# **Glass House**

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Our research is concerned with the potential use of glass in spaces for music in order to reframe the function of Music Halls as a Public Event in fluid interaction with the City, while not losing the quality of sound.

## EVENT, PERFORMANCE AND INTERACTION IN THE CITY

Designing a space for musical performance has always focused on the engineering of sound quality. Modern knowledge about reflections, absorption and reverberation has been applied to panels for reflection, various geometric forms and use of absorptive materials. However, the new technologies of recorded performance and electronic sound reinforcement with speakers have developed dramatically such that excellent quality of music can be achieved without sitting in front of an orchestra. We no longer attend performances for the best musical quality; it is an event for diverse people and heterogeneous desire. Therefore, the engineering-oriented auditorium design outlined by thick, opaque walls must be changed toward the event space, and toward true performance and interaction with the city.

#### **GLASS AUDITORIUM**

In this mission, the research focuses on the Glass House, a transparent music center where pedestrians can see the performances from the street. Audiences inside viewing the stage also possess a view of the city as a background for the concert – the city as the second stage. In order to maximize the glass exposure

in the music hall without compromising the acoustic quality, parametric modeling with fragmented glass panels has been explored.

#### FRAGMENTED GLASS PANELS FOR SOUND ENGINEERING

The Glass panels are designed to efficiently distribute the sound to every seat in the audience. The fragmented glass wall is inspired by a herringbone pattern to control the angle of reflections which also allows controlled penetration and absorption through the reveals between panels. This special house of music will provide very unique, crisp and accurate delivery of music.





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Materials and Media Investigations

GLASS ENVELOP

MAIN STRUCTU

MULLIONS / SUB STRUCTURE

GLASS LAYERS FOR SOUND ENGINEERIN