[Editor's note: Selected reviews are posted on the Web. In some cases, they are either unpublished in the Journal itself or published in an abbreviated form in the Journal. Visit www.mitpressjournals.org/loi/comj and, under “Inside the Journal” at the left, click on “CMJ's Web site.” Then click on “Reviews” at the top.]

**Reviews**

**Events**

**Eighth Electronic Music Midwest Festival**

Lewis University, Romeoville, Illinois, USA, 12–14 October 2006.

Reviewed by Bruce Bennett
New Orleans, Louisiana, USA

A small consortium of institutions, including Lewis University, Kansas City Kansas Community College, and the Conservatory of Music at the University of Missouri at Kansas City have conspired over the past eight years to produce a regional festival of electronic music, the Electronic Music Midwest (EMM). These institutions have shared the burden of producing this festival by taking turns as hosts. This year, EMM was held 12–14 October, 2006, at Lewis University in Romeoville, Illinois, south of Chicago. Lewis University Associate Professor Mike McFerron proved an able, organized, and hospitable host.

Each of the eight concerts, presented over three days, managed to have a consistent theme by virtue of careful programming and by having curated concerts. All of the concerts were presented in the Philip Lynch Theater, which was equipped with a 9.1 surround system (3 in front, 5 around the sides and back, and one on the ceiling). Additionally, the theater lobby provided space for two installations: The first, **[un]wired** by Jesse Allison, John Fillwalk, and Keith Kothman, employed wireless handheld devices to interact with the audio and video; the second installation, **Harmonic Sounds for a Public Space** by Marc Jensen, ran all day Saturday and created a pleasant, slowly changing soundscape of harmonically tuned tones.

The opening night of the festival presented Robert Voisey’s **60 × 60** Midwest Minutes Mix, consisting of 60 electroacoustic (fixed media) compositions by 60 different composers, each lasting 60 seconds or less. This is an interesting idea that has been done in the past by Elliott Sharp (with his State of the Union productions), Frog Peak Music, and Guy Livingston (works for solo piano). However, a project like this presents several challenges to the composer, the curator, and the listener alike. For the composer, the obvious challenge is to be able to create a work, complete in itself that can yet be heard as part of the greater collection. For the curator, the challenge is to create a coherent playlist that can sustain the audience’s interest over the entire hour. And for the listener, making sense of 60 disparate 60-sec works in a concert setting is most challenging. Perhaps the best medium for this sort of project remains Shuffle Play on one’s iPod.

Concerts were held all day Friday and Saturday from 10:30 a.m. until 10:00 p.m. Packing so many concerts into such a tight schedule can be fatigue-inducing for the listener, but for the most part, the organizers kept to the schedule, none of the concerts ran over, and there were no apparent technical difficulties. Much credit is due to the professional expertise of the Technical Director of the festival, Ian Corbet (Associate Professor, Coordinator, Audio Engineering Program, Kansas City Kansas Community College) and his assistants.

The late afternoon concert on Friday showcased the work of members of the Chicago Composers Forum. The varied and interesting program featured fixed media and mixed electronic and acoustic works. The highlight of the concert was probably **Torrid Mix: Featuring DJ Jazzy King and Master L.T.** for piano and tape by host Mike McFerron, featuring pianist Irina Foktistova.

Although EMM clearly remains a regional festival, and the majority of the participants were certainly from the midwestern region, there was a significant national and international presence. Most notably, Cristian Morales-Ossio and Felix Lazo presented a curated concert of electroacoustic music from Chile, “Celebrating 50 years: Electroacoustic Music from Chile.” Despite intending to be a retrospective of Chilean electronic music, the majority of the pieces were created within the last few years, including the presentation of a work-in-progress by the curators, Morales-Ossio and Lazo, **Mirror**, for live video and audio performed on two laptop computers. The work is a reflective travel journal of the sights and sounds of their 2006 tour of the United States. Three works of historical significance in Chilean electronic music were also presented: Juan Amenábar’s **Loses Peces** [The Fishes] (1957), José Vicente Asuar’s **Variaciones Espectrales** [Spectral Variations] (1959), and Gustavo Becerra-Schmidt’s **Quipus** (1978–1980).

Among the highlights of Saturday’s concerts, two works in particular stood out. Daniel Weymouth’s **Unexpected Things** for tape, violin, piano, and audience participation received an outstanding performance by Duo Diorama [Minghuan Xu, violin, and Winston Choi, piano] for whom the piece was composed. The use of ex-
tended instrumental techniques very successfully helped fuse the live performance with the tape part, and the choreography of the players assisting each other with page turns, preparing (and un-preparing) the piano, and the humorous use of cue cards instructing audience participation (a number of slide whistles were planted in the audience) made for an engaging and enormously entertaining happening.

In stark contrast, André Ruschkowski’s ambient, almost sculpted Twigs and Grains, Parts I & II was a beautiful and meditative work for video and audio. Mr. Ruschkowski gave a presentation of the work the previous day, exploring the correlation between the techniques of audio and video granulation. He uses Max/MSP and Jitter to translate the visual into the aural domain, and the aural into the visual domain.

All in all, this year’s EMM festival was well organized and well programmed. Its location made it more of an insular event, with little participation beyond the confines of the university, but the space, the sound system, and the conviviality of the participants made for an enjoyable and stimulating weekend. Hopefully EMM will grow to include a broader network of mid-western institutions and continue with greater success involving the broader public.

Multidimensionality: International Computer Music Conference 2006

Music Department, Tulane University, New Orleans, Louisiana, USA, 6–11 November 2006.

Reviewed by Silvia Matheus Berkeley, California, USA

Even after the worst natural disaster in U.S. history, Hurricane Katrina on 29 August 2005, many areas of New Orleans are intact and continue to be very much alive. A light of hope shines for better days when historical New Orleans will return to the normality of daily life. Particularly noteworthy is the fact that only one year after the hurricane, Tulane University, one of the top research universities in the nation, hosted the 2006 International Computer Music Conference (ICMC).

The 2006 ICMC was hosted by the Tulane Music Department, and thanks for its excellent organization is owed to Tae Hong Park with the support of a highly capable staff of students, professionals, and faculty members from several U.S. institutions. These included Dartmouth College, Louisiana State University, Loyola University, University of Florida, University of Delaware, University of Virginia, Stanford University, Georgia Tech, Columbia University, and Princeton University.

“This conference would not have been possible without the help from our generous sponsors in the industry, academia, government, and our friends,” states Mr. Park in his introduction to the program booklet. The devastating hurricane did not stop him from generating the organizational structure of the ICMC 2006. “This conference was much more than a gathering of our computer music community, it was an event that would directly impact the recovery of the city and a school that would need all the help and confidence it could muster.”

ICMC 2006 was an extremely welcome opportunity for music and computer science students at Tulane and other universities in New Orleans to mingle with professionals of the field. It yielded a strong sense of community and compassion among the conference visitors who traveled to New Orleans for the conference.

The theme of the ICMC 2006 was “multidimensionality.” The conference presented works integrating music and video with computer technology: acousmatic, interactive, and instrumental compositions involving live electronics or tape, laptop music ensembles, and audio and visual installations. Audio disciplines such as radio broadcasts, concerts, and audio installations explored the myriad expressions of “multidimensionality.” Attendees and composers arrived from the Americas, Europe, Asia, and Australia, a variety of ethnic backgrounds, aesthetics, and disciplines. Approximately 320 computer music professionals participated and about 200 works were staged: 121 during the morning, afternoon, and night concerts; in addition, there were ten installations, four pre-conference afternoon concerts, and 44 Digital Jukebox pieces. Presented at different venues on campus, the extensive concert schedule made it challenging for conference participants to attend all events.

A high standard of works was presented, including video and instrumental compositions, acoustics with electronics and computers, interactive, and tape pieces. A few selected works were accompanied by Tulane student dancers. SEAMUS (Society for Electronic Music in the United States) presented the best selected works from the 20th anniversary of SEAMUS [2006 conference] and SEAMUS Video in one of the evening concerts. The wide spectrum of selected works emerged with a genuine, unique voice without being restricted to one kind of artistic language or technology. During past ICMC conferences the aesthetics of certain works, by mainly European composers, was particularly emphasized. Not so this year. Nevertheless, several tape pieces showed a strong aes-
thetic influence of the 1980s and 1990s French and German schools, since the surround-sound experience created by multiple loudspeakers around the hall has become prevalent. The nature of the sound palette, processing techniques, and musical gestures of many tape works was similar. In the small, tightly knit computer music community, we are strongly influenced by closely related sound aesthetics and ideas. The lack of uniqueness and creativity is an ailment of this era, where globalization, software standardization, and time convenience are the demand. Composers have to rise to the expression of their own voice in their cultural uniqueness. However, I do not wish to minimize the quality of the tape works presented at this conference and I will mention those that certainly stood out from the many beautiful and well-constructed works.

Instrumental pieces did not suffer from the same lack of creativity and uniqueness as compositions on tape. Obviously, the choice of orchestration and writing techniques demands a personal style, and small variations in the choice of instrumentation make a significant difference.

Most of the late night concerts, the "off-ICMC," a collaboration between ffmup (Free_Form_MashUp) and the ICMC 2006, took place at the Column Hotel. It is a cozy old French-style building on elegant St. Charles Street, with salons and a grandiose veranda and equipped with a wonderful bar for late night socializing. These concerts presented improvised, live-processed pieces, with indeterminacy and momentum driving these kinds of performances. Being staged in small, intimate spaces worked in favor of most performances, particularly when visual interaction between performers and audience was minimal.

As a listener, I continue to prefer acousmatic pieces over laptop performances. Although live laptop performances may be very engaging for the composer/performer, the audience does not enjoy the opportunity of participating in the evolving interaction, after a few minutes' listening the interest starts to wane. Personally, I was drawn to performances that showed a clear communication between performer, device, and audience. It was in any case quite engaging to see the performances up close in such intimate spaces.

The volume of high-pitch frequencies and static noises exceeding 95 dB is apparently one of the aesthetic foundations of electronic music played in Japan, according to composer Hiroki Nishino. His performance in a small room was rather painful and caused many members of the audience to cover their ears or to leave the room.

This controversy leads to the thought that some electronic music composers seem to lack knowledge of psychoacoustics. I would like to mention here the keynote speech by Max Mathews, who strongly advised the new generation of composers to study psychoacoustics for a better understanding of how the brain responds to sounds. Mr. Mathews presented in his keynote address, "Thoughts on the Past and Future of Computer Music," a historical account from the first hardware and software developments at Bell Laboratories in 1957, to stages of software development from Music I, II, III, and V, Max/MSP, along with historical scientific papers that for example influenced John Chowning, resulting in the discovery of FM synthesis. Mr. Mathew warmly recommended the following books and recordings to the new generation of composers and researchers: The Historical CD of Digital Sound Synthesis (Computer Music Currents, Vol. 13, Wergo WER2033-20), FM Theory and Application by John Chowning and David Bristow (Hal Leonard Corporation, ISBN 4636174828), Music Cognition, and Computerized Sound by Perry Cook (The MIT Press, ISBN 0262531909), and This is Your Brain on Music by Daniel J. Levitin (Dutton Adult, ISBN 0525949690).

Mr. Mathews emphasized that composers of computer music require a grasp of sound synthesis and psychoacoustics, and need to undergo a different kind of ear training. He may be criticizing the sound quality and the exploration of computer and electronic music composition at present: "The computer is so powerful we don't know how to use the power." In order to accommodate the demands of today's real-time music performances, composer-musicians ought to know more about instrument design and learn to build their own performance instruments. Stanford University has offered courses since 1991 on instrument building, sensor technology, 3D sensor technology, and controllers. In a video of Keith McMillen's work, the new, innovative ensemble TrioMetrik uses enhanced instruments coupled through an intelligent computer network (MASIAS) to interact with the players. This was a dream of Max Mathews 40 years ago that has now become reality. The opening composition of the SEAMUS concert that followed illustrated some of the concerns that Max Mathews referred to in his speech about sound design, because the piece was lacking in textural timbre.

Concerts

Due to the great number of works, I decided to focus on a few that impressed me. These were pieces that showcased electronic novelty, well-constructed composition, good synthesis technique, and performance.
Cort Lippe’s *Music* for alto saxophone and MAX/MSP live processing was a well-punctuated piece with richly processed sounds—a highly engaging opening for the ICMC. The sounds of the saxophone were recorded and manipulated live using Max/MSP.

I would like to mention that there were only a small number of acoustic works accompanied with tape in this ICMC. Presently, there is much less visible intervention of the electronics over acoustic instruments. Most of the time it was hard to identify the pieces that were using live processing techniques from the pieces that were not.

*Dream Tableaux* by Madelyn Byrne was one of the pieces that left the greatest impression on me during this conference. The piece is well structured and was beautifully performed by Javier Ondolo on acoustic guitar. The electronics for this piece and the acoustic sounds were equally interwoven, while the selection of the processed sounds complemented and extended the sound of the acoustic guitar, a true marriage between electronics and acoustic instrument.

*Mobile Variation* was another strong tape piece composed by Wolek Krzysztof, who used only synthetic sounds for his piece. He made use of different synthesis techniques with great variation. The composition had dramatic phrases with fast passages; overall, a well-crafted work with good control of the sounds in the space. *Binjib* [empty place] by Jinok Cho, based on the Gi Hyung-do poem “Bun-jib,” was a poetic piece for voice and traditional Korean instruments and tape, a well-orchestrated piece with a theatrical performance. It made use of instrumental extended techniques recorded on tape with processed sounds of traditional Korean instruments. The sounds truly enhanced the texture of the acoustic instruments, and the piece was poetically and beautifully performed. Unfortunately the text was spoken in the Korean language without translation, and therefore it was more challenging for the audience to follow and appreciate the development of the drama. I count the translation very important as without it the work loses meaning.

The violinst Gascia Ouzounian gave a fantastic performance of Bruce Pennycook’s composition for violin and computer, *Panmure Vistas*, a technically challenging piece with live processing using Max/MSP. The quality of the instrumental performance was an eye opener for the computer music community, which has to realize the importance of the oneness between the performer’s body and the instrument, and how this communication strongly affects the audience in a positive or negative way. This was an outstanding performance.

*Et Ignis Involvens*, composed by Joao Oliveira, is an articulated, synthetic-sounds composition with middle-to-high frequencies and long phrases that form a continuous dialogue. It presented a deep coherence in the development of the compositional process: attraction, repulsion, and complementation of the sound punctuated with low-frequency bursts. Even though there was some repetition in the gestural contour of the phrases and timbre, it had an interesting projection of the sound sources in space.

The conference featured the Azure Ensemble, Ensemble Surplus, and Onix Ensemble, and these groups presented very engaging pieces. The ensemble piece that stood out the most for its compositional quality, the use of computer processing, and a magnificent performance was *The Path To The Serene* by Yuriko Kojima. It was composed for solo flute with live electronics, along with five instrumentalists: violin, viola, cello, harp, and piano. The music conveyed a deep coherence in the development of the compositional process, creating an effective contrast and dialogue between the instruments and the processed sounds of the flute, incorporating many melodic contours. Computer processing was used only as a highlight to the flute, extending and elaborating the acoustic quality of the instrument. The orchestration was such that it gave an impression of a much larger ensemble.

*Das Bleierne Klavier* by Hans Tutschku was another dramatic piece, a “sound extravaganza.” The live treatment of the sound is controlled by the pianist. According to the program notes, the pianist’s gestures are traced and interpreted by the computer program to determine a large ensemble of parameters for the generation and playback of the electroacoustic part. The piece is made up of a chaotic assemblage of processed sounds of piano with other sonor material. Some interaction was visible, but most of the time it was difficult to distinguish what the pianist was controlling in real time. The gestures never seemed to repeat, the work manifested a convincing, dynamical overall shape.

The Tuesday Night Concert presented two tape pieces, video and dance, instrumental pieces with tape, electronics, and computer. I would like to mention that selected pieces for this ICMC were choreographed and performed by the New Comb Dance Company, formed by students from different universities majoring in fields other than dance. Valerio Murat’s *Coppi* for video and tape was an interesting work using concentrated abstract and non-abstract images in synchronization with sounds. Video and audio appeared in uniform playing complimentary roles. Unfortunately, a dance was added to this work, which distracted from this...
unity. The work became the background for the dance performance. I personally think that a combination of several media is a difficult undertaking if it is not worked together carefully and intentionally from the point of conception of the work.

Natasha Barrett’s piece for tape, *Deep Sea Creatures*, is a “fantastical” work using mainly water sounds. We heard only the second half of a 52-min work called *Trade Winds* for 16 channels. It is a beautifully crafted work, slow in pace with great sonic quality. It was never repetitive and always pleasing to the ears. She made good use of spatialization as well. Natasha Barrett is a solid computer music composer. I look forward to hearing the entire piece.

Of the Thursday morning concert I would like to mention *Loom (Etude II pour un enfant seul)*, a collaborative work by Ge Wang, Perry Cook, and Ananya Misra. Ms. Misra is a talented mathematician and programmer who received the award for the best ICMC paper at this year’s conference. *Loom* is a demo-style work, with excellent transformation of natural sounds using software created at Princeton University called TAPESTRA (available for download at taps.cs.princeton.edu). The magical experience of listening to this work was that most of the sound sources used were beautifully manipulated, but nevertheless still identifiable.

A performance that stood out on the program through its instrument design was *Sonofusion* by John Thompson. This piece was performed with an “augmented instrument” designed by Dan Overholt called Overtone Violin. The Overtone Violin (www.create.ucsb.edu/~dano/violin/) is an evolution of the traditional violin instrument with the purpose of controlling electronics and video without affecting the traditional playing of the violinist by using extended gestures. For this reason it is called an “augmented instrument,” contrary to a “hybrid instrument” in which the design of the electronics usually accommodates the playing technique of the performer. Mr. Overholt received waves of applause from his colleagues at the Center for Research in Electronic Art Technology (CREATE) in Santa Barbara. This is a highly sophisticated instrument and controller!

*Balanfo* by Daniel Blinkhorn is an acousmatic piece with sonic material derived entirely from a balafone (close to a marimba) from Guinea in Africa. The coherence of the fluent overlap of the acoustic and processed sounds concatenated with the speech and singing of indigenous people from Guinea. Listening to this piece I felt comfortably transposed. *Balanfo* differs from other works at the ICMC for its anthropological context; it has not been common to hear pieces from composers who are more engaged in social and political aspects and try to transport their vision into their music. ICMC works are often a display of the technical skill of the composers, while this work presented a balance. Mr. Blinkhorn is from Australia.

*November Sycamore Leaf* by Paul Rudy was a memorable piece with a rich juxtaposition of short and long sounds with long pitched drones and gradual sound changes in growing intensity and development. The variety of timbres from thick layers of sounds complemented each other in continuous mutation. There was no pause, no silence. In this the piece stood in contrast to other tape pieces on the Friday morning concert program.

*Nobule* is a collaborative composition for the “eMic” and two computers by Donna Hewitt and Julian Knowles. The performers used a creative vocal interface, a mic-stand controller designed by Donna Hewitt, called “eMic.” The creative design expanded the functionality of a microphone stand, and adapted the artist’s natural mannerisms related to the object to design the interface control. It is a fantastic idea. During the performance of Nobule I would have liked to see more extensive interaction with the eMic controller. But unfortunately the performer appeared too timid. Because of that, the piece lacked in spirit. Imagine Mick Jagger with an eMic and a hip action device to control the electronics!

*Nunataq* by Petra Bachrata is a dramatic work with synthetic sounds that never seemed to relax. An abundance of crescendos with constantly moving sound sources in mostly middle-to-high-range frequencies layered with a low pitch reverberated background. The sounds collide, multiply, and transform one another. I was left longing for the low sounds to sustain longer. Finally at the very end of the piece a new, long, densely dramatic material is introduced, which then quickly dissipates. More rewarding would have been to experience longer moments of relaxation to digest and appreciate the beautiful strong moments in this work. The spatialization was consciously composed and done well.

*American Dreamscape* by Steven Ricks, for saxophone with video, is a dynamic composition with well-integrated electronics utilizing various delays and harmonization. Unfortunately, the video did not create any additional dimension or color to the instrument solo. In my opinion, when composers venture into video in their musical work, sound and image must be integrated, otherwise attempting to relate to both, the audience may concentrate on one to the exclusion of the other. In contrast, *Substitute Judgement + Metal Catalogue* by Jeffrey Treviño, and *Circles and Rounds* by Dennis Miller, both presented artistically.
processed video images, beautifully synchronized with the audio. Mr. Treviño’s is a well-written percussion work with round video screens and a gong suspended on a stand among the other percussion instruments. The abstracted video images were projected from the back onto each circle, triggered and controlled by the percussionist during the performance. It was a very enjoyable piece, as the video placement among the percussion instruments adds visual uniformity to the performance. Mr. Miller’s piece is a wonderful integration of sound and image. The organic images were technically processed using Maxon Cinema 4D. His work is included on the ICMC DVD.

The tape work *Purusha-Prakriti* by Manuel Rocha Iturbide transported me immediately to an alternate reality. It was elegantly mixed with slow transitions between events and sound synthesis. As described in the program notes, the sonic material was constructed entirely from sounds recorded in trips to India, along the Ganges river in the cities of Haridwar, Rishikesh, and Varanasi, many of them dealing with daily rituals using bells and percussion instruments. The sounds from these instruments, animal life—especially insects and birds—and finally people in daily activities, are the protagonists of this work that evolves as the sacred water stream of the Ganges. The experience of listening to this work was quite convincing in achieving what is described in the program notes.

*Multiplication Virtuelle* by Mei-Fang Lin applied a creative use of processed sounds with the acoustic ones of the percussionist. The computer sounds build a contrast to the musical quality of the percussive sounds. The sounds moved from dry percussive sounds to more resonant and wet sounds, to metallic and back to dry wooden sounds. These colorful stages are punctuated by melodic and resonant transitions. The piece had a circular shape and the rhythmic elements and timbres followed the same principle in varied loops. *Multiplication Virtuelle* presented a well-written acoustic score, engaging to watch and listen to.

*This Too Shall Pass* is a composition by Jacob Rundall with spectrally manipulated source sounds of bells and cymbals. It is a textural work with many process variations of the same source, a creative composition with pointillistic separations of the sound sources in space.

ICMC 2006 ended on a very positive note. We thank Tae Hong Park for his flawless organization. The conference was blessed with excellent works and great performances. We all look forward to meeting again at ICMC 2007 in Copenhagen, Denmark, in August 2007.

**Publications**

Mary Simoni, Editor: *Analytical Methods of Electroacoustic Music*


*Reviewed by James Harley Guelph, Ontario, Canada*

According to editor Mary Simoni, the impetus for this book, *Analytical Methods of Electroacoustic Music*, “came from listening to numerous concerts of electroacoustic music . . . as well as a wide variety of recordings . . . I was intrigued by the fact that the depth of analysis and critical essay enjoyed by classical music did not accompany electroacoustic music” (p. vii). This sense of intrigue led to the decision, taken, apparently, during the International Computer Music Conference 2002, “to document this vibrant genre of music-making through analysis in direct consultation with the composers” (p. vii). This volume, collecting nine articles representing different approaches to the analysis of electroacoustic music, is a welcome addition to the small, but thankfully growing, body of work on this important topic.

Ms. Simoni, professor at University of Michigan and a past president of the International Computer Music
Association, contributes two articles to this collection. Her Introduction leads the reader toward concepts of musical abstraction, moving from a discussion of the basic elements of music to various representations of those elements through history: traditional notation, spectrum, amplitude–time graph, computer code. Her main focus is on timbre, given this element’s importance for electroacoustic composition, and given the advances computer technology has brought to bear on the exploration of timbre. As Ms. Simoni succinctly states: “Analysis and synthesis, with the support of computer technology, advance our knowledge and understanding of timbre. Technology thrusts us into new modes of representation with increasingly sophisticated musical abstractions, which challenge not only human perception but also aesthetic sensibilities” (p. 10).

Norman Adams, a doctoral student at the University of Michigan at the time of publication, contributes what is essentially a tutorial on the spectrogram, “Visualization of Musical Signals.” I say “tutorial” because he does not otherwise present analytical work. Considering how important the spectrogram is as an analytical tool throughout the rest of the book, it makes sense to have this chapter near the beginning. As Mr. Adams correctly notes: “time-domain representation does not effectively portray timbre. The frequency-domain representation is an effective visualization of timbre but does not represent time-varying timbres. Spectrograms depict rich and evolving timbres that are characteristic of electroacoustic music” (p. 27).

The next chapter, however, leaves issues of timbral–musical representation and related analysis aside completely. Leigh Landy, Director of the Music, Technology, and Innovation Research Centre at De Montfort University in the UK, instead adopts a more sociological approach in “The Intention/Reception Project.” This is a fascinating study, part of a larger research project, in which subjects are invited to engage in repeat listenings of selected electroacoustic works, guided by focus questions and discussion. The aim is to discern how listeners may be affected by knowing something of the composer’s intention. The two pieces reported on are Prochaine Station by Christian Calon and Claude Schryer, and Valley Flow by Denis Smalley. Subjects listened once to the pieces with no information given, once again after learning the titles, and once again after learning something of the composer’s intention. Each time, subjects were asked to keep notes while listening and then to answer questions about their listening experiences and related thoughts. Mr. Landy concludes that “presentation” is an important element of an electroacoustic composition, that “dramaturgy, that is, intentional information, music be considered” (p. 50). He also notes that music analysis can take both the composer and the listener into account. He might have said ought to take both into account.

Ms. Simoni makes another contribution to this volume with a detailed analysis of Paul Lansky’s As If, a mixed work for string trio and synthesized tape from 1982. She presents a very thorough analysis primarily of the pitch organization of this substantial piece. For a reader with no familiarity with pitch-set nomenclature, parts of her discussion would be difficult to appreciate, but with any background using linear predictive coding [LPC], with the fourth movement being based on processed samples of jazz saxophonist Coleman Hawkins. We are not given information about what LPC is, or how it is used in any detail. The discussion of the saxophone-based tape part focuses primarily on the pitch organization. There are numerous spectrogram images to support the discussion. For the most part, I do not find these particularly useful, as timbre is little discussed. I surmise that this analysis has been included in the collection in order to argue for the usefulness of pitch-set-based analysis in studying note-oriented electroacoustic music, given its near ubiquitous use in the music theory community for analyzing music of the twentieth century and beyond.

Benjamin Broening, former University of Michigan student and present professor at the University of Richmond, contributes a spectrogram-based analysis of Alvin Lucier’s I am sitting in a room, a seminal tape composition from 1969. Mr. Broening presents an admirable discussion of the background to this composition, including technical description and an introduction to “process” music, of which this piece is a stellar example. The main focus of his analysis is to examine the evolution of the spectrum of the recording as the clear spoken voice of the opening is gradually obliterated through accumulating feedback and other artifacts as the text is re-recorded over and over. The spectrogram images are in this case very helpful as an aid in grasping the details of how the sonic material changes.

Jonathan Harvey’s Mortuos Plango, Vivos Voco (1980) has been studied perhaps as much as any piece of electroacoustic music. What Michael Clarke, of Huddersfield University in the UK, offers here is an interactive approach to the piece, organized as a
series of “modules” built using Max/MSP and incorporating his SYBIL software [S]Ynthesis By Interactive Learning. The article introduces the piece and its organization, incorporating composer sketches and details (Mr. Harvey himself published an article on this piece in CMJ 5:4), and the software on the DVD enables the reader to explore specific synthesis techniques used in the piece. SYBIL contains a patch that enables a CD recording of this composition to be loaded and accessed from within the Max/MSP environment. I should note that I had trouble getting Mr. Clarke’s patch to run correctly using the version of MaxMSP Runtime that comes with it, but there was no problem running it with my full version of Max/MSP. If the point of analysis is to facilitate the reader–listener’s understanding of a musical composition and related organizational or synthesis techniques, then this interactive approach is right on the mark.

Andrew May, currently Director of the Center for Experimental Music and Intermedia at the University of North Texas, is a specialist in interactive music. In this study of Philippe Manoury’s Jupiter [1987], Mr. May rightly acknowledges that this piece pioneered “real-time pitch tracking and score following to correlate computer-generated sound with a live performer” (p. 145). Having worked extensively both with Miller Puckette, the designer of the software used for this piece from its earlier manifestation, and with Elizabeth McNutt, the flutist who has most performed this piece in North America (and recorded it for CD release—Pipe Wrench, EMP 025), Mr. May has intimate experience with this piece. His article provides historical background to the technology of Jupiter, an outline of the formal design, and in-depth description of the signal processing and “digital orchestra,” and the strategies for interaction utilized for this piece. Much of the discussion details how the orchestration and interaction between the solo flute and the computer animate the musical form. Given that the composition Jupiter in 1987 was to a great extent the impetus for the development of the language that has become Max/ MSP [and pd], and given its substantial scope (the piece lasts in the order of half an hour), the exposition here of the various tactics for presenting a range of relationships between a live performer and a responsive computer is of great value.

Mara Helmuth, Director of the Center for Computer Music at the College-Conservatory of Music at the University of Cincinnati, is a composer who has long had an interest in granular synthesis, and has developed related software. For this volume, Ms. Helmuth contributes an analysis of Riverrun, an electroacoustic composition by Barry Truax, one of the main pioneers and proponents of granular synthesis. As the author notes, Riverrun [1986] “is a slowly transforming sonic environment. It does not have the concise phrases and active harmonic rhythm of classical music, or even the sculptured quickly unfolding gestures of much recent electroacoustic music . . . Densities, timbral qualities, and stochastic layerings make up a fluid, transforming entity . . . in which intense microlevel activity reflects complex natural processes” (p. 187).

After providing a description of the composer’s real-time composition software used to create this piece (and most of his other works), some details on the program for this piece, and background on granular synthesis, Ms. Helmuth discusses the specific synthesis settings the composer used in the context of the formal outline of the work. In this case, input from Mr. Truax was clearly of enormous value for the author’s study. From there, she goes on to present a five-level analytical description of Riverrun, using the following scheme, organized vertically: [1] text description; [2] event groupings [graphic indications showing essentially sections, phrases, sub-phrases]; [3] pitch [useful in this piece for specifying drones]; [4] amplitude; and [5] sonogram images. This is a very thorough presentation, combining technical description of the synthesis processes with composer specification and listener perception.

The final article, by Momilani Ramstrum, doctoral student at the University of California, San Diego, returns to composer Philippe Manoury, here focusing on his 2000 opera K . . . for singers, electronics, and orchestra. Without a doubt, this is the most complex work discussed in this collection, with its Kafka-based libretto [based on The Trial], large performance forces, staging, and complex real-time electronics (including a 16-channel, 30-loudspeaker projection system). As the author notes, the software used to administer the electronics for the opera executes approximately 2,000 events, ranging from triggering sampled sounds, synthesis (using techniques developed at IRCAM to generate sounds that evolve on the basis of time-varying [formants], transformation, amplification, and spatialization. The author presents examples of all of these types of electronic events or interventions, but obviously, it isn’t possible to discuss, or even categorize, them all in a brief article. She goes on to discuss the serial bases for the opera, and ties this to the formal outline and the drama-turgy. Foremost in the article is the use of electronics as an important, critical, agent in the work, and it’s no doubt a useful strategy for the author to follow, given the complexity and
scope of the opera. More detailed analysis is provided for the Prologue and Scene XII, the author making use of the Music Structure Discovery (MSD) software developed at the Institut de Recherche et Coordination Acoustique/Musique (IRCAM). The program “creates a visual rendering of an audio recording by searching for acoustic self-similarity over time” (p. 263). She fills this out with description of the staging, lighting, and drama. Although Ms. Ramstrum’s work is descriptive much more than analytical, it is nonetheless useful preliminary work on this complex, large-scale, polyvalent composition. The DVD contains some video excerpts from the opera, which helps to give the reader who would otherwise have no chance to experience it a taste of its presentation.

Analytical Methods of Electroacoustic Music is completed by a short annotated bibliography, a glossary of terms, biographies of the contributors, and an index. It is not clear, at least to this reader, why particular entries are included in the bibliography. Why two books on atonal theory—by Allen Forte and John Rahn—in addition to George Perle’s Twelve-tone Tonality? Why the extremely dated On Music Today by Pierre Boulez, hardly generalizable to electroacoustic composition/analysis, and why the quite dated The New Music by Reginald Brindle Smith when there are alternative, more up-to-date sources now available? Why no reference to the useful analytical approaches to electroacoustic music developed by Pierre Couprie, Stéphane Roy, or Denis Smalley? It should nonetheless be noted that each chapter includes its own bibliography, and these contain useful additional references.

The included disc includes a DVD-Video section, containing sound examples for several of the articles and additional spectrograms, and a DVD-ROM section, containing even more spectrograms, text files, video excerpts, and the interactive software for studying Mortuos plango, vivos voco. It’s not clear why some of these materials are presented in one place rather than another, the video excerpts of the Manoury opera, for example, can only be viewed on a computer rather than through a DVD player, which seems an unnecessary limitation (that the original video files existed in PAL format ought not be an insurmountable technical problem).

Altogether, this is a well-written, useful contribution to the exegesis of electroacoustic music. A few final quibbles, though. Why include two major analyses on the music of Philippe Manoury? Both pieces are undoubtedly worthy of discussion, but in a book of “analytical methods” a wider representation of composers would be more appropriate. Has no one done any work on other important interactive or multimedia works? I also wonder whether a more representative work by Paul Lansky could have been chosen. The pitch-set analysis presented here could easily be read as an analysis of an acoustic string trio. I would have been very interested to learn more about the computer music techniques Mr. Lansky has become known for: LPC analysis/resynthesis, stochastic mixing, granular sampling. Finally, I find the case for using spectrograms in analysis rather weak. The importance of this tool is made amply clear, but for the most part, the spectrograms used in these articles serve as illustrations, not as sources of analytical information. Other tools for graphic representation of electroacoustic music have been developed and would be in many cases more useful. Interested readers are advised to consult the online presentations of music by selected electroacoustic composers produced by the Groupe de Recherches Musicales (GRM) in Paris [www.ina.fr/grm/acousmaline/polychromes/index.fr.html]. The analyses presented there also serve as quite successful examples of how to tie audio to text and symbolic analysis (also possible with a DVD, but not utilized in the volume under review here).

Analytical Methods of Electroacoustic Music is meticulously edited, and the numerous images are carefully reproduced (where images are too small to see clearly on the page, they are reproduced on the disc for easier viewing). As an additional resource, Ms. Simoni has created a related Web site, intended for updates and additional information not contained in the book or on the disc [www-personal.umich.edu/~msimoni/analytical-methods/].

Recordings

Larry Austin: Ottuplo! The Eighth Decade

Compact disc, Centaur Records CRC 2830, 2006, CDCM Computer Music Series, Volume 35; available from Centaur Records, Inc., 136 St. Joseph Street, Baton Rouge, Louisiana 70802, USA; telephone (+1) 225-336-4877; fax (+1) 225-336-9678; electronic mail info@centaurecords.com; Web www.centaurecords.com/.

Reviewed by Jim Phelps
DeKalb, Illinois, USA

Although it is not so difficult to cite many composers and performers who have contributed important innovations in one or two areas of musical art, it is not so easy to find those who
have dispersed their visionary efforts over such a broad spectrum as has Larry Austin, who now serves us in this capacity in his eighth decade. These innovations lie not only in the domain of music composition and performance (e.g., early mixing of jazz with new-music elements, “open style” including incorporation of theatrical and dance elements, sonic/visual explorations with fractal geometry, the realization of Charles Ives’s Universe Symphony, unique employment of convolution synthesis techniques, to name a few) but also venture into realms of archiving, recording, publishing, and distributing music as well as playing leading roles in our organizations of the music community.

During a recent symposium, Richard Kostelanetz cited SOURCE: Music of the Avant Garde, co-founded, edited, and published by Larry Austin from 1966 to 1974, as one of the most important music journals ever published. Indeed! The impact of SOURCE lives on to this day. It is easy to view CDCM: Consortium to Distribute Computer Music, founded by Austin in 1986, and its production on the Centaur label of 35 discs, as a contemporary version of the same vision that created SOURCE. Following this was a progressive presidency of International Computer Music Association (1990–1994), which saw the first Asia-hosted ICMC and, in 1996, the award of the Magisterium prize in Bourges, honoring his artistry, influence, and vision over several decades.

Although this document serves as a review of a new disc, not a history, this release should be heard in relief against the backdrop of such a career, a career that, in 2006, exhibits all the enthusiasm and energy embodied in its past. This new CD offers us the opportunity of hearing new Larry Austin music in the present, as we reflect on accomplishments in the past, and look forward to new ones in the future.


Larry Austin has a long history of “tipping his hat” toward music of other composers and performers. These musics include those from the distant past, the more-recent past, as well as from the contemporary world in which we live. It could be said that it requires a certain bravery to invite, implicitly, comparison of one’s self with certain venerated icons, the likes of which would include Henry Purcell, Wolfgang Mozart, Modest Mussorgsky, Claude Debussy, Charles Ives, John Cage, and others. Fortunately, Mr. Austin does not go about his work with a fear of intimidation. He honors, glosses the works of these other artists and, in the process, contributes new art to the many streams of influence and inspiration flowing from our past into, and through, “us.” Mr. Austin tips his hat in such a manner with several pieces on this CD.

His travels have taken him far and wide on this planet and often his music reflects this cultural influence, both overtly and covertly. Surely we all have experienced reflections from our excursions into other cultures and have studied their impact on our lives and music. Two such “studies” appear on this CD and both represent interaction with and absorption of these cultural dynamics in the music.

Always enjoyable is the opportunity of hearing early works by our most influential composers, works that, perhaps, aren’t performed so often, and especially works that represent a composer’s early efforts within a genre they later grow to champion and, in some cases, help to create and develop. Included on this CD is a work from 1965 (revised in 1997), RomaDue. It is presented here as a fixed-media, electronic-music piece, but it originally allowed various other participants, including musicians and dancers. Playful, brash, bravo, passionate . . . well, that’s Rome, isn’t it? And indeed, this piece was realized at the American Academy in Rome. Were all of our “firsts” of this quality? Ah . . . yes . . . would be nice! This piece is from the psyche of a performer as much as it is from that of a composer—Larry Austin the performer. This might be a convenient time to remind us all that his musical roots include a very healthy dose of jazz, and he himself was a jazz player. I can easily see that Austin “performing” this piece. This is jazz without the “jazz.”

Ottuplo! was recorded live at Merkin Concert Hall in New York City, performed by the Flux Quartet (the Smith Quartet appears as an ambisonic-encoded virtual quartet), and it’s difficult to imagine a better recording resulting from a studio ses-
sion. All of the tricky elements of mix, balance, space, and performance are working perfectly together—a definitive recording, surely. Perhaps if more people were to hear this piece, then more composers would write contemporary works for string quartet, works that are not neo-classical but, rather, works that speak with a present-day language “about” a present-day society. This is such a work. It could rightfully reside alongside other seminal string quartet works, such as Black Angels by George Crumb, in their capture, and captivation, of a contemporary society; this is a fresh, unique utterance powerful enough to exist outside the dark shadows of venerated histories (monoliths) of genres. This is one of the first known string quartet compositions to combine live performers and ambisonic encoding/decoding for three-dimensional recording and performance technology. The quartet “sound space” is visited by delightful reminders of where this piece was composed—at Lake Como while the composer was in residence at the Rockefeller Center at Bellagio, Italy—a rather unexpected peek into this inspiring environment.

Ever wonder what 16 double-basses playing together would sound like? How about 16 Robert Blacks! That’s what we hear when we listen to art is self-alteration is Cage is . . . Mr. Austin composed this “omniostic” piece based on the letters C-A-G-E for John’s 70th birthday. Upon receipt of the piece, Cage exclaimed, “I feel changed already.” The 16 string basses trace a path through the 64 block letters of Cage’s name. The 64 letters are structured as 16 iterations of C-A-G-E. Each step along the path (each block letter) offers a combination of four pitches and/or silences derived by a computer algorithm. Notated pitches are limited to open strings plus the first three natural harmonics of each string with the instruments tuned scordatura to the pitches C, A, G, and E, each instrument tuned to one of four different sequences/permuations of the letters. Whatever the reader of this review is imagining in their “mind’s ear” as they ponder such a piece, it is likely very different from what they will hear on this CD. The clarity in polyphony and texture is just as astonishing as the subtlety in performance and mix is beautiful, a fitting walk down the paths of CAGE.

Larry Austin’s music has always been about SOUND! His music explores and glorifies sonics unique to whatever sources are brought to bear, whether traditional acoustic instruments, electronics, or a combination of the two. A recent avenue of such sonic exploration is witnessed through his pairing of materials recorded by the same instrument, convolving the two, thereby creating a cross-synthesis timbre. This is rather unique because most examples of convolution pair dissimilar instruments. Using convolution in this manner allows the composer, and the listener, to hear delicacies embedded within the original sonic attributes of the instrument that might otherwise go unheralded—an intensification of beauty. These convolutions are heard along with the live performance of the instrument. Such explorations on this CD are Les Flûtes de Pan: Homage à Debussy, Adagio: Convolutions on a Theme by Mozart, Tableaux: Convolutions on a Theme, and Threnos.

In Les Flûtes de Pan, Mr. Austin distills precious ideas and moments from a piece by Debussy (Syrinx) which, standing alone, is little more than a dirty bit (it is doubtful the piece was intended by Debussy to be anything more than that), elaborates on [one might say “realizes”] these morsels and creates a flute wonder-land of sonics, replete with rich, subtle beauty. If Debussy had scripted a few ideas, handed them to Austin and said “make a piece out of this,” this is what you would get, and it is indeed what we have. Jacqueline Martelle’s performance (on flute) delicately navigates a zone representing “common ground” between Debussy and Austin, an important and challenging performance feature of the piece.

Most classical repertoire involving the clarinet, although perhaps rather glorious in some respects, seems not to appreciate/employ the richness of the clarinet as a unique voice, capable of subtleties in drama, color, and articulation. In short, much repertoire simply ignores, as if to eschew, much of this tonal splendor. Mr. Austin “corrects” this malady in Adagio: Convolutions on a Theme by Mozart with the artistry of renowned clarinetist F. Gerard Errante. The original Mozartean beauty-in-simplicity, provided by materials from the slow movement of Mozart’s Concerto for Clarinet, is maintained and, now, enriched. The treatment of the materials is rhapsodic, enlightening, and informs the original musical content. Mozart’s musical innocence is now, somehow, less innocent, more poignant, painted with thicker, broader brush strokes not always bound by the edges of the canvas.

This recording of Tableaux: Convolutions on a Theme by Stephen Duke (alto saxophone): a commanding, compelling, virtuosic performance, rich with both delicate shading and dramatic flair. A rare breed of performer indeed, Mr. Duke “becomes” the piece—lives it, infuses it—and it is virtually impossible for an audience to be even slightly inattentive during one of his performances. This piece is a celebration of saxophone sonics, both live.
and pre-recorded/convolved materials, and of virtuosity in performance and composition. The listener is treated with and gratified by a glorious statement of the famous nineteenth-century piano melody, from which other materials of the piece derive, toward the end. Rapture!

A very solemn work, understandably, is Threnos, dedicated to the victims of 9/11—ominous, foreboding, yet offering a blanket of comfort, almost solitude. Michael Lowenstern, performing on bass clarinet, artfully portrays this complex psychology that mirrors us all, and envelops us. Among the pieces on this CD that incorporates, and honor, musics of the past, this is the only one that never allows the earlier music to be heard as a quote, either in entirety or in significant excerpted fragments. This is important, and brilliant. Who can view the skyline of Manhattan without seeing the twin towers of the World Trade Center in the shadows of our memory? They are not there, but we see them. Our memories superimpose them; we are haunted. We never hear the famous and beautiful lament from Purcell’s opera, but it’s there in torn fragments, sewn together by our familiarity with the music, and of the lament. We are torn, yes. We lament, yes. But we are also “recomposed.”

Once heard, this piece will not be forgotten by the listener.

Reviewing this new Larry Austin CD has often found the reviewer scratching his head while trying to avoid repetitions of the word “beauty” and trying to find appropriate synonyms, for the sake of writing style. There’s a reason for this. This music is ABOUT beauty! If art is self-alteration, then this disc didactically represents beauty as self-realization, a collective of life’s sensitivities and sensibilities lived thus far. With due apologies: beauty is self-realization is Austin is . . . in his eighth decade.

**Products**

**Bidule Modular Audio Software**

Bidule 0.92 [Editor's Note: version 0.93 has been released since the writing of this review], US$ 75; available from Plogue Art et Technologie Inc., C.P. 37313, C.S.P. Marquette, Montreal, Quebec H2E 3B5, Canada; electronic mail info@plogue.com; Web www.plogue.com.

**Reviewed by Jared Dunne**

**Limerick, Ireland**

Bidule, by Plogue, is real-time modular music software aimed mainly at audio artists seeking a new creative environment within which to experiment. With Bidule, you have a collection of objects to create your own live/studio music-making environments. It runs on both Windows and Macintosh operating systems as a standalone application, and can be used to host VST plug-ins. Bidule can also be inserted into any other VST host if you want to use it as an effect or instrument. It is ReWire-capable, as well. Bidule features full ASIO support for low-latency, 24-bit linear audio-file read/write, and a 32-bit floating point signal path. Sampling rates are limited only by your audio drivers. On Windows, Bidule can use ASIO, DirectSound, or MM drivers. It also supports MIDI In and Out. The software does require a video card with good OpenGL support.

Bidule comes with many pre-built instruments, effects, and utilities for musical creation. Among them are a Step Sequencer, Loop Player, Audio Buffer, Pseudo-granulator, 7 Drawbar Organ, Analog Drum Kit and PWM-Polyphaser, 4 Tap Delay, Buffer Granulator, TwoBandDistortion, Time Domain Convolver, Flanger, Freeverb, and a MoogVCF. Along with the pre-built ChebyShev Waveshaper, SimpleFM, and CombTone sound generators, Bidule also provides users with the basic tools needed to build their own synthesizers. These include phase distortion, pulse, noise, PWM oscillators, ADSR, AHDSR, synced graphical envelopes, and all-pass, bi-quad, comb, and FIR filters.

Bidule comes with an extensive array of pre-built MIDI objects to use in conjunction with its sound generators such as the 16 Step Sequencer, Buffer, Arpeggiator, CC to Params, MIDI to Value, Note Velocity to Params, Note Number to Params, and a MIDI Looper, Player, and Recorder. There are also many MIDI filters, remappers, and transposers.

Some of the more interesting MIDI objects include the Stochastic MIDI Note, Stochastic MIDI List, Stochastic MIDI Sequencer, Note Shuffler, and the nifty Particle Arpeggiator.

If you already have some understanding of modular environments and signal processing you might want to head directly to the Building Block objects. These include Math functions (accum, binary/logic operator, counter, lookup table, value list, etc.), FFT using the phase-vocoder, Band-limited Oscillators, FIR, Envelopes, Delay line, and more. Like any object within Bidule, these building-block objects can be used to create sub-patches that can be saved for repeated use within other instruments, effects, or your own patches. This is especially useful if you find yourself turning to the same set of objects time after time. Upon saving a sub-patch, you have the option to add up to 128 inputs and 128 outputs for each of the different signals (audio, MIDI, frequency, amplitude). So, once it’s saved you could, hypothetically, have 512 inputs and 512 outputs for a single sub-patch!

Bidule’s graphical user interface
has one main window, the patch bay, and uses the object-oriented paradigm. Like Max/MSP, pd, and Reaktor, among others, you create patches by connecting these objects with patchchords. All of the available objects for patch creation can be viewed by clicking on the Palette window shortcut button, located in the tool bar at the top of the workspace. Within the Palette window there are 18 categories of objects to choose from, such as Audio Devices, Building Blocks, MIDI, MIDI devices, Mixing, Routing, Spectral, and VST. To assist in locating specific objects, the Palette window also comes equipped with a search function and a history tab. To begin the patch creation process, you simply drag and drop the chosen object into the patch bay from the Palette window. Once the objects are in the patch bay, you can connect them by using the patchchords. The color of the patchchord depends on what type of signal it represents. Blue cables represent audio/data signals, white for MIDI signals, yellow for frequency vector signals, and orange for amplitude vector signals.

Along with the Palette button, the tool bar at the top of the workspace includes shortcuts to New, Open, Save, Undo, Redo, Parent, Parameters, and Media windows. If you’re exploring a sub-patch within an object, pressing the Parent tab takes you up a level, so that you can view the main object or patch. The Parameters tab calls up a window that displays all of the objects in the patch bay, including connected MIDI hardware devices, and lists each of their respective parameters that can be automated. To set up automation, you simply highlight the parameter that you want to function as the Source, then highlight the parameter that you want to function as the Target and press the Link tab. The Media tab calls up the Media Pool window which is where Audio, MIDI, and phase vocoder files can be stored for use within your patches. The Media Pool isn’t patch-specific, only sessionspecific. So, as long as you don’t close Bidule, all of the files contained within the Media Pool can be shared between patches.

Using the right-click function of your mouse during patch creation can speed up the workflow immensely. If you right-click on any blank space within the patch bay, you call up the standard Cut, Copy, Paste, and Hide All Windows options. If you right-click on an object you have the option to Rename, Reinitialize, and Delete it. Here you also have the option to Monitor an object (audio), which calls up a window that gives you a visual readout, in decibels, of the incoming and outgoing audio signals. The Replace an Object command automatically replaces an object with another, preserving the cable connections. The Control from MIDI command allows you, instead of using the Link and Unlink function within the Parameters window, to select a parameter of the given object and, with a turn of a knob or a slider on your MIDI controller, instantly assign that parameter to that controller. For most pre-built instruments and effects objects, when you right-click on the object itself, and select the Expand option, this will open the sub-patch, where you can see the guts of the selected object. If you right-click anywhere in the patch bay a menu will appear. From here you can choose the option to go back to the main patch. This is, most likely, the best way to come to grips with the power of the software because you can investigate the inner-workings of the higher level objects. Powerful spectral processing capabilities are one of Bidule's key features. The use of these normally complex features is quite simplified thanks to the high-level spectral objects that come pre-built. The Spectral Bin Delay object provides a graph where the user can draw in a specific delay time (up to 5000 msec) for each of the FFT analysis bands. The Spectral Freezer object takes a spectral snapshot of the audio, when the gate is on, and plays it constantly. Triggering takes a new snapshot. The Spectral Resynthesizer object takes a frequency and amplitude signal and re-synthesizes the sound using the selected waveform types (sine, triangle, saw, square, noise, ramp). The Spectral Cross Fader object allows you to cross-fade between two frequency and magnitude pairs. Spectral to MIDI takes the “loudest” incoming frequency and outputs the nearest MIDI note in the well-tempered scale. If you want to dig deeper within the spectral possibilities and make your own patches, you can look to the lower-level spectral objects which include: Frequency/Magnitude Binary Operators, Breeders, Buffers, Gates, Inversions, Logic Gates, Scalers, Stretchers, Shifters, and Variables.

Bidule allows for quite a flexible and intuitive way of synchronizing your objects. Because there isn’t a master time-line in Bidule, the user can control the synchronization source of all of the objects, each with different tempos and time signatures, if so desired. If one of the objects within your patch is able to receive synchronization information, then a gray “S” [slave] will appear to the left of the object. Similarly, a sync generator object will have a green “M” [master], followed by a unique identifier, meaning that it can provide synchronization information on this specific synchronization ID. Some synchronizable objects include The Sync Creator, which allows users to create their own synchronization source to control other objects and plugins. The Sync Extractor can be
used to synchronize any master object, so as to use some of the synchronization information for processing. The Trigger object, like Max/MSP’s Bang object, sends a trigger (a value of 1) in the output signal when the button is pressed, or at the start of each measure when connected to a synchronized source. The Trigger Clock object sends a trigger (a value of 1) in the output signal when the number of samples has been counted. The Sync to MIDI Clock object transforms Bidule’s internal synchronization information to a MIDI Timing Clock for output to other software or external gear. The Tempo Sync object allows VST plugins to not only receive tempo/synchronization information, but also become synchronization generators. The Sync Transport object is a standard transport bar that can also act as a synchronization source. It resembles transport bars found in many traditional sequencers that have a master time-line. It allows the user to set tempo and time signature information.

Overall, Bidule is a fantastic and flexible piece of software. It offers amazing audio and MIDI possibilities all within an elegant interface. The learning curve is very friendly and the program is instantly musical. It begs to be experimented with. With the option to replace objects on the fly without losing the cable connections, without having to go into an Edit mode to alter the patch, and when, within one click, you can assign a parameter to a MIDI controller, Bidule really shines in a live performance situation. The curved patch chords and the object alignment function help to give Bidule a very clean and well-organized interface, which is extremely important as your patches become increasingly more complex. It should be mentioned that Bidule also includes extensive support for VST plug-ins and Open Sound Control operations, allowing integration with a wide range of audio/MIDI applications.

One of my complaints is that the documentation isn’t as extensive as it could be. Although dissecting a high-level object might be the best way to understand the program, those musicians who are new to the whole modular concept might find it helpful to have a variety of tutorials to get them on their feet. Trying to set up automation for Bidule’s parameters within another non-modular host sequencer can sometimes be a chore due to all of the different assignments that have to be made. A possible solution might be to include some sort of simple audio/MIDI sequencer object. Both of these complaints, though, could soon be moot as Plogue is planning more sequencing capabilities and tutorials with the release of version 1.0. In the meantime, and if you don’t have another host or sequencer to record Bidule’s output, you can use the Recorder object, which offers up to 32 channels of audio input to capture your beautiful musical mishaps.

Plogue’s Web forums offer a valuable resource for users, where you can share your Bidule patches, submit feature requests, report bugs or problems, and just generally talk shop. If you have Internet access from the same machine that is running Bidule, you can, from within the program, check and download the latest version. Users can also upload and share the patches they have created. Within the Tools menu in Bidule, there is a utility called Group Manager. Within the Group Manager, if you click Get Remote Catalog, the program automatically connects to a Plogue URL and, without ever leaving the program, downloads all of the new patches from fellow Bidule users that you do not already have in your Groups folder (Bidule uses the term Group instead of Patch).

Bidule is available for downloadable purchase from the Plogue Web page for US$ 75 (other currencies are automatically calculated on the site), which is amazing value for the money when you consider the spectral processing features alone. Upon writing, the current version of Bidule is 0.92. If you purchase before version 1.0, you’ll be buying an early bird license which entitles you to “significant rebate on the full version” when it is released. You can also download the demonstration version which is a fully functional standalone-only version. The demonstration version will expire three months after the original release date of that specific build.