



threshold

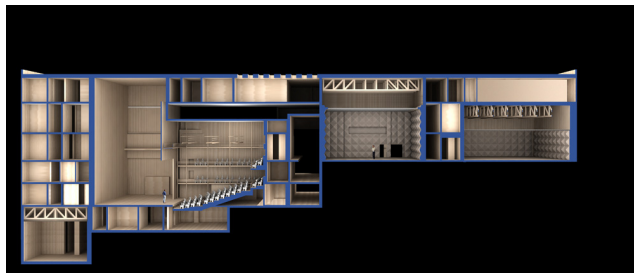
**The Experimental Media and Performing Arts Center at Rensselaer Polytechnic Institute
Troy, New York**

Carl Giegold as Senior Consultant for Kirkegaard Associates;
Threshold continues to support the project during construction

To explore the creative possibilities at the interfaces between technology and live performance, Rensselaer Polytechnic Institute has commissioned a four-venue, \$150,000,000 project and an accompanying endowment to fund the art composed there.

A 1,200-seat concert hall is firmly anchored by excellent acoustics for orchestral works but with an unusual degree of acoustic variability to accommodate heavily amplified spatial sound. Dance and motion-with-video is emphasized in the 400-seat theater, which is optimized for amplified sound and immersive video. Two large studio spaces are treated with specially developed diffusion to defeat specular reflections while maintaining a live environment inspired by the acoustics of a forest clearing. Both are fitted with sufficient retractable absorption to make them effectively anechoic.

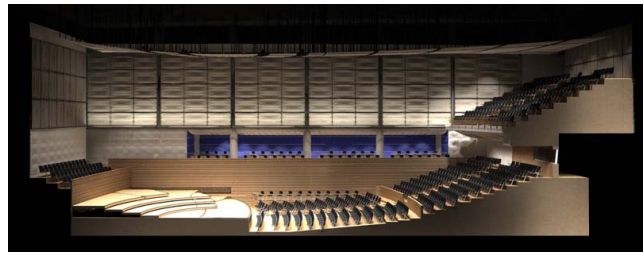
Each venue has an isolated machine room for computer equipment and a control room suitable for show control. At the heart of the facility are studio spaces for artists-in-residence and audio and video production rooms suitable for stereo and multi-channel mix-down. The venues themselves are each fitted out as control rooms so that artists can mix in rooms that are similar in size to the spaces in which their works will be performed.



Section through Theater, Studios, and Audio Production Room



Concert Hall Rendering



Concert Hall Section

Isolation between venues sufficient to allow simultaneous use at up to 120dB at 63Hz necessitated isolation methods that included spring mounts for Studio 1, a separate foundation for Studio 2, and full isolation joints around all four venues. Similar but less complex isolation methods are employed in many other locations.

New finishes developed for the project include the specialized glass fiber reinforced gypsum panels for the studios and an acoustically semi-transparent fabric ceiling for the concert hall.

<i>Client:</i>	<i>Rensselaer Polytechnic Institute</i>
<i>Architects:</i>	<i>Nicholas Grimshaw and Partners Davis Brody Bond, LLP</i>
<i>Theatre Consultant:</i>	<i>Fisher Dachs Associates</i>
<i>Acoustics Consultants:</i>	<i>Kirkegaard Associates Threshold Acoustics</i>
<i>Renderings by:</i>	<i>Nicholas Grimshaw and Partners</i>