SWITCH, BLEND, AGGREGATE, DIVIDE:

MULTI-INSTRUMENTAL
CONFIGURATIONS AND
INTERACTIONAL DYNAMICS
IN GARLIC HUG

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Introduction: Background to Garlic Hug

Our duo Garlic Hug was inspired by a curiosity to experiment with ideas, scenarios and processes that change the way we interact with each other during a performance. Inherent to this has been a combination of analogue, digital and acoustic instruments, which we use as a floating set of possibilities to draw from. As a relatively young project, we have explored different ways of performing with these sound sources within a single set, as well as exploiting their potential to create switches in sound palettes and their associated contexts. These persistent changes in instrumental configurations come together with shifts in the nature of our interaction, as we enjoy remoulding our relationship from piece to piece.

We've become increasingly interested in the performative qualities of our live sets. This has been both a consequence of ideas that demand certain performative and sonic characteristics and motivated by curiosity to explore the affordances of particular devices. In this article, we consider how our mixed setup drives and facilitates heterogeneity in our musical interactions and style. We also consider our varying experiences of risk when performing with a multi-instrumental setup, which we explore as a productive, integral and mutable part of our practice.

Our approaches to instrumentation and the dynamic of our duo are of course affected by our individual backgrounds. Alessandro's work spans across digital media practices, within which music and sound are part of a playful experimentation with materials and processes. His work focuses on mediation and transformation of listening experience through the design of interactive artefacts. Helen's work as a musician often explores patterns, sounds and textures as/through game-like interactions, which might evolve through improvisation, within particular scenarios, or be communicated through scores.

While Helen's background relates more to composing and improvising with instrumentalists and playing in bands, Alessandro is more familiar with performing and composing solo with a laptop, rarely involving premeditated rhythmic synchronisation, and he is generally less at ease when playing patterns using keyboards or pads. Conversely, our initial explorations as Garlic Hug were Helen's first experiments in live electronic music performance, though this has developed within her practice since then. We embraced our different experiences by performing in ways that were less familiar to us, both individually and as a duo, sharing the coordination of the different elements of our setup. Initially, our mixed bag of instruments arose simply from trying different ideas with what we were fortunate to have at hand. Subsequently, instead of reducing this into a more streamlined setup, we enjoyed and exploited switches from one group of instruments to another, as well as the changing atmospheres and sounds that came with it.

As Garlic Hug, we most often perform in small community venues, independent arts spaces or pubs, though our approach is influenced by experiences in various contexts as practitioners and audience members. This includes local band scenes, scored music performed in the concert hall, improvised music, electronic music performance and digital media art. These scenes of course encompass various approaches to performance, instrumentation and technology. Our duo grew out of an amalgamation of these influences and a shared curiosity to blend, switch and jam these ideas together in a single project.

Some Perspectives on Multi-Instrumentalism and Heterogeneity

Part of the excitement of watching a one-person-band, busker or performer centres around the feat of coordinating limbs, hands, feet and mouth. The performative quality of playing multiple instruments at the same time, or switching between them, is important to Garlic Hug, however, our approach to multi-instrumentalism focuses less on dexterity or virtuosity, and more on the switches that this setup allows. We use a mixture of instruments with which we have varying degrees of familiarity, from several years of experience to things that we try for the first time. A number of musicians have explored groups of instruments as a sort of meta-instrument and considering some of these artists raises pertinent themes.

The live solo performances of ICHI feature numerous instruments that he has built himself including klaxons, wind instruments and percussion. Along with ICHI's musical imagination, much of the fun of his performances centres around his collection of unique objects. Each song is met with a feeling of anticipation for which new instrument will appear, and what its sound will be. In performances we have attended and on his album Maru, ICHI uses this array to draw upon a different palette of sounds from piece to piece, as he changes the configuration of instruments. These switches create playful and continual shifts not only in the visual and theatrical aspects of performance, but also in the particular sounds of each instrumental combination.

Riffs

Though different in terms of performativity and soundworld, the music of Ashley Paul also circulates around a multi-instrumental setup. This commonly consists of saxophone, clarinet, guitar, voice and percussion. She has developed a unique approach to these instruments, in which she tends to explore constellations of sounds and textures from multiple sources.

'I sort of have intentionally kept a naivety with [the guitar]...I'm really uncomfortable playing the guitar...that discomfort is something I really want to keep in the music...the challenge, logistically of playing live, is something that fascinates me...it's just a really weird thing doing the two things, you know the saxophone and the guitar and just the actual physicality of it and I think that really impresses itself on the sound of the music.' [1]

Paul describes this discomfort as a positive tension, with attention directed towards multiple instruments. Our experience of performing in Garlic Hug is similarly coloured by an awkwardness when simultaneously playing more than one instrument or changing instruments.

We are particularly interested in a multi-instrumental setup that facilitates quick leaps between different musical contexts or atmospheres. For example, the duo of the Bohman Brothers tends to use a plethora of un-amplified and amplified objects to drive characteristically heterogeneous sets. Contexts associated with a harmonica differ greatly to a bowed piece of metal or a beer can, and the variety of the objects they tend to include contributes to this heterogeneity. In our experiences of the Bohman Brothers' performances, they avoid looking at each other, sat side-by-side exploring their table; when they do look at each other or have a conversation, the mood transforms. These mechanisms of change create sonic and performative shifts in their duo dynamic, such as reciting pieces of found text between lengthy periods of improvising, or simply playing a tape recording.

Performing with laptops and samplers alone hold the ability to draw from a great variety of sound sources. Electronic music duo Blectum from Blechdom (Bevin Kelley and Kristin Erickson) have a characteristically playful approach to sampling from divergent sources, alongside synthesised sounds. As described by Tara Rogers, their collage-like mix of mini-musical worlds, 'references pop and electronic music traditions only to turn them inside out' [2], typically jamming together divergent materials without, in their view, consideration of traditional high and low musical hierarchies:

'nothing is sacred, so we don't really value any material more than other material...we don't have a bar where we put good music and bad music.'[3]

Their snowballing of a number of different materials or associated styles resonates with our own collage-like approach.

Bevin Kelley describes how the duo interact and improvise through 'a unifying theme or constraint', such as a 'common fantasy world', creature or character, during a performance. [4] We tend to think of our Garlic Hug sets as conglomerations of mini-scenes, some with tight focuses or restrictions, and some as inhabitations of a character or an extra-musical context, in which we don't have pre-defined interactions.

This could be more traditionally musical (e.g. a rhythmic pattern), or an extramusical environment, such as characters reciting chant in an imaginary ritual, or inhabiting creatures from the Italian countryside. We use these shared themes or constraints as a way to create and navigate switches within our sets, some which evolve through improvisation and some which we premeditate beforehand.

Indeed, in live sets of electronic music, there is usually more than one way of producing similar sounds. This might range from producing sounds using their original sources - such as playing a synthesiser - to designing and performing one's own digital instruments, to executing code or hitting playback on a DAW. We combine a number of approaches, exploiting and enjoying different relationships and interactions. As parts of our sets include ideas composed before performance, many of our operations would be simpler if we didn't perform them manually. Why then, do we sometimes choose not to do so, while in other cases, we find it necessary? These are on-going questions for us, pointing to topics that we find productive, even motivational.

The live performances of electronic duo Matmos can differ considerably to each other in terms of style, sounds and sometimes instrumentation. Laptops and a variety of synthesizers make up a core part of their setup, and though this varies, their tendency is to perform using multiple electronic instruments. In an interview, Drew Daniel describes that in one rendition of their setup, his deliberately unsynced laptops allow him to fluidly draw on 'families of rhythms' in Ableton Live. [5] This is clearly connected to a particular musical intention, as Daniel is 'free' to 'pull apart' rhythms and tempi. [6]

Daniel also suggests that some instrumental choices relate to the sense of risk and discomfort in performance:

'Playing electronic music live raises the question of how to avoid your own control freak desire to avoid error and embrace something the audience can actually perceive as being built up live... Why should I prefer something where the edges the seams are showing when I can play something perfect? The problem is that it's too easy to be perfect in electronic music. That's why I don't sync my two laptops.' [7]

Daniel correlates his perception as a performer with the experience of the audience, though his collaborator M.C. Schmidt points out that:

'It's weird, it's mostly a philosophical problem. Does the audience perceive it? One imagines they do, but that's from my position.' [8]

This is a reminder of the common discrepancies between performers' perception of events and an audience's experience. Comments made to us by audience members have revealed how moments that seemed humorous to spectators did not mirror our own experiences, and vice versa. Mishaps, in which our rhythmic synchronisation has fallen apart, have sometimes seemed intentionally so from the perspective of some audience members.



Nevertheless, Daniel's identification of a desirable fragility within his own experience of performance points towards a feeling that we have often noted in relation to our own instrumental setup. For us, this precariousness revolves around the transiency and changeability of our instrumental groupings, which are linked to rapid switches in mindset and scenario. Rather than refining a single approach to performance, we enjoy the experience and precariousness of combining multiple approaches.

Our Instrumental Aggregate

A typical Garlic Hug set comprises a range of acoustic, electronic and digital sound sources, and we play facing each other with the audience on one of our sides to facilitate eye contact. We are as interested in exploring a pocket drum machine, dictaphone, party hooter or saxophone as we are in experimenting with complex affordances of multi-purpose devices such as a laptop. Amongst other smaller objects that vary, for now at least, we have a core setup. Helen usually plays either baritone or alto saxophone, a drum machine that she plays using a midi pad controller, and her laptop running the live coding environment TidalCycles and text-to-speech software. She tends to focus on one instrument in each part of the set, but changes between pieces, while Alessandro enjoys mixing instruments together simultaneously. He usually plays analogue synthesizers and sequencers, a portable dictaphone, a coil pickup, a laptop simultaneously running various software (Max, Supercollider and Ableton Live), and external midi controllers.

The sample banks and sequential or pattern-based affordances of samplers, drum machines and TidalCycles often link to beat-centred worlds of dance music, whereas the saxophone and keyboard-controlled analogue synths sometimes lend themselves to more riff-based 'songs'. Our field recordings and use of the dictaphone link to a wide variety of contexts and listening scenarios. We tend to focus on the sum of a number of simple parts or operations, which has been both a result and intention of our setup. As for Helen's saxophone, it is seldom treated as a lead instrument. So far, we have avoided processing the sax, preferring to explore contrasts and coalescences with other sound sources.

The analogue monophonic synths in our setup have particular physical and sonic characteristics that afford different types of interactions, from playing riffs using the keyboard to modulating drones using a semi-modular synth, or the self-noise feedback of some of the boutique-style devices. As these instruments are all relatively small, we are able to position them on two medium-sized tables so that we can quickly switch or blend them, and we tend to bring all of our instruments to rehearsals and performances. This allows us to think about our pieces as constellations of different devices and to exploit the instrumental affordances and characteristics of groupings.

Running different software on our laptops allows us to operate in a number of ways, such as to trigger field recordings, to play an electronic drum kit with a midi controller, to launch pre-written sequences, or to type code. Sometimes this serves to coordinate simultaneous actions or instigate long processes across different software that don't require our continual input. One example is the use of mappings in which midi controls and the mouse are shared between different software. As a result, sounds change or evolve as a consequence of this interaction feedback between different software.

This might involve moving the mouse to control a parameter in Max MSP, or moving between clips in a DAW, which affects a different control in an underlying Supercollider patch, leading to surprising evolutions and changes in sounds. While a laptop might sometimes provide an anchor of metronomic beats, at other times it offers us unpredictable happenings that we don't foresee – or wish to. The laptop acts as a microsite of multi-instrumentalism and different performative dynamics in itself, with its own complex and layered affordances, which at one time might serve to anchor pre-structured ideas, and at others drives or contributes to improvisation. [9]

As in the music of ICHI and Blectum from Blechdom, the sounds heard at the beginning of a Garlic Hug performance don't necessarily foreground what is coming next. For us, the sense of choreographing changes from one part of a set to another, as a sort of postmodern collage, has accrued importance as a way to facilitate or exaggerate rapid shifts between soundworlds, instruments and atmospheres.



Garlic Hug performing at Jabberwocky in Sheffield, 2019



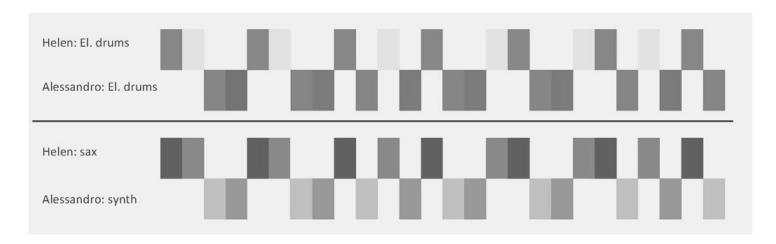
Shift, Blend, Divide: Navigating Risks and Interactions in Performance

Our instrumental switches and somewhat choreographed sectional changes drive a feeling of precariousness in our experience of a performance. They involve shifts to different types of interactions between us, and changes to contrasting sounds or textures, which bring the potential for multiple facets of human, computer and electronic errors. This has become a memory game of keeping track of what instruments are running, checking our settings, who should be cueing what, and navigating our tables. Our duo dynamic shifts, as we move between improvisations and loosely or strictly structured pieces. Therefore, in certain sections, we have a very clear musical intention from the outset, whereas other moments evolve without such preconceived ideas.

Our structured pieces reveal something of our different approaches to idea generation. Alessandro's ideas are usually rooted in a 'what if' scenario; what if we were to apply a process to particular media, or to leave long or independent processes with devices or media play out by themselves. Helen's ideas for Garlic Hug tend to grow from a process of interaction between the two of us. Such ideas might grow from specific sounds, though sounds or media are often inserted into games or scenarios, or a rhythmic relationship. These different outlooks inform the initial kernel of pieces, which are then developed collaboratively, perhaps demanding specific instruments, or growing from processes, devices, scenarios or characters. The points at which our methods and ideas intersect, overlap, or contrast make for stylistic, sonic and performative heterogeneity. We now discuss some examples of sections from previous performances, to explore our typically mutable relationship throughout a set.

The two of us shift between having overlapping roles and strictly divided parts. In *Snazzy Jacket*, we each perform one half of a continuous, symmetrical, interlocking pattern. This piece originated from an interactional idea, into which we insert contrasting sounds on each beat, which we manually trigger with MIDI controllers on a sampler, synth, or saxophone. This simple pattern would be more rhythmically accurate if it were programmed into a sequencer. The enjoyable aspect of our human step sequencer - at least from our perspective - is the performative challenge of interlocking our parts by triggering or blowing the sounds in time. We feel that this impresses itself on the overall sound, and these wobbly rhythmic inconsistencies are desirable. The risk of calamity in this piece has been great fun for us, with the idiosyncrasies in rhythm and the growing pressure to maintain the pattern resulting in a giddy tension. With time we have become more familiar with the pattern, which has opened up greater license to experiment with different sounds on the fly. However, with an increase in confidence, the thrill also diminishes a little over time. [10] This changing relationship to the piece underlines our feeling that an element of awkwardness is one of the factors that drives our continued interest in it.





Visualisation of Snazzy Jacket.

We have felt more ambiguous about such tensions and instabilities in other pieces. *Rolly Goes Rogue (Rolly)* is our most song-like piece, structured around sequenced beats and a patchwork of contrasting sections. Helen plays sax and Alessandro splits his attention between different devices, playing multiple synths and using controllers to simultaneously trigger various samples and clips. This is exhilarating, but it can be fraught without preset recall functionality, relying on memory and turning knobs and switches, for which small increments can dramatically alter the sound. When we don't manage to coordinate our parts and the abrupt changes in sound, the resulting music can fall flat, at least in comparison with our intentions (e.g. an awkward silence, a feeble synth sound paired with a saxophone blast, followed by a distracted saxophonist failing to hit a note). This is by no means unique to Garlic Hug; the same could be said of all pieces that involve complex or contrasting sectional changes. We wish to highlight how our changing instrumentation from piece to piece impresses itself not only on the sound, but also on our interactions and experience of performance.

Having discussed the merits of simplifying these operations, we have made some modifications, such as removing certain instruments that seemed superfluous. [11] However, over time the multiple-device set-up has proved to be the more enjoyable option. The combination of devices and the somewhat unpredictable outcomes afforded by their presetless design bring more room for variation from gig to gig, and sonic surprises that avoid a tiresome sense of exact repeatability for us as performers. As with Matmos and Ashley Paul, this discomfort within the seams that keep us together is an important part of what enlivens us. There is a sense of riding the border between synchronised, coalescing parts and breakdowns in our interactions.

This sort of dynamic often recurs at different points in a performance, however we don't have a desire to maintain this approach throughout an entire set. Launching recordings, YouTube clips or self-evolving processes (e.g. across different software or synths) offers shifts to different atmospheres and related contexts, with the focus directed towards a type of listening that does not involve us so dynamically or centrally as performers. Initially, we both described a strange awkwardness in not seeming to 'do' anything in these moments of a performance, though we have come to enjoy these chances to listen in a different way, without necessarily playing anything.



Found or chosen recordings have often served as springboards for pieces or improvisations. One part of a performance grew out of found samples of a dog barking and an unrelated found tape of an educational resource about birds. In our improvisations, we might explore recordings within their original medium—in this case the dictaphone—through sampling them, or in combination with improvisation with other instruments. Though there are likely tacit agreements underlying our improvisations, we have far less prior-agreed communication, and the aggregate of instruments becomes a pool of possibilities to draw upon, explore or react to in the moment.

Screenshot of TidalCycles used for a performance of *Algokyritmo*, mixing live coding (lines 44-48) and text-to-speech (lines 50-56)

Though neither of us identify principally as livecoders, recently we have both independently dabbled in improvised programming, particularly upon moving to Sheffield, where the Algorave scene is an influential part of live coded music. Our first Garlic Hug sets involved lengthy improvised programming, though as this has been part of a playground of other approaches to performance, we don't project our screens to the audience, as is the norm in live coded music. [12] However, in considering the idea of presenting code to an audience, we thought about sonifying it.

Using our computers' text-to-speech (TTS) functionality, we became enchanted by the poetic, unpredictable features of intonation, rhythm and pronunciation, especially when slowed down in different TTS languages (e.g. Italian or Greek, in relation to our cultural backgrounds), and drenched in church-style reverb. This became the basis of *Algokyritmo*, which arose from improvisations and developed into a saturated soup of heavy bass and disjointed beats in which we are not always sure who is making what sound. As such our musical roles often feel less divided. We are bound together by a shared global rhythm (in our heads), which shapes a loose coalescence of our parts over the timescale, but here we have our heads down, concentrating on the screen while we type code.

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Error messages when executing code affect the division of our attention (e.g. analysing the code, fixing the code, abandoning the code, and listening), and the duration between trying an idea and hearing it, and so we experience a very different temporal and listening experience, both with resulting sounds and each other. Audience members' perception of such 'errors' will vary, but they are often less apparent than breakdowns in our manually-triggered, repetitive and synchronised patterns. Errors in our code, or a mismatch between intention and output, might impact upon pacing, or wildly change the sound environment and patterns in unintended ways.

In these cases, the results of 'mistakes' are rather open-ended, from the scale of serendipitous and pleasingly unexpected changes, to calamitous events that entirely break the musical flow or texture, or errors that cause our systems to crash. We aim to strike a balance between maintaining enough contact with the practice of improvised programming in order to have some command over musical direction, while leaving enough space for unexpected events, something afforded by instigating processes in Max/MSP which evolve in the background, or random selections of samples in TidalCycles, shaped by typing patterns whose outputs have a varying degree of predictability.

For pieces with intended outcomes, such as *Rolly* or *Snazzy Jacket*, it can be difficult to recover from breakdowns in communication. Opinions about how the performance is impacted upon will vary from person to person, but from our perspective our aim is to maintain a connection to our original structure. In many other parts of our performances, we don't have the same intended outcomes or need for synchronisation, and indeed we often interact with and explore our instruments in ways that don't always require our continual input.

In some cases, we feel as though we are rhythmically turning the wheel by counting time in our heads whilst manually beating out patterns on controllers or playing the saxophone. In other moments, running the rhythmic grids of drum machines or software sequencers channels our interactions in a different way. When playing with multiple, concurrent processes across different software or hardware synthesizers, and especially when attention is divided between them, there is often greater space for evolutions outside of our direct manipulations of sounds. Our perception of risks and interactions with our instruments therefore changes considerably within each section of a performance, creating a constellation of different tensions and experiences of control, interactions and relationships.

Conclusions

When performing as Garlic Hug our relationships with instruments change throughout a performance, informed by our approaches to composition and improvisation and the affordances of our aggregate of devices. These shifting tensions and mechanisms of change are at the heart of our approach, moving back and forth between structures with ragged seams, moments of poised synchronisation and open-ended improvisations. Our experience of these qualities will change as we become more familiar with instruments, software and pieces.



Throughout these first experiences of playing together, maintaining some sense of fragility or awkwardness in each section of a set has sustained our interest in musical ideas and on reflection this is perhaps one of the reasons that we don't commit to one approach. This is characterised by instrumental aggregates that afford different ways of performing and listening to each other, which we don't attempt to unify towards a single performative ethos. This is all part of the fun for us, as we thrive on the challenges of navigating shifting relationships, paces and sound environments, which are afforded by our multi-instrumental setup. The persistence to change within these shifting tensions is the glue that binds Garlic Hug together.

Endnotes

- [1] Ashley Paul in interview with Derek Walmsley, 'Tusk Festival 2015 In Conversation with Ashley Paul' https://www.youtube.com/watch?v=ampRrjvL8XQ (accessed 15/11/2019).
- [2] Tara Rogers, 'Bevin Kelley (Blevin Blectum)', Pink Noises, 235.
- [3] Kristin Erickson, Interview de Blectum from Blechdom Music LUFF 2012 https://www.youtube.com/watch?v=eTvMFs7weGl (accessed 23/10/2020)
- [4] Bevin Kelley, 'Interview de Blectum from Blechdom'
- [5] Drew Daniel, 'Machine Love: Matmos', 2010,
- https://www.residentadvisor.net/features/1223 (accessed 01/11/2019)
- [6]I dem
- [7] Idem
- [8] M.C. Schmidt, 'Machine Love: Matmos'
- [9] See Magnusson, T. (2010). 'Designing Constraints: Composing and Performing with Digital Musical Systems.' Computer Music Journal, 34(4), 62–73.
- [10] We have plans to make a collection of similar hocket pieces based on hockets.
- [11] In Rolly, we decided to sample certain sounds rather than also bringing along specific keyboards and smaller objects to performances.
- [12] TOPLAP https://toplap.org/ (accessed 01/12/2019) & algorave https://algorave.com (accessed 01/12/2019)

Garlic Hug's debut EP will be released in early 2021 by Aphelion Editions.

Alessandro Altavilla is a composer, artist and researcher based in Sheffield. His work spans across digital media practices, investigating sense of place, perception of sonic experience, and mediation of listening practices through digital music performances, sound and media art. He gives workshops in Sonic Interaction Design and his works have been shown at Biennale of Art in Marrakech, Invisible Architectures (Newcastle Upon Tyne), Papey Listskjul (Orkney, Scotland) Alchemy Film and Moving Image Festival (Hawick, Scotland). He is an associate lecturer in Interactive Media at the University of York.

Helen Papaioannou is a musician based in Sheffield. She has a fascination with the dynamics of group interaction, and composes for acoustic instruments and electronics. Her new solo project Kar Pouzi intertwines baritone saxophone and electronics, often drawing out intensity from persistent cycles and repeated sounds. Helen's compositions have been performed by various musicians and ensembles, and she improvises with a range of different collaborators. She has played as one third of the band Beauty Pageant, and as a member of the trio HOKKETT.

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Resident Advisor (2010). 'Machine Love: Matmos', Resident Advisor, 13 August 2010. Accessible online at: https://www.residentadvisor.net/features/1223

Rogers, T. (2010) Pink Noises. PLACE: Duke University Press

Walmsley, D. (2015) 'Tusk Festival 2015 - In Conversation with Ashley Paul' [Video]. Accessible online at: https://www.youtube.com/watch?v=ampRrjvL8XQ

Discography

Blectum from Blechdom Live on KXLU 7/2/10. Accessible online at: https://vimeo.com/13085235

Blectum from Blechdom, Hous de Snaus (Tigerbeat6, 2001)

Blectum from Blechdom, The Messy Jesse Fiesta (Deluxe, 2000)

ICHI, Maru (Lost Map Records, 2016)

Ashley Paul, "If only goodnight" (Wagtail, 2009)

Ashley Paul, "It's the Heat" (Wagtail, 2010)

Ashley Paul, "Lost in Shadows" (Slip, 2018)

