THE BROOKLYN COLLEGE CENTER FOR COMPUTER MUSIC, CITY UNIVERSITY OF NEW YORK

Douglas Geers
Center for Computer Music
Conservatory of Music
Brooklyn College,
City University of New York

George Brunner
Center for Computer Music
Conservatory of Music
Brooklyn College,
City University of New York

Nicholas Nelson
Center for Computer Music
Conservatory of Music
Brooklyn College,
City University of New York

ABSTRACT

The Brooklyn College Center for Computer Music (BC-CCM) holds an interesting position in the field of computer music, both historically and in the contemporary academic scene. This report will summarize the history and outline current plans for technical and curricular development.

1. HISTORY

Brooklyn College is one of the senior campuses of the City University of New York (CUNY), a huge academic institution consisting of twenty-three campus that serve approximately 480,000 students in the five boroughs of New York City. Brooklyn College, with an enrolment of about 17,000 students, was the first co-ed public liberal arts college in New York City, and today its intimate, leafy campus persists as a refuge from the busy city and is home to a strong liberal arts curriculum for undergraduates. Brooklyn College consistently appears in The Princeton Review’s guidebook, America’s Best Value Colleges, and the Conservatory of Music has had numerous illustrious faculty over the years, including Itzhak Perlman, Charles Dodge, and current faculty members pianist Ursula Oppens and composer Tania León.

The first electronic music studio at Brooklyn College was created during the 1970s, thanks for the work of composers Robert Starrer, Jacob Druckman, and Noah Creshefsky. Charles Dodge took over as Director in 1978, and he was responsible for having the studios designated as an official Center within Brooklyn College, the Center for Computer Music (BC-CCM).

The profile and activity of the BC-CCM rose considerably during the years of Dodge’s leadership. Thanks to several major donations and grants from sources including Bell Laboratories, the United States Office of Education, The National Endowment for the Arts, and the Rockefeller Foundation, Dodge organized a facility that was at one time rated by the NEA as the finest in the United States and which attracted composers from around the world as a site for residencies, including John Cage, Jon Appleton, Larry Austin, Françoise Barriere, Lars Gunnar Bodin, John Chowning, Christian Clozier, Robert Dick, Morton Feldman, Sten Hanson, Lejaren Hiller, Judy Klein, Max Mathews, James Mobberley, Pauline Oliveros, Bob Ostertag, Roger Reynolds, Jean Claude Risset, Morton Subotnick, and many others. Prominent alumni of the BC-CCM include Laurie Spiegel, Curtis Bahn, Madelyn Byrne, Kevin Parks, James Pritchett, Jason Stanyek, Matthew Sutter, and Frances White.

Figure 1. Brooklyn College campus.

After Dodge’s departure in the 1990s, subsequent Directors of the BC-CCM included Noah Creshevsky,
George Brunner, Amnon Wolman, Douglas Cohen, and Douglas Geers, who took the position in September 2009.

2. FACULTY

Currently, faculty associated with the BC-CCM include music faculty Doug Geers (Director), George Brunner, Douglas Cohen, and David Grubbs, TV/Radio Department faculty John Jannone, Computer Science faculty Elizabeth Sklar, and BC-CCM Graduate Assistant Nicholas Nelson. Among the non-Music faculty, all are musicians or former musicians. The faculty are assisted by the professional staff of the Conservatory of Music, as well as Brooklyn College staff, most notably Mr. Mark Gold and Mr. Anil Lily of IT Services.

![Figure 2. Performance at Brooklyn College.](image)

3. CURRICULUM

Today, we consider the Brooklyn BC-CCM to be a both a facility and a community of artists and researchers. The mission of the BC-CCM is to explore the creative possibilities of technology in relation to the creation of music, sound art, sound design, and multimedia arts. Courses related to the BC-CCM cover techniques of audio production, composition with digital tools and instruments, creative collaboration, history and aesthetics of experimental music and sound arts, and development of new means of creative expression.

The BC-CCM is open to all students at Brooklyn College, but focuses primarily on serving two groups of students: Those majoring in music composition (both undergraduate and graduate students) and those in the MFA program in Performance and Interactive Media Arts (PIMA), founded by Professor John Jannone and currently directed by Professor David Grubbs. We are planning to add an MFA in Sonic Arts, ideally by fall 2011, to complement our composition program with a flexible degree open to all creating with sound, whether their backgrounds be from classical music, other musical styles, sound design, sound art, computer science, or engineering. We may also create a similarly flexible undergraduate degree in music technology, but are currently focusing on getting the MFA program up and running.

The proposed MFA in Digital Sonic Arts will address issues including Analysis of Electroacoustic Music, History and Literature of Electronic Music, Acoustics and Psychoacoustics, Advanced Audio Production, DSP and Sound Synthesis Theory, Algorithmic Composition, Interactive Instrument Design and Construction, Group Performance, Creating for Multimedia, and more.

BC-CCM Course offerings in 2009-2010 included Electroacoustic Music Composition 1 and 2, Experimental Performance Ensemble and Composition 1 and 2, Dynamic and Interactive Media Performance 1 and 2, Techniques for Recording Music, Introduction to Music Technology, and Popular Music and Technology. In 2010-2011 most of these courses will run again, along with others, including a new course in the history of electronic and computer music.

Moreover, although we are working to create the new MFA degree in Sonic Arts we will continue to welcome all composers wishing to study at Brooklyn College, as our composition curriculum is flexible enough to allow for one to concentrate on a particular area of interest, such as electroacoustic music, or even change focus over time. Our acoustic-only composition faculty, Professor Tania León and Associate Professor Jason Eckardt, are both dedicated pedagogues as well as internationally-known composers.

Meanwhile, although not officially part of the curriculum, the rich array of music and art performances happening in New York City—and even those just in Brooklyn—offer a wealth of aesthetic and educational experiences to students. We strongly encourage them to engage both as audience and, when ready, performers in this exciting scene.

4. EVENTS

The BC-CCM is home to the biannual International Electroacoustic Music Festival (IEMF), founded by Professor George Brunner, which celebrated its twenty-first year in 2009-2010. The IEMF brings world class composers and musicians to the BC-CCM’s Levenson Recital Hall and Whitman Concert Hall in both autumn and spring each year. Recent featured composers include Jon Appleton, Larry Polansky, Morton Subotnick, and Paul Rudy. Other annual events include concerts by other guest artists, two or more performances by PIMA and BC-CCM students each semester, and at least two recitals by the composition students each semester.
The PIMA program hosts artists-in-residence each year, and the guests for 2009-2010 were Evidence, a multimedia
duo consisting of Scott Smallwood and Stephan Moore.
Evidence and students collaborated in the design and
planning of a day-long multimedia performance event in
downtown Brooklyn in May, 2010. The BC-CCM also
produces and releases a CD of compositions each year,
with generous funding provided by Brooklyn College.

In 2008, CUNY Queen’s College Professor Hubert Howe,
CUNY Graduate Center Ph.D. students Paul Riker and
Zachary Sedess, and Braxton Sherouse of the University
of Florida founded a new annual event, the New York City
Electroacoustic Music Festival (NYCEMF), held each
spring at the CUNY Graduate Center in Manhattan. The
BC-CCM’s Doug Geers served as a consultant for the
2010 festival, and we have hopes that the BC-CCM will
increase its role in this event in coming years.

The BC-CCM, both faculty and students, has pursued
numerous multimedia collaborations, including ones with
members of other departments on campus such as
Computer Science, TV/Radio, Theater, Art, Film, and of
course the PIMA program. Examples of these
collaborations include concert of electroacoustic music
premieres all choreographed by dance faculty, coordinated
by Professor Brunner and presented as part of the Spring
2010 IEAMF. Another is a continuing research group
including Geers, Jannone, Sklar, and Computer Science
professor Simon Parsons, investigating intersections
between robotics and the arts. Plus of course students have
collaborated in many combinations to create works for our
many on- and off-campus performances.

5. FACILITIES

Currently, the BC-CCM is housed primarily in George
Gershwin Hall on the campus of Brooklyn College.
However during the next year construction will begin on a
new performing arts center at Brooklyn College, which
will include all new facilities for the BC-CCM.

Currently the Center includes several locations:
1. A large multi-user composition/production studio with
   an eight-channel sound system.
2. A 14-workstation lab/classroom equipped with
   composition software, MIDI keyboards, printer, LCD
   projector, microphone, and stereo Genelec sound
   system. Software includes Max/MSP, Pd, Pro Tools,
   Ableton Live, Peak, Audacity, Ardour, Melodyne,
   Spear, Supercollider, Soundhack, Sibelius, DVD
   Studio Pro, Final Cut Pro, and others.
3. A recording studio equipped with multi-track digital
   recording hardware and software (Pro Tools), with
   mixdown capabilities, including variety of high-
   quality microphones, mixers, tape recorders, signal
   processors, and professional-quality plug-ins.
4. A control room linked to the recording room and to
   Gershwin Hall, a five hundred set concert hall, for
   recording larger ensembles.
5. Levenson Hall, an intimate recital hall seating
   approximately 150 listeners.
6. Whitman Concert Hall, a fully-equipped 2400-seat
   auditorium for performances by large ensemble, opera,
   and theater.
7. The BC-CCM promotes musical and interdisciplinary
   projects using a variety of computer software. If a
   specific application that the Center does not own is
   desired by a contingent of CCM denizens, studio staff
   will pursue its acquisition.

8. Figure 3. Recording studio control room.

The new performing arts center, when complete, will
feature 8.2 sound in all the BC-CCM and performance
spaces. We have worked closely with the architects and
acoustical consultants, and are optimistic that this new
facility will be a wonderful place to work.

6. ACKNOWLEDGEMENTS

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For more information on the BC-CCM: www.bc-ccm.org.