



Liza Lim (photo: Bridget Elliott, courtesy G Ricordi & Co (London) Ltd).



PATTERNS OF SHIMMER: LIZA LIM'S COMPOSITIONAL ETHNOGRAPHY

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In recent years Liza Lim has emerged definitively as one of the finest composers of her generation. A series of major works, including *Ecstatic Architecture*, commissioned for the inauguration of the Walt Disney Concert Hall in Los Angeles, and her third opera, *The Navigator* have confirmed her possession of a voice that is versatile, evocative, deeply expressive and uncompromisingly modern.¹

Lim's parents are Chinese, but she grew up in Brunei and then Australia. Her cultural and educational background is therefore coloured both by her Asian heritage and the (particularly British) colonial story. Although she considers herself to have always lived 'in a quite in-between space', as an artist she has been able to establish a position beyond allegiance to restricted cultural norms.

She has been personally and professionally associated with the Australian ensemble ELISION since 1986, and this almost uniquely close composer–performer relationship has profoundly affected the development of her music. Clearly the resources of this elite group give a composer the confidence to write unfettered by previous ideas of what is possible – ELISION's reputation is built on not only tackling music of extreme technical demands, but also doing so to the highest musical standards. And Lim has had many productive conversations with ELISION's players with regard to exploring and expanding the possibilities of their instruments.

But the association goes much further than these essentially practical benefits. In her youth Lim was influenced by Ferneyhough and at various times in her career her name has appeared under that dreaded bracket 'New Complexity'. Whether or not that term even refers to any existing, rather than idealised, compositional practice, the surprise on opening a Lim score is how much freedom and latitude her notation contains. Working with ELISION for so long has allowed her to develop a way of writing that conveys a precise sonic intention while trusting the players with a degree of latitude in finding the best route to it. This tension between specificity and freedom energizes her music.

If there is anything 'complex' about Lim's music – and there are many more appropriate adjectives – it relates to her sensitivity to all the cultural implications of what she is doing. Rather than a taste for micro-tones or irrational rhythms, it is an awareness that a note on the page is a call to action, a historical category, a cultural tool and a political weapon that she truly shares with Barrett, Dillon, Ferneyhough, Finnissy *et al.*

For the last few years Lim has undertaken a serious and detailed engagement with Australian Aboriginal culture, in particular with the Yolngu people of Arnhem Land, the north-eastern corner of Australia's

¹ *The Navigator's* world première at the 2008 Brisbane Festival was reviewed by Sarah Collins in *Tempo* Vol. 63 No. 247 (January 2009), pp. 59–60. (Ed.)

Northern Territory. Typically this engagement has been practised within a serious and respectful research ethic: Lim's interest is not in cheap or idle pastiche, but in the pursuit of genuine understanding.²

The result of these researches has been a series of works, beginning with the short oboe solo *Shimmer* of 2005, that explore aspects of Yolngu art and bring them into a creative relationship with the Western concert tradition. This study has not been Lim's sole concern during this time – *The Navigator* was composed in the same period and finds its origins a hemisphere away in the Tristan myth. It is also unlikely to become a Bartókian lifelong preoccupation although it is presumably something she, as an Australian composer, would have had to confront at some point. However, Lim's approach in these works is revealing of her broader practice and it has given rise to some of the finest music of her career.

In the languages of Northeast Arnhem Land, 'Yolngu' means simply 'Aboriginal person', but as used by outsiders and anthropologists it has come to refer more specifically to the group of intermarrying clans that populate that region. Yolngu painting is one of the best-preserved Aboriginal art traditions and as a result has been the subject of considerable anthropological study. The art takes many different forms, including rock paintings, ritual objects, coffins and body painting, but the most characteristic and accessible medium is bark paintings. As has been shown by Howard Morphy,³ the imagery used in Yolngu art, which combines highly stylized geometric patterns and realistic figuration, admits of many possible interpretations according to socially organized structures of knowledge and secrecy. Certain meanings may be accessible to all – including outsiders – but deeper levels are increasingly hidden and only available to the initiated or privileged. The interpretation of a single painting can thus appear to vary radically between interpreters; however, analysis may reveal how different interpretations are in fact single perspectives on a wider truth.

A second characteristic aspect of Yolngu art is what is known as *bir'yun*, or 'shimmer'. This is a visual effect created by fine cross-hatching drawn in high-contrast colours over the surface of sacred paintings. This technique projects a shimmering brightness that is seen as emanating from the ancestral creators of Yolngu mythology: *bir'yun* thus endows the paintings themselves with ancestral power. The shimmer of a painting is not only read as a representation of that power, but is also felt as a direct manifestation of it. That power is regarded as dangerous and is a highly-restricted form of knowledge: when a person whose body has been ritually painted with *bir'yun* patterns returns to the main camp, the cross-hatching is smeared to erase its brilliance, and thus its ancestral power.⁴

Meaning in Yolngu art is thus structured around a multivalent network of partly obscured realms of knowledge, accessed and controlled through an individual's experience within a cultural process. Its attractions for Lim lie in this multivalency; the processual, experiential quality of meaning-formation; and the intense radiance of the shimmer aesthetic.

² Lim has written a little on her experiences with the Yolngu in 'Staging an Aesthetics of Presence', *Search: Journal for New Music and Culture* No. 6 (2009), available as a pdf from <http://www.searchnewmusic.org/index6.html> (accessed 16 February 2011).

³ Howard Morphy, *Ancestral Connections: Art and an Aboriginal System of Knowledge* (Chicago and London: University of Chicago Press, 1991).

⁴ Morphy, p. 194.



Sonic ‘shimmer’ can take many forms: homorhythmic pulses, tremolos or the granulated hiss of a rainstick. The common denominator is a fine partitioning of the sound-continuum into an alternating on/ off pattern, a simple musical analogue for the cross-hatching of Yolngu painting. Example 1, from Lim’s *Shimmer Songs* (2006) for harp, three percussion and string quartet, shows some of the available possibilities. These include the tremolos in the harp and percussion, the scrape of the guiro, the crunch of a cabasa (percussion 3), and the range of *jété* techniques in the second violin, viola and cello parts. In one interpretation they might be regarded as the ‘public’, surface level of interaction with Yolngu art. Indeed here there is a basis for direct comparison: pulsing patterns are themselves a representation of bir’yun used in Aboriginal music, and Lim’s use of wooden percussion instruments recalls Aboriginal clapsticks.

Example 1:
Shimmer Songs, bars 32–4.
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Identifying such effects is simple, but their potential diversity points to the semantic and expressive flexibility of musical cross-hatching once its basic form has been established. The key to the radiant bir’yun glow, in both Lim’s music and Yolngu painting, is the creation of an unsteady flicker above a solid ground. As well as those sonic means already described, there are also less direct ways of achieving this glow, through harmonics, beating patterns and so on. These require an engagement beneath the surface of the music and may be demonstrated in a close examination of the first bar of *Songs Found in Dream* (Ex. 2).

Example 2:
Songs Found in Dream, bars 1–2.
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Such microscopic analysis is slightly absurd, but it allows for the identification of certain salient features and processes, and it provides an insight into the consistency of these at both micro and macro levels. I will concentrate here on rhythm, although it is clear from the example (and even more so when heard) that similar principles apply in the realm of pitch to the variations on the E-flat drone.

The four crotchets of the bar are clearly demarcated: only crotchets 1 and 2 are linked by a tie. At the background level, the solid ground as it were, the rhythm is a simple minim-crotchet-crotchet. At the rhythmic middleground, however, the crotchet beats are subdivided by irrationals: 7-semiquavers, 7-semiquavers, 3-quavers, 7-semiquavers. These subdivisions are further rhythmicised such that the 7-semiquavers generally fall as syncopated quavers. The articulations in crotchet 1 fall on semiquavers 1 and 6; in crotchet 2 on semiquavers 2, 4 and 6; in crotchet 4 on semiquavers 2 and 4; and in crotchet 3 (the 3-quaver subdivision) on quaver 1 (or 7-semiquaver 1) and quaver 2. Leaving aside the triplet of crotchet 3 for now, the predominant pulse in the bar can thus be rewritten in terms of 14 quavers, revealing two micro-phrases that move from rhythmically uncertain stasis (crotchets 1 and 3) to assertive quaver pulses (crotchets 2 and 4, leading in to crotchet 1 of bar 2). The specified dynamics and articulation marks would seem to reinforce this phrase structure: mobile dynamics (*crescendo* / *diminuendo*) in the first half of each micro-phrase, steady accents or tenuto marks in the second.

We thus find a relatively straightforward rhythmic ground and a fluid and highly ornamented surface that hovers above it. The insertion of a quaver triplet rather than the dominant semiquaver septuplets on crotchet 3 further emphasizes this point: as soon as a second ground (of 14 quavers to the bar) is suggested, the parameters are tweaked and the surface rises clear once more. On top of all this, Lim adds a further layer of activity through the use of brittle harmonics and *jété*. These further break up the middleground of pitch and rhythm, creating tiny spirals of turbulence.

When listening, the ear is in fact drawn to these surface effects, rather than the underlying rhythmic ground, which indeed is so obscured as to be almost inaudible. But it is there nevertheless, and constitutes part of the knowledge of the work, even if a knowledge accessed only by the performer or analyst. Yolngu paintings are created in a similarly sequential way, through a layering process that begins with the publicly accessible figurative aspects of a painting and then increasingly obscures them beneath coded geometric patterns that culminate in the *bir'yun* itself, only at which point can the painting's success be evaluated.⁵

I have so far described some of the points of surface comparison between Yolngu art and Lim's 'shimmer' pieces. However, Lim describes her approach to the attractions of another cultural complex as more than a metaphorical translation from one medium to another. 'I'm thinking in a more abstract way', she says. 'So, regarding Japanese music I'm interested in proportions of asymmetry and asymmetrical temporal models rather than how it sounds Japanese'.⁶ The starting point for any of her engagements with other cultural forms is the surface – 'What attracts my attention [are] qualities of a certain kind of vibrancy or a sense that the culture has found a way of expressing life force' – and composition begins by extrapolating a technical language from such ecstatic moments. 'I am looking for those moments of

⁵ Howard Morphy, *Aboriginal Art* (London: Phaidon, 1998), pp. 188–9.

⁶ Interview with the author, Paris, 9 December 2009.

heightened intensity which are key points in the work, and then seeing what are the components that are coming together in that, how are they functioning'.⁷

'Functioning', rather than 'sounding' is the revealing term. Although much of Lim's method is intuitive, she frequently refers to the theory of pattern languages developed by the architect Christopher Alexander.⁸ A 'pattern' is an abstracted, highly generalized solution to a design problem – a place for waiting, for example – that is made up of a balanced collection of forces and desires. So a waiting place requires an entrance, room for those waiting to congregate, some form of comfort and so on. The pattern may be applicable to several situations – waiting room, bus stop and so on – but its form is fixed. A 'pattern language' is the collection of interlinked patterns that make up a more complex structure, such as a doctor's surgery or a city transit system. The key is that functions and forces are what make up the pattern; concrete objects are possible design solutions. Thus, for a composer such as Lim, the pattern of another cultural object such as Yolngu painting may be approached and understood through its underlying pattern, which can then be resolved and given new expression within the vocabulary of the Western concert hall without resorting to an orientalist appropriation of mere surface features. Or, as she puts it, 'It is a way of approaching a knowledge system which utterly fascinates me but of which I am clearly not a part'.⁹

Lim uses the word with caution, but it is clear that modernism – in particular the emancipation of the sonic parameter – has been crucial. 'The tools of modernism give you ways of thinking abstractly about materials. The idea of deconstructing things into their parameters – reforming them actually – I think is very useful as a way of analysing other cultural forms'. Composing in parameters allows for the analysis of phenomena and their translation through pattern into musical forms, but it also allows for the transformation, development and interconnection of materials while retaining parts of their fundamental identity.

In Example 1, above, it is possible to see how the development of certain parameters and the maintenance of others within a single sound-complex can create middleground phrases. Beneath the 'public' surface already described, a second layer of cross-hatching is suggested by the even pulses of the ensemble, against which the rhythmically charged first violin is heard. The violin's dislocation from the regular, 'shimmer' pulse is picked up by the harp from the second half of bar 33 and Thai gong in bar 34, whose even sextuplets morph into a fast tremolo, the whole transforming a regular pulse into a momentarily impenetrable haze. Cross-hatching at this level is less a collection of novel sound effects than a potentially infinite field for musical development: the haze effect comes less from the stability suggested by bar 32 than the ecstatic instability to which it gives rise in bar 34.

The four parameters of early integral serialism – pitch, duration, timbre and dynamic – are really only the most pedestrian options available, and it is possible to compose in more poetically interesting dimensions such as density, tension, distance and so on. The paths available to a composer are in theory limited only by the imagination's analysis of a sound. The two examples already presented illustrate some of this potential for flexibility and continuity. Such potential allows for the creation, articulation and structuring of musical forces and, hence, the expression of a pattern language.

⁷ Ibid.

⁸ Christopher Alexander et al., *A Pattern Language* (Oxford: Oxford University Press, 1977). See also <http://www.patternlanguage.com>.

⁹ Interview with the author, op. cit.



The pattern of Yolngu shimmer might include:

- the conclusion of a (ritual and artistic) process
- a codification of socially determined structures of access and privilege
- a means of obscuring
- a means of revealing

In Lim's cello solo, *Invisibility*, we find one of her most thorough musical explorations of this pattern, and the piece provides a useful case for exploring how these ideas manifest in her music. Many of the shimmer effects already discussed are present here, including a wide palette of multiphonics. These were developed in close collaboration with ELISION's cellist Séverine Ballon, and the work is a prime example of the creative symbiosis between performers and composer that exists in the Lim–ELISION relationship.

A certain amount of analysis of *Invisibility* is possible in terms of motivic developments, long-range structural connexions and so on. Example 3, for example, collects together several iterations of a simple B–C dyad that recurs throughout the work, and one might attribute thematic significance to this and other recurring motifs on the basis of the written score.

The musical score consists of six systems of notation for a cello solo. Each system includes a staff with notes, rests, and various musical markings. Roman numerals (II, III, IV) are placed above the notes to indicate fingerings. Dynamics such as *f*, *mf*, *mp*, and *pp* are used throughout. Performance instructions like "slow bow (emphasise gritty hair noise)" are included. The score is organized into six systems, each representing a different excerpt from the piece. The systems are labeled with bar numbers: 6, 10, 14, 18, 23, and 39. The tempo is marked as $\downarrow = 40$.

Example 3:
Invisibility, excerpts from bars 6, 10,
14, 18, 23 and 39. By kind permission
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However, the effectiveness of such analysis is restricted by two performance instructions that render the score a distant relative of the sounding result. The first is the use of two bows. One is standard, the other is a so-called 'guiro' bow, an invention of the Australian composer John Rodgers in which the bow hair is coiled around the wood, like a damper spring. When drawn across the string it creates an unevenly serrated, stop-start sound. Lim's programme-note makes explicit the connection with Yolngu art: 'Like the cross-hatched designs or dotting effects of Aboriginal art, the bow creates a highly mobile sonic surface through which one can hear the outlines of other kinds of movements and shapes'. Even more so than in previous 'shimmer' pieces, the sonic surface – fractured, brittle and endlessly detailed – is emphasized as the work's core 'theme'. When the piece is seen live this is emphasized still further: not only does the bow's sound suggest cross-hatching, but so does its appearance. Furthermore, the unpredictability of the abrasive playing surface creates a clearly visible dislocation between the actions of the performer and the precise sounds being created.¹⁰

Already this suggests a level of secret knowledge within the piece, since only the performer can know exactly the relationship between her bow movements and the sounds being produced. Lim has built upon this possibility in the second crucial performance instruction: a radical *scordatura*. The score asks for the bottom string to be lowered by a semitone to B, the next string by a tone to F; the third string is untouched at D and the highest string is drastically flattened by a tritone to D#. No doubt harmonic considerations played a part in the selection of these pitches (the work's final section is played almost entirely on open strings), but Lim's primary goal is to destabilize the relatively even spread of string tension in the standard C–G–D–A tuning. The A-string in particular will feel dramatically different under the cellist's fingers.

Lim's preface to the score highlights how physical performance parameters become part of the material of the piece:

The work is a study in flickering modulations between states of relative opacity/dullness and transparency/brightness, between resistance (noise, multiphonics and other distorted sounds) and ease of flow (harmonics, clear sonorities). Striated, shimmer effects are created in the interaction between the competing planes of tension held in the retuned strings as they are affected by fingers and the varied playing surfaces of the two bows travelling at changing speeds, pressure and position.

The B–C motif of Example 3 crosses D and A strings, and thus its development through the piece must be read not only as a series of permutations and transformations of the intervallic relationship, but also of the planes of tension between tight and loose strings. Example 4 comes from close to the end of the piece, at a point when the cellist is asked to play with both standard and guiro bows, one in each hand. While the right hand passes the predictable friction of the standard bow across the relatively familiar tensions of the bottom two strings, the left hand (guiro bow) negotiates both unpredictable friction and the highly divergent tensions of the top two strings. Stable ground and shimmering haze are dramatically combined.

¹⁰ A video of Séverine Ballon giving the first performance of *Invisibility* at King's Place, London, on 16 March 2010, may be viewed online at <http://vimeo.com/13411678>.

Handwritten musical score for cello, Example 4, from the piece *Invisibility*. The score is written on three systems of staves. The first system includes the instruction "with 2 Bows" and "l.h. guiro bow". The second system includes "mf" and "r.h. and bow". The third system includes "l.h. depress string using guiro bow", "jeter", "cell lapno", "sul ponticello", "swept", "l.h. bow", and "molt sul tasto". The notation features complex rhythmic patterns, triplets, and various bowing techniques indicated by arrows and text.

Example 4:
Invisibility, bars 54–8. By kind
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Thus beneath what the analyst can read on the page, Lim's notation contains something secret that can only be accessed through *doing*. To a degree this is the case in all music written to be performed by others, but in setting up the cello's strings and bow in such an unusual way Lim has made the relationship between action and meaning central to her piece. The score may only be a distant relative of the sound, but it is not arbitrary: its details and specifications are as much part of the piece as anything else, and are crucial to setting up the ritual process that is consummated in performance, but that also includes composition and collaboration, and rehearsal, contemplation and refinement. That background – that the work has been 'lived' for a time before its public emergence – is an extension of the idea of public and private spheres of knowledge and experience, and is critical to the work's identity as a shared ritual object in which composer, performer and listener all have a stake. Morphy similarly describes the rituals that surround the creation of Yolngu art: 'Meaning is not produced by grammatical structures and formal codes, though they have important roles to play; it is created through individual action [as] a part of cultural process'.¹¹

In deftly balancing music's performative and literary dimensions, Lim is able to introduce parameters such as tension, pressure, movement and resistance into her compositional method, to great effect. The pattern of Yolngu art, a system of restriction, obscuring and revelation, is dramatically and sonically realized – without condescension or compromise – in the moment of *Invisibility*'s performance. In enacting an understanding, expression and critique of global multi-cultural reality, this music reveals something of value to us all.

¹¹ Morphy, p. 6.



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