



School: School of Art

Researcher: Keith Harrison

Project Title: Material Soundsystems

UOA: 32

## Research Timeline

Date	Rationale of research activities and decisions undertaken
<b>Mute</b>	
2013 - March 2014	<p>Approached by Andrew Renton, Head of Applied Art, National Museum Wales, to make an application to Contemporary Art Society to support a new permanent commission for the Museum in 2015 as part of the proposed ceramics survey show <i>Fragile?</i></p> <p>Developed the initial proposal application 'Switchboard' submitted in July. Proposal not shortlisted but this project was later developed with British Ceramics Biennial/Stoke-on-Trent libraries as 'Knowledge is Power: 6 Towns' in 2017.</p> <p>Developed a new proposal for April – September 2015 - early ideas included using the Museum's collection archive. There is no longer the requirement to acquire work for the Museum collection, without this constraint it is possible to think a bit more freely about documentation and what if anything remains at the end that is 'collectable'.</p> <p>Museum visit to meet the Curatorial team and view the Museum collections. Excited by the ambitious possibilities of this commission and particularly the volumes of auction catalogues as the basis for a new work with a working title of 'materialism'. Imagining the work would be sited in the pyramid gallery space.</p>
April 2014	<p>Following the Museum visit redeveloped the proposal to produce a site specific work for the Pyramid gallery provisionally titled 'Mute'.</p> <p>'Mute' is in part a post-event response to the sonic and physical assault of a previous sound and clay work 'Bustleholme', a collaboration with Napalm Death in 2013. I was left with permanent hearing loss and wondering how a PA system would perform if the sound was completely internalized and then gradually exposed through short bursts of play over a long period. This question and wanting to produce a work referencing the jazz trumpet mute of Miles Davis became the starting point for the new commission for National Museum Wales. 'Bustleholme' was smashed to bits by the audience and I wondered if it was</p>

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possible to create other engagements with an audience over a longer period of time in which any breakdown might be complicit rather than transgressive.

The Museum response was positive and all that the commission will offer for the exhibition and visitors. with discussions to move the opening to coincide with next year's record shop day.

Initial sketches for *Mute* sent to the Museum for approval.

The work proposes creating a dividing partition in the gallery space and consists of ninety-eight 15" drivers housed in individual speaker cabinets, of which half are filled with clay slip and half tiled. On each side of this wall of latent sound is a single turntable to which the public are invited to play vinyl singles simultaneously through the PA system in an impromptu sound clash with another unseen operator.

It was estimated the dimensions of Mute would be 4.2m high x 8.4m wide x 0.6m depth - this size would be adaptable as the work would be made up of 98 speakers, all 0.6m x 0.6m x 0.6m except the bottom row which will be 1.2m high x 0.6m x 0.6m.

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May 2014	Museum had a very positive response to the proposed <i>Mute</i> commission. The piece fits very well with each of the main concerns/themes they will be looking at in the <i>Fragile?</i> exhibition and presents exciting opportunities for public engagement. At this stage the commission was given the go ahead. The next stage was to think through some of the practicalities of the commission with Andrew Renton and curator Rachel Conroy and begin developing ideas with the Education department in terms of how we might engage the Youth Forum (age 15-24), in particular. The suggestion of club nights was extremely well received and something that the Museum would like to pursue.
August-September 2014	Sourcing gold tiles, speakers, turntables and clay. Porcelenosa contact made regarding golden tiles to clad the soundsystem.  2 <sup>nd</sup> Museum visit: Meetings with the Museum Technical team about Install and flooring considerations and the Education/Events Team for public programme. Confirmed galleries should be available for install from Monday 9 March until Friday 10 April (5 working weeks).
22 September	Some problems sourcing a supplier for the mirrored ceramic tiles. Museum would be keen for the tiles to be ceramic rather than glass, as it would give the installation a stronger connection to the rest of the exhibition.
September 2014 – January 2015	Developing Technical drawings with Install Team at National Museum Wales including individual speaker cabinets, turntable stands and protective flooring options.
17 October	A1 silver tiled chequerboard design sent to National Museum as work-in-progress  Negotiations with curator Nick Thornton on the length of the wall using it as a delayed introduction to the work from one end, effectively dividing the room in two and so the audience is confronted with a wall of gold tiles with no sense of a soundsystem behind.
7 January	Originally had the turntables on the floor but a simple square table was agreed on each side would be easier for people to access/play. Now looking at a gold ceramic tile to fit with the Miles Davis muted trumpet, walls of Jericho connections in the work.  Due to the size of the work and practicalities of transportation decided to build as much of the work as possible at the Museum. At this point I'm envisaging that

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	the pre-cut wood for the speakers, bass speaker drivers, ceramic tiles and clay would be sent direct to the Museum for assembly in the space.
13 January	Send Technical team rough sketches of speaker boxes and turntable stands
21 January	Tech team develop sketch-up drawings of speaker boxes /turntable stands
February 2015	Technical meeting with Install and curatorial team at National Museum
5 February	Discussions around raising the work onto staging to protect the floor. Steel deck could work (black heavy duty) and if it extended out the front and back of the wall it would act as a ledge to break the fall of the tiles onto the floor.
	Final A1 Front and Back Technical drawings developed in studio with gold tiles and directly situated on the gallery floor
6 February	Change of wall dimensions to 7.2m width and height of 3.6m.
9 February	Alternative wall idea due to concerns about the stability of the wall.. At 3.6m x 7.2m when made from the individual boxes the structure may be quite top heavy especially with the added movement of the sound. Discussed an alternative making a stand-alone wall from similar materials that has more structural strength because it is not reliant on the stacked component parts suggesting a wall 3.6m x 7.2m x 1.0m clad with the same ply with the 72+ speakers being pre-cut into identical positions. Extra stability, more economy with materials and a system that will be easier to wire up as well as a cleaner ply surface to tile onto. The work may lose some of its DIY precariousness but agree that the more 'permanent' structure could add something to the 'high-end' gold front but still keep a low-fi aesthetic on the reverse.
10 February	Studio Tests with Speaker cone clay: wet & dry - images sent to the National Museum along with a sketch of the layout of the speakers. 48 x 15" drivers 24 x horns.
12 February	Final construction drawings signed off with Technical and Install team at the Museum
19 February	Mute: front to back & back to front drawings sent to National Museum for approval
25 February	Vinyl display shelf drawings developed.
	I have been collecting and painting out trumpet related jazz LP's for the public to play as part of the Mute installation and asked the Museum whether a display shelf for the records might be possible on the wall in the gallery space. One shelf to hold the records for both decks and would be two records wide - min 650mm/max 670mm. Later changed to two longer shelves so all records could be seen at once. This collection was subsequently added to by the public during the course of the exhibition
March 2015	Begin install in Museum filling speakers with clay and establishing sound system position.
16 -18 March	Install Week 1 : Slip poured into speakers on the gallery floor. Steel speaker braces fabricated to hold clay once dried and fixed horizontally. More speakers are required inside of the wall to provide extra vibration/sound levels.
18 March	Discuss ideas about text for inviting people to play records & how long the record storage shelves should be so all the covers are visible. Placed on two shelves; one for each deck.
19 March	With regards to public interaction, I want to invite the public to bring their own

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	trumpet based records to play in addition to the records already in the gallery space and add to the collection. Preferably 2 different people should play their record at the same time on the decks but without mixing.
25 March	Install Week 2: Install speakers in main structure, set up amps and decks amps Text agreed for audience on gallery wall:  <b>Please use the turntables and records, or bring your own trumpet and horn sounds on vinyl, to activate the sound-system and contribute to the breakdown of 'Mute'.</b>
26 March	Install Week 3 postponed. due to delay in delivery of gold tiles till 7April.
7 - 10 April	Install Week 4: 3rd <sup>d</sup> and final stage of install; fitting speakers and gold tiling. Sound check and placing vinyl.
12 - 13 April	Install Week 5: Final sound check/lighting
16 April	Private View of Fragile exhibition including first play of <i>Mute</i> . Played Dexy's Midnight Runners Geno simultaneously with 2 copies of the same single.
19 July	In Conversation with the National Museum Youth Forum and general public in conjunction with Spillers Records. Decide not to have the tiles cleaned & let patination from audience fingers develop over the course of exhibition
30 September 2015	Invited speaker at Fragile Conference at National Museum Wales reflecting on the project in the context of fine art /contemporary ceramics and previous practice.

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### **Ecstatic Material**

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July – August 2015	Initial contact made with curator, producer and writer Al Cameron (AC) and writer, broadcaster Jennifer Lucy Allan (JLA) around the concept of Ecstatic Material (EM). Initially conceived as a proposal for a weekend event at Arnolfini exploring practices involving sound and ideas around material density with CC Hennix and Emptyset.  Considered reusing the Mute sound system but storage was not possible so the work was broken down during the deinstall at the National Museum Wales
October	Developmental drawings began in the studio around the idea of a Soundclash; moving material with sound played through two sound systems facing each other; arranging material like iron filings between magnets.
December	Produced a series of A4 drawings taken from youtube videos of static on TV screens; investigating the space between static and ecstatic, stasis and euphoria. The drawings were used as the basis of a rolling GIF - later the abstracted motif was used on the wall and floor backdrops for the speaker stacks that toured around the UK and to Norway.
February - March 2017	Preliminary conversations with Caleb Madden of Outlands Experimental Music Network to commission EM as part of the first iteration of the national strategic touring network funded by Arts Council England
May	Ecstatic Material Reanimated: discussions with AL and JLA about a touring stand alone show to multiple venues in the UK.
July - August	Contact made with Beatrice Dillon (BD) about the possibility for collaboration on EM around mutual connections across Fine Art and Music; sound and material, systems and colour coding. First meeting arranged for Somerset House in November.

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15 November 2017 – February 2018	<p>First meeting with BD, AC, JLA to develop the EM project at Somerset House. Brainstorming around plastic bubble making kits and bubble packaging, Berenice Abbott photography of bubbles and sound waves, Chaldni vibrating membrane /plates and Tyndall's Sounds from the 19th century.</p> <p>Studio experiments followed using Plastic Bubble making kit - photographs shared with JLA, AC and BD.</p>
February – June	<p>EM Outlands Tour #4 established for February 2019 to:</p> <p>7 Plymouth (Karst), 8 Bristol (Arnolfini), 9 Birmingham (Supersonic), 10 Bradford (Fuse), 11 Manchester (Fat Out), 12 Milton Keynes. (MKG) 13 Cambridge (Junction), 14 London (South London Gallery), 15 Bexhill (De La Warr Pavilion)</p> <p>The soundsystem would need to be transportable, modular and adaptable for large and small venues. Previous soundsystems used clay but we wanted a higher colour register and to keep the material workable over a longer time period so started to explore the use of play dough.</p> <p>Produced a test batch of playdough using basic ingredients of flour, salt, glycerine, Cream of Tartar and pink food colouring with intention to extrude the material over the course of the performance and use the play dough in a liquid form in upright speakers.</p> <p>Carried out a series of tests putting sound frequencies through different viscosities of liquid play dough to test the movement of material from concentric circles to fountain like eruptions.</p>
June - August	<p>Arts Council England funding awarded for the first phase of Outlands Touring Network of which Ecstatic Material would be commissioned.</p> <p>Preliminary Ecstatic Material A4 &amp; A1 drawings explored material being extruded along with yellow, orange and pink liquid poured through the system. The proposed soundsystems were made up of modular steel blocks from repurposed shipping containers with L shapes cut out the sides for the extrusion of material.</p> <p>Install Drawings were developed for each venue on the basis of a line of stacked blocks approx 8m (L) x 1m (W) x 3m (H)</p>
15 July	<p>BD experiments with one Kick drum sound and bending and stretching it till it breaks, imagining a few sounds like this at various pitches bursting in and out to go with the bubbling coloured vessels, Speed of extrusion varies according to the thickness/viscosity of material and in response to the sound - IDrawings made in response to BD demo track</p>
23-24 July	<p>BD responds to a modular soundsystem with a similar approach to generate sounds; dynamic and unpredictable embracing colour, speed and chaos. KH responds to the initial kick drum sound study, simplifying the system. Research into the Galton Board, Charles and Ray Eames version looking at overall mathematical order from probability/chance. Harry Bertoia's sound sculpture recordings seem to connect with the Galton Board.</p> <p>Provisional R&amp;D Dates agreed between September and January.</p>
26-27 September	<p>KH + BD London meeting at Somerset House Studios: material ideas, drawings and sounds. Lots of great crossover ideas. 'piece as process' approach, so audiences should expect something a bit ad hoc and non fixed/rough round the edges. Possibility to use similar principles used in Bad Shit at the Tetley (air, gas, liquids etc.). Not necessarily clay but whatever works most reliably for the daily installing and uninstalling. The principle of witnessing sonic and visual changes is the key here- <b>Elasticity- reactions- bending sound/material- interferences.</b></p> <p>BD to build some foundation 'soundtracks' that might shape the arrangement of the performance, possibly 3 x 15 minute sections covering the different</p>

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	<p>pacings/energies/reactions</p> <p>Stress the in-progress nature of the work; a sense of building, subsiding and holding together, things expanding and subsiding.</p> <p>Develop/research a series of basic diy household/foodstuff material tests looking at slow/fast reactions/expansions. Now including some options with the speaker cone and whether it might be possible to produce a low tech version of the extruded starch based biodegradable expanded foam packaging peanut.</p>
2 October	<p>Stress the in-progress nature of the work - a sense of building, expanding and subsiding, trial and error, dividing and subdividing, chapters of changes. Nothing polished or 'completed' - experiments expanded and ongoing across the tour, results, remnants and re-working of techniques. Use these words as a guide/index for separate making - <b>elasticity- reactions- bending sound/material- interferences - harmonic and inharmonic spectra</b></p> <p>Agree that 45mins is a good amount of time for a standing event and would like to incorporate slowness and silence into parts of the performance</p>
5 October	<p>Setting up the idea of an experimental lab in very non-lab places, thinking that something along these lines might fit/tour better than the monolithic block</p>
6 October	<p>Finished drawings of ground plans for all venues sent to Outlands /AC/JLA</p>
17 October	<p>KH + BD + AC+ JLA London meeting at Somerset House to discuss scale/budget/materials/ drawings and sounds. Decide on scale/shape/materials R&amp;D images shared after meeting include plastic stacked coloured boxes, Donald Judd stacking sculpture, modular modernist housing, AnnVeronica Janssens light work, Tatlin's tower, Notting Hill sound system rigs, green smoke bombs. Project strapline: 'Donald Judd at IKEA on mushrooms'</p>
18 October	<p>Send photographs of the first prototype: stacked plastic mushroom crates with pink/yellow playdough pushed through on static drawing backdrop .</p>
21 October	<p>2nd prototype developed with plastic crates, playdough and funnels.</p>
22 October	<p>First Discussions with sound engineer Alan Burgess about setting up two soundsystems (DIY + Genelec) as part of the performance.</p> <p>Press Statement released:</p>
26 October	<p>BD: From our initial conversations, Keith and I felt the title evoked ideas of multiplying, phasing, resonating, repetition, elasticity, colliding, vibrational modes, colour combination formulae and principles, non-linear sequences etc. For Ecstatic Materials I'm interested in creating a sense of a physical, tactile presence through sound, one that bumps into and spills over into Keith's sculptures. I'm excited by the messy physicality of this project, the possibilities of visual and sonic clashes and spillages. Working with Keith, the sense of an experiment without fixed outcomes, evolving across each performance, feels celebratory and inspiring.</p> <p>KH: It is still, very much, a live experiment in which our respective systems are set in motion, we have an overall structure but have factored in a capacity to react to what's happening each night and change as the tour progresses and material accumulates. I've always been interested in looking outwards from a discipline to explore material, performance and process in whatever medium and format that feels appropriate.</p>
November 2018	<p>BD to build sound palette + tech system / speaker layout KH to build prototype/modular system / select materials / scale</p>
1 November	<p>Create first set of stacked plastic crates on dollies and options for colour markings on lino samples as backdrops for speaker stacks</p>

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6 November	Judd/Memphis/Sottsass inspired stack; trials with stacked crates in front of full lino backdrop with black markings on white
9 November	Decision to use Genelec speakers as they have great FM clarity arranged in an odd set of 7 speakers on stands with a Sub inside one of the stacks or nearby
10 November	<p>Investigating ways to create a 'sealed' ratchet strapped system so material can be pushed through in different ways. Focussing on the dough and looking into ways of pumping it internally down through the stacks using one hydraulic jack rather than having a jack in each box using 110mm tubing and connectors from the local plumbing store - it would mean loading each stack with material (9 stacks) rather than having 72 individual boxes that would need to be refilled each night Concentrating on the dough and using a cornflour liquid mix in the speakers using a twin set of 12" drivers inserted into the top stack lids like a car sound system cut into a parcel shelf. with metal cones so they should hold the liquid (I although 9 days consecutive use is an unknown...). looking at using drivers internally in the boxes so we have some hidden sound options.</p> <p>Researching the inclusion of a smoke bomb/flare to give a range of material states: <b>liquid - solid - gas</b>.</p> <p>KARST is an all white space, including the floor, so the punctuation of the black speakers on white could tie in well with the monochrome motif I'm being using at the moment for the backgrounds.</p>
14 November	<p>Create 9 stacks with individual lino backdrops using combinations of odd numbers for the stacks - less symmetry, more off balance/biases. The stacks are eight boxes high with dolly are 2.3m in height.</p> <p>BD exploring how to link the colours and quantities of boxes to the sound through the colour wheel/ chromatic scale to map the box colours and box quantities to individual notes/pitch equivalents eg a stack of 8 x orange 1 x yellow code system that can build a melodic and maybe rhythmic sequence to create a conceptual grip on how to connect the sound + objects.</p> <p>Shared terminologies: <b>Bending - Reactions - Interferences</b>.</p> <p>Bending = plastic/solid = extruded dough through speakers  Reactions = gas/vapour = smoke bomb - not sure at the moment how I can trigger the smoke reactions as the boxes are to a certain extent sealed units when they stack  Interferences = liquid = flour/water mix in speakers on top/inside of stacks</p> <p>BD is looking to develop a set of chords per word and try and maximise from a simple chord palette so each section sounds distinct to Find 'equivalents' between the sound/pitch and colour.</p> <p>Chromatic scale being used to stack the boxes according to the chords/sequences. Have used the electrical resistance colour code in the past to date works, so each stack could be the date on the tour etc - 9 days /9 stacks. Might be too obvious but the date would give 8 colours/8 boxes.....14.11.2018 = brown/yellow/brown /brown/red/black/brown /grey. It might also give a rationale for the colour choice; a system, even if the audience are unaware, rather than pure aesthetics. Employing a system for composition connects both approaches.</p> <p>The chromatic scale is 12 units so the boxes could also stack at this number - there are half size boxes which could work as 8 larger boxes + 4 smaller boxes = approx 2.85m</p> <p>Putting piping and speakers together to get a prototype stack and colour coded drawings of the stacks. Possibility to use OS grid reference for each venue that might give a set of numbers or Goethe's (unscientific) colour wheel.</p> <p>Tests on pump system and sounds players through liquid play dough - videos made and sent to BD who responds to the speed of the extrusions and the</p>

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	<p>impact of the wobbly liquid clay and further tests to see if this works best with bossier or with lighter sounds. Record BD ringing sound sample played through the slip and send back to BD - doesn't behave as I thought it might as it doesn't seem to be the heavy bass that gets the liquid moving.</p>
14-25 November	<p>Further development of the mathematical number to create breakdown of the 9 x tour dates using the electrical resistance code. Exploring more variation in stacks levels rather than all at 8 x high.</p> <p>Test different stack heights to see the different reactions the liquid clay makes with the different types of sounds. BD working on some longer more subtle pieces which sound like tiny electrical impulses or little glassy dots, fragments of rhythm coming through in very light pulses that could be panned around the spaces. Not necessarily for the liquid but more to 'activate' the space before any reactions happen.</p>
25 November	<p>Playing with mathematical colour blocks to model the stacks in the spaces. an ascending number scale on the basis of what date colours. Translated this to a graph paper drawing. Reference Channa Horowitz colour stack drawings based on rhythmic patterns</p>
29 November	<p>Begin to consider bee keeping - a sense of tending - stacks = bee hives</p> <p>Ordered yellow/orange/pink sample smoke bombs from le maitre for finale.</p>
December 2018	<p>BD and KH working at KARST - testing material and sound building the performance</p>
1 December	<p>Discussion about performance gestures. consider what is worn even if only very subtly related to stack colouring.</p> <p>Look at lighting ideas using simple lighting could help charge the room, switching on/off is also a gesture to use - remembering Ann Veronica Janssens lighting from previous discussions</p> <p>Ordered Brennenstuhl steel lights as they had a laboratory aesthetic.</p>
5-7 December	<p>Working together at KARST. Breaking playdough down into constituent parts of flour, salt, glycerine, liquid playdough and cream of Tartar. Put sample sounds through each material using different sizes of speaker.</p> <p>Tests on different types of lighting: floor/standing/house</p> <p>Give a work-in-progress demo to KARST studio holders. Created small test videos to use for later reference publicity. Filming tests to create a trailer to promote the Outlands tour.</p>
January 2019	<p>KH + BD working together at KARST shaping the performance.</p>
9-13 January	<p>Backdrops developed on white and black lino with coloured stacks on each backdrop hung from the ceiling - creates context and protects the floor. Having chosen final materials of glycerine/salt/pink liquid (play dough)/cream of tartar, flour was rejected due to moisture content making it too heavy/inert.</p> <p>Beginning to align speaker sizes with materials 18" driver x 2: salt and cream of tartar, 15" x 4: glycerin and pink liquid, 12" x 4: salt and cream of tartar, 6.5" x 2: salt. AC and JLA come to visit during rehearsal sessions.</p> <p>Alan Burgess - Tour Sound Engineer visits KARST to set up genelecs and speaker stacks. Full rehearsals with lighting and all materials in 12 stacks + 7 genelecs + subwoofer.</p>
15 January	<p>Looking at producing an editioned CD and poster for the tour. Eventually produced 250 x A2 posters to be given out free at each venue.</p> <p>KH + BD at KARST - last minute tweaks + rehearsals</p>

23-25 January	Tried timers on lights. All stacks and Amps covered with hessian sheets until the start of performance for big colour reveal at start .Completed all 8 lino backdrops with batons to allow for different configurations and hanging systems on tour.
February 2019 4-6 February	BD/KH final rehearsal at KARST - Alan Burgess completes sound engineering. Final install decisions; backdrops used at entrance to KARST rather than in the main exhibition/performance area. Stacks covered in hessian prior to performance, audience kept out of central space with ratchet straps, the beginning of performance involves loosening straps to allow the audience in, taking off covers and filling stacks, lighters on timer to come on to begin performance.
7-15 February	<p>Ecstatic Material Outlands Tour #4</p> <p><b>7 February Plymouth (KARST)</b></p> <p>Timer switches didn't work on all lights so the audience was unsure when the performance was due to begin and end. Audience chat and people positioned around the stacks blocked the sound and sense of materials activating in different areas. Refilled speakers as they became empty and changed position/ of stacks during performance. The performance was treated more like a PV. Debriefing: need a better way to introduce work and arrange stacks to find balance between audience interaction and losing the work in the crowd.</p> <p><b>8 February Bristol (Arnolfini)</b> Static backdrops hung to fill the main gallery wall behind work. Stacks placed on lino to differentiate between audience and work. At the start of performance house lights were switched off and industrial lights switched on manually. The audience were quiet and located around outer edges of the space. almost too reverential therefore people didn't interact with materials. The sound piece was too long now without echo/reverb of KARST space. Speakers were refilled during the performance but stacks stayed in position.</p> <p><b>9 February Birmingham (Supersonic/Centrala)</b> Backdrops all down one side of Centrala. Length of sound piece shortened by BD. Audience encouraged into space by opening up the configuration of speakers. Lights switched on manually in stages at the beginning to indicate start of performance - best response so far from audience. Length of the sound piece now seemed right. Speakers were refilled during the performance but stacks stayed in position.</p> <p><b>10 February Bradford (Fuse)</b> Very small space/low ceiling so grouped stacks tightly together into one block, dropped the height of the tallest stacks, reduced the number of lights and no backdrop Small audience number could still interact with the work - intimate show but sound was good and constant material activity due to proximity of stacks. Speakers were refilled during the performance but stacks stayed in position.</p> <p><b>11 February Manchester (Fat Out)</b> large industrial warehouse space. Backdrops hung all along one wall, stacks spaced out with all lights in place. Higher level of reverb and audience initially stood back from the work, encouraged in by activity of material by half way through and gradually subsumed the work with some chat audible at the end of performance. Speakers were refilled during the performance but stacks stayed in position.</p> <p><b>12 February Cambridge Junction</b></p> <p>More traditional music venue. Decided not to use the main stage and sited work</p>

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in the audience area front of stage, backdrops hung to each side of the stacks, work laid out on white lino to differentiate from the dark carpet/flooring. Additional sound added in from the venue PA. Speakers were refilled during the performance but stacks stayed in position.

### **13 February Milton Keynes Gallery**

Stacks laid out in similar formation to Birmingham with ample space for the audience to move through. Use the auditorium windows as backdrop and situated at one end of the venue space with opening act Copper Sounds set up at the opposite end of the auditorium. Speakers were refilled during the performance but stacks stayed in position - this became increasingly performative and integrated into the dynamics of the work. Beatrice and myself both had mixing decks - sound and material.

### **14 February South London Gallery**

Backdrops hung together on the back wall - tighter configuration of stacks due to smaller space and large audience. Additional Venue PA added in corners - no opening slot from Copper Sounds.

### **15 February Bexhill (De La Warr Pavilion)**

Used venue PA. All backdrops hung down one side of the auditorium. Audience initially seated on steps outside of the main show area but were encouraged to fully engage with the stacks once standing lights were switched on. Younger members of the audience particularly got involved. Materials and speakers were pushed to the point of destruction/ignition - this aspect was pursued further in Bloom using cactus powder.

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December 2019 - March 2020	Invitation to perform Ecstatic Material over 2 days/3 performances at Borealis Festival, Bergen, Norway.  Preliminary preparation included new install plans, alterations to the colour scheme for the stacks, refitting new speaker drivers and remixing materials.
4-8 March 2020	<b>Borealis Festival, Bergen, Norway</b>
4-6 March	Install, sound check and rehearsal: The performance venue, Lydgalleriet was a small rectangular, low ceiling space so the stacks were aligned along the length of the gallery and initially situated close together.. The backdrop markings were applied directly on the windows in the gallery space and allowed the general public to partially see the performance from outside.
6 March 17:00	First performance - liquid play dough had too much cornflour and settled into a solid lump during the performance and had to be stirred throughout the show to keep active. Arrangement of stacks was too tight and forced the audience around the edge of the space which felt too passive.
7 March 17.00	Second performance - looser in terms of crowd and interaction. We opened up the speaker stacks configuration to allow the audience into the centre of the space and watered down the cornflour mix so there was less need to keep materials agitated manually.
7 March 19.30	Third performance - all remaining materials were emptied out into the stacks and pushed the volume as loud as it was possible to go in the space. The youth audience fully interacted with work whether they wanted to or not. Final ever performance.  The EM Soundsystem was subsequently broken down and partly reused for the <i>Bloom</i> commission at GHT, Southampton.
June 2018	Invitation from 'a space arts' to commission a new work for the 2019 - 2020 exhibitions programme at God's House Tower (GHT), Southampton.

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## Bloom

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14 August	GHT Site visit to discuss budgets, timescales and exhibition schedule. Inspired by the site of container ships leaving the port visible from the top of GHT tower and the combination of medieval and brutalist architecture that collide in the building.
10 October	Initial research on Abraham Pether's painting of God's House Tower by Moonlight.
23 October	Develop Henry Moore Foundation application themed around GHT's history and, more specifically, the lost relationship the building has with the coastal shoreline of Southampton's Solent waters. Alongside the commission in the contemporary gallery, within the first floor Collections Gallery, will be exhibited three paintings by the Pether's depicting God's House Tower as it was in the mid 19th Century, when, at high tide, the sea came right up to the walls of the tower and the medieval defences of Southampton's Old Town. Taking references from these themes and weaving them into my own interpretation historic urbanization and industrial growth, combined with GHT's modern day surroundings and economic integration of industry and trade.
11 December	Application developed to Henry Moore Foundation for additional funds for catalogue and documentation
18 December	GHT Artists Research Meeting; Presentation from Historians and Curators at Southampton Museum about the Pether's, History of GHT and Artist presentations outlining past works..
3 January 2019	The plastic boxes I propose to reuse from Ecstatic Material are from Solent Plastics in Southampton, feel like there could be a connection with the container ships that come in and out of Southampton, could I literally launch a floating soundsystem from GHT?
2 February	Researching the Pether painting 'The Night-Blooming Cereus' by the painter Robert John Thornton (1768 - 1837). It depicts the flower painted over a moonlit painting by Abraham Pether. The flower is actually a species of cactus <i>Selenicereus grandiflorus</i> that blooms only at night, and once a year. The painting was produced and then a print made from it for a botanical publication titled 'Temple of Flora' 1804.
28 February	Henry Moore Foundation application submitted proposing Bloom; a site-specific sculpture inspired by the painting 'The Night-Blooming Cereus' by the collaborative painters Abraham Pether and Robert John Thornton (1768 – 1837).

The work will consist of a series of 8 x18" subwoofer speakers housed in a block of stacked recycled plastic crates sourced from local company Solent Plastics, referencing the passage of container ships to and from Southampton Docks, the UK's most significant historical and contemporary Port of international trade. The speakers will emit blasts of fog horn/shipping sounds at regular intervals that will agitate cactus powder within the speaker cones to produce a bloom of dust/mist in the gallery space.

If possible, through the alignment of sun/moon and the use of a conventional spherical biconvex lens, a spark would be produced that would ignite the bloom. Much like the Night Blooming Cereus itself, the ignition of the dust bloom would be a once a year 'happening' under moonlight, around a date in September, and in the interim the work would be activated at regular intervals in the gallery space by the shipping /fog horns to fill the gallery with a consistent bloom of sound and fog.

The full exhibition brings 'Bloom' together with its source of inspiration; a major collection by a family of early 19th Century landscape painters referred to as 'The Moonlight Pethers'. The referencing of 'Bloom' with the history of GHT and the

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	Pethers, contextualises the work and contributes to the public awareness, encouraging an understanding of site-specific sculpture.
14 March	<p>A few risks are highlighted by GHT as a listed heritage building which need to be considered:</p> <p>The dispersal of white powder from the speakers, which may drift into other spaces in the building, such as the collections gallery below. This could also affect the smoke alarms or cctv intruder sensors.</p> <p>The ignition of a bloom of powder. Although at an experimental stage need to consider where and when this may take place. Possibility to present outside, the rooftop terrace would be the obvious choice, although it has a restricted audience capacity. There are a few key dates which may be suitable: Friday 13th/Sat 14th September there is a full moon, also Sunday 13th October and Guy Fawkes night is Tuesday 5th November.</p> <p>The volume of sound might need to be adjusted and calibrated accordingly in the space.</p>
19 March	As background research read 'Deep Sea Foreign Going' by Rose George Inside shipping, the invisible industry
27 March	Studio visit to KARST by GHT to discuss Installation/construction logistics
25 April	Henry Moore Foundation Grant awarded
15 May	Contact made with the Southampton & District Branch of the British Cactus and Succulent Society.
2 July	Develop an editioned pamphlet to accompany the exhibition. Commission Jennifer Lucy Allan to write a text around the show's themes.
August	Construction of box Steel Frame for container for Bloom with Blacksmith Paul Ager
1 August	Contact made with the Southampton Astronomical Society to schedule a moon gazing event to accompany the exhibition programme
23 August	Working with graphic Designer Charlie Newhouse to develop Exhibition Guide/Pamphlet/T-shirts/Tote bags. Commission 1000 word text from Jennifer Lucy Allan. Earlier recorded Q&A with GHT edited for publication
September 2019	<p>Tests with Plexi glass for the walls of the container to contain the cacti dust and suppress the sound at GHT.</p> <p>Material Tests carried out with Foghorn sounds , Cacti Powder and 18" subwoofer speakers in studio at KARST.</p> <p>Experiments with zippo lighter and cacti powder in Studio to see if it is possible to ignite the powder once in bloom. partial ignition</p>
9-13 September	Pre-Install Steel frame at KARST Plymouth - made to the same dimensions of International shipping containers.
27-29 September	Deconstructed version of Pether's 'Night Blooming Cereus' shown at KARST as part of Open Studio at Plymouth Art Weekender – including clock, zippo lighter, cacti plant and shelf on wall - later used for Bloom publication.
October 2019	Install and Construction of Bloom at GHT working with GHT Technical Team and Paul Ager.
	Record ships foghorns from top of God's House Tower during week 1 of install. Remix foghorns to produce 2 tracks. 2 x 12" vinyl dubplates cut off the tracks to be played daily through the Bloom soundsystem at GHT.
November 11	Produce editioned drawing of midnight clock face on match boxes for inclusion in exhibition publication

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November 15	Bloom First Public Play: using 1 turntable and amps situated inside the Container.
November 16	Bloom Public Opening and hourly playing of Bloom by gallery assistants throughout the day. Turntable and amps now situated outside the container to allow ease of access for gallery assistants and to keep dust off the hi-fi equipment. all levels fixed on the mixer along with instructions for use.
December 12	Keith Harrison - in conversation, 6:00pm - 6:45pm with A space director Dan Crow: discussed approach and working methodology in undertaking the commission followed by a rooftop performative event at GHT
January 16 2020	Bloom Final Play including closing event film documentation by Jared Schiller.

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