

# STATE-OF-THE-ART RUSTICITY

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**I**n one respect you will probably find this paper rather unlike other papers being read at ISEA95: I shall not be speaking about recent technological developments. I would like to outline an aesthetical phenomenon arising from the union of two disparate musical media within the field of 'high-art' music: electroacoustic technology and folk instruments. This paper is a companion to the performance of music for charango and tape on Tuesday evening at the Pollack Hall. Attendance to that performance is necessary for full comprehension of the ideas which I shall be developing. However, it is not my aim to offer a programme note to that performance, nor do I intend to bore you with a technical analysis of the pieces concerned. Rather, my intention is to discuss the aesthetical background which gave rise to the composition of that repertoire.

By way of preamble, I shall take a detour which in due course will bring me back to my central topic.

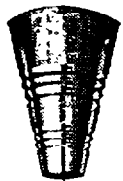
Those familiar with Aldous Huxley's final book, *Literature and Science*, will remember the distinction between the two worlds referred to in the title. The man of letters, Huxley reflects, 'accepts the uniqueness of events...the radical incomprehensibility of existence'<sup>1</sup> and 'addresses himself to the paradoxical task of rendering the randomness and shapelessness of individual experience in highly organised and meaningful works of art.'<sup>2</sup> The scientist, on the other hand,

*is the inhabitant of a radically different universe -not the world of given appearances but the world of inferred fine structures, not the experienced world of unique events and diverse qualities, but the world of quantified regularities.<sup>3</sup>*

Huxley goes on to explain the different approaches to language by the scientist and by the man of letters. It is when discussing language that Huxley's argument fully comes into its own, reaching impressive depths of clarity, acumen and penetration. It is also then, sadly, that his discourse stops being directly applicable to a music-related debate. The reason why I refer to it nonetheless is that I am yet to encounter a clearer summation of the difference between the scientific and the artistic outlook. Far from implying an irreconcilable opposition, Huxley highlights the interdependence between the two. I quote:

*The sciences of life have need of the artist's intuitions and, conversely, the artist has need of all that the sciences can offer him in the way of new materials on which to exercise his creative powers.<sup>4</sup>*

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Albeit in obvious need of updating - not least in the area of terminology - Huxley's thoughts remain essentially relevant. For instance his assertion that, whether we like it or not, we live in the Age of Science, is now as true as ever, except that, in the culture of the late twentieth century, science and technology are bound up in an indissoluble partnership. To what extent the same is true of art and technology is an issue we are all here to examine. Nonetheless, it is probably safe to say, without being too contentious, that the answer is: to a much lesser extent. Art and technology may have formed a recent alliance, but in the case of music this alliance is not wholeheartedly supported by the majority of music practitioners. The reasons lie along the path of Huxley's reasoning. If it is true that we live in the Age of Science, and that science and technology are now inextricably bound up together, it is obvious that the arts occupy a marginal position. To circumscribe the debate to music, let us recognize that, unlike ancient Greece or that Utopian land described in Herman Hesse's *The Glass Bead Game*<sup>5</sup>, our societies treat music as a minority interest.<sup>6</sup> As a profession, music must do as all minorities: struggle to assert itself, in this case against the prevailing wave of scientific and technological advance. The suggestion that, rather than struggle, music should join forces with science and technology and strive together towards now unified aims is a thought which holds great appeal in certain enlightened and progressive circles, but definitely not in the majority of enlightened and progressive circles within the musical world. A strong body of opinion would regard the prospect of such a partnership as a form of capitulation, of betrayal of what music should be about. Should we dismiss these sceptics, branding them as reactionary and backward-looking? Or should we, as supporters and practitioners of electroacoustic music, take account of their reservations?

When the scepticism comes from indisputably enlightened sources, it is indeed rather hard to dismiss. Huxley himself, in spite of being one of the greatest polymaths of our century, provides an early example of mistrust of technology-based development in his novel *Brave New World*. Written in 1932, this book already contains some of the basic critique that is common currency today among the musical techno-sceptics. Where music is private and intimate, technology de-personalises. Where music belongs to anyone, rich or poor, technology relies on capital for production, marketing and acquisition by the user. Where music speaks of struggle and human passions, technology aims at creating ease, comfort and possibly an ultimate numbness of the spirit. Where music demands mastery of complex, subtle, ages-old, painstakingly acquired skills, technology reduces everything to the push of a button or the turn of a knob. Where the tools of music are finely wrought, classical-looking wooden or brass instruments which the player caresses with loving elegance, technology displays unsightly cubes and parallelepipeds of tasteless alloy metal. And, above all, where music speaks to us with the voice of those instruments history has consecrated, technology introduces, at best, all manner of anonymous thuds, whistles and clanks, and, at worst, cheap sampled or synthesized copies of sounds which real instruments would play better.

Huxley's anxiety, and the anxiety of today's sceptics, is centred on alienation, on not recognizing in technology's offerings one's beliefs as to what the world or, in our case, music ought to be. This anxiety stems from the desire to keep at least some areas of human life free from the intrusion of automated gadgets. For the musical techno-sceptics, obviously, music is one such area.

For us, converts or born believers, the so-called alienation may be a figment of ill-informed imaginations, yet such possibility does not exempt us from addressing a real issue. The alienation is there and the sceptics, whether right or wrong, are legion. Their attitude to what we do affects the scope of our work, in a practical way when the sceptics are in positions of power to grant or withhold opportunities and in an artistic way when our audiences dwindle to a handful of friends. Can we do anything to eradicate, or at least to reduce the sceptics' indifference to our work?

Those of you who have attended presentations by composers before must have been waiting for the inevitable moment when the composer begins to talk about himself. Today is no exception and I must reveal myself in my true colours. I am a composer and, alas, I am a techno-sceptic. As a child of the 1960s I grew up steeped in Huxley and Hesse, and I share virtually all the reservations I paraphrased earlier. I converted in the mid-eighties, while embarked on research at London's City University, and have reneged many times since. My relationship with technology is one of love and hate.

This autobiographical outburst is only relevant in one respect: the steps which I took, upon conversion, to address my own particular brand of alienation, has produced a certain type of music which, judged against the context of computer music as we know it, can throw a useful light on the vexed issue of the role of technology in composition.

May I provide a few more autobiographical details, only the minimum required to frame this discussion. As a native of Bolivia, I first entered the world of music through the channel of folk music, of the kind now known in the international circuit as 'Andean' music. The soundscape I inhabited as a child was primarily rural or small-town, and the first instrument I performed on was the charango. As a vocation for music asserted itself in my mind, it seemed natural to progress into higher spheres, into studying classical and then contemporary music. A concomitant development, the adoption of classical European instruments, arose as a necessity which I did not then query.

The folk instruments which first awakened my musical interest were and still are limited in range, very sensitive to climactic changes, mostly poorly constructed and therefore usually out of tune. Few players have reached a standard of technical proficiency and versatility comparable, say, to a professional pianist. The vast majority among such players are unable to read

music, since it is in the nature of their practice to transmit their repertoire orally. Above all, the greatest restriction with folk instruments is the fact that they are not internationally available. It is the universality of classical instruments that makes it so natural for a composer of any background to embrace them. Pianos, string quartets, new music ensembles and symphony orchestras are legal tender almost the world over. Charangos, quenenas, panpipes, tarkhas and such like are common around the Andes only. If one's music is to have anything more than a local audience, if it is to be judged and, with any luck, accepted as a contribution to the great and ongoing classical tradition, there is no querying one fact: it must be available for the legal tender of classical European instruments.

The need to adapt for European instruments one's musician thinking originally shaped within the environment of folk ensembles is by no means necessarily a harmful imposition. Personally I have derived immense pleasure from the search for ways of recreating effects or textures from one medium with the other. Instrumental pieces of mine such as *Pájaro negro* or *Danza de la loma* are riddled with examples of this quest. Take, for example, a passage from *Danza de la loma* in which the trumpets burst into a hectic figuration in accompaniment to a shrill melody on woodwind.

**EXAMPLE 1 (DAT) *Danza de la loma* letter M**

The origin of this is, perhaps implausibly, in a pattern of charango strumming in Bolivian music:

**EXAMPLE 2 (LIVE) charango strumming**

To pick another example from the same piece, a combination of instruments blown through superimposed to normal playing in the wind section produces the following effect:

**EXAMPLE 3 (DAT) *Danza de la loma* letter O**

This was one of my attempts to reproduce orchestrally the breathy sound of Andean panpipes. I suspect that no illustration is needed for a sound which you are, do doubt, familiar thanks to the ubiquitous South American itinerant buskers.

As these examples show, the resulting sonority can be far removed from the original sound which sparked off the idea. This, in my view, does not mean that the whole exercise is a failure. The history of instrumentation is teeming with instances of cross-fertilisation between instruments and even across families of instruments. The Spanish composer Isaac Albéniz, for example, instituted a piano technique which Debussy and Ravel were quick to adopt. It consisted in rapidly playing single notes with alternating hands, a practice obviously derived from the rapid alternation between guitar strings in flamenco. The classic example of this is *Asturias*, a piece so guitar-like in texture and in character that nowadays we hear it much more often in guitar arrangements which have reclaimed what rightfully belonged to the guitar in the first place.

Another example of a similar kind of conversion can be found in Stravinsky's short opera *Renard*, in which the composer imagined the sound of a Russian guzla to lend a certain colour to the orchestra, in keeping with the folk-tale origin of the libretto. Given the minimal chances of recruiting guzla players in the international circuit, Stravinsky settled for the closest resemblance he could find: a cymbalom, still exotic, much more widely available. More recently, the Japanese composer Toru Takemitsu brought in a biwa and a shakuhachi to play in a soloistic capacity in the midst of a symphony orchestra for his work *November Steps*.

All the above examples represent efforts to address the alienation I was discussing earlier. In Albéniz's *Asturias*, the alien is absent but evoked. In Stravinsky's *Renard*, the alien finds a deputy in the form of a less alien substitute. In Takemitsu's *November Steps*, the aliens are actually present on the concert platform, exotic visitors partaking of a ritual in which they by tradition do not belong. Needless to say, a situation of this kind merely exacerbates the alienness, highlighting the differences between two musical traditions.

Technology, of course, opens up a new kind of universality whereby to a growing extent one can expect to find similar or equivalent configurations in distant parts of the globe. Take the simplest possible configuration for an electroacoustic performance: for instance, a sound system, a mixer, a DAT player, possibly live musicians and their microphones. This equipment is quite likely to be available in almost every city where a public concert might plausibly take place. In extreme cases, even the DAT player and the microphones can be dispensed with.

Needless to say, not all electroacoustic music can be performed with such a simple configuration, but there is a significant body of work which can. It is quite plain that, from the viewpoint of universal availability, some types of music technology are well on their way to matching classical instruments.

Since Stockhausen's *Kontakte*, the idea of exploring commonalities between instruments and technologically generated sounds (or, as Stockhausen puts it, 'the known and the unknown'<sup>7</sup>) has held tremendous appeal for composers. Works such as *Incenters* by Jacob Druckman have explored the possibility of realising with an instrumental ensemble some of the textures commonly associated with the electronic music of the 1960s and 1970s. There is something heroic about live players locked in unequal contest with the superior technical force of an electronic system, whether this is present as in *Kontakte* or absent as in *Incenters*. While exploring points of contact between live and electroacoustic forces, the ethos of these pieces is still one of distinction - not to say confrontation - and therefore redolent of Orwell's - and Huxley's in *Brave New World* - vision of man versus machine.

A perceptible - audible, that is - reconciliation of these opposites came about in the 1980s, in the wake of the advent sampling technology. In Britain, the second half of the decade sparked off a spate of pieces for various instruments and computer-realised tape, investigating the idea of extending the sonority of the instrument by manipulating samples of the same instrument, playing on changing degrees of recognisability. In this manner, the computer-controlled sampled sounds become literally an *extension* of the live instrument.

The aesthetic postulate behind such exploration is appealing in the extreme. One can trace it back to Borges's obsession with the mirror and the otherness of the self, the repetition of our being somewhere in a different dimension, possibly in the world of dreams, and the ultimate doubt whether reality is the dream and vice versa. Julio d'Escrivan, composer of a prize-winning piece for flute and tape,<sup>8</sup> described the tape part of this piece in unwittingly Borgesian terms: the *other* flute. It was clear in the late 1980s that a composer, whether techno-sceptical or not, had no better way of exploring this otherness than by creatively juxtaposing acoustic to electroacoustic sound. It was on realising this fact that I embraced music technology.

Let us now return to the debate on the alienness of non-Western European instruments in the environment of international music-making. By doing so, we should also be able to connect the various contradictions and oppositions which I have outlined today.

On one hand, it is clear that against music technology all acoustic instruments, whether classical or not, constitute a separate class. This shared alienness engenders a new equality between European and non-European instruments, whereby considerations of background and tradition disappear into virtual insignificance. On the other hand, the quest for an extended identity for an acoustic instrument through electroacoustic media constitutes a way of addressing the Orwellian dichotomy of man versus machine, enabling us to bridge this opposition and to create a sonic world in which man is, momentarily at least, at piece with the monsters he has created. After all, musical instruments and electroacoustic systems represent two different stages of music technology, the former being an earlier contribution. Ultimately, they are all gadgets of which we avail ourselves to explore the mystery human destiny through sounds.

In bringing a folk instrument onto the concert platform and surrounding it with an electroacoustic environment which resembles it and extends it, one is merely enlarging the scope of the technological communion, incorporating what in evolutionary terms represents an even earlier stage of music technology. If the artistic approach is a convincing one, this can be a way of putting to good use the inherent cultural statelessness of new technology. Whereas the instrument is laden with a cultural baggage, new technology is still relatively free. The extreme differences of cost, craftsmanship and sonic power between a rus-

tic instrument and state-of-the art technology are, of course, potentially comic. It is up to the composer to create a cogent musical discourse that will enable these two stages of technological advance to put each other in perspective and to throw on one another the salutary light of mutual irony.

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#### Notes

<sup>1</sup> Bedford, Sybille *Aldous Huxley: A Biography*, 1974 (London: Chatto & Windus Ltd)

<sup>2</sup> Huxley, Aldous *Literature and Science*, 1963 (London: Chatto & Windus)

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> Hesse, Hermann. *The Glass Bead Game* London: Jonathan Cape 1987

<sup>6</sup> Let me repeat the clarification made at the beginning: that this paper is concerned with high-art rather than popular music.

<sup>7</sup> Presentation by Stockhausen at the Barbican Hall, London, in January 1985.

<sup>8</sup> D'Escrivan, Julio *Sin ti por el alma adentro* for flute and tape, unpublished 1987. Winner of second prize in the 1987 Bourges Electroacoustic Music Competition.