

## COMMON FUND APPLICATION

### Principal Investigators

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### Project Description

#### Goals

- Bring together a number of Duke's most innovative scholar-artists in a collaborative research-based arts project
- Create an evening-long multimedia performance work combining text, drawing, painting, photography, traditional animation, 3d animation, video, sets, lighting, live digital sound/music and live vocal and instrumental performance
- Employ cutting-edge technology for production, performance and display of the project
- Develop new courses on multimedia creation and performance for the ACT Warehouse
- Explore new conceptual models for the organization and presentation of a multimedia art work
- Contribute to the Strategic Plan, which calls for the integration of the creative arts into the intellectual life of the University

Drawing on both traditional visual/musical media and recent computer-based technologies, we will create a live performance piece that brings together several genres. There will be theatrical musical settings of a narrative text with sets and lighting, suggesting opera. Projected images throughout the performance space accompanied by soundscapes that combine ambient sound with music and spoken text suggest installation art, and digital animation and video accompanied by carefully coordinated music suggest a music video. We conceive of this project as a series of "scenes," each based on a particular text, image, or sonic idea and characterized by a particular approach to performance. These scenes trace a dramatic arc, flowing from one to the next in a continuous fashion. The diversity of approaches in a single work redefines and enriches our experience of live performance. These genres also lend themselves to a DVD presentation which will serve as a means to generate interest in subsequent live performances.

#### Intellectual merit of the project

The initial ideas for this project were suggested by a previous Common Fund project, the production of *Mao II* by Jody McAuliffe and the Theater Studies Department in spring 2002. Lindroth contributed music and sound design for this production. While *Mao II* used pre-recorded sound throughout, the experience of working in a multimedia environment combining

sound, music, video, and actors suggested new ways in which musical performance and visual media might interact in live performance. An earlier collaboration with dancer and choreographer Clay Taliaferro and Lindroth called *Middle of the Road* was equally instructive. The sound design for this work included musical performance as well as soundscapes incorporating spoken text, ambient sound, computer-processed voices, and synthesized sounds. This work alternated between texted passages taken from Rilke and musical “oases” which served to heighten the emotional content of the texts. Again, the sound was entirely pre-recorded, but this work suggested a new kind of musical continuity that would be extremely effective in live performance.

Belkina's work, too, has been evolving toward creating a large-scale, long-term, narrative-based project with a substantial temporal element. This gradual migration from single-frame imagery began in the late 90s with a series of oversized 3 x 9 feet paintings. Called *Trees*, the paintings are unified by their thematic and formal characteristics. Displayed closely together, the arrangement of these pieces resembles an installation, rather than a traditional grouping of paintings. Belkina also constructed a series of site-specific triptychs for the Duke University Museum of Art. Measuring 7 x 12 feet, these works functioned as wall hangings, adorning a two-story glass wall of the museum lobby. Collaborating with the Theater Studies Department, Belkina's graphic design classes produced posters and ads for such performances as *Why Things Burn* directed by Jody McAufflin, *Pieces of Eight* directed by Richard Riddell, *MacBeth* directed by David Worster and *The Lady From The Sea* directed by Judy Hu. In yet another step towards narrative and multimedia, she recently created her first new media project, which combined drawing, painting, photography and 3D animation. The resulting six-minute piece, titled *Beginnings*, was part of a larger installation by the same title on view last summer in Raleigh.

Our proposed project will make use of exciting technologies which allow for interactive performance of digital music and visual media, in addition to live instrumental/vocal performance, painted sets, and lighting design. Interactive music software makes use of real time input from a microphone or from motion sensors installed in a room or attached to a person. This input data can dynamically shape musical gestures performed by the computer. In addition to commercial and open source software applications, we will draw upon research taking place at Duke, including motion sensors under development by the Duke Information Spaces Project (DISP) as well as visualization technologies being used by the Visualization Technologies Group (VTG).

While Lindroth has previously worked with interactive music software in his music (*Terza Rima*, for oboe and interactive electronics and *Bell Plates*, for percussion and electronic sound), this project will explore this possibility in a far more ambitious manner. Belkina has considerable expertise in commercial software tools for graphic design, and she will be working to further her knowledge of cutting-edge digital animation tools such as Maya, After Effects and Final Cut Pro. The projection of animation, video, and other images in live performance will create ever changing virtual environments over the course of the performance. Quite simply, we will be working on a scale neither of us has attempted before.

Our point of departure is a musical composition by Lindroth for soprano and string quartet called *Nasuh*, which sets a story by Persian Sufi poet Rumi. *Nasuh* was premiered in February by the Ciompi Quartet with soprano Susan Narucki. Belkina designed a program booklet that surrounds the text with interpretive graphics (included with this application). Building upon the visual

motif of the booklet, Belkina will create a short digital film coordinated with the music using traditional and digital animation tools.

We are in the process of collecting other texts, images, and sounds for the other modules in the proposed work. The possibilities include continuing with Rumi by setting a number of stories from the *Masnavi*, or creating a series of pieces that explore ideas of morality and spiritualism from different gender and cultural perspectives.

A great many artistic, conceptual, and technical challenges confront us. We plan to realize the work incrementally, developing one scene at a time and testing it out in workshops coordinated with courses we will co-teach in the ACT Warehouse. In this way, we will be able to assemble the piece and "debug" it as the work takes shape.

### **Impact on University: a model of collaborative research and learning**

This project draws on the expertise of faculty from at least five different departments: Art & Art History, Music, Theater Studies, Electrical Engineering, and Computer Science, represented by Profs. Anya Belkina, Scott Lindroth, Jody McAuliffe, Rachael Brady, and David Brady. In a sense, our project will be an artistic application of scientific research currently underway in VTG and DISP. Lindroth and his graduate student John Bower are working with interactive software applications for sonification for both DISP and VTG, and the experience gained will be useful for the realization of the music and soundscapes in this project. Belkina presented her research at the Friday Visualization Forum (sponsored by Computer Science and ISIS), and she will be involved in testing visualization software that will be used in the VTG lab. As such, our project is profoundly interdisciplinary, not only involving different areas in the creative arts, but also drawing on research in Computer Science and Electrical Engineering. There may even be something in this for the scientific community, as we will take the products and techniques developed in the lab on to the stage. What could be a more compelling test of the stability and versatility of a new technology?

As mentioned above, Lindroth and Belkina will develop a new course on multimedia creation and collaboration to be taught in the ACT Warehouse. David Brady has offered undergraduate engineering students to work with us in Independent Studies as we experiment with the motion sensors. Our work will be relevant to the activities in the ISIS Certificate program, both as a project for the capstone course as well as a component of an ISIS Forum.

## **Time Table**

### **Year 1 (2004-05)**

- Develop conceptual plan by defining the unifying thematic core of the piece
- Cultivate contacts with outside presenting organizations
- Apply for external grants
- Acquire hardware and software necessary to realize the piece
- Experiment with interactive sound technologies
- Make a professional recording of “Nasuh”
- Complete the digital animation of “Nasuh”

### **Year 2 (2005-06)**

- Work on the individual scenes (visual and musical media)
- Workshop each scene as it is completed
- Develop a new course co-taught by Belkina and Lindroth for the ACT Warehouse

### **Year 3 (2006-07)**

- Complete the work
- Live Performance of complete project
- Record the musical segments for subsequent DVD

### **Year 4 (2007-08)**

- Complete DVD

## **Impact outside of the University/Exposure Venues:**

We will explore the following venues:

### 1. Live Performance

- The Kitchen
- Miller Theater
- La Mama
- NC Museum of Art
- RPI, UNT, UCSD, RISD, MIT and other colleges/universities with strong multimedia programs

### 2. Experimental Film Festivals

- New York Film Festival
- A Festival of Independent and Experimental Film
- European Media Art Festival
- Black Point Film Festival
- Chicago Underground Film Festival
- Images Festival
- Onion City Festival

### 3. Gallery Exhibitions/Site Specific Installations

- NC Museum of Art
- CIEMAS (Duke)

## **Other Funding Sources**

We intend to apply for National and Corporate Grants that may include the following:

- Arts and Science Research Council Grant
- North Carolina State Arts Foundation Grant
- HASTAC
- Creative Capital Grant
- LEF Foundation
- Langlois Foundation
- The Rockefeller Foundation
- Franklin Furnace Grant

## **Addressing areas not presently addressed at the University**

- Introduces courses and performing opportunities for interdisciplinary multimedia production
- Develops opportunities for more substantive collaborations between faculty in the creative arts and the sciences
- Creates the opportunity to involve undergraduates in faculty research in both the creative arts and sciences.