

**THE JPMORGANCHASE
KIDS DIGITAL MOVEMENT AND SOUND
PROJECT**

a collaborative project of
mak.frankfurt, Ballet Frankfurt,
Teachers College and the Computer Music Center of Columbia University

www.music.columbia.edu/kids

**AT THE 3rd WORLD SUMMIT ON MEDIA FOR
CHILDREN**

An evening of works in progress
created by children from the USA and Germany

*March 25th 2001, at 7:30pm
Pavillion 10 HELEXPO*

PROGRAM

PART I (DIGITAL SOUND PROJECT)

A Walk Through Harlem

Performers: Shameena Khan, Igor Zubkov, Leila Tamari

Concept, Software, Music Direction: Dan Trueman, David Birchfield

Education consultants: LaVerne Sheu, Tania Papayannopoulou

Kids in Sound Space

Performers: Hope Allen-Kahn, Seweryn Nehring, Mariyam Salley

Concept, Direction: Douglas Repetto

Software development: Douglas Repetto, Karl Ward

Education consultants: Kate Hofstetter, Sun-Ho Joo

Random Number Generators

Created by Wesley John-Alder

Performed by Wesley John-Alder and Dan Trueman

Wind Symphony

For three children, three computers and three Wacom tablets

Performers: Nigina Babaeva, Kamran Barros-Rashid, Mima Wellington

Concept, Software, Music Direction: Thanassis Rikakis, Luke Dubois

Education consultants: Victoria Young, Tania Papayannopoulou

The sound project of The JPMorganChase Kids Digital Movement and Sound Project is being realized by the Computer Music Center of Columbia University with assistance from the Music Education Program of Teachers College. Project Director: Thanassis Rikakis; Principal Investigators: David Birchfield, Luke Dubois, Douglas Repetto, Thanassis Rikakis, Dan Trueman, Karl Ward; Senior Education Consultant: Lee Pogonowski; Education Co-ordinator: Tania Papayannopoulou; Education Consultants: Kate Hofstetter, Sun-Ho Joo, Tania Papayannopoulou, LaVerne Sheu, Victoria Young. The project is sponsored by JPMorganChase

PART II (DIGITAL MOVEMENT PROJECT)

"FIRST STEPS"

Concept	James M. Bradburne, Paul Kaiser
Composition	Ana C. Roman
in close co-operation with	Valentin al Jalali, Alina Buch, Meiko Volknandt, Jenny Frankenberg, Zarah Landes, Michael Nuske, Philip Schmoll, Sharon Sinclair, Ruth Wagner, Sascha Zimmerspitz
Production Assistant	Deniz Erduman
LEGO Assistant	Oliver Lotz
Soundtrack	Ana C. Roman, Bernhard Klein

under the auspices of William Forsythe and Ballett Frankfurt

dancing / robot building / programming kids:

Valentin al Jalali
Alina Buch
Jenny Frankenberg
Zarah Landes
Michael Nuske
Philip Schmoll
Sharon Sinclair
Meiko Volknandt
Ruth Wagner
Sascha Zimmerspitz

Supported by	JP Morgan Chase mak.frankfurt Ballett Frankfurt
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PROGRAM NOTES

PART I: The Digital Sound project

For the sound project of the JPMorganChase Kids Digital Movement and Sound Project, children use digital technologies to record and study the sounds of their environment and their own voices. They use the knowledge gained from this study to synthesise their own digital compositions. The children employ user-friendly tools geared to their developmental levels, but in a highly sophisticated context - a distributed or ubiquitous computing environment in which machine intelligence is not restricted to a fixed CPU and monitor, but is instead deployed in mobile formations throughout the learning environment. A large part of the control of the digital synthesis is achieved through external controllers that offer children a direct physical relationship to the elements of sound. The children work in teams and create the compositions collectively. The script (form) of the resulting compositions evolves from the soundscapes that the children experience and analyse. The children are encouraged to listen to the interaction of the sound elements of each soundscape and to incorporate this interactivity in their group compositions. In such an environment, children see that organisation can arise as a consequence of emergent structure (the unanticipated interaction of numerous interdependent elements) rather than from top-down design. Our ultimate goal is to enhance the sonic experience and connect it as directly as possible to sonic creation without the interference or mediation of external artificial processes.

Tonight you will hear works in progress from the first four initiatives of this sound project:

In *A Walk Through Harlem* The performers tell the story of a February walk through Harlem, where they recorded the sounds of the neighborhood and of various things they found. Using several unique digital instruments, they mix and modify these sounds and the sounds of their own voices, telling a sonic story. Images of their walk accompany them, in an unusual computerized slide-show that responds to their performance.

Kids in (Sound)Space is a live, collaborative, interactive composition. Environmental sounds that were recorded by the group (supermarket noises, buses, the subway) are loaded into a computer. These sounds are represented by objects that float around on the computer screen. The performers can control the motion of the sound objects via sensors they wear on their bodies. As the objects move around on the screen their qualities change: volume, spatial location, pitch, tempo and a number of other parameters can be altered for each sound. When a number of sounds are loaded at the same time, a sound environment, or space, is formed. In performance, a new piece is created every time as the performers work with the sounds in the sound space to create environments and moods that change over time.

During the workshops for the creation of *Wind Symphony* children using filtered noise attempt at first to re-create natural noise-based sound environments: the sound of the waves, the sound of the wind, the noise of traffic, the noise of crowds, blowing wind in tubes, noise based speech syllables, noise based animal sounds. Children experiment extensively with frequency content, frequency contour and amplitude envelopes, and their interaction/integration. Through their experimentation with the creation of natural noise-based environments, of which they have strong implicit knowledge, children familiarise themselves with digital synthesis techniques. They are then able to use these techniques to

sounds. The final compositions (sound essays) are combinations of material created by the children during the preparatory sessions and improvisatory material created in real time during the performance.

Part II: The Digital Movement project

In the Movement project of the JPMorganChase Kids Digital Movement and Sound Project, the children explore the quality and nature of their own movements and how to translate these movements into LOGO procedures - operations that can be performed by the LEGO Mindstorms building system. The children then construct Mindstorms robots that combine these movements into sequences, exploiting the system's unique use of sensors to allow the robots to respond to touch, light, heat, and movement. Finally children and robots dancers participate in dance expositions. In his opening remarks during the first workshops of this project Paul Kaiser discussed the concept of the project:

“The key idea behind this work is that we think not just with our heads, but with our whole bodies. Our intelligence comes not only from our mastery of logic, but also from the physical and emotional interactions we have with the world and with each other.

For this project, we have not been teaching dance *to* the children, but rather learning *with them* what dance can become. Thus, we haven't instructed them in ballet techniques, for example, but rather encouraged them to explore the full range of ordinary movements (walking, running, turning, jumping), and then let them invent new movements of their own.

The same approach worked well in constructing the MindStorms Lego robots. Here again we weren't teaching computer science to the children, but rather allowing them to discover it as they invented new ways for the robots to move.

Of course, constructing and programming a robot is in fact of matter of pure physics and logic, but a curious thing happens when you put these robots onto a dance stage with the children. Suddenly you start seeing the robots' expressive qualities emerge. They start to seem like characters. Since they're considerably smaller than the children, they perhaps seem like their pets: but rambunctious pets, not perfectly obedient ones.

When the children are dancing and interacting with the robots, what they're really exploring is our *future*: for our future will involve ever more complex interactions between software and people.

What better place to explore that interaction than on the dance stage?”

FIRST STEPS

“First Steps is the first public presentation of the Movement project. For the creation of this piece we decided to invite non ballet or dance trained children to experiment with the possibilities of developing and relating their own movements with the building and programming of LEGO MINDSTORMS robots; we then combine these elements.

The intention of “FIRST STEPS” is to have the children interacting with the robots and to

We would like this process to be a fun period by keeping the spontaneity of the children's movement alive as well as the spirit of art, learning and playing".
(Ana C. Roman)

Biographical notes of performers and creators

Part I: The Sound Project

Wesley John-Alder was born in New York in the United States of America, but he has since moved. He enjoys listening to music and riding his bicycle. He currently attends high school, and he plans to attend college.

Hello, my name is *Nigina Babaeva*. I was born in Dushanbe, Tajikistan. But now I live in New York City, I have been living here since I was six years old.

R. Luke DuBois is a composer, programmer, and performer living in New York City. He is currently finishing his DMA degree at Columbia University, and teaches interactive computer music at the Columbia's Computer Music Center and at New York University. His music with his band, the Freight Elevator Quartet, is available on Caipirinha/Sire, Liquid Sky, and Cycling'74 Music.

Kate Hofstetter is originally from NH where she graduated from Plymouth State College and taught elementary school music. She came to NYC 5 years ago, and is currently in the Master of Music Degree program at Teachers College, as well as an employee of The Computer Music Center.

Sun Joo received her BM from Oberlin Conservatory and her MM from Yale University School of Music. She was invited as a guest artists in the summer of 1999 to give master classes in Bogota Columbia, University of Narinro while touring through South America for Concerts. She is currently pursuing her doctorate degree in Music Education at Teachers College Columbia University.

My name is *Shameena Khan*. I go to Computer School Two. I love to play soccer with my friends. I also love to talk on AOL with my friend Diamond.

Seweryn Nehring was born in Poland and he now lives in New York City. He is in 6th grade at the Computer School. He likes to play soccer and spends most of his time in front of the computer.

Tania Papayannopoulou was born in Athens, Greece. She came to New York five years ago where she completed her Bachelor Degree in Music Education and Performance in piano. She is currently working on her Master of Education in Music at Teachers College Columbia University, as well as teaching music. She is looking forward to completing her Doctorate of Education in the near future.

My name is *Kamran Barros-Rashid*. I am from New York City. I have one older sister and I like to play soccer and football.

Douglas Repetto is an artist, performer and educator. When not building electronic sculptures or writing realtime music performance software he spends lots of time talking to plants. Douglas works at the Columbia University Computer Music Center, where he maintains the computer networks, builds human/machine interfaces and teaches a variety of topics.

Thanassis Rikakis is the Associate Director of the Computer Music Center of Columbia University. Thanassis composes acoustic and computer works. His research concentrates on music perception and psychoacoustics with special emphasis on the use of microtones in western compositions and medical applications of music (www.music.columbia.edu/~than)

Mariyam Salley was born in New York City. She goes to school at the Computer School where she is a 6th grader. She likes reading, watching TV and listening to music.

Laverne Sheu is a graduate student at Teachers College Columbia University pursuing her Masters in Music Education. Originally from the San Francisco Bay Area, she achieved her Bachelors of Arts at the University of California Berkely. Though she is a professional cellist, she ultimately aspires to teach general music in a classroom setting.

I, *Leila Tamari*, like to write my own creative writing. I like school even though it's a new experience in Middle School. There is a lot more homework and you get pushed around by Seventh and Eighth Graders. I am also interested in composing music and playing with it. When I grow up, I hope to be an ecologist, a zoologist, and a writer. Maybe even in my spare time i'll be a music composer. And to be honest, I'm one crazy person!

Dan Trueman composes and plays various violins, including the Norwegian Hardanger fiddle and the 6-string electric violin. He currently works at the Columbia Computer Music Center.

Karl Ward is a Columbia College senior studying English and working at the Computer Music Center. Karl spends most of his time dabbling in literature, physics, computer science, civil libertarian politics, and music.

My name is *Mima Wellington*. My school is the Computer School and I like learning a lot. I also love to travel to foreign areas.

Victoria Young holds a BA (Honors) from Princeton University and is an M.A. candidate at Columbia University Teachers College for music and music education. A former student of the Julliard Pre-College, Victoria has given solorecitals at Carnegie Halls's Weill Recital Hall, Julliard Paul Hall, and Princeton University where she also served as concertmaster of the University Orchestra.

Igor Zybkov is going to Computer School One. Born in 1989, May 4. My best friend is Joshua Rim.

Part II: The Movement project

James Bradburne is a British-Canadian architect, designer and museum specialist, who has designed World's Fair pavilions, science centres, and international art exhibitions. Educated in Canada, and England, he ha developed numerous exhibitions, research projects and symposia for UNESCO, UNICEF, national governments, private foundations, and museums worldwide during the course of the past fifteen years. He lectures internationally about new

approaches to informal learning, and has published extensively. As of January 1st, 1999, he has been Director of the Museum für Angewandte Kunst in Frankfurt am Main.

Paul Kaiser is a digital artist who created the virtual dances *Hand-drawn Spaces* (1998) and *BIPED* (1999), both with Merce Cunningham and Shelley Eshkar, and *Ghostcatching* (1999), with Bill T. Jones and Shelley Eshkar. Kaiser teaches virtual filmmaking at Wesleyan University, and lives in New York City with his wife and two daughters.

Ana Catalina Roman was born in Madrid, Spain, trained at the Real Conservatorio Superior de Espana with Ana Lazaro and danced in the “Joven Ballett Concierto” under her direction. She finished her training in the John Cranko School in Stuttgart with Heinz Clauss and Jean Wallis. She danced with Gelsenkirchen Ballett under the direction of Bernd Schindowsky. She joined the Ballett Frankfurt in 1980 at first under the direction of Egon Madsen and since 1984 under the direction of William Forsythe. She danced as a soloist in most of the Ballett Frankfurt Productions and collaborated on many. In the last years she has also assisted William Forsythe on various pieces. She has choreographed six short pieces herself and is a Ballett Teacher. At present she is studying Film Drawing Animation.

Museum für Angewandte Kunst Frankfurt am Main (mak.frankfurt) was founded in 1877 by the Middle German Handicrafts Society as part of a broad concern for the education of craftworkers and improving the quality of industrial production. The Society's collection was taken over by the City of Frankfurt in 1921, and, after the destruction of its premises during the war, was kept in storage until finally being installed in Villa Metzler (1803) in 1966. The present museum building was designed by the American architect Richard Meier to incorporate the Villa Metzler, and was completed in 1985. The Museum is home to internationally-renowned collections of European, East Asian, and Middle Eastern applied arts, as well as a special collection of the arts of the book. The museum was relaunched in May 2000 with a new name, a new identity, new visitor facilities, and newly-installed collections. The museum now hosts a permanent collection of Design, including websites and computer games. There is wireless internet access throughout the museum, as well as a Learning Laboratory, a Computer Lab, and a Lab in which young people test computer games. The museum is now open daily until 20.00 and hosts wine tastings, fashion shows, and Internet auctions. In addition, it has opened a new bistro/restaurant open until midnight, and a new design shop featuring objects from the museum's Design