



ORNAMENT: OBJECT, BEHAVIOUR, LAYER AND ARCHITECTURE

Jakob Bragg

Abstract: This article reflects upon the nature of ornamentation and how it applies within my recent works, *Passacaglia* (2021), *Tor* (2022), *Fourteen transcriptions from across the plane (plain)* (2023), and *Through Gates Unseen* (2023). I express ornamentation as a multi-faceted set of activities which include the figurative, behavioural, layered and architectural. These components broadly move from the smallest sound unit to that of macro-level concerns. I argue that this behavioural aspect of ornamentation is exemplified by states of transition, density, kinetic energy, articulation and the organic. Here, ornamentation is used to distort and destabilise, as a vehicle for modulation, and as a framework for exploratory play between global and local-level details.

Introduction

The term ‘ornamentation’ conjures culturally and artistically specific ideas: filigree swirls, floral or geometric motifs, certain architectural structures, ancient patterns carved in bronze and iron, expressive woven designs, musical figures, elaborate cadenzas and, perhaps above all, ideas of detail. Focus upon Western art music, especially that of the nineteenth and early twentieth centuries, and one soon uncovers more contentious ideas of the ornamental in contrast to the non-ornamental and the structural.¹ This is not just limited to tonal music of this period, but also expressed in the atonal. In ‘Ornamentation as Gesture in Atonal Music’, Michael Buchler recycles much of the terminology used in Classical-period music, of ornamentation as ‘passing and neighbour tones, suspensions, and incomplete neighbours’.² Although it could be argued that this distinction is useful in applying a very specific harmonic and contrapuntal lens, I struggle with this rigid approach, which strips away the musical materials that, for me, are the most intriguing for their ability to activate, weave and propel material.

¹ See Frederick Neumann, ‘Ornament and Structure’, *The Musical Quarterly*, 56, no. 2 (1970), pp. 153–161, <http://www.jstor.org/stable/740987>. Although Neumann does express the difficulty in making such rigid distinctions between the ornamental and musical ‘hard core’ or ‘essential meaning’, he reiterates time and time again that ‘ornament is generally conceived as the antithesis of structure’.

² Michael Buchler, ‘Ornamentation as Gesture in Atonal Music’, *Music Theory Spectrum*, 42, no. 1 (Spring 2020), pp. 24–37, <https://doi.org/10.1093/mts/mtz021>.



Figure 1:
John Olsen, *Sydney Sun* (1965).⁷

Take the painting *Sydney Sun* (1965) by John Olsen (see Figure 1). It would be absurd to dissociate the lines and coils, splotches and specks, and focus exclusively upon foreground and formal aspects of the work. It is these very components, the use of figures, lines, layers and seemingly kinetic-like details – terms that might equally describe musical ornaments – that give this work its sheer impact and expressivity.³ Likewise, I argue that the same sentiments can be used when considering aspects of Baroque ornamentation where the use of appoggiaturas, mordents, trills and other such details are a key structural component of musical progression and identity. Take the opening of François Couperin's 'La Française' from *Les Nations*.⁴ Here, I perceive the inverted mordents and short trills of the upper voices as a catalyst for the proceeding descending bass line – in essence a vehicle for pitch destabilisation.

The same applies to more contemporary works. In describing Liza Lim's *Weaver of fictions* (2007), Tim Rutherford-Johnson categorises an array of elements such as trills, multiphonics, scattershot runs, overblowing, flutter-tonguing and even rhythmic variation as ornamentation that is increasingly foregrounded, later describing these aspects in *The Four Seasons (After Cy Twombly)* (2008) as a vehicle for development.⁵ Of Evan Johnson's *L'art de toucher* triptych (2009, 2011, 2021), Johnson writes that these works are 'made of layers of ornament upon ornament, flowering elaboration upon flowering elaboration upon flowering elaboration, of very simple, trivial musical figures, until they become something else altogether'.⁶ In both examples, the use of figures and activity that could be described as ornamentation are intrinsic to the development and identity of the works.

³ This is not to mention colour and form amongst many other elements that make this work so striking.

⁴ François Couperin, *Les Nations* (Paris, France: Éditions Durand, 1933).

⁵ Tim Rutherford-Johnson, *The Music of Liza Lim* (Kingsgrove Australia: Wildbird Music, 2022), pp. 12–13, 21.

⁶ 'Interview with Evan Johnson', Another Timbre, <http://www.anothertimbre.com/evanjohnson.html> (accessed 29 May 2024).

⁷ John Olsen, *Sydney Sun*, oil on three plywood panels, 1965, National Gallery of Australia, Canberra, <https://searchthecollection.nga.gov.au/object/26102>. Reproduced with kind permission from the National Gallery of Australia.

From this starting point, I will outline my approach to ornamentation, which I see as a multifaceted set of behaviours and activities – one that encompasses a particular set of musical figures or objects, a distinct set of musical behaviours, is analogous with and enhanced by layers and has the ability to foster a relationship with form and structure.⁸ Furthermore, ornamentation can also be used as vehicle for timbre and colouration, associated with specific performance and extended techniques and intrinsically tied to concerns of notation. Each of these – ornamentation as ‘figuration’,⁹ as ‘behaviour’, as ‘a heterophony of layers’, as ‘architecture’ – will be exemplified within my recent work, including *Passacaglia* (2021), *Fourteen transcriptions from across the plane (plain)* (2023), *Tor* (2022) and *Through Gates Unseen* (2023).

Finally, it is worth addressing some key issues surrounding the term ‘ornamentation’. Ornamentation as a term is arguably contentious. It has Western European connotations, a very specific set of musical objects attributed to it and ascribes a sense of the superfluous. The question then arises: should another term be used to describe the type of musical ideas I discuss here? Terms such as figure, fioritura, filigree and embellishment are used to describe not-too-dissimilar ideas, but each has its own set of drawbacks.¹⁰ Instead, the term ‘ornamentation’ remains one that is familiar, needing little explanation in discussion and, most practically, in rehearsals. Furthermore, by broadening the analysis of ornamentation beyond music¹¹ and the often narrow discourse of Baroque- and early Classical-period music, it is evident that this term remains the most fitting way to describe the types of activities and behaviours to which I am so drawn.¹²

Ornamentation as Figuration

At the local level, the smallest sound unit of ornamentation is figuration. Ornamental figures, or figurative ornamentation, consist of musical objects, micro-details and the smallest motivic elements, often historically, culturally and instrumentally specific. These figures include the countless musical objects contained in treatises on ornamentation during Europe’s late Renaissance, Baroque and early Classical periods, notably those by Guiseppe Tartini,¹³ Jean

⁸ The idea of ornamentation as a collection of subcomponents, moving from the smallest detail to larger structural concerns, is similar to James Tenney’s concept of form. Tenney outlines a hierarchy of levels, moving from the smallest to largest, which include ‘elements’, ‘clangs’, ‘sequences’ and finally ‘pieces’. See James Tenney, ‘Form in Twentieth-Century Music (1969–70)’, in *From Scratch: Writings in Music Theory*, ed. Larry Polansky, Lauren Pratt, Robert Wannamaker and Michael Winter (University of Illinois Press, 2015), pp. 150–165.

⁹ Despite my critique of some of Buchler’s categorisation of ornamentation, I have adopted the term ‘figuration’, which he uses in Buchler, ‘Ornamentation as Gesture’, pp. 24.

¹⁰ These include unfamiliarity, an equally narrow set of connotations that widens musical activities beyond my area of focus.

¹¹ The concept of ornamentation within the field of architecture will be considered under ‘Ornamentation as Architecture’.

¹² Later, however, I will use the term ‘figuration’ to describe a particular subset within musical ornamentation.

¹³ Guiseppe Tartini and Sol Babitz, ‘Treatise on Ornamentation’, *Journal of Research in Music Education*, 4, no. 2 (1956), pp. 75–102, <https://doi.org/10.2307/3343580>.

Rousseau, Monsieur de Saint-Lambert,¹⁴ François Couperin,¹⁵ and the multigenerational contributions of Johann Sebastian Bach¹⁶ and Carl Philipp Emanuel Bach¹⁷ and Riccardo Rognoni¹⁸ and Francesco Rognoni.¹⁹ These vary in their provision of historical contexts, their execution of certain ornaments, their recommended usage, purpose, content, length, stress and explanations of shorthands and symbols. These figures include different types of trills, turns, mordents, slides, appoggiaturas, acciaccaturas and many more.

Figurative ornamentation is not just limited to Western classical music. In Celtic pipe music there are a number of ornamental figures, which amongst other uses, are required to obtain certain notes, registers and note combinations. These include slides, cuts, taps, rolls, crans, shivers and backstitching.²⁰ In Ottoman music, the term 'ornamentation' is used to describe the many actions a musician may take, according to style and instrumentation, where the 'note' is generally considered only a tool.²¹ Specific to the type of 'makam' and 'seyir' used,²² musicians master characteristic melodic phrases called 'çeşni-s' which are highly ornamental, with microtonal variations, glissandi, various grace notes, trills and repeated notes.²³ Arabic improvisatory music includes ornamental figures that modulate pitch and rhythm, contain melodic additions and subtractions and include instrumentally specific embellishments, such as the 'Tarkib' and 'Tad'if.²⁴ I posit that all these diverse musical objects and techniques exemplify the idea of ornamentation as figuration. However, although these figures are a component of local-level activity they can also convey the musical essence of the work, functioning as vehicles for progression and development, spinning out material and providing implications for larger formal-level activity. I am particularly drawn to this idea, and resonate with Al Faruqī's remark about Arabic music: 'Ornament [...] is not an adjunct to a particular tune or to specific tones of that tune. It is itself the melodic substance ...'.²⁵

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¹⁴ See Scheibert's discussion of Rousseau and Saint-Lambert's texts in relation to the music of Jean-Henri d'Anglebert in Beverly Schelbert, 'Ornament Performance: Treatises by St.-Lambert and Rousseau', in *Jean-Henry D'Anglebert and the Seventeenth-Century Clavecin School* (Indiana University Press, 1985).

¹⁵ François Couperin, *The Art of Playing the Harpsichord*, ed. Anna Linde, trans. Mevanwy Roberts (Breitkopf & Härtel, 1933), pp. 18.

¹⁶ Johann Sebastian Bach, *Clavier-Büchlein vor Wilhelm Friedemann Bach* (Januar Ao. 1720).

¹⁷ Carl Philipp Emanuel Bach, *Essay on the True Art of Playing Keyboard Instruments*, ed. William J. Mitchell (London (UK): Ernst Eulenburg Ltd, 1974).

¹⁸ Riccardo Rognoni, *Passaggi per potersi esercitare nel diminuire terminatamente* (Venezia, 1592).

¹⁹ Francesco Rognoni, *Selva de vari passaggi* (Milan, 1620).

²⁰ I worked closely with Uilleann Piper Matthew Horsely on many of these which can be heard in the resultant duo I wrote for recorder and pipes entitled *Between Giants* (2018–19).

²¹ Nağme Yarkin, 'Instrumentation of Ottoman / Turkish instruments', *Rast Musicology Journal*, 8, no. 1 (2020): 2317–2329, <https://doi.org/10.12975/pp2317-2329>.

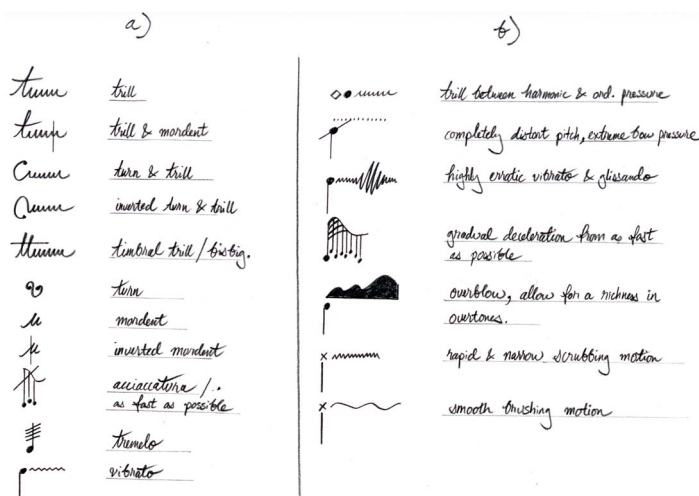
²² 'Makam' refers to a complex set of traditions and rules based upon pitch structures, whereas 'seyir' refers to the melodic progression through a given 'makam'. See Bülent Aksoy, 'The Makam Phenomenon in Ottoman Turkish Music', Turkish Music Portal, Turkish Cultural Foundation, <http://www.turkishmusicportal.org/en/types-of-turkish-music/turkish-classical-music-the-makam-phenomenon-in-ottoman-turkish-music> (accessed 16 May 2024).

²³ Adem Merter Birson and Ahmet Erdoğan, 'Understanding Turkish Classical Makam: Identifying Modes Through Characteristic Melodies', *The Society for Music Theory Videocast Journal*, 7, no. 5 (2021), <https://www.smt-v.org/archives/volume7.html>.

²⁴ These include techniques such as plucking adjacent strings simultaneously. See Lois Ibsen al-Faruqī, 'Ornamentation in Arabian Improvisational Music: A Study of Interrelatedness in the Arts', *The World of Music*, 20, no. 1 (1978), pp. 17–32, <http://www.jstor.org/stable/43562537>.

²⁵ Faruqī, 'Ornamentation in Arabian', p. 20.

Figure 2:
Typical ornamental figurations that,
as symbol or shorthand, represent
formulaic and/or repeatable
figurations in my music.



The use of ornamental figurations as material, to propel motion, activate or prologue pitch, layer details and as a vehicle for development, is a core component of my works. Figure 2 illustrates a table of notated symbols that are common throughout many of my recent works.²⁶ These are a subset of ornamental figurations that can be expressed through a familiar notational symbol or shorthand that is repeatable and partially formulaic. Those on the left (a) are likely to be recognisable by most Western classical musicians. These include trills (including those with suffixes and prefixes), turns, mordents, grace notes, tremolos and vibrato. The figurations on the right (b), illustrate the less familiar types of material that could also be described as ornamentation, including trills between finger pressures, scratch tone re-articulations, erratic vibrato, flared beams, overblowing and various scrubbing motions. What unifies both the more familiar Baroque ornaments and those on the right is their shared musical behaviour; they articulate, activate and detail a given musical parameter and are used to propel material forwards.

Not all ornamental figurations in my work are exclusively notated like this, however; many are composed out and, more commonly, altered, warped and manipulated. These figures often act as a vehicle for development and emphasise different pitch-based centres. In bar 10 of the recorder cadenza in *Tor* (see Example 1), a written-out figure resembling a turn is found in the middle of the 11:8 rhythmic group, functioning as an accentuation of pitch G. Meandering around this pitch point, but notably not voicing it, a pedal G is established two octaves below, anchoring the glissando. This is followed by another meander around G, in the 7:4 rhythmic group, and another pedal G, now doubled by the voice (square notehead), before the upper voice frees itself of this pitch-based constriction.

In *Passacaglia*, the trill functions as a vehicle for both shifting the pitch band and propelling activity. Example 2 shows the opening of *Passacaglia*, with a semitone trill sliding upwards then downwards, settling on a single pitch (bar 1). In bar 2 this tightening within the trill is distilled into short-burst trills, contracting from a larger initial interval,

²⁶ No one work features all of these, but varying combinations of each are used throughout.

and impart stress and accent'²⁷ (C. P. E. Bach); 'florid ... animated air'²⁸ (Guiseppe Tartini); 'fundamentally gestural'²⁹ (Michael Buchler); 'expendable outermost sphere of lightest specific weight ...'³⁰ (Frederick Neumann); 'melodic lubricant ...'³¹ (Frederick Neumann); 'timbral modulation ... sound takes on a dimension of change and internal complexity'³² (Richard Barrett). Some of these imply an underlying structural layer (embellish, gestural, expendable), while others imply a functional layer (animate, lubricate, modulate).

A similarly selective snapshot of ornamentation in design and architecture yields these definitions: 'artistic expressions'³³ (Haryanto Simanjuntak, M. Nawawiy Loebis and Dwi Lindarto); 'geometric, calligraphic and vegetal'³⁴ (Lois Ibsen al-Faruqī); 'emerges from material substrate, inseparable from the object'³⁵ (Farshid Moussavi); 'vines, tendrils, foliate, leaves and stems'³⁶ (Mohammad Arif Kamal and Murat Cetin); 'abstracted plant form ... along geometric grid lines'³⁷ (Tom Beeby); 'any remaining straight line dissolved into sweeping scrolls ... flirtatious curves and dainty arcs'³⁸ (Victoria Charles and Klaus H. Carl). Here, there are suggestions of the organic and the naturalistic (vegetal, vines, scrolls, curves) and others that imply a relationship with form (material substrate, geometric, abstracted plant form). In Louis Sullivan's Wainwright Building in St Louis, for example, ornamentation is expressed as an accentuation of architectural form, framing and enhancing certain features, utilising floral, vegetal and geometric motifs, an extremity of detail and materials that appear to emerge from the structural whole (see Figure 3).

Drawing on these descriptors, reflecting on the diverse musical materials that could be described as ornamental – not just those of Western European music – and considering the types of music behaviours to which I am drawn, I propose the following definitions.

Ornamentation is Transitionary. It often traverses away or toward a new structural level. This could be a transition from one pitch point to another, one rhythmic identity to another, or as in architecture, marking a shift in geometric form.

Ornamentation is Density. It is compact, detailed, often compounded and capable of saturation. Consider an interlocking of vegetal motifs within the visual arts, or musically, a virtuosic cadenza.

²⁷ Bach, *Essay on the True Art*, p. 79.

²⁸ Tartini and Babitz, 'Treatise on Ornamentation', 8. Tartini also speaks of 'natural modes', 'compound modes' and 'florid cadences' as aspects of ornamentation, possibly the closest a treatise on ornamentation gets to my concept of ornamentation as a behaviour.

²⁹ Buchler, 'Ornamentation as Gesture', p. 24.

³⁰ Neumann, 'Ornament and Structure', p. 155.

³¹ A markedly different descriptor to that used in Neumann's 'Ornament and Structure', in Frederick Neumann, 'A New Look at Bach's Ornamentation: I', *Music & Letters*, 46, no. 1 (1965), pp. 4–15, <http://www.jstor.org/stable/731918>.

³² Richard Barrett, *Music of Possibility* (Chipping Norton, UK: Vision Edition, 2009), p. 74.

³³ Haryanto Simanjuntak, M. Nawawiy Loebis and Dwi Lindarto, 'Meaning of Ornament in Architecture (Case Study: Contemporary Architecture Batak Toba)', *IOP Conference Series: Earth and Environmental Science*, 452 (2020), 1, <https://doi.org/10.1088/1755-1315/452/1/012010>.

³⁴ Faruqī, 'Ornamentation in Arabian', p. 20.

³⁵ Farshid Moussavi and Michael Kubo, *The Function of Ornament* (Harvard University Graduate School of Design, 2006), p. 8.

³⁶ Mohammad Arif Kamal and Murat Cetin, 'Arabesque: A Vital Element of Ornamentation in Islamic Architecture', *Gurgaon: Development & Research Organization for Nature, Arts & Heritage (DRONAH)*, 8, no. 1 (Spring, 2011), pp. 87–90.

³⁷ Tom Beeby describes Louis Sullivan's use of ornamentation in Tom Beeby, 'Ornament Has Always Flowered in Chicago', *The Architectural Review* (1977, republished online September 2015), <https://www.architectural-review.com/archive/ornament-has-always-flowered-in-chicago>.

³⁸ A reference to the rococo style of ornamentation in architecture; see Victoria Charles and Klaus H. Carl, *Rococo* (New York, USA: Parkstone Press International, 2010), p. 35.

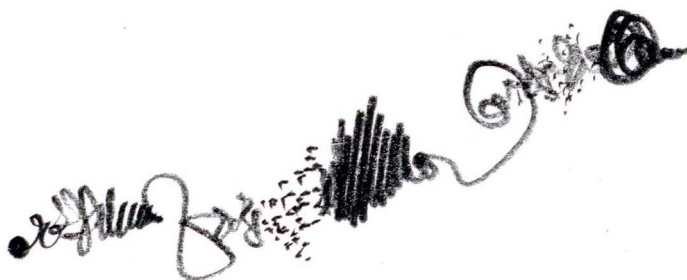


Figure 3:
Wainwright Building, 7th Street and
Chestnut Street, St. Louis, MO.
(Photograph, Wikimedia Commons,
23 March 2023).

Figure 4:
Graphic representation of each of the
five behavioural characteristics of
ornamentation: *transition*, *density*,
kinetic energy, *articulation* and the
organic. (Illustration: Jakob Bragg.)



Figure 5:
Graphical representation of how the
five behavioural characteristics of
ornamentation could be expressed in
a single illustration. This could
represent a single phrase, or equally
so, the entire structure of a work.
(Illustration, Jakob Bragg.)



Ornamentation is Kinetic. It provides musical energy, momentum, activates pitch, rhythm, timbre and resonance. It is rarely sedentary or static.

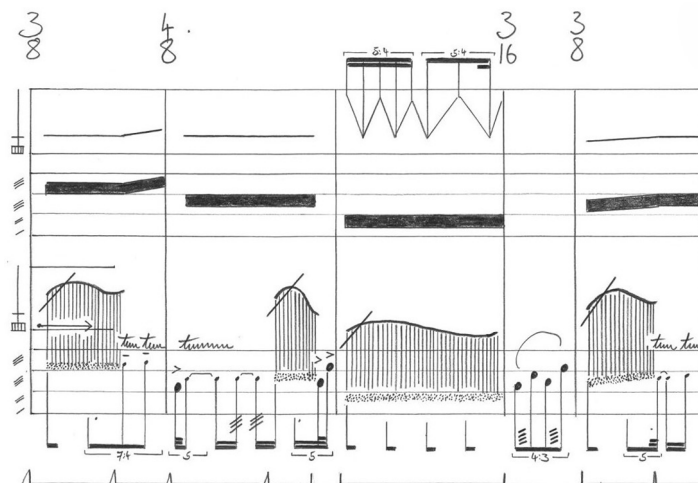
Ornamentation is Articulation. It demarks and accentuates features. Consider the role of the acciaccatura within a phrase. The same could be said of other figurations and of ornamental forms within architecture, emphasising attention upon certain features.

Ornamentation is Organic. It often feels naturalistic, spontaneous, improvisatory, appearing to contain materials that meander, swirl and turn.

It is possible that many more adjectives could be used to describe ornamental behaviours, nor need ornamentation encompass all these characteristics. This, however, is the lens that I have developed when I compose, structure and discuss ornamentation and, although it is

Example 3:

Jakob Bragg, *Fourteen transcriptions from across the plane (plain)*, bars 9–13 of transcription 5 from this work use a novel x–y axis notation. The upper stave indicates a ruler to be placed inside the piano, muting the band of strings performed by the left hand in the lower stave.



specific to my practice, I believe it could be useful in broader musical discourse. A graphical representation of these behaviours – *transition*, *density*, *kinetic energy*, *articulation* and the *organic* – are found in [Figure 4](#) and [Figure 5](#), which have become pivotal in the way I map and express sketch material.

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In the opening passage of *Passacaglia* (see [Example 2](#)), all these behavioural aspects of ornamentation are on display. There are transitions between distorted and ordinario tones (indicated by shaded wedges), between bow positions (upper two-line stave) and between different amounts of finger pressure, and a traversing of the underlying pitch ostinato which frames each sub-phrase. There is a density of activity, often stratified across multiple layers. Trills and glissandi, finger manipulation and distortions are superimposed to form a saturation of shifting, flickering and buzzing activities. This density, further amplified by the scrubbing motion of the frame drum, use of trills and dynamics that propel momentum, gives a highly kinetic and energetic impression. The frame drum functions as an articulation of the violin. Sometimes this draws attention to shifts in material, while at other times this accentuates or exaggerates violin gestures, such as the use of superball dovetailing the violin glissandi. Lastly, there is a playful spinning out of material. The pitch-based ostinato functions as a distant grounding, with glissandi, registral shifts, manipulations, varying phrase lengths and rhythmic groups playfully shadowing the Biber *Passacaglia* from which this work draws, and affording a quasi-improvisatory and virtuosic abstraction of the original.³⁹

In *Fourteen transcriptions from across the plane (plain)* (see [Example 3](#)), behavioural ornamentation is taken to another extreme. Dense clusters of meandering pitches, performed as fast as possible, distorted by a ruler placed horizontally across the strings, exemplify density, kinetic energy and the organic. Stripped-down trills and explosive clusters sharply articulate this shifting material as the work traverses register, pitch-bands and various scraping techniques across the strings.

³⁹ Heinrich Ignaz Franz Biber, 'Passacaglia' from the *Rosary Sonatas* (1679).

Ornamentation as a Heterophony of Layers

Operating at a stratified level, both locally and globally, is ornamentation as layered activity. Applicable to both the figurative and behavioural level, this layered approach further amplifies, compounds and even radicalises its constituent parts. This ornamental activity can occur across multiple parameters, often simultaneously, to create a sort of hyper-ornamentation. For example, a glissando within one parameter might be transformed by a glissando in another parameter, or a trill between neighbouring notes could be layered with a trill between finger pressure or mute manipulations.⁴⁰ In both cases, ornamental activity is replicated and enhanced across multiple parameters, instrumental lines or structural layers. Although this activity might manifest as a dense polyphony, my interest is in heterophony, a splicing, a shadowing, a messy call and response between layers.

Defined as the simultaneous variation of a melody or line,⁴¹ my interest in heterophony arose from a deep love of Ottoman music:⁴² the meandering and highly expressive taksım,⁴³ each performer dovetailing the next, slowly exposing both makam and temperament, leading to a more regimented unison in which instrumentation, ornamentation and imitation contribute to a resultant heterophony.⁴⁴

Affecting parameters from orchestration, timbre and rhythm to performer relationships, my primary focus is on layering that enhances behavioural aspects of ornamentation.⁴⁵ Richard Barrett's approach to heterophony is relevant here, measuring 'degrees of focus' in comparing different musical strands with regard to pitch, duration, timbral resonance and articulation.⁴⁶

I would distinguish a heterophonic approach, whose syntax might be based on something like a degree of relative collinearity between simultaneous lines, or in other words the proximity of their frequencies within a continuum between low and high, from a 'harmonic' approach whose syntax ultimately depends on the relations between points along the quantised spectrum of the natural harmonic series, or approximations to it.⁴⁷

Although my interest in layering to amplify and compound ornamental behaviours includes that between different instruments and

⁴⁰ This sort of ornamental layering is common in, for example, Liza Lim's *Voodoo Child* (1989) or Chikako Morishita, *Lizard (shadow)* (2011).

⁴¹ 'Heterophony', in *The Oxford Dictionary of Music*, ed. Joyce Kennedy, Michael Kennedy and Tim Rutherford-Johnson, 6th ed. (Oxford: Oxford University Press, 2012).

⁴² Heterophony is common to many musical cultures, especially those outside Western Europe, including Chinese folk opera (see Robert T. Mok, 'Heterophony in Chinese Folk Music', *Journal of the International Folk Music Council*, 18 (1966), pp. 14–23), or the music of Northern India (see John Napier, 'A "Failed" Unison or Conscious Differentiation: The Notion of "Heterophony" in North Indian Vocal Performance', *International Review of the Aesthetics and Sociology of Music*, 37, no. 1 (2006), pp. 85–108), to name only a few. Although I embrace a diverse array of music in both my listening and research practice, it is the tradition of Ottoman music that has been the single greatest source of inspiration here.

⁴³ The taksım is a non-metrical, flowing improvisatory genre which can act as a prelude to a composed work. See Walter Feldman, 'Ottoman Sources on the Development of the Taksım', *Yearbook for Traditional Music* 25 (1993), pp. 1–28, <https://doi.org/10.2307/768680>.

⁴⁴ See Nağme Yarkin, 'Instrumentation of Ottoman/Turkish instruments', *Rast Musicology Journal*, 8, no. 1 (Summer, 2020), 2317–2319, <https://doi.org/10.12975/pp2317-2329>. Although there are countless intricate and highly sophisticated aspects of this musical culture, it is this highly ornamental and virtuosic morphing of simultaneous lines that I gravitate towards.

⁴⁵ This contrasts with other composers working with heterophony such as Martin Arnold and Arne Sanders. Although Sanders' framing of 'ornamental heterophony' parallels my own, his use of ornamentation remains tied to a quasi-Schenkerian structural reduction. See Arne Sanders, 'Portfolio of Original Compositions with Written Commentary' (PhD diss., University of Leeds, 2018).

⁴⁶ This is exemplified in his work *Urlicht* (2013–14). See Barrett, *Music of Possibility*, pp. 13–17.

⁴⁷ Barrett, *Music of Possibility*, p. 13.

IV WEATHERED (a)

Example 4:

Jakob Bragg, *Tor*, bars 1–4 of movement IV, 'Weathered (a)', *Tor*.

lines, I am more interested in layering different instrumental parameters,⁴⁸ as in Evan Johnson's work where manipulations and ornamental figures are interlaced across multiple staves, resulting in a highly active work undergoing constant transformation. In describing his solo bass clarinet work, *Supplement* (2004/2007), Johnson states that:

In concrete terms, the piece is a study in layered ornamentation, in concentric encrustations of material and of performative states that more often than not conspire to overwhelm and irretrievably distort that which is ornamented. There is too much material, too much reaction to and too much enthusiasm for that material; a basic melodic line is 'supplemented' beyond recognition and beyond the capacity of a monophonic instrument to control it.⁴⁹

This layering of ornamentation to overwhelm and distort, in conjunction with my predilection for heterophony and a more behavioural approach, occurs in many of my works. In *Tor* (2022) there is a dense simultaneous layering of lines, notational detail, orchestration and parameters. Movement IV, 'Weathered (a)', illustrates this (Example 4). Emerging from almost molten bass drum and den-den daiko drum music, a wild dialogue commences between the two flutes. Each flute navigates a heterophony of parameters with fingering, embouchure, states of airiness, vocalisations, sung lines, overblowing and flutter-tongue all decoupled.

In bar 1, the bass flute embouchure manipulations shadow the turn-like figure of the fingered pitches. Rhythmically displaced with a short overblowing, the effect of this heterophony is one of liquefied ornamental figurations, blurred and distorted. The piccolo line also closely parrots the bass flute, often less than subtly. Sounding three or four octaves apart, these echoed outbursts run away with fragments of the bass flute before falling silent and picking up again with a new gesture. In bar 3, the piccolo takes the idea of the bass flute F# appoggiatura to F♯, compressing it into a demisemiquaver tuplet over two pitches. The act of compression transforms this into a sort of acciaccatura, further distorted by tremolo and an elongated embouchure bend like that of the bass flute below. This act of mimicking and deviation continues over five bars, every time bookended by sustained pitches and often interrupted by the recorder. After three cycles, the two flutes begin to work more harmoniously (bars 12, 13 and 15). This behaviour

⁴⁸ Other composers who have influenced this aspect of my work include Klaus K. Hübner, Julio Estrada and Aaron Cassidy.

⁴⁹ Evan Johnson, *Supplement* (2004, rev. 2007).

Example 5:

Jakob Bragg, *Passacaglia*, bars 40–44; a heterophony of layers between instrumental lines and parameters contributes to a highly ornamental sense of activity.

continues into movement V, with both flutes working in conjunction through overblown trills.

In *Passacaglia*, a heterophonic layering is also established between the two instruments and between multi-stave performer actions on the same instrument. Throughout, there is an exchange between the violin and the frame drum as to who influences whom. Returning to Figure 4, the motions of sliding and scrubbing are evident in both instruments. What is less clear, given the displacement in rhythm between these events, is whether the frame drum glissando is the catalyst for the glissando in the violin or its consequence, dovetailing the end of the violin glissando in bar 5. This elusive relationship between the instruments is a key component of the work, although this heterophonic relationship can also be more direct, as in bar 42 (see Example 5), where the application and release of pressure upon the frame-drum tremolo functions as a delayed mirroring of the violin harmonic glissando.

Manipulations across multiple parameters also contribute to a layering that enhances the behavioural aspects of ornamentation. In bar 41, the violin begins a trill between harmonic and half-harmonic pressure, moving down from an indeterminate high pitch to first position. Simultaneously, bow position moves from *sul tasto* to *molto sul pont* (indicated by the upper three-line staff) before the trill shifts to one between harmonic and *ordinario* pressure by bar 42. In addition, a neighbouring open second string is gradually introduced. Ignoring parameters such as dynamics and duration, the performer navigates five states of transition; instigated by the original trill, these are layered, with compounded re-articulated attacks (trills and tremolo) and shifts in timbre contributing a sense of kinetic energy and density, ultimately lending impact to the shift in volume and action of the proceeding bar.

In heterophonic relationships where splicing and shadowing of stratified materials occurs, ornamental behaviours are enhanced. These figurations and broader instrumental lines are compounded, overwhelmed, amplified and distorted.

Ornamentation as Architecture

How can ornamentation manifest at the macro or architectural level?⁵⁰ Figure 6 is a collection of swirling and coiling lines, vertically arranged,

⁵⁰ I use the terms 'architecture' and 'form' interchangeably to refer to macro-level concerns including shape, render, progressions and the arrangement of sections.

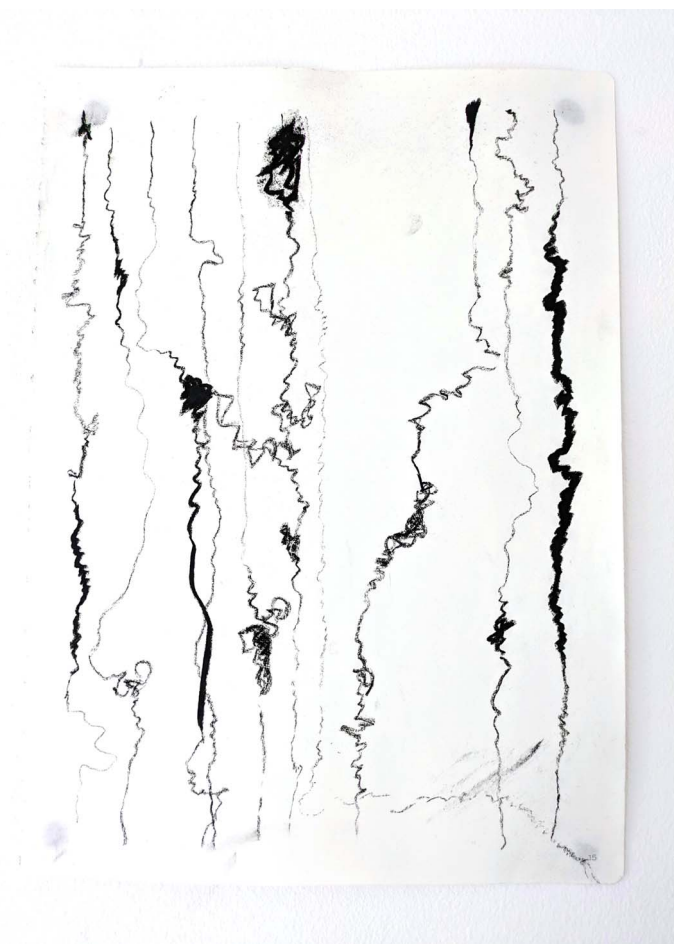


Figure 6:
Charcoal Sketch 1 (2023), Jakob Bragg.

some colliding, but most remaining independent. The work is made of a multitude of smaller figurations, from light undulating lines to heavy smeared scratches. The overall impression could be described as states of transition, levels of kinetic energy, a density of turns and swirls, an articulation of verticality and, overall, an organic meandering. These behavioural descriptors of ornamentation can equally be applied at the local and macro level, as instrumental lines or the entire architecture of a work: perhaps a shimmering tremor of highly polyphonic lines, or a dense mapping of independent fingers working their way down a cello fingerboard.

These behavioural characteristics of ornamentation are equally useful in rendering details at both the local and the macro, or architectural level. I often create a graphic representation of these behaviours at the architectural level, an abstract, usually hand-drawn sketch that maps ornamentation and provides an important compositional tool for moving between the local and global levels and in excavating notational detail. In certain works, this architectural detail crystallises early on; in others, it remains in a constant state of moulding and manipulation.

★

Just as the ideas from other art forms were used to extend my scope of ornamentation as behaviour, the discipline of architecture will be used to focus upon the nature of ornament and form, their potential interrelationship and how this could be translated within music.

In architecture, arguments about ornamentation and form vary, from ornament as a distinct aesthetic and symbolic expression, to ornament as intrinsically linked to structure and material.⁵¹ I am particularly fascinated by Robert Kerr's satirical remark that architecture is 'a cloak with which the architect transformed a dull structure into an eloquent "object d'art"'.⁵² Kerr identified four primary approaches:

Structure ornamented: there are decorations, additions, and those made independent to the overall structure.

Structure ornamentalised, or rendered itself ornamental: here, structural elements are arranged to create an ornamental effect.

Ornament structuralised, or rendered itself structural: ornamentation and design is the focus with structure and construction arranged to serve this.

Ornament constructed: here, ornamentation is made material, with concerns surrounding construction and form disregarded or having to be completely reinvented.⁵³

The parallels between these descriptions and music are intriguing, and for each description, one could imagine a musical equivalent. Figure 7 illustrates these four approaches, interpreted architecturally on the left and musically on the right.

Although all four categories play a role in my approach to ornamentation and form in music, I find the second, third and fourth approaches most fascinating, with 'ornament constructed' particularly informing my practice. Here, I lean on my drawing and sketching practice to map out form, orchestration, behaviours and activities. I then move between the local level and macro level, allowing creative impulses and mood to twist and bend the model as I excavate details. The focus is on ornamentation as material or, to put it differently, ornamentation manifest as form.

Many works explore a direct relationship between ornamentation and form, including those by Evan Johnson,⁵⁵ Cassandra Miller⁵⁶ and Yu Kuwabara.⁵⁷ Although not explicitly about ornamentation, the textural directness of Franck Bedrossian's *Manifesto* (2008) commands an interesting relationship between highly ornate and active lines and the overall architecture of the work.⁵⁸ Figure 8 is a graphical representation of the work, with a focus on perceived texture, intensity and gesture. The directness between line, shading, figure and space is one I replicate

⁵¹ See Naomi Tanabe Uechi, *Evolving Transcendentalism in Literature and Architecture: Frank Furness, Louis Sullivan, and Frank Lloyd Wright* (Newcastle upon Tyne, UK: Cambridge Scholars Publishing, 2003), pp. 44–45, where Louise Sullivan describes ornaments as both an emotional expression and a part of organic architecture. Additionally, see Antoine Picon, *Ornament: The Politics of Architecture and Subjectivity* (Chichester, UK: John Wiley & Sons, 2013).

⁵² Robert Kerr, 'Lecture at the Royal Institute of British Architects', in Thomas H Beeby, 'The Grammar of Ornament/Ornament as Grammar', *Via 3 Ornament* (1977), pp. 11–29.

⁵³ Robert Kerr's four approaches as outlined in Beeby, 'The Grammar of Ornament', pp. 12–13, and also in Hariitha Bothireddy, 'Syntactic and Semantic Role of Ornament in Architecture' (Master's thesis, University of Cincinnati, 2007), pp. 23–26.

⁵⁴ See 'Our story: Jørn Utzon AC', Sydney Opera House, <https://www.sydneypoperahouse.com/our-story/jorn-utzon> (accessed 26 June 2024).

⁵⁵ See *Supplement* (2004, rev. 2007), *Apostrophe 2* (*pressing down on my sternum*) (2009) and *L'art de toucher* triptych (2009, 2011, 2021).

⁵⁶ See *Warblework* (2011), a work based on slowed down birdsong.

⁵⁷ See Bai and Dharani (2020), which Kuwabara describes as part of her research into shomyo, Japanese Buddhist vocal music. Yu Kuwabara, 'Yu Kuwabara, Bai and Dharani with Ilya Gringolts, violin', Ilya Gringolts Official Channel, 7 March 2024, YouTube video, <https://www.youtube.com/watch?v=Pw6NrmWGPZY>.

⁵⁸ Franck Bedrossian, 'Manifesto', on *Manifesto*, Ensemble 2e2m, Pierre Roullier, (Aeon, 2011), CD.

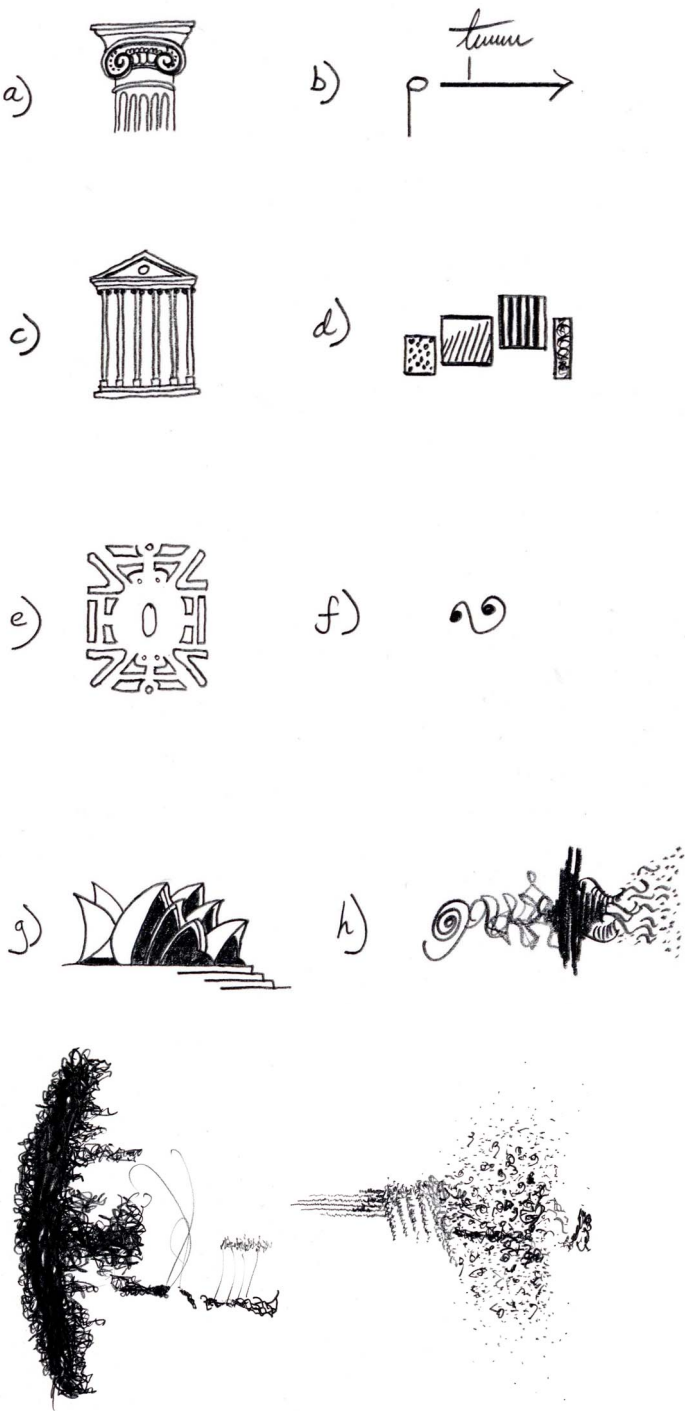


Figure 7:
Architectural and music
interpretations of the four approaches
to ornament and form. From left to
right, top to bottom: *structure
ornamented*, expressed as (a) a column
with added ionic decorations and (b) a
sustained pitch activated by a trill;
structure ornamentalised, expressed as
(c) an arrangement of columns,
pediment and steps and (d) sections of
a work arranged in a tessellated
fashion; *ornament structuralised*,
expressed as (e) an urban plan for
flared star junction and (f) a musical
work that might in its entirety
interpret the turn figuration; and
ornament constructed, illustrated by
(g) Jørn Utzon's Sydney Opera House,
a nestled shell design that required
new materials and construction
techniques,²⁴ alongside (h) a musical
work in which gesture and form is
entirely derived from a visually
abstract sketch. (Illustration: Jakob
Bragg.)

Figure 8:
A graphical interpretation of Franck
Bedrossian's work *Manifesto* (2008).
(illustration, Jakob Bragg.)

in many of my works, but in the reverse order. This was an important step in my thinking about an abstracted and behavioural approach to ornamentation that is realised at the architectural level.

Reflections

I am deeply interested in how ornamentation can be expressed at the figurative, behavioural, layered and architectural level. In my work, this multifaceted approach to ornamentation is used as compositional material in its own right. Ornamental behaviours of transition, density, kinetic energy, the organic and articulation are used to distort and destabilise, as a vehicle for modulation and as a framework for exploratory play within the compositional process. I have continued to research this relationship in recent works such as *Through Gates Unseen* (2023), in which musical detail is excavated from an overarching architectural sketch of dense shaded towers, smearing lines and layered chorales. My goal is to link the global and local more closely, so that ornamentation occurs not only within the micro-, phrase- and gestural-level, but also at the architectural level.