Frei + Saarinen Architects

Conversion / Extension of Kino Xenix

Zurich, 2005-07


KINO xenix

History

In 1904, the School Department of Zürich erected several temporary wooden pavilions in order to respond to the rising demand for classrooms.

In 1984, one of these “temporary” - and partially abandoned - structures was conquered by a young group of film enthusiasts who had the idea to setup an alternative cinema.

The concept of “Kino Xenix” was as simple as it was successful: A unique film selection (every month a new program containing up to 30 different movies with a conceptual relation) plus a bar that generated the necessary turnover to finance the cinema.
The former schoolrooms were converted into an auditorium; the three meter wide corridor into a bar.

Later, Xenix became a company. In order to run the bar on a professional level, additional sheds for storage and cooling beverages were added to the building.
Since none of the structures conformed to building laws, a final solution had to be found.

The crew did not want to leave the prime location in the centre of Zurich, so the 100-year-old wooden building was expanded according to the law, incorporating all necessary additional spaces, such as a cooling room, restrooms, a small kitchen, and storage space. Since the bar was frequently overcrowded, it too was expanded.

In developing ideas on expansion, it became clear that the opportunity should be taken to rethink and redesign the entire interior space. With this realization, the list of desires grew: more seats for spectators, a better view of the screen, a larger lobby for the cinema, a canopy above the entrance, a new air-conditioning system, full access for the disabled, a better sound system, etc.

Prefabrication system


1904

Genesis of Form

The volume of the extension had to fulfil a number of restrictions. Only one direction to expand was accepted by all included parties (monument conservators, garden-monument conservators, the owner, and the Xenix-crew).

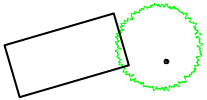
A simple linear addition would not have allowed for preservation of the impressive chestnut tree. Gardeners defined a minimum distance to be kept away from the tree.

Since the only logical geometric form for the extension looked quite different from the existing one, the question became how to make an architectonic statement: Should the new addition accentuate differences or not?

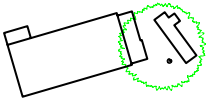
The driving idea behind the final scheme was to harness all possible formal freedoms in order to maximize new spatial qualities, such as a wide entrance covered by a triangular roof and a rich variety of different spatial conditions resulting from the various heights and widths inside.

The small scale of the building made it difficult to achieve a convincing architectonic result by simply adding or contrasting old to new. It was more promising to take the opposite approach - every opportunity was taken to unify by blurring, copying, and stretching borders, materials, and structural elements.

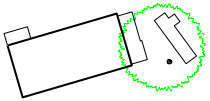
The pavilion is located in a park in Zürich central area



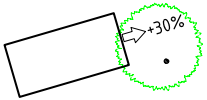
Outline 1904



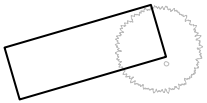
Added structures (without permission) 1984 - 2006



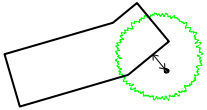
Removal of structures



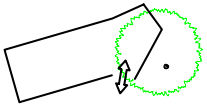
Maximum additional footprint
Only one acceptable direction



A straight extension requires removing the chestnut tree

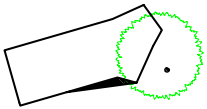


Bending allows for conservation of the tree



Crack between old and new generates new qualities:

1. A wide new opening connecting inside and outside



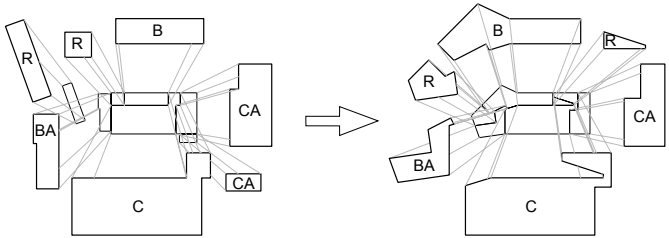
2. A new triangular sheltered area


KINO xenix

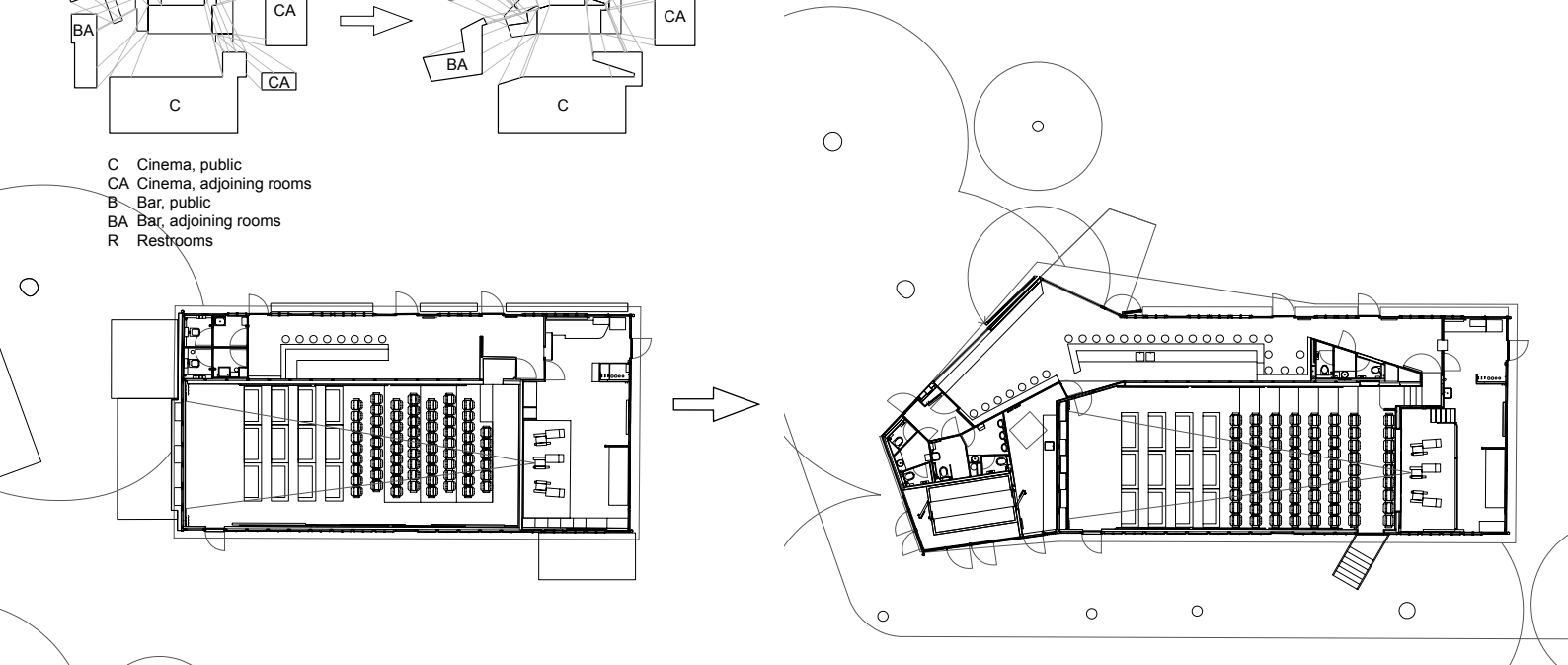
Reorganization

The entire programmatic disposition has been changed in order to achieve a more efficient, more flexible, and more user-friendly building.

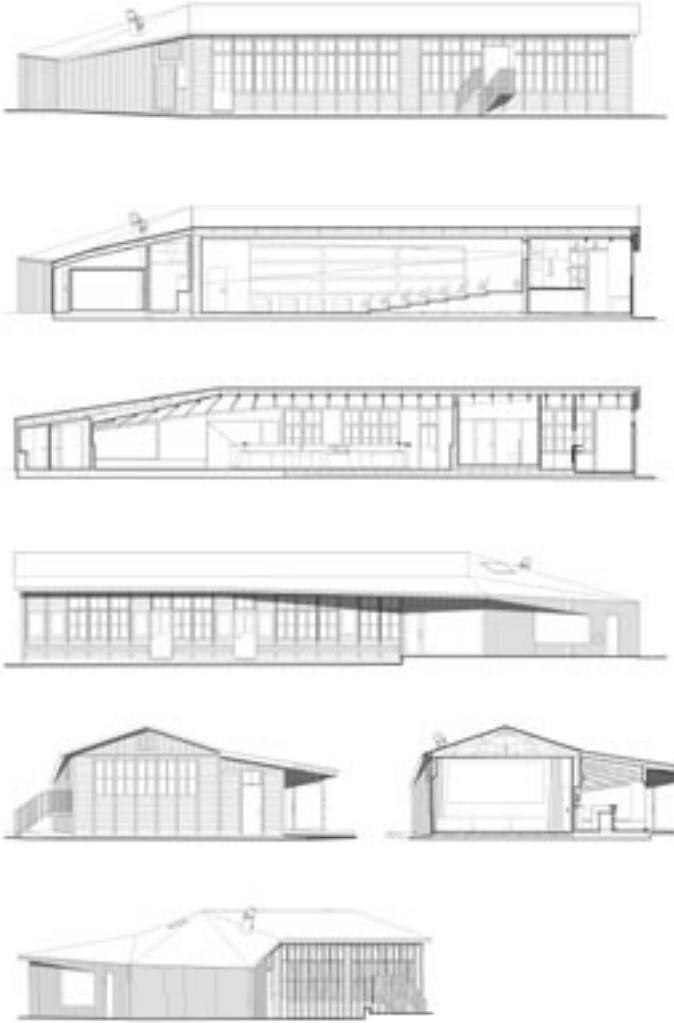
The new Xenix consists of three programmatic parts that can each be used independently: Cinema, bar, and restrooms.



C Cinema, public
CA Cinema, adjoining rooms
B Bar, public
BA Bar, adjoining rooms
R Restrooms




WC



Bar

One half of the space dates from 1904, the other from 2007.

Although the geometry and size of elements such as windows are different, the bar is conceived of as one unified space. Major elements that aid in achieving this effect are the continuous ceiling, including replicas of the old beams, as well as the mimetic materialization of the extension.

Blurring, copying and stretching were design strategies rather than adding or opposing.

The most delicate questions in terms of the design were:
-What is worth keeping, and what has to be replaced?
-What should relate to what is there and what is not?
-When is mimetic design interesting and when does it lead to kitsch?

Old and new are connected in a seamless way.The new air-conditioning is integrated into furniture, ceiling and walls. More air-flow, less visual impact.

New view from / to the adjacent street.
Light beam, bar surface, bench, and the new floor are made of oak.

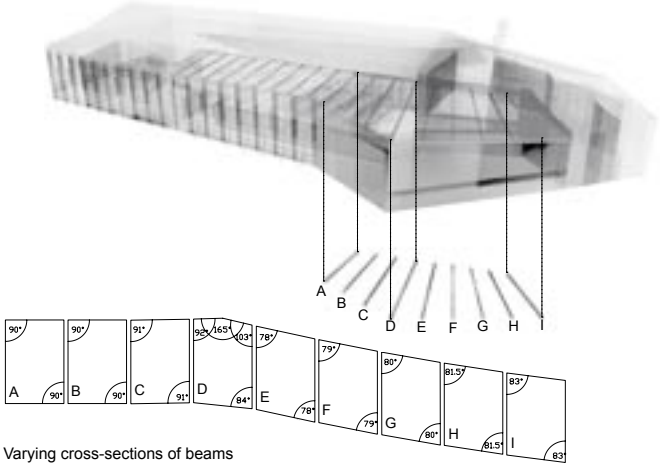
Both wings of the new entrance can be opened.
The sliding door towards the cinema lobby is open: Continuity of wall and ceiling.

Method

The use of a detailed 3D-model made it possible to design complex joints and to treat traditional elements in a new way: Although the beams of the extension look like exact replicas of the old ones, all cross sections vary due to their specific angle in relation to the sloping roof.

The continuity of elements - bar surface becomes wall in order to match the beam - demanded to design and to work with high precision. The combination of a computer based method of operation with a traditional carpenter turned out to be successful.

Geometrical data was derived from the virtual model and then submittet to the carpenter who manufactured the whole puzzle of elements in a traditional way. The built result deviates less than 10mm from the 3D-model.



Varying cross-sections of beams
Data is derived from the computer model and submitted to the carpenter.




Cinema

The cinema, including lobby and projection room, is totally renewed.

The spectators enter the new lobby (twice as big as before) and access the auditorium in a longitudinal direction after taking a small staircase. The height difference between the new tiers is doubled.

All existing sofas - a special feature of the auditorium - are re-used, except one now rolls in order to make room for wheelchairs. Disabled people enter the cinema via the bar.

All technical services are new, a necessity that caused a mentionable part of the costs.

New projection room

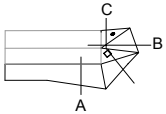
Flaps close in case of fire.
Sliding door connects to the bar.

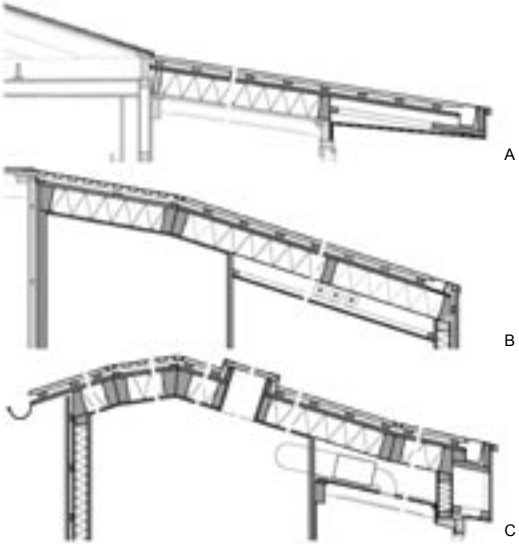
Roof

The roof of the extension is stretched over the ancient school-corridor, so it covers bar, lobby, and part of the projection room as well.

Extra-large riveted aluminum sheets accentuate the sculptural quality of the roofscape. Chimneys are concentrated at one spot; gutters are integrated in order to achieve sharp abstract expression.

Joint of riveted aluminum sheets





Timber

It seemed logic that an extension of a wooden pavilion should be done in timber as well in order to match to the atmospheric qualities of what was already there.

Besides that, a timber construction turned out to offer a lot of advantages: Since the maximum footprint of the extension was not negotiable, there was the question of how to minimize the area that is “lost” for bearing structures. The answer is 42mm thick bearing walls that are rigid enough and at the same time very light. Thereby a crane could be avoided and the construction period could be shortened. Another quality of timber is the precision that is only comparable with steel constructions. The maximum deviation from the plans is 10mm.

Process

The development of the project required taking numerous restrictions into account.

Martin Saarinen: The main thing was to treat the old fragile building with a lot of care. And it was forbidden to expand the existing footprint by more than 30 percent. The constriction of every new room made us optimize the floor scheme for days and days.

The final project does not correspond to the original scheme in every point.

Although the client chose our project, it was important to take another step in terms of the design, together with all included parties, that should mainly lead to operational improvements for the user. Fortunately, the idea of joining old and new by the roof and the bar was so convincing that it was never questioned while nearly the whole interior disposition was rearranged. This conceptual premise facilitated dealing with all influencing factors. The result of that process is a building that corresponds to the demands of the operators. From our point of view, the redevelopment of the design was successful as well.

Could you clarify that?

The project became more user-friendly and was improved even on an architectural level. It‘s a good example that shows that involvement of many people and institutions doesn‘t have to lead to a weaker design. At certain points of the design, it‘s even a positive thing when you - as an architect - are confronted with many people that you have to convince. It leads you to solutions you won‘t find without any friction.

And by that, excel yourself?

Yes. Of course, one has take care that this “collective” design approach does not lead to a compromise, an adulation of main ideas. As I mentioned before, the conceptual framework was never questioned. This gave us the freedom to play within that framework. The cinema-lobby, for example, did not exist in our original design: We proposed to enter the cinema through the bar, as it is the case in some other cinemas. Now it‘s twice as big as it was before it‘s conversion. We simply had to accept that this lobby is very important.

Why?

The operator wanted to separate the cinema from the bar, because they attract different types of visitors that might not be compatible in every case. Additionally, a clear separation allows one to rent the cinema for special events, even when the bar is closed. That‘s why we implemented new restrooms accessible from the lobby. An architectonic surplus of the new bigger lobby is a longer public facade towards the park.

What were primary questions in terms of the architectonic expression?

The main question was how to extend a 100-year-old building with the ambition to make one entity. Since the existing shed consists of prefabricated wooden elements, it‘s obvious that you could reproduce and just add more of them. After a couple of years nobody would notice what‘s old and what‘s new. But there is that protected chestnut tree that did not allow a simple prolongation. So we had to add a twisted structure that keeps a minimum distance from the tree. A classic approach would be to define a clear border between old and new. This rather simple way of dealing with the problem offers a lot of possibilities, because a lot of materials and shapes are suited to make a contrast. We were not interested in that approach, at all. Although it‘s clear what existed before and what‘s new, we designed the building as one whole.

Why was that so important for you?

The old barrack appeared so small since the area is surrounded by four- and five-story high buildings. So it was unthinkable for us to add an even smaller extension. We found the solution in the new roof that is stretched over the existing building (something nobody asked for) so that it works just like a brace that keeps everything together. An analogous approach was taken for the interior design, with it‘s dominant component the continuous ceiling. But I have to say that some questions were hard for us to answer: How can you add something new that does not contrast too much, if all that exists consists of innumerable bars, screws, boards, and beams? To find convincing answers to questions like that required a chary procedural method.

Interview: Sandra D‘Arienzo

Credits

Client	Immobilien-Bewirtschaftung der Stadt Zürich, represented by Amt für Hochbauten and Filmclub Xenix, Zürich
Design Team	Barbara Frei and Martin Saarinen with Christian Beerli, Luca Pestalozzi, Lydia Ramakers, Sandra Stein, David Winzeler
Construction Management	Jaeger Baumanagement, Zürich
Engineer	Aerni + Aerni, Zürich
Engineer Timber Construction	Holzbaubüro Reusser, Winterthur
Carpenters	Arbos, Dinhard
Engineers Technical Services	Herbert Hediger Haustechnik, Zürich
Construction Physicist	BWS Labor, Winterthur
Specialist Cinema Technology	Zone 33, Martin Hofer, Bern
Advisor Sound System	RS Electronic, Bözen
Advisor Artificial Lighting	Nachtaktiv, Reto Marty, Zürich
Light Beams	CG Raum, Christian Grässli, Zürich
Signage	Daniela Mirabella, Zürich
Photographers	Hannes Henz, Zürich Dagmar Lorenz, Zürich Wehrli Müller Fotografen, Unterengstringen

Chronology

Invited Competition	2005
Start of Construction	October 2006
Inauguration	March 2007

Frei + Saarinen Architects are

Barbara Frei

1973	Born in Horgen, CH
1992 - 1999	Studied at ETH Zürich
2000 - 2002	EEA, Erick van Egeraat Associated Architects, Rotterdam
2002 - 2005	EM2N Architects, Zürich
2003 -	Frei + Saarinen Architects

Martin Saarinen

1972	Born in Solothurn, CH
1992 - 1999	Studied at ETH Zürich
2000 - 2001	Maxwan Architects & Urbanists, Rotterdam
2001	Sadar in Vuga Architects, Ljubljana
2001 - 2002	NL Architects, Amsterdam
2002 - 2003	Herzog & de Meuron, Basel
2003 - 2005	ETH Zürich, Chair of Prof. Andrea Deplazes, Teaching Assistant
2003 -	Frei + Saarinen Architects

Alle Werkzeuge, die für den Zusammenbau benötigt werden.

MODELLBOGEN KINO XENIX

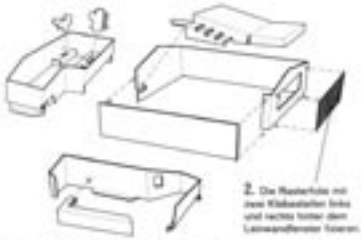
...mit bewegten Film auf der Leinwand!

——— = Schneiden

- - - - - = Auf der bedruckten Seite leicht rissen. Teile nach hinten umbiegen.

- · - · - = Linie an beiden Enden durchstechen. Markiert auf der Rückseite die Linie, die auf der unbedruckten Seite leicht eingeritzt wird. Teile nach vorn umbiegen.

1. Aussenwände auf die Grundfläche kleben.

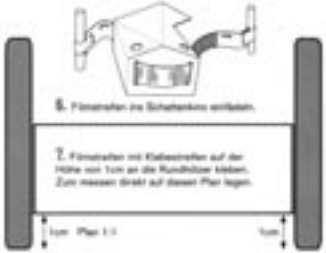


2. Die Rasterfolie mit zwei Klebestreifen links und rechts hinter dem Leinwandfenster fixieren.

3. Kinosaal, Bar und Projektionsraum zusammenbauen und ins Modell einsetzen.

4. Laschen umklappen und aufkleben. Dach aufkleben.

5. Filmstreifen zum dreieckeren auf Rundholz wickeln.



6. Filmstreifen ins Schattenkino einkleben.

7. Filmstreifen mit Klebestreifen auf der Höhe von 1cm an die Rundhölzer kleben. Zum messen direkt auf diesen Plan legen.

8. Filmstreifen auf Rundholz aufwickeln. Rundholz vorsichtig einsetzen. Boden mit Laschen nach unten einkleben.

9. Schattenkinomodul ins Modell einsetzen. Nicht kleben. Film ab. An den Rundhölzer sehr langsam drehen!

KINO XENIX

Stand nach der Renovation Mai 2007
111 Sitzplätze, Dolby Digital

Dieser Modellbogen ist erhältlich an unserer Kinokasse oder unter www.xenix.ch

Kino und Bar sind täglich geöffnet
Programmdetailes & Reservationen: 044 242 04 11

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