## **International Computer Music Conference 2011**

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The International Computer Music Conference (ICMC), sponsored by the International Computer Music Association (ICMA) and hosted each year by a different organization, university or institute affiliated with the ICMA, is perhaps the most notable annual gathering of the worldwide computer music community. Each year participants from Asia, Australia, Europe, Africa and the Americas meet to discuss technological innovations, attend concerts, presentations and demos, as well as dine together and re-connect with colleagues and kindred spirits from around the world. The week-long conference always consists of morning and afternoon paper sessions presenting the latest technological developments by computer music researchers, as well as noontime, evening and late night concerts presenting musical creations using technology. Throughout the day there are also interactive sound installations, listening rooms which present short works for fixed media in a quiet but less formal setting, and poster and demo sessions where conference attendees can interact to a greater degree with the people designing the technology. The conference is always a busy affair, and presents a cross-section of what is happening in the worldwide computer music community (both artistically and scientifically) each year.

The 2011 ICMC was held this past August at the University of Huddersfield in the United Kingdom, and organized by the university's Music Department, which is also renowned for hosting the annual Huddersfield Contemporary Music Festival, the largest and most preeminent international festival of new and experimental music held in the U.K. Perhaps due to the university's long-standing involvement with the festival, this year's ICMC at Huddersfield was without a doubt one of the most polished, well-organized and smoothly-run conferences in recent years. The expertise of the organizers (comprised of professors, lecturers, staff and students from the university's music department) was equally matched in quality by the university's facilities themselves.

All of the concerts at this year's ICMC made use of the Huddersfield Immersive Sound System (HISS). This system – designed at the university in 2008 – is similar in concept to other multi-loudspeaker systems used for electroacoustic music diffusion such at the Acousmonium of the GRM in Paris or the BEAST (Birmingham ElectroAcoustic Sound Theatre) at the University of Birmingham in the U.K. The HISS is somewhat different in its goals from other loudspeaker orchestras in that it is comprised of both speakers and microphones, and was designed for a wide variety of contemporary electronic music, focusing on live interactive and mixed music, instead of traditional acousmatic sound diffusion for fixed media pieces. According to some remarks at the closing speech of the conference, all of the dress rehearsals finished on time (or early) and there were very few visible technical problems in concert – all quite rare when technology is involved! – so it is not surprising that the audience members at this year's ICMC concerts spoke particularly favorably of the sound quality and concert production throughout the conference.

Each afternoon there were guided tours of the computer music studios within the Creative Arts Building. Among these well-equipped studios is also an impressive 25-channel experimental studio known as SPIRAL (Spatialization and Interactive Research Laboratory). This studio is semi-anechoic and is equipped with a triple 8-channel circular array of Genelec speakers at different elevations, with an additional central overhead speaker. Although it is probably not practical to imitate this speaker setup in a concert scenario, the studio nonetheless provides composers with an excellent opportunity to explore the spatial dimension of their music in a studio setting.

Although it is beyond the scope of this review each paper and musical work individually, it is worth generally mentioning the paper sessions and concerts as a whole. On the scientific side of the conference, the proceedings were issued primarily in electronic format, with the option to purchase a paper version – this is becoming more and more common at conferences, and at some point in the future paper proceedings may be eliminated entirely. The paper sessions were organized in a two-track format, with two separate paper sessions running concurrently in two difference conference rooms. This is a standard setup at the ICMC, but it does mean that one must browse the proceedings ahead of time in order to choose which session to attend. The paper categories included Spatial Sound, Synthesis Techniques, Analytical Techniques, Composition Systems, Performance Systems, Interfaces, Coding,

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Education and Aesthetics. Additionally one new category was introduced – Piece and Paper. For this category presenters were given additional time to include a performance of the piece that the paper discusses on a technical level. It was a good Idea, fairly well-received, and one would hope that this will be kept as a standard paper category in future ICMC conferences.

The keynote speech was given by Professor Simon Emmerson from De Montfort University in Leicester. His subject was "Music – Imagination – Technology" fit into the conference's theme of "Innovation, Interaction, Imagination." Emmerson is one the U.K.'s better-known electronic music composers, and his influential book *The Language of Electroacoustic Music* is still on the curriculum of many university computer music programs. Emmerson's keynote was interesting, imaginative, and thought-provoking, and stood up well to the keynotes of the previous several years which have been given by many of electronic music's pioneers, including Max Mathews, John Chowning, Pauline Oliveros, Paul Lansky and Trevor Wishart.

The concerts at the 2011 ICMC were programmed in a somewhat different fashion than in previous years. The larger evening concerts in the St Paul's Hall (a converted former church with tiered concert-hall-style seating) consisted entirely of music for instruments or ensembles with electronics, whereas the afternoon concerts in the smaller Phipps Hall within the university's Creative Arts Building, which were held at noon and repeated at 2 p.m., consisted mainly of acousmatic and multimedia pieces, occasionally with live instruments, live coding or improvisation. This division of genres in these main concert venues was practical from a technical concert production standpoint, and also worked surprisingly well programmatically, creating interesting and diverse concerts in spite of the clear delineation between fixed media and live performance. The music played in the two parallel listening rooms (lecture rooms within the university's Business School) was exclusively for multi-channel fixed media with or without video, and the late night concerts in the relaxed environment of university's on-campus pub, The Graduate, were generally of a more improvisatory nature, featuring laptop performances, live coding, alternate controllers and non-orchestral instruments such as electric guitar or toy piano. In addition to the concerts themselves, there were four venues for interactive audio and multimedia installations.

Of particular note were the performers who were engaged to perform the works on the evening concerts. These were from a pool of British performers accustomed to performing contemporary music, many of whom also are regularly engaged to play at the Contemporary Music Festival in the Autumn, and consequently the performances were stellar.

The 2011 conference was attended by 300 people from around the world. The Asian computer music community was well represented, with participants from China, Japan, Korea, Singapore and Taiwan, spanning the domains of research, composition and performance. In 2012, the conference will be held in Ljubljana, Slovenia, in conjunction with the annual EarZoom sonic arts festival.

## 2011 국제 컴퓨터 음악 콘퍼런스 참관기

리차드 두다스

해마다 국제 컴퓨터 음악 협회에 관련된 각기 다른 조직이나 대학, 기관에 의해 열리는 국제 컴퓨터 음악 콘퍼런스<sub>ICMC</sub>는 아마도 세계 컴퓨터 음악 단체 가운데 가장 두드러지는 연례 모임일 것이다. 매해 아시아와 호주, 유럽, 아프리카, 미대륙의 참가자들이 첨단 기술의 혁신에 대해 논하고, 음악회와 발표회 및 시사회를 참석할 뿐 아니라, 저녁 만찬을 함께 하고 동료들 그리고 마음이 맞는 사람들과 다시 만난다. 일주일간의 콘퍼런스는 항상 컴퓨터 음악 연구가들에 의한 최근 첨단 기술의 발전을 발표하는 오전과 오후의 논문 발표회, 그리고 첨단 기술을 사용하여 제작된 음악 작품들을 발표하는 정오와 저녁, 늦은 밤의 음악회들로 구성된다.

2011년 콘퍼런스는 세계 전역에서 300명 정도가 참석했다. 중국과 일본, 한국, 싱가포르, 대만으로부터의 참석자로 구성된 아시아 컴퓨터 음악 단체는 연구와 작곡, 연주의 영역에 걸쳐 좋은 성과를 보여주었다. 2012년에 콘퍼런스는 슬로베니아의 류블랴나에서 해마다 열리는 EarZoom sonic arts festival과의 합동으로 이루어진다.