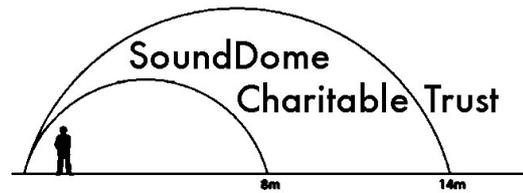# SoundDome: The Birth of a Community Organisation

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The SoundDome organisation was formed in 2015 to provide continuing education and artmaking opportunities for New Zealand sonic artists who face difficulties in gaining ongoing access to production facilities and performance venues suitable for presentation of their non-traditional artworks. While some good work is being done by various community-based organisations to improve performance-based outcomes for sonic artists, incentives to compose outside the auspices of tertiary institutions are few and far between, and gaining access to equipment and facilities for the purpose of developing new works remains highly problematic. SoundDome addresses this issue directly through offering sonic artists free access to technologically advanced production facilities relevant to the sub-disciplines of stereo and multichannel acousmatic music, live sonic arts, generative music, sonic arts in the field, visual music, interactive installation and innovative forms of popular music. These services fill an important niche in the socio-economic climate of arts and arts education in New Zealand, and are offered as an alternative to, and alongside the more traditional means of support available such as university research grants and Creative New Zealand (CNZ) funding.

I would first like to define the terms 'composer' and 'sonic artist'. The term composer in its historical context tends to highlight preoccupations relating to instruments, pitch, rhythm, dynamics, structure, etc. However, it is important to note that modern instrumental and vocal composers might also be considered to be sonic artists, as it would be rare to find a 21st century composer who does not employ the communicative and expressive potential of sound in their work. The term sonic artist highlights a preoccupation with sound in musical composition and in a wider sense, it also highlights a range of hybrid art forms that arrive through intersection with associated disciplines such as music production, film, gaming, fine arts, dance, architecture, and computer science. Sonic artists historically work directly in sound to compose, and traditional composers through pitch/duration notation. However, this is not always the case - the opposite is also true in some circumstances. Both terms (composer and sonic artist) might therefore be described as 'mutually inclusive' - as each term highlights its own set of concepts and ideologies, but does not necessarily exclude concepts and ideologies relating to the other. The demographic of sonic artists affected by the establishment of the SoundDome organisation consequently extends throughout the composition community incorporating established composers, university lecturers, students and self-taught musicians/artists producing 'music [that] uses the sound as its unit value, not the note – although the note may of course be seen to be the sound' (Landy 2000).

Secondly, I would like to define the practice of sonic arts in terms of its general creative process. Nattiez's (1990) supplies a model for analysis in three parts: 'The pioetic' - the realm of the producer; 'the trace' - the immanent configurations of the work; and 'the esthesic' - the realm of the receiver. In the field of sonic arts, 'the poietic' is characterised by the practical actions of the producer such as composing, performing, fabricating, innovating, making use of technology; studying and researching the language of music and sound; learning from the natural environment, and using her/his individual and collective heritage as a source of musical inspiration. 'The trace' is characterised by its ability to be measured, for example: the frequencies that are present in any given sound and how they might develop over time. 'The esthesic' is where predictions made by the producer are tested by the individual and by the group. It is where aspects of language such as: melody, harmony, rhythm, cadence, structure, 'gesture, utterance, behaviour, energy and motion, object-substance, environment, vision, and space' (Smalley 1996), combine in the hearts and minds of listeners/receivers to produce a resulting musical discourse. When applied over time, this process of creating, listening, and modifying becomes cyclic, enabling a natural process of learning and discovery. There are a number of domain specific models available that describe this cycle from an objective standpoint (see Emmerson's (1989) elaborated model of composition and Coulter's (2013) phases of an electroacoustic composition), and case studies from the field of art/music therapy that illuminate the psychological

benefits of engaging in the creative process. Barbara Hesser (2001) offers the following position statement: 'We need to spend time making music, listening to music and exploring the uses of sound and music for our own personal growth and transformation'.

As previously stated, a serious problem facing New Zealand sonic artists is the availability of technologically advanced production facilities that have been designed to support sonic arts practices. The sub-disciplines of stereo and multichannel acousmatic music, live sonic arts, generative music, sonic arts in the field, visual music, interactive installation and innovative forms of popular music generally necessitate access to fast computers and highly specialised software, as well as a range of sub-discipline-specific hardware and custom designed spaces for production/presentation of works. For most sonic artists working outside the auspices of tertiary institutions, these overheads are untenable, and heavy compromises must be made to secure access to equipment and facilities. This in turn, dramatically reduces the range of compositional concepts and techniques at her/his disposal. Iterating this point - for sonic artists the availability of technological resources directly impacts on the feasibility of creative ideas. As Baalman (2010) states: '… compositional concepts and techniques on one hand, and … audio tools on the other hand are in a continuous discourse with each other, where concepts and techniques can set demands for technologies and tools, and the latter can help develop, but also limit thinking of compositional concepts and techniques.' A common-sense solution to this problem is the sharing of equipment and facilities among the New Zealand sonic arts community - that is, the establishment of a technologically advanced production studio that is community owned and operated. The free exchange of tools, techniques and compositional experience is an ideology that is supported throughout the international community, and in the literature surrounding the practice - as Emmerson (1989) points out 'action repertoires' are not 'private property'. He also adds detail to the common-sense solution of sharing resources in stating that 'a mere exchange of ideas must be replaced by more sophisticated notions of experience management.'

Another serious problem facing New Zealand sonic artists is the non-transferability of creative work between the studio and the performance space. In the 21st century we are seeing a melting pot of creative arts and industries combining to expose a gamut of interdisciplinary potentials, yet the exhibition/performance of innovative sonic art remains highly problematic, as the traditional venues in which it is often presented are inadequate to service the technological, acoustical, and visual requirements of the works. The limited availability and cost of hiring venues also invariably results in creative works being composed outside the performance space. For the sonic artist who is dedicated to the use of 'space' as a central communicative archetype, this scenario is untenable, and nowhere is this more pronounced than in the genre of multichannel acousmatic music. For composers working in this sub-discipline it is not a matter of whether or not creative works are transferrable, but a question of how much she/he is willing to compromise the communicability of the materials to present the work to the public. To address this difficulty, special facilities must be built for the purpose of composing and performing new work. 'No-compromise' options must be made available to the community.

A problem facing graduate students and self-trained musicians/artists working outside the auspices of tertiary institutions is the lack of continuing education and artmaking opportunities available in the community. Instrumental and vocal composers by comparison have at least some opportunities, such as readings and residencies with the Auckland Philharmonic Orchestra (APO), readings with the New Zealand Symphony Orchestra (NZSO), and CNZ-funded commissions initiated by professional performance artists and ensembles. For the sonic artist, who has created new works for any of the aforementioned sub-disciplines, the opportunities are fewer and further between. These sometimes-ground-breaking works are rarely heard outside of the context of university postgraduate study or the home studio, and the lack of community support tends to offer very little incentive for emerging sonic artists to continue the practice. Ideally, the teachers of this new generation of sonic artists should be in a position to refer them to a community-based organisation to receive support and mentoring.

A significant issue facing established sonic artists working in New Zealand is the need for funding to produce their work. While I applaud university research committees, CNZ and other funding bodies for their efforts to support sonic arts, the societal focus on outcomes and measurability has had the undesirable effect of limiting the artistic freedoms of applicants and confining the public face of the practice to specific sub-genres. In New Zealand, tertiary institutions measure the quality of research

outputs against Performance-Based Research Funding (PBRF) criteria, and CNZ measure music projects (Arts Grants) against complex criteria which includes the ability to attract an audience, generate income, and/or educate under-18 youth. While these criteria may provide useful ways of measuring impact on the community, they are often at odds with the primary concerns of artists, many of whom describe their funded projects as 'Trojan horses' – schemes designed to disingenuously acquire funds for the purpose of supporting hidden artmaking agendas. Moreover, many artists need to promote not just their art but themselves as a brand or product to meet the aforementioned measurable outcomes, meaning they spend more time on self-promotion and brand development than the creative process. Robert Hughes (2008) exposes this dichotomy 'There is a disconnect between the idealist artist, whose goal is to proliferate an artistic idea as a contribution to culture, possibly in spite of herself, and the reality of the artist who is required to engage in the promotion of the self as an industry.' While funding can be useful for project management and for survival, it often comes at the expense of compromising artistic ideals. However, there also exists the possibility to provide for the operational needs and ideologies of sonic artists, without the need for self-promotion, through resource sharing and community support. A free community-based service that is offered not in competition with, but alongside the current types of funding support available in New Zealand would allow established sonic artists to consider the merits of both funded and non-funded approaches within the context of how best to support their individual art practices and projects.

The SoundDome began as a backyard building project, and is now in the process of establishing itself as a community organisation that works alongside tertiary institutions, CNZ, and other funding bodies. Its vision is *'to provide continuing education and art-making opportunities for New Zealand sonic artists.'*
The organisation, which obtained charitable trust status in 2016, seeks to uphold its mandate through adhering to the following principles:
- *Homage to the Creative Process* - its ability to engage both head and heart, and its function as an instrument of self-transformation and cultural change. SoundDome works to facilitate individual creative processes, to provide artists with absolute freedom over the art they make, and to help achieve appropriate performance outcomes in the community.

- *The Value of Education* - enabling a theory-practice-transformation cycle through the facilitation of creative ideas and the study of literature, repertoire, and technique relating to seven sonic arts sub-disciplines: stereo and multichannel acousmatic music, live sonic arts, generative music, sonic arts in the field, visual music, interactive installation and innovative forms of popular music. Introductory, intermediate, and advanced educational units are offered at various intervals.
- *Excellence and Integrity* - achieved through purpose-built facilities, state of the art technology, and uncompromising quality assurance mechanisms. The SoundDome factory space in Matangi, Waikato contains an impressive array of specialist equipment and resources for the production/presentation of sonic arts.
- *Conservation of Sonic Artworks* – providing a central repository for sonic artists to upload their works, and for practitioners and researchers alike to study the works in an ideal playback facility that does not compromise the communicability of the materials or the intentions of the composer. The SoundDome organisation is proud to offer this educational service to the New Zealand community.
- *Galvanising the Community* - providing opportunities for members of the existing community, building a new community, and honouring ancestors. Within the Sonic Arts community in Aotearoa, and internationally, we have an abundance of knowledge, experience and resources that we can draw on and share to meet the needs of community members – without political funding pressures playing a part in defining an artist's needs.
- *Access by Invitation and Referral* – Access to the SoundDome is by invitation only; however, new members may be recruited by existing members via referral to the SoundDome Charitable Trust (SDCT) Board. Applications for access are managed on an individual basis according to the strength of recommendation, the quality of creative work produced by the applicant and the resources available. This community-based 'rite of passage' is common in a number of cultures throughout the world, and is well known for its effectiveness as a quality assurance mechanism.

The ethos statements above play a central role in defining the practice of the SoundDome organisation. All practical activities must be aligned

with their intention and purpose. The following projects have been approved by the SDCT Board:

- *Research* - of hardware, software, and compositional techniques relating to seven sonic arts sub-disciplines. Research is primarily undertaken by members of SDCT Board and in collaboration with other individuals, institutions, and/or industries. Findings are routinely documented and made available to other SoundDome participants for art-making purposes.

- *SoundDome Events* – where members of the public are invited to experience the works produced by SoundDome participants. The SoundDome (18,19,20) series is an 'open day' featuring single-point listening in the 8m dome, live sonic arts performances and masterclass presentations concerning the aforementioned sub-disciplines. The event will be held in the SoundDome factory space in Matangi Waikato (Dates TBA). The SoundDome Festival – planned for 2020, seeks to make use of both 8m and 14m relocatable domes, and will feature all sonic arts sub-disciplines including live and fixed media genres. SDCT Board imagines a week-long hilltop experience in a natural location somewhere in the North Island of New Zealand.

- *Publication* – completed works will be published routinely through Rattle Records Online at www.rattlerecords.net, and as part of the SoundDome Vol. 1, 2, 3 CD series.

- *Archiving* - All SoundDome participants are encouraged to transfer their repertoire to the 8m SoundDome for archiving purposes. The facility provides an ideal method of playback for fixed media artworks allowing researchers the opportunity to experience the works exactly as the composer intended. The facility also supports the high-quality playback of video files relating to live sonic arts genres.

- *Visits* – visits from university students, researchers, self-trained artists/musicians, and/or members of the public are arranged as required, and normally incorporate a 1-hour introductory presentation. Sonic artists from the international community and individuals from associated industries are also invited to visit the SoundDome. Interested parties should contact the managing trustee to arrange times/dates.

- *Residencies and Independent Use* - available to established sonic artists approved by SDCT Board. All participants must be invited and complete independent use and health and safety courses (scheduled as required).

Bookings are managed through an online system, all residencies are recipient-funded, and a standard booking fee of $20 per day applies.

In terms of infrastructure, the SoundDome organisation seeks to address the pragmatic need for members to gain access to art-making resources through the availability of equipment and facilities relating to the seven aforementioned sonic arts sub-disciplines:

- *Stereo and Multichannel Acousmatic Music* - a 30-loudspeaker 8m diameter dome with acoustic treatment, computer and specialist software (permanently erected). Ideal 3D ambisonic sound projection, with near anechoic uniform reflections.

- *Live Sonic Arts* - a live stage area with 2 loudspeakers, laptop and specialist software, microphones, gestural controllers, mixing desk, and a 17-loudspeaker 14m diameter performance dome for festival events (not erected).

- *Generative Music* – laptop and specialist software.

- *Sonic Arts in the Field* - portable field recorders and specialist microphones for use at nearby Maungatautari, Sanctuary Mountain.

- *Visual Music* - a 63" plasma screen, cameras, projectors, computer and specialist software.

- *Interactive Installation* - designated spaces, working areas, Arduino kits, and tools and materials for fabrication.

- *Innovative Popular Music* – rehearsal area with electronic drum kit, bass, electric guitar, acoustic guitar, effects, amplifiers, microphones, mixing desk, and public-address system.

- *General Facilities* - power and unlimited internet are supplied free of charge, and basic accommodation and cooking facilities are available to residents who wish to further reduce their living costs.

Detailed technical specifications relating to equipment and facilities are available from the SoundDome website.

The genesis of SoundDome can be attributed to two simple qualities: innovation and goodwill, which may arguably be considered to be essential attributes in the formation of any self-funded community-based organisation. I define innovation as a paradigm shift in thinking, from accepted norms and the status quo, to imaginative and resourceful alternatives. It is a quality that has been active from the inception of the project to the way in which its services are currently

offered to the community. It is a key feature that is stratified in all levels of the organisation from the practice of sonic arts itself to the details of financial management.

Innovation in design and engineering has been a vitally important aspect in establishing the infrastructure of the organisation. The 8m dome began as a backyard building project, and over a 6-year period has metamorphosed into an international-standard multichannel production facility suitable for acousmatic and visual music. Both 8m and 14m domes are engineered to be relocatable, which is an important aspect of their dual design as studio/performance venues – a feature that eliminates issues of transferability as previously discussed. The ability to constantly test and refine all design and engineering aspects has served the project well and innovative solutions have been found to a raft of challenges such as building design, compliancy, weatherproofing, transportation, construction, speaker configuration, acoustic treatment, hardware installation, and software design.

The identification of innovative cost-saving strategies has been an essential part of achieving sustainability for the organisation. By way of example, according to the manual: it takes 8 riggers 22 hours to construct and dismantle the 14m dome. At a cost of $100/h, this equates to $17,600 plus hire equipment. However, research reveals that in New Zealand a licence is not required to work under 5m, which means that 82% of the dome can be constructed by volunteers on ladders. It also costs less than $500 to become a certified boom-lift operator and around $250 per day to hire one. A workable solution can therefore be found for under $1000. The tax-free status awarded to SoundDome Charitable Trust also brings financial benefits to the organisation, and to the community. The comprehensive running costs of the organisation are $13,000 per annum, and 1/3 of these expenses may be reclaimable by donors as income tax rebates. A further 15% may be redeemed by SDCT in GST refunds bringing the actual long-term running costs shared by the community to $6760pa or $130 per week (a saving in tax rebates of 48%).

I define goodwill as an act of benevolence that goes beyond the individual's own needs. In the context of the SoundDome project, it encompasses the domains of administrative service, financial contributions, design and engineering work, the donation of equipment, the offering of technical assistance/facilitation, the sharing of resources,

compositional tools and techniques and research findings, and the contribution of repertoire that has been archived in and created for the SoundDome(s). For the organisation to function, it is essential that all who approach it do so with goodwill. This includes myself, the other trustees, all participants, the wider community, and members of the public.

As founder and managing trustee, it is fair to say that I have donated the lion's share of goodwill in the form of the previously listed categories but this is a contribution I am pleased to make, as it not only serves the needs my community but it also serves my own needs as a sonic artist. The other trustees too, have made significant contributions to the organisation and have at the same time advanced their own personal creative practices through the organisation. Established sonic artists who produce creative work in the SoundDome at Matangi contribute goodwill to the organisation in a number of ways: through funding their own travel and accommodation, through participating in training courses (such as independent use and health and safety), and by adding repertoire to the SoundDome archive. In exchange, participants are supplied with booking privileges, access to facilities, and publication opportunities. A point worthy of special mention is that the SoundDome organisation does not offer performance-related outcomes to participants beyond the annual events previously specified. This is a significant departure from the traditional methods of measuring impact on the community as adopted by CNZ and other funding bodies. Instead, the SoundDome organisation seeks to uphold the quality of the creative process as a central outcome, with a focus on 'personal growth and transformation' (Hesser 2001) and 'contribution to culture' (Hughes 2008). Some good work is being done by organisations such as the Audio Foundation (AF) to support the performance-related needs of emerging and established sonic artists in New Zealand, and SDCT is pleased to work with AF, to help participants achieve the appropriate performance outcomes in the community.

Associates of the SoundDome organisation are plentiful and it is from these larger communities that much of the equipment has been sourced. The 8m dome was donated to SDCT in 2015; the University of Auckland then added to the infrastructure through the purchase of a large capacity $30,000 14m performance dome (funded as part of a faculty research project); and, Protel International Technologies assisted in accumulating the number loudspeakers required by offering unprecedented discounts on Genelec equipment. This type of

cooperation and resource sharing in partnership with other organisations has been essential in establishing a functional infrastructure for the SoundDome organisation. SDCT is also reliant on goodwill from the public, who, in exchange for the experience of seeing/hearing outstanding artworks in the SoundDome factory space at Matangi, Waikato, must be prepared to engage in ways that differ from the accepted norms of concertgoing. The presentation format is similar to that of an art exhibition, where small groups of people may visit, and artworks are experienced individually.

In summary, it is these shared principles of innovation and goodwill that have been major contributors in the establishment of the SoundDome organisation. They have resulted in the realisation of a community-based organisation that upholds important principles such as homage to the creative process, the value of education, excellence and integrity, conservation of sonic artworks, galvanising the community, and access by invitation and referral - with a focus on maintaining the artistic freedoms of participants. It also offers New Zealand sonic artists a practical means of gaining access to technologically advanced production facilities relevant to the sub-disciplines of stereo and multichannel acousmatic music, live sonic arts, generative music, sonic arts in the field, visual music, interactive installation and innovative forms of popular music. SoundDome Charitable Trust is pleased to offer these services alongside the more traditional means of support available in New Zealand.

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