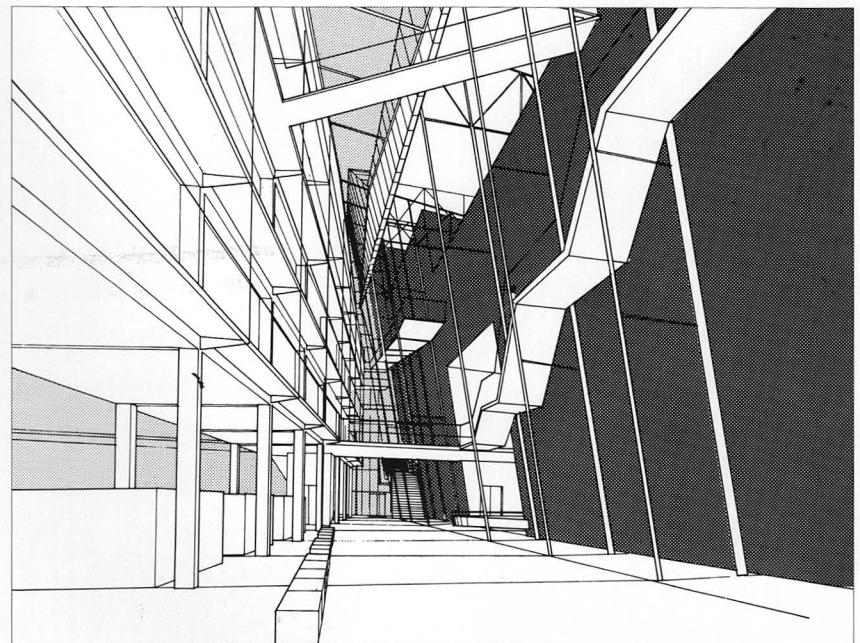
The reading rooms, located in the A zone, open up towards the water. These areas function as a citizen's forum, since the arrangement of information will largely be discussed and decided here. All reading rooms are located on floating balconies in a large volume with direct visual contact to each other, much like the balconies of a theater. The "spectacle" to be looked at is the city itself.

It is important to define the reading rooms with a direct connection to the city. They have to remain flexible, as they will constantly have to fulfill new functions. Keeping this zone free of traffic and noise is achieved through the information wall, which acts as a filter through which one has to pass in order to move around. The new reading rooms supply a contemporary architectural experience in clear contrast to the historical reading rooms of the existing library.

The information wall is the new center of the composition, where the user will orient himself/herself by learning how to obtain knowledge, where to find information and how to control the machines. The information is located at the core of the building and everything else is organized around it. The core holds everything down and acts as a filter which can be read in the elevation towards the city. All information in the form of CD's, electron-

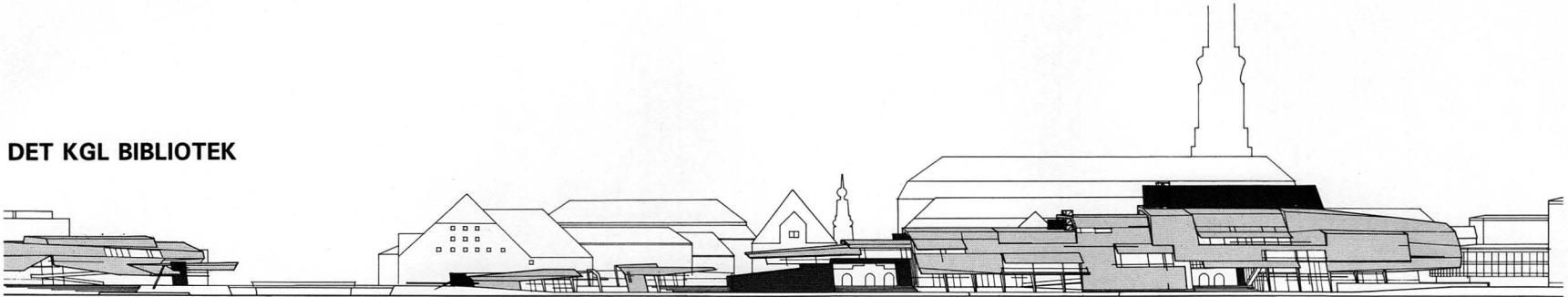


18 *Cross section through new library*

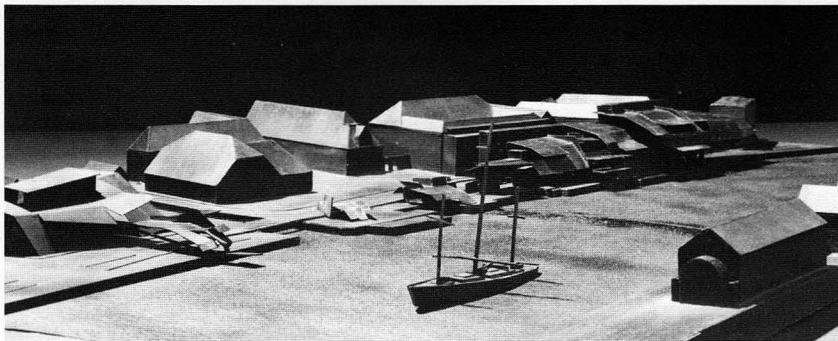


*Perspective of entrance hall, from west*

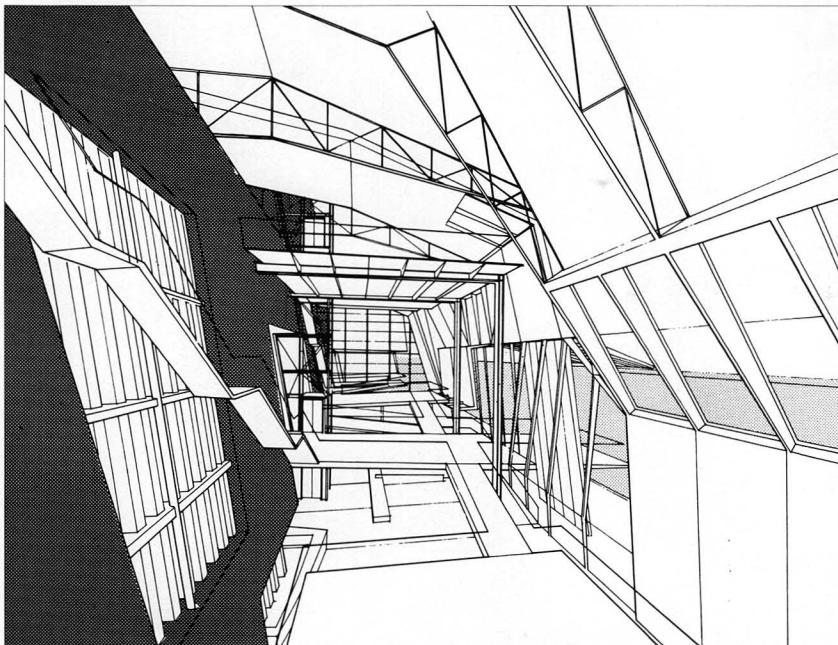
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*South elevation at waterfront*



*New Royal Library, model view*



*Perspective of reading platforms, from west*

ic storage, books and objects are stored in this heavy wall, which provides a solid construction in the form of a house within a house, with special security systems in terms of light, fire, security, and theft. The area can be closed and locked in segments. It has easy access to the administration and to the different reading rooms.

Zone C is defined as a void in the building. One enters the library by slipping sideways into this high and large space from where one reaches all ramps, stairs and elevators to the different exhibition halls, the library, the cafeteria, the large concert hall, the administration and the independent institutes.

The administration is located at the opposite side of the existing administration, mirroring its formal properties. Two bridges, the large information volume-bridge and a smaller administrative volume-bridge connect the different activities at different levels.

For the elevation of the new library we scanned the existing roof landscape as it is experienced from the water edge and manipulated the obtained folded surfaces according to programmatic needs. The resulting folded plane is to be of copper, acting as a screen and foreground to the Par-

liament. The existing library's roof serves as a background. Big folded surfaces can also be read into the roof of the Toejhus Museum right next to the library extension. The new library uses the found formal language in a more abstract fashion and therefore overcomes the old dichotomy of old and new architecture.

As the authority of precedence an author has been deconstructed allowing a reconstruction of an open process of form finding.

### Acknowledgement

The design team for the New Royal Library at the Waterfront consisted of Nick Capelli, Mercedes de la Garza, Lisa Hansan, Carl Hampson, Marc Kim, Scott Oliver and Keith Sidley.

### Notes

1. Rosalind E. Krauss, *The Originality of the Avant-Garde and other Modern Myths* (Cambridge, Mass.: MIT Press fifth edition, 1988.)