

Arch 464
ECS
Spring 98

Name _____

Quiz #4

"New Jersey Performing Arts Center"

For this problem you are the acoustic critic for the newsletter of the American Society of Educators in Acoustics (ASEA). Your assignment is to comment on the new New Jersey Performing Arts Center designed by Barton Meyers as reviewed in the March 1998 issue of *Architecture*. The magazine article claims that, "The idea was to create acoustic excellence, but also to initiate urban renewal (in Newark), catalyzing confidence through a new, festive, user-friendly building that could shake hands with safe streets."

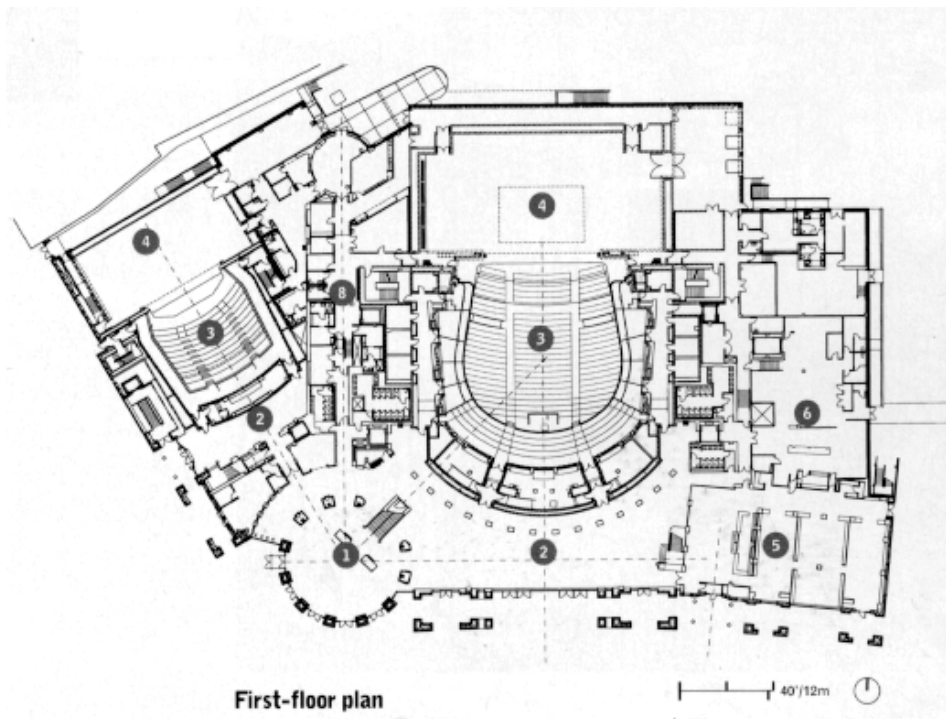
In the nine page article the only mention of acoustics is "The imperative for the center's two auditoriums was to provide superior sound, sight, and intimacy. By all reports, the acoustics excel in the domed, horseshoe-shaped Prudential Hall, and the sight lines are clear—the conductor can be seen even from the side balconies. The wide, yet compact, 2,750-seat Prudential Hall, which houses the New Jersey Philharmonic and hosts operas, ballets, and musicals, keeps the stage close to the audience with geometric grace and atmospheric warmth. The curvilinear shapes of the ceiling, balconies, and perimeter walls ring the auditorium with stylistic grace. A second auditorium, Victoria Theatre, is black, stark, and edgy, an informal venue for classical and modernist chamber concerts and intimate, experimental theatre productions. Technically, the whole building is divided into seven contiguous structures: the two theatres, lobby, rotunda, restaurant, kitchen, and back-of-house facilities. Acoustic joints totally isolate each theatre. 'Newark is noisy with highways, trains, and planes,' explains Meyers. 'So we designed massive walls to keep the sound out.'"



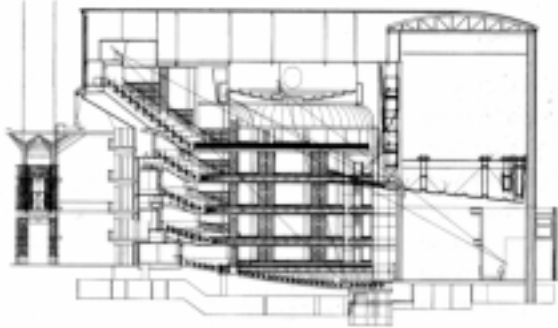
NJPAC street (south) elevation

Your review will consist of three parts—the overall planning, the large auditorium, and the small theatre.

1. Explain the issues in acoustic design for the auditoria in this multipurpose facility. Comment on successful aspects of the scheme (at least two) and cite evidence from the article and/or the floor plan.



2. Describe the usual criteria for a symphony hall and appropriate architectural forms for superior acoustics. Comment on the form of Prudential hall and its advantages and disadvantages. What steps should the architect have taken to mitigate the disadvantages of the form? 4 pts



East-west section

20m



Interior of Prudential Hall

3. Do you think Victoria Hall is appropriate for its functions? Give a rationale for your opinion.



Interior of Victoria Hall