“EMPAC is a place where the arts, technology, and science will challenge and transform each other.” - empac.rpi.edu/about

When I first heard about EMPAC in 2002 I was struck by how unusual President Jackson’s idea was, and how profound an impact it could have. Her idea, simply put, of bringing together visiting artists and Rensselaer’s outstandingly creative scientists to jointly develop projects in a technically sophisticated facility was altogether unique. While I’d done some work with the MIT Media Lab, which at one time had hoped to develop a small performance space but ultimately didn’t pursue it, I had never heard a building proposed that would include artists’ studios and technology laboratories before.

Too often technology-based art has seemed less like art and more like a science experiment. But it’s easy to forget that every new technology is, by definition, in its infancy. Regardless of the technologies used to create it, not every artwork will be a masterpiece. The invention of motion picture technology at the turn of the nineteenth century did not automatically produce great films. The mere existence of stringed instruments, brass, winds and percussion does not guarantee that every composition will be a great symphony. Today we can blog or tweet our every random thought, but how many have something meaningful to say? Technology in and of itself does not produce great art; an artist must do that – but the technology can provide the medium.
All the technology Shakespeare needed was a poetic imagination, paper and a quill. The technologies for reproduction of his work have multiplied and changed since his time, but the fundamental act of creation has not. While we all can learn to use new tools, only a few of us will be able to find in them a new voice. Fewer still will have something compelling to say. Still fewer will be able to combine technical mastery with a unique perspective and produce something that is so moving, inspiring or challenging it will endure through the centuries. It is easy to be seduced by technology and forget about the content. But in the end, technology has to be used by someone more interested in expressing something than in the tools themselves.
This is why the EMPAC concept is so daring, so interesting and so important, because while the technology keeps coming, the art often lags behind. By putting artists into the mix and making them central to its activity, EMPAC changes this equation. When it comes to human expression, in the end it is the artists that will lead the way. By putting resources and researchers at the disposal of artists, the art and the technology can advance together.
What also fascinated me about President Jackson’s idea was that, in spite of its emphasis on technology, EMPAC is still about making experiences for a live audience sharing a single space in real time – which some would consider to be an old-fashioned concept. So much of new media is meant to be experienced remotely and individually by an increasingly fragmented and cocooned, on-line, iPod-ed consumer. I found EMPAC’s commitment to a live, shared experience refreshing, if not to say radical. It sounds corny, but I believe that shared experiences build stronger communities, societies, and cultures. Empowering individuals, so long the goal of information technologists, is fine, but building stronger, more collaborative societies is even more important in our increasingly challenging world. There is a reason that in ancient Athens attendance at the theatrical performances in the City Dionysia was considered a civic duty. It was an important collective endeavor.

And so I was hooked on President Jackson’s idea. As the Theater Planning and Design Consultants for EMPAC, part of our responsibility was to conceptualize the performance spaces, trying to anticipate what sorts of facilities would best support EMPAC’s activities. We set about making four spaces for live performance, and all the support spaces the artists, scientists and audience would require.

When Johannes Goebel joined the team, early in the planning process, we visited him at ZKM in Karlsruhe, which he had helped to create. We toured the building and he kept up a running commentary on what they’d gotten right and what had been a disappointment. We’ve all benefitted from what he learned in building and operating ZKM. His leadership and guidance was essential in helping the design team make a building that will serve artists and is prepared for the future. A composer and musician himself, he has constantly challenged us to think outside of our normal comfort zone and the building is better for it.
The 400-seat Theater is in some ways the most unusual of the performance spaces. We wanted to create a performance space that would have a more informal character than the Concert Hall. To achieve this Fisher Dachs Associates (FDA) proposed that the performers be placed at essentially the same floor level as the first row of audience, leaving the dividing line between “us” and “them” more fluid. A stage apron that protrudes out into the auditorium further muddies the distinction between stage and house and, when lowered on a lift, can be used as an orchestra pit. The decision to all-but eliminate a raised stage (it’s only 8 inches above the toes of the first row of seats) led to the design of a steep rake to preserve excellent sightlines. While we wouldn’t do this in a room with a much larger seating capacity, here it gives the room a great intensity.
The ability to radically reconfigure the room, like in the two Studios, was not a goal for the Theater, although technical and scenic flexibility was of extreme importance. We knew that technology, screens, lights, and speakers would be constantly shifted and relocated both on stage and in the auditorium, surrounding the audience in some cases. Because of this it was important that the room seem energized by constant modification rather than defaced by it; the act of bolting something to the wall or attaching it to a railing had to be celebrated and facilitated rather than received with horror. The space needed to have a kind of improvised quality which allows each artist to move in and adapt it as they see fit.
While EMPAC would be an un-ambivalently forward-looking institution, as a space for live performance, it was important that the Theater be vibrant and alive; a space designed around human interaction rather than a cinema or a laboratory. We needed to make a space that embrace live performers and audiences, not just technology. At FDA we looked to the past for inspiration.

We looked at rooms that are lined with faces, like Georgian courtyard playhouses and Shakespeare’s Globe, which were conceived at a time when the focus was on the beauty and intensity of the language. Of course many of the artists and technologists who will work at the Theater at EMPAC will focus equally or even primarily on movement and image, and it was important that we make a space that could do that brilliantly; but even traditional Italian opera houses, where perspective scenery was invented and the importance of the stage image is enormous, have a fantastic intensity that comes from a compact geometry which wraps the audience around three sides of the room and engages the stage.

We’ve tried to strike the right balance and create room that has the dramatic intensity of a courtyard playhouse, while at the same time accommodating artists who may prefer to work in less traditional ways, or whose work may be more cinematic. To do this we’ve made it possible to populate the side walls with audience seating on one-row galleries at times. At other times these side galleries might be used for equipment, by performers, by musicians, or as projection surfaces. The Theater we’ve developed attempts to tie together these two ideas: the courtyard lined with faces and the frontal space that at times bristles with technology. The main section of seating is treated as an object within a space enclosed by the structure of the galleries – a wooden wedge contained in a metal frame.
The Origin of the Design Concept

Theater of San Carlo at Naples
The architectural treatment of the galleries, as a kind of beautifully detailed scaffold, made it possible for this area to have a useful ambiguous quality. The steel elements are black and have been kept very thin. The balconies are faced with wooden panels, which together with the deep red of the walls, gives the room a wonderful warm quality in spite of the extensive technology. When spectators are seated there it seems entirely appropriate, clearly “of the auditorium”. But the steel is cleverly designed to easily receive bolts and clamps without looking sloppy (one of the great advantages of working with the talented folks at Grimshaw), and at times the audience is surrounded by technology or performers, and these don’t seem at all out of place either. These areas can swing both ways.

The stage is similar to a traditional proscenium theater, like you’d find on Broadway, but with far more technology. It has a fly tower with a motorized rigging system. A sophisticated control system will give artists a high degree of control, and allow complex vertical and horizontal movements of scenery, objects, or even people and can be linked to the same computers that are driving the audio and projection programs.

In the first few seasons the space has been used for a wide range of events, and the feedback has been wonderful. The Wooster Group, whose performances often involve technology, performed in the building the opening weekend and said they thought the Theater was the best space in the country for their kind of work. Dance and projection look great in the room, and theater companies enjoy the intimacy of the space and the energy that comes from the steeply raked audience.
I’m very eager to see what emerges from this extraordinary facility and its unique mission in the years to come. Experimental performance art can focus so intently on technology that content is forgotten and nothing is communicated. I believe EMPAC is a place in which performance can transcend experimentation, and where we’ll see technology and art join together with content and become actual communication.

Joshua Dachs
Principal, Fisher Dachs Associates Theatre Planning & Design

Fisher Dachs Associates is one of the world’s leading theatre planning and design consultants. Our mission is to help our clients plan and design successful projects in accordance with real programmatic and budgetary goals. We collaborate actively with artistic and managing directors, leaders of cultural organizations, building owners and architects so that the rooms we jointly create are intimate, dynamic, and technically superb spaces for audiences and performers alike.

We approach our projects with one goal: to design a successful room from the inside out. We pride ourselves helping to create memorable experiences for patrons from the time they enter the space to the time they exit at the end of the show. We also work hard to make theatres function equally well for the artists who work in the space, the technical staff who keep it running smoothly, and the management team that has to operate it as a successful business venture.
Experimental Media and Performing Arts Center
Rensselaer Polytechnic Institute

Owner
Rensselaer Polytechnic Institute

Architect
Grimshaw Architects

Theatre Planning & Design
Fisher Dachs Associates

Acoustical Consulting
Kirkegaard Associates