This article aims to briefly explore some of the compositional links that exist between Intelligent Dance Music (IDM) and acousmatic music. Whilst the central theme of this article will focus on compositional links it will suggest some ways in which we might use these links to enhance pedagogic practice and widen access to acousmatic music. In particular, the article is concerned with documenting artists within Intelligent Dance Music (IDM), and how their practices relate to acousmatic music composition. The article will include a hand full of examples of music which highlight this musical exchange and will offer some ways to use current academic thinking to explain how IDM and acousmatics are related, at least from a theoretical point of view.

There is a growing body of compositional work and theoretical research that draws from both acousmatics and various forms of electronic dance music. Much of this work blurs the boundaries of electronic music composition, often with vastly different aesthetic and cultural outcomes. Elements of acousmatic composition can be found scattered throughout Intelligent Dance Music (IDM) and on the other side of the divide there are a number of composers who are entering the world of acousmatics from a dance music background. This dynamic exchange of ideas and compositional processes is resulting in an interesting blend of music which is able to sit quite comfortably inside an academic framework as well as inside a more commercial one.

Whilst there are a number of genres of dance music that could be described in terms of the theories that would normally relate to acousmatic music composition practices, the focus of this article lies particularly with Intelligent Dance Music. IDM is a predominantly European take on Detroit Techno and a genre classification that came into common usage in the very early part of the 1990s. The term has come under heavy criticism since its introduction and many artists who work in the genre do not classify themselves as anything other than ‘Techno’ acts. However, it is not the intention of this article to criticise the term, nor indeed to begin inventing new classifications to add further confusion. Suffice to say that however uncomfortable the term is, it is one that has adequately described a classification for two decades and one that is entirely relevant to use in this article.

The emergence of IDM
The term IDM has been widely accredited to the Artificial Intelligence series of albums that were released on Warp Records between 1992 and 1994. The series included albums by Polygon Window, one of several monikers of Richard James (aka Aphex Twin), as well as releases by The Black Dog, B12, F.U.S.E
(Ritchie Hawtin), Speedy J and Autechre. This sequence of albums was bookended by two compilations entitled *Artificial Intelligence* and *Artificial Intelligence II*, which included the artists featured in the series of albums as well as artists such as The Orb, The Higher Intelligence Agency, Seefeel and Beaumont Hannant.

However, what is often overlooked is that IDM was not the exclusive solo quest by the undoubtedly visionary views of Warp records, but more of a social movement that, at its very core, was based around exploratory composition, sound design and the use of the new tools that composers had at their disposal. It would therefore be wrong to suggest that one single label or artist was responsible for the formation of this art form. Labels such as General Production Recordings (GPR) released seminal albums such as Temple Of Transparent Balls by The Black Dog in 1993 and Basic Data Manipulation by Beaumont Hannant in the same year. Other labels were also prevalent during this time such as FAX +49-69/450464, Skam, WAU/Mr. Modo, ZTT and Apollo/R&S, all of whom were releasing exploratory electronic music which pre-dates the term IDM and Warp’s *Artificial Intelligence* series, in some cases by two years or more.

Mircogravity by Biosphere supports the social movement argument further. This album was first released in 1991 on Origo Sound, later re-released on Apollo, and stylistically speaking could quite easily have been included in the *Artificial Intelligence* series of albums, but in fact pre-dates them by two years. The album itself includes many composition techniques found on later IDM albums such as the heavy use of field recording, samples and various audio processing techniques. The Orb also deserve a mention here as they are renowned for their heavy use of samples and concrete sounds in their music, and are undoubtedly one of the most influential electronic bands of the era. The Orb began releasing music in 1989; their unique sound was an eclectic mix of musical styles which drew from a diverse background of Dub, Funk, Folk, Ambient, Psychedelic and Electronic influences. From the outset their music incorporated frequent use of field recordings such as bird song, water, insects, trains, motorcycles and many others. These recordings were presented both processed and clean and were arranged alongside synthesised sounds and sampled radio, TV broadcasts and dated vinyl. This arrangement of sounds resulted in dramatic and sometimes comical results but always maintained a coherent, organic and rich sound. The important distinction here is that the concrete sounds within the works were used compositionally with the other materials within the works as sound objects, not just as distinct sounds events which were unrelated to the music.

Testament to the open mindedness of record labels of the time, The Orb had some of their first releases on Big Life records alongside artists such as Yazz, Mica Paris and De La Soul. However, also on the same

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1 As described by Pierre Schaeffer in 1966 and discussed in ‘L’Objet Sonore Maintenant: Pierre Schaeffer, sound objects and the phenomenological reduction’ (Kane, 2007)
label were acts such as System 7, Drum Club and Coldcut who represented a music pedigree whose background was firmly rooted in Techno but with a more exploratory take on music composition. Interestingly, three years after their first release, Alex Paterson and Jimmy Cauty of the Orb had a track entitled ‘Loving You Live’ released on the first Artificial Intelligence compilation (1992), the same compilation which sparked the term IDM and defined the genre. ‘Loving You Live’ is a version of a track entitled ‘A Huge Ever Growing Pulsating Brain That Rules From The Centre Of The Ultraworld’ from an Album entitled ‘The Orb’s Adventures Beyond The Ultraworld’ released in 1991.

Following a similar trend to many other early IDM artists, Richard James’s first releases under his Aphex Twin moniker, Analogue Bubble Bath Vol. I and II (1991), were stylistically placed somewhere amongst the Techno, Acid and Hardcore genres. However, his album ‘Selected Ambient Works 85-92’ (1992) on Apollo records, sub-label to the Belgian label R&S Records, had its foundations firmly in the IDM conventions found on other albums of the time. Exploratory composition techniques, timbral interplay and sound manipulation and transformation all feature heavily. The very fact that this sort of music was being made many years before the term IDM became a media buzz word is evidence that the genre was not initially lead by music executives or even label operatives themselves, but more so by the composers who were interested in non-conventional composition and exploratory forms of electronic music.

This view is further enhanced when drawing focus to the IDM labels that sprang up in the late 80s and early 90s, many of which came into being due to artists starting their own labels and releasing their own music; the genre was growing and being directly controlled by the artists themselves. Labels such as ‘Black Dog Productions’ were started in 1989 by The Black Dog and the Rephlex label was started in 1991 by Richard James and Grant Wilson-Claridge. The first releases on Rephlex were from Bradley Strider and Caustic Window, both of which are monikers of Richard James, and represented James’s Techno output, rather than the more irregular and exploratory music that the Aphex Twin later became internationally renowned for. Autechre members Rob Brown and Sean Booth are closely involved with Skam Records with Andy Maddocks and before their string of ground breaking releases on Warp records as Autechre, they released their first single on Skam under their ‘Lego Feet’ moniker in 1991. Booth and Brown have subsequently released singles under ‘Gescom’, a collaboration with a number of other artists, on Skam as well as ‘Dual Purpose’ on Skam’s sister label 30mil Recordings.

**IDM composition**

The formation of IDM draws from a variety of technological developments and new music which appeared during the late 80s and early 90s. IDM has compositional and stylistic links which dovetail into genres that preceded it such as Techno, Acid House and Hardcore. Making a distinction as to where these genres end
and IDM begins, both stylistically and chronologically speaking, is very difficult due to the crossovers that are present in all of these genres. However, it is possible to make links directly between IDM and the emergence and subsequent availability of hardware and software tools that appeared at the time, especially the personal computer and the sampler. Obviously samplers had been developed a decade or so prior to IDM, but it was not until the late 80s that the technology began to be affordable to musicians who lacked the financial support of larger record labels. By the early 90s samplers such as the Akai S1000 and Casio FZ1 were more readily available and offered a tremendous amount of sound manipulation and processing options to the composers of the time. These samplers are just two examples of machines used by IDM artists such as Autechre and The Orb at the beginning of the 90s. More than any other technology of the time, these machines allowed composers to engage with Schaefferian ideas of Musique Concrète and begin to use captured and recorded sound in a musical way though studio montage, processing and sequencing.

Arguably these techniques were not explored as thoroughly within other forms of electronic dance music of the time. Whether consciously or not, many IDM composers were entering into the realms of Electroacoustic music and acousmatics, but rather than coming from a more classical music background, the point of origin for this new music was Detroit Techno; electroacoustic music and dance music were colliding, seemingly by accident. Richard D James confirmed this ‘accidental’ collision in a BBC Radio 3 interview from 1995 in which James talks openly about the Techno fraternity not being influenced by contemporary classical electronic music aficionados such as Stockhausen. Talking about the article Stockhausen vs. The Technocrats (Cox, 2004), James suggested that:

‘…they were trying to make out that the world of Techno had been influenced by Stockhausen and, I don’t think it has at all because I don’t reckon 99% of Techno bods have ever heard of him’.
(Sandall and Russell, 1995)

As new technologies were developed and computers became more powerful and more accessible throughout the 90s, hard disk recording and real-time audio editing became a reality. Directly linked with the development of computers, new forms of IDM emerged and new composers were further defining where the genre was heading. Within this group of people, there were certain individuals who began to develop new software tools and ways of working to the point today where there is little or no distinction between the ‘tools of the trade’ for either IDM or Electroacoustic composers. Tools that many composers use to create both IDM and acousmatic/Electroacoustic music are often the same such as Max/MSP, Reaktor, MetaSynth and so on.
Sonic materials which are normally associated with Musique Concrète and acousmatics began to be used in more contemporary works of IDM from the mid to late 2000s onwards. ‘Watching Clouds’ from the album ‘Silence’ (2009) by Monolake is a good example of this. This piece starts with a recording of rain or water and introduces more synthetic elements as the piece progresses. Importantly, these sounds are not just used as one shot ‘special effects’ but rather as compositional building blocks, best described as sound objects, which the rest of the other programmed sounds are arranged around. The final section of this piece finishes with an abstracted\(^2\) concrete sound which has the timbre of hard objects colliding with a solid hollow metallic material. This sound is used to build tension and is central to the compositional trajectory with the piece. The same is true of a track entitled ‘Internal Clock’ from the same album. The piece is composed around many of the ideas that Smalley discusses in Spectromorphology (Smalley, 1997) and Emmerson’s ideas of space frames (Emmerson, 1999) and the language grid (Emmerson, 1986)\(^3\).

There are other examples of acousmatic compositional approaches in IDM. In 1996 and 2000 The Higher Intelligence Agency and Biosphere collaborated on two projects based on blending field recordings of the artists’ home towns with synthetically produced sounds from synthesisers and samplers. The resulting albums were entitled ‘Polar Sequences’ and ‘Birmingham Frequencies’. ‘Polar Sequences’ was based around recordings of Tromso, Norway, home to Geir Jenssen of Biosphere and ‘Birmingham Frequencies’ was based around field recordings of Birmingham, UK, home to Bobby Bird of the Higher Intelligence Agency. The central concept of basing the albums around field recordings results in the recorded material being the central compositional element to the pieces on the albums. On both of the albums there are clear spectromorphologies taking place in the recorded materials and the whole project could be seen as a study of Dennis Smalley’s ideas of gestural surrogacy (Smalley, 1997), as the tracks on the albums shimmer somewhere between third order and remote surrogacy as the organic and synthetic combine.

On the same albums a very interesting dynamic is created between the recorded elements and the synthetic ones. The repeating nature of the rhythm created with the field recordings encourages reduced listening (Chion, 1983) and quickly breaks the formation of any source cause relationships. Because the recorded sounds are arranged with synthetic synthesised elements the abstraction processes becomes more apparent and creates a new and very interesting relationship between the sounding elements. This is especially true of the track ‘Cimerrian Shaft’ from the ‘Polar Sequences’ album of 1996 which incorporates looped field recordings to create organic percussive loops which very quickly loose referential meaning through

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2 As defined by Simon Emmerson in The Language of Electroacoustic Music (Emmerson, 1986)
3 A full analysis of ‘Internal Clock’ can be found on the Online Repository for Electroacoustic Music Analysis at www.orema.dmu.ac.uk
repetition, lending themselves to reduced listening. There are many more examples of this approach to composition from artists such as The Orb, Pete Namlook, Orbital, Boards of Canada and so on. There have also been a number of examples of commercial electronic artists considering space as part of their composition and performance. The Birmingham based AV collective Modulate have been composing multichannel works for the last few years for both performance and 5.1 playback at home. In a recent radio interview the IDM duo Autechre discussed their deliberate use of space as a compositional narrative in relation to their album Quaristice (2008).

‘...if we’re using effects that are designed to generate reverbs or echos the listener is going to perceive certain sized spaces, so you can sort of dynamically evolve these shapes and sounds to actually evoke internal spaces or scales of things’. ...You can play with it way beyond music and notes and scales. (Brown, n.d.)

This idea of using space as a compositional narrative is a complete departure from more commercial dance music composition practice, and very much enters the realm of acousmatic music where space and spatialisation is often considered part of the musical discourse for a piece. Again we can draw links here with Smalley’s ideas, in particular Spatiomorphology (Smalley, 1997).

Continuing with linking considerations for space and spatialisation between dance music and acousmatic music, Eevo Lute Muzique’s Stefan Robbers has designed the Multi Angle Sound Engine (MASE). This system offers the performer/DJ a multichannel diffusion system which contains methods of creating and dealing with space within a traditional two channel DJ set. From Evo Lute’s website:

‘The MASE interface offers DJs or producers eight independent audio inputs and a library of sound movements. The user has ample options for assigning a trajectory to an incoming audio signal and to start, stop or localise this. Specially designed software allows users to programme and store their own motion trajectories. The system is space-independent, users can input the dimensions and shape of a room and the number of speakers which are to be controlled’. (Evo Lute, n.d.)

There have been some very interesting developments in smaller independent record labels in recent times. Some labels who were releasing IDM in the last 5-10 years have begun widening their scope to include music which could quite easily be heard in the acousmatic diffusion concert. Two very good examples of this are AudioBulb records and Home Normal. AudioBulb have released a string of IDM and acousmatic CDs and downloads, their ‘Birmingham Sound Matter’ CD from 2009 included works from seasoned acousmatic composers right through to more traditional IDM works. The label have also released works by
Autistici and Monty Adkins to name a few. Home Normal have released a string of IDM and beat based music as well as textural releases which would be very much at home in a diffusion concert, in particular music by Michael Santos and Christopher Hipgrave. Other examples of similar labels include Benbecula, Impulsive Art and Baskaru.

There is a growing collection of audio tools which further bridge the divide between IDM and acousmatic music composition; Max/MSP, MAX for Live, Reaktor and MetaSynth being just a handful of examples. These software applications lend themselves to more experimental and alternative ways of processing and treating sounds that other forms of dance music outside of IDM generally do not require. The sound worlds of IDM regularly extend the syntax of other forms of dance music and it is tools like the ones motioned above that are used to do this. Artists such as Tim Excile and Autechre are both good examples here. Tim Excile is well known to the Native Instruments community for his Reaktor patches The Finger and The Mouth, both tools for controlling live performance. In interviews, Autechre mention the “overuse” of new equipment so as to fully explore what the tool is capable of before composing with its sounds. In a Sound On Sound interview from 2004, Rob Booth touched on this exploration of tools:

"Many of the tools I use are the same as everyone else's, it's just that I really like to check them out and get into the nuances of them. I still don't get bored with them”. (Tingen, 2004)

This suggests a composition method which is not simply concerned with the arrangement of sounds over time but places equal importance on the exploration of timbres and their relationships within a work. The ultimate link here is that both acousmatic music and IDM share a common approach to timbral and structural exploration rather than a composition method based solely on fixed, abstract sound sources.

Conclusion
The central point of this article is concerned with widening access to exploratory forms of electronic music. IDM and acousmatic music have a great deal to offer one another and, considering some of the aspects discussed in this article, it can be seen that they both share some compositional and technological similarities. Potentially the most significant aspect of IDM is that it can be discussed, analysed and understood in terms of academic theories that are commonplace in the acousmatic music milieu, such as Smalley’s spectromorphology, Emmerson’s language grid and the various ideas suggested by Pierre Schaeffer and other more recent theories by contemporaries in the field. In addition to this, IDM also contains elements found in more ‘traditional’ music composition, most notably the use of pitched and metric material offering newcomers some familiar compositional elements to fall back on. This blend of composition ideas offers a way to structure music around familiar territory with room for exploration of
acousmatic composition and sound processing principals. This affords a potential compositional refuge with the simultaneous freedom to tentatively explore what might be considered by some to be more experimental and aurally challenging compositional structures and sound sources that are found in acousmatic music.

To the newcomer, some forms of acousmatic music can present a difficult challenge in listening as many works use a language or musical structuring method previously alien to the listener. Because of this, many students could potentially be deterred from studying and practicing the art form in greater detail as they may feel disconnected from the music. IDM offers an ideal vehicle for gradually easing new students into the practice and theory of acousmatic composition, whilst maintaining a reassuring footing in more conventional compositional practices such as the use of beats, melodic phases and timbres from known, and often well loved, music making machines.

The depth and detail of sonic exploration and compositional complexity found in the IDM milieu is regularly undertaken with as much conviction and skill as one might expect from leading composers within the acousmatic community, and yet its importance within some institutions is often not recognised or discussed. It might be time to rethink what we consider to be valuable in the field of acousmatics, and embrace music outside research and teaching institutions that augments compositional and pedagogic practice, and does not detract from it.

To conclude, IDM can be used as a tool to discuss acousmatic music composition theory, whilst maintaining some familiar compositional strategies. IDM can be used as a pedagogical tool that bridges acousmatic music practice and more commercial musical ideas found in other forms of popular electronic music. Whilst many acousmatic compositional theories can be taught using IDM as reference point or point of departure, there are obvious dangers in doing so. Students and newcomers to the study of acousmatic music need to be aware that the practices associated with IDM do not offer a green light to simply fall into arranging music based purely on meter and pitch alone. To do so would potentially miss the point of wider acousmatic music practice. Whilst IDM does offer some interesting cross over points as a discussion point or point to build compositions around, it should not detract from fully exploring acousmatic structuring processes, leaving traditional western music theory behind.
Bibliography


Biography

Ben Ramsay graduated from Middlesex University, London, with a BA (Hons) in Sonic Arts in 2001, and is currently lecturing in Music Technology at Staffordshire University in the West Midlands, UK. His research is centred around acousmatic music composition and the exploration of compositional relationships that exist in modern forms of sound art. He is currently studying for a PhD in Electroacoustic composition at De Montfort University, Leicester, UK, under the supervision of Prof. Simon Emmerson.