Sonic Bodies: 
the Skills and Performance Techniques of the Reggae Sound System Crew

PhD Thesis

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July 2008
I declare the work presented in this thesis to be my own.

Julian Henriques
Frontispiece: New Style Corner, Jones Town, Kingston
Abstract

This research project describes the performance techniques of the reggae sound system crew in the dancehall session. These are held until dawn every night of the week on the streets of inner city Kingston, Jamaica. The research question asked is: how does a sound system work? The methodology is one of participant observation - what the crew do, with what, and with whom - as well as participant listening. This attunes the research to the auditory qualities of the sounds that the crew describe in recorded interviews, as well as the nuances of the idiomatic expressions they use and their tone of voice. Taking Jamaica’s longest running and best-established sound system, Stone Love Movement as a case study, the research concentrates on the roles of three crewmembers in particular. These “sonic bodies” are: the audio engineers who design, build, fine-tune and maintain the hugely powerful sound system “sets” of equipment; the selectors responsible for the choice of recorded music played to the “crowd” (audience) in the session; and MCs (or DJs) who introduce the music and “build the vibes.” The crew’s skilled performance techniques are investigated in relation to the phonographic instrument of the “set” of equipment for making sound, together with the media of sound, music and voice for diffusion of the vibrations to the crowd. These occur at three vibrating frequencies: the material waveband of the mechanics of auditory propagation and hearing itself; the corporeal waveband of the embodied kinetic rhythms of the crowd’s dancing and crew’s performance; and the ethereal waveband of the “vibes” or social and cultural meaning of the dancehall session and entire scene. Rather than the conventional technological, cultural and social “factors,” it is suggested that the crew’s skills and techniques “make sense” of all these frequencies with expert evaluations, as the basis of their connoisseurship (Polanyi) or their logic of practice (Bourdieu). The engineer “just knows” when their fine-tuning is complete; the selector has a “gut feeling” when to repeat a track; and the MC “judges” the exact timing of the punch line. It is concluded that the crew’s techniques are best understood as embodying a kind of rationality that pivots on ratio, analogia and proportion, rather than concepts of disembodied logic, representation or calculation. Thus the crew’s evaluative techniques provide evidence for understanding the workings of the sound system as an apparatus for the propagation of vibrations.
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Acknowledgements

Those friends and colleagues I would particularly like to thank for their helpful comments and encouragement include Les Back, Lisa Blackman, Keith Critchlow, Steve Goodman, David Scott, Jeremy Weate, Valerie Walkerdine, Couze Venn and my supervisors Dave Morley and Sara Ahmed, and also Stuart Hall for the recommendation that such a sonic subject could be a suitable one for research. Also I would like to thank my interviewees for sharing their knowledge and understanding, particularly the late Ms Louise Frazer-Bennett, Winston "Wee-Pow" Powell, Horace McNeal, DJ Squeeze, Denton Henry, Hedley Jones and fellow dancehall researchers Sonjah Stanley-Niaah, Bibi Bakare-Yusuf and Deborah Hickling. Finally I would also like to thank my wife Parminder and daughters Mala and Anuradha for all their patience, support and inspiration.
Introduction: the “Vibes” of Sound

This project has grown from my work as a filmmaker, and the knowledge this gave me of the Reggae and Dancehall scenes in both the UK and Jamaica. Some of the BBC documentaries, like Derek Walcott: Poet of the Island, were located in the Caribbean, where I lived and worked from 1996 to 2001. With my short We the Ragamuffin and feature film Babymother Reggae, music and culture played a large part. These films required my building working relationships with the musicians who I then commissioned to compose music and songs, and with the performing artists who featured on screen. But it is the Reggae sound system that is the backbone of the music scene, rather than artists’ live concert performance. So these sound systems presented themselves as the best place to begin the research - when my interests turned from using music in story telling, to understanding how auditory communication has such powerful emotional effects.

The research methodology starts and continues close to the material of my observation, listening and participation in innumerable dancehall sessions over many years (before the start of the research proper). This informed a series of in-depth interviews with some of the key figures on the Jamaican dancehall scene. The research materials are based on my listening and observing what crewmembers do in practice, how they understand to what they do, and the rich vocabulary they have for describing this. The theoretical ideas literally grew out of these materials, the particular preceding the general in every instance. This approach also resonates with the mechanics of sound waves themselves, as was later explored. Any wider application that the findings might have, has to be thought through precisely the kind of local, situated details for which the dancehall scene provides the examples in this research.

What emerged from this groundwork was how auditory communication was in practice as meaningful as the visual, representational and discursive forms of expression that are commonly assumed to have the monopoly on meaning. In fact, certain cultures, the Dancehall sound system scene among them, can be considered as auditory as much as visual. This encourages the values, qualities and intensities of auditory experience to count for as much as the quantities of measurement, facts and information. The ambition of the research project thus became an attempt at understanding the meaning of sound.
From a close familiarity with the Reggae sound world, my initial research task was finding an approach to the phenomenon of the dancehall sound system session that did some justice to its texture, subtleties and intensities. Which of all the multiple aspects of the phenomenon should be selected for particular attention? The answer to this literally slaps you in the face, and ears, and in fact all over the entire body – sonic dominance, as I described the visceral immersion in sound of the dancehall session (Henriques 2003). So, taking the plunge and making sound - rather than music as such - the subject of the enquiry, I started with the audio engineers as the crewmembers responsible for the instrument of the “set” of equipment and its auditory qualities. This auditory orientation also resonated with the sensibilities of Jamaican popular culture. After the engineers, the next section of crewmembers I interviewed were the selectors that on Jamaican sound systems are responsible for the selection of the music played in the session. This was followed by interviews with the MCs (or DJs) whose job it is to “chat” to the crowd (audience) between and on top of the music played. So it is the three crew roles of engineer, selector and MC that are the central “characters” of the research, so to speak, each with a chapter devoted to what they do. Of course there are a number of other key crewmembers that restrictions of space prevented from making much of an appearance in this project (though they do in further research). These include the owner and manager of the sound system and the maintenance crew who assemble, “string up” and pack up the Sound every time it plays. But possibly most important are the crowd or audience, whose dance and active participation is the essential ingredient of every session.

The argument that Sonic Bodies makes is structured as follows. Chapter 1 Jamaican Sonic Culture and a Methodology of Listening sets the scene for the investigation – and the dancehall scene – in the context of Jamaica’s sonic culture with its rich crality, folk and African musical traditions. This leads to an account of the methodology of the research that is described as a methodology of listening. This emphasises the value of all perceptual systems, including reading and viewing, as well as the relationships between the researcher and research subjects, and their auditory values. Listening is considered as an active process, always in a reciprocal relationship with sound-making, as with the antiphony of the crowd’s response to the MC’s call, in the dancehall session, for instance. The fact that the sound system, as a phonographic
apparatus, plays only pre-recorded music, emphasises, rather than detracts from the
importance of the transitory and ephemeral nature of sound. The crew’s re-
presentation of sound concentrates on the performance and propagation of sound
itself, rather than music. In this way, the apparatus of the sound system is considered
as an instrument for auditory propagation, rather than listening. This emphasises the
importance of the performance skills, techniques and craft of the crew, as is consistent
with something revealed through the research process itself - the bias that favours
sound production as being more “active” than the sound reception of listening.

Chapter 2 The Sound System: Techniques, Instruments and Media describes some
features of the phenomenon of the dancehall session as identified by previous
research. The technological hardware, for instance, has most often been considered
entirely separate from its setting, so that the relationship between them becomes the
research task. Against this, the apparatus of the sound system is then established as
the research object comprising: the crew, the set of equipment within the session, and
the subculture of the dancehall scene. It then proposes that sound waves could provide
a model of the diffusion of social and cultural “vibes” and the kinetic rhythms of the
crew’s performance practices. The mechanics of auditory propagation and listening are
described in terms of the three elements required for any sound vibrations to be made
or heard. These are: performance or listening techniques, such as those embodied by
the crew’s performance practices and the crowd’s participation; an instrument, such as
the sound system set and the cultural “institution” of the dancehall session; and a
medium that can be the dancehall scene through which a session is evaluated and
appreciated by the crowd, as well as the gaseous air.

Chapter 3 Sounding: Material, Corporeal and Ethereal Wavebands concentrates on the
vibrating frequencies of media as one of the key elements of the “propagation” model.
This starts by dismantling the idea of sound as an object, such as the product of a
recording, in order to build a concept of sounding with which to describe the apparatus
of the sound system. Sounding includes the mis en scene of making - as well as
listening to – sound, together with the entire range of activities and persons – from a
world-famous selector to an itinerant peanut vendor – needed for the staging,
performing and enjoying of a dancehall session. The amplitudes, frequencies and
timbres of the vibrations of sounding are described as falling into three distinct
wavebands. Not only are there the material vibrations of air or other media for auditory diffusion, there are also the corporeal vibrations of the kinetic rhythms of the crew and crowd's performance, and the ethereal vibrations that include the social and cultural meaning, “vibes,” or atmosphere by which sounding “makes sense” to its participants. These vibrations are considered to operate with the same three elements of media, instruments and techniques at each frequency. The argument of the research is thus developed recursively, rather than progressively, by considering the performance skills and techniques of the engineers, selectors and MCs in turn. Each crewmember’s performance provides evidence for a same-but-different iteration or inflection – in what a selector would call a “version excursion.” In this way, each crewmembers’ techniques contribute a distinctive interpretation of the same basic “riddim” according to the vibrating frequency band in which they specialise.

With chapter 4 The Engineer: Manipulating, Monitoring and Evaluating attention turns to the audio engineers and their skilled techniques, as distinct from the media of sounding (addressed in the previous chapter), or the instrument of the set of phonographic equipment (that has to be left as a subject for further research). This account of audio engineering starts with a step-by-step description of the engineers' practice of “compensation,” by which they fine-tune the auditory output of the phonographic set of equipment. This skilled technique (Ingold 2000, Sterne 2003) comprises the engineering procedures of manipulating the value of the electronic components of the set (for example, by substituting one for another); and monitoring the consequence output variation. Finally, the engineer has to evaluate the resulting auditory qualities for “balance,” “weight” and “attack,” as well as what one described as “my harmony with the sound.” Such skilled techniques are acquired in an apprenticeship tradition in which the youngest current Stone Love engineer, for instance, is the fifth generation of engineering apprentices, starting with the inventor of the sound system set, Hedley Jones, sixty years ago. Concluding this chapter it is suggested that practice of compensation provides evidence for each of the three wavebands of sounding: the engineers pay attention to material vibrations, their monitoring and manipulating are expressed at corporeal frequencies, and their evaluations and apprenticeship tradition are part of the ethereal waveband.
Chapter 5 The Selector: Cutting, Mixing and Repeating continues the account of the crew’s techniques by describing the selector’s role, function and responsibilities for the music in the session. This includes “building the vibes” or intensities of the session, and “steering” the crowd along the procession of the night. Then it describes the selector’s corporeal performance techniques as dextrous (or “deckstrous”) accomplished with fingers, turntables and their music. These comprise: manipulating the musical material on record or CD, which is done by cutting, sampling, or selecting one particular music track or part of it; mixing a smooth transition between one selection and the next and feeding in various add-in sound f/x (effects), and in response to the crowd’s requests for “pull-ups” and “rewinds” and repeating the record played, or part of it, and feeding in echo reverb sound f/x. The selector also engages in monitoring or “reading” the vibes of the crowd. The selector’s third technique, as with the engineer working with auditory materials, is that of evaluating for which they bring to bear their expertise, connoisseurship and “know how” to “make sense” of the feedback from the crowd, allowing the selector to know which track to play next. The chapter concludes with a discussion of the modernist tropes “inna dancehall stylee,” locating the selector’s skills in relation to recording studio production techniques of Reggae “versioning” and Hip Hop “looping,” in the context of Snead’s (1981) account of widespread disparagement of the idea of repetition.

Chapter 6 The MC: Logos, Pathos and Ethos completes the account of the crew’s techniques with those of the MC whose “voicing” adds ethereal vibrations to the selector’s musical sequence and the engineer’s audio. It describes the MC’s role as a “figure of speech” as “exciting” the crowd, “guiding” them through the session, and championing them in the lyrical battle or “clash” against sound system competitors. How the MC’s performs these functions is then considered in terms of their lyrical techniques or “lyricizing” of the crowd. These comprise meaningful instructions, or “chatting the mic”; their performance tropes such as “riding the riddim,” “conducting choir” (antiphony) and “tracing” (ritual insulting); and their distinctive tone of voice, usually both authoritative and entertaining. In conclusion, it is suggested that the vernacular tradition of the MC’s performance is best described with the rhetorical triad of “logos,” “pathos” and “ethos.” This offers an understanding of the ethereal, corporeal and material wavebands of sounding that avoids the dichotomies of sender and receiver, language system and utterance, and subjectivities and objectivities.
The concluding chapter 7 *The Logic of Sound Practice* interrogates the idea of logic as the best way of understanding embodied practice, with the idea of *analogia*, or proportional evaluations. The rhetorical *kairos* or timeliness or timing of their performance is one example of such a quality, giving sense as sound rather than only image. Each crewmember has their own distinctive way of triangulating, harmonising or re-cognising of proportional ratios. The selector’s repeating technique, for example, forms a proportional relationship with their cutting and mixing. It describes the shared characteristics of the crew’s ways of knowing as being situated, rather than generic, following Lave’s (1998) “situated learning”; synthetic, rather than analytical, drawing on Bourdieu’s (1990) ideas “logic of practice”; and tacit, rather than conscious, following Polanyi’s (1958) investigation of tacit knowing and connoisseurship. The key feature of the crew’s ways of knowing is then identified as their *embodied evaluations*, discussed in terms of the ancient concepts of *logos* as ratio; (Bohm 1980, Freenberg 2005); *kairos* (or timeliness); harmonics; *analogia* (Kayser 1970 and Serres 1995); and triangulation (Peirce 1976, Critchlow 1994). The selector’s repeating technique, for example, triangulates what would otherwise be the incompatible opposites of their cutting and mixing. In conclusion, it is suggested that the quality of threeness might be helpful as a way of conceiving how the proverbial “squaring of the circle” of measure and value is achieved in the logic of practice.

As a study of the techniques for operating the phonographic apparatus of the sound system, the project engages with a number of issues and debates across a range of fields. It might be helpful to mention these as a way of contextualising the research. In so far as it is an investigation of sound systems *Sonic Bodies* aims to contribute to the scholarship on Reggae and Dancehall music alone with the work of Carolyn Copper’s *Noises in the Blood and Sound Clash*, Donna Hope’s *Inna di Dancehall* and Norman Stolzoff’s *Wake the Town and Tell the People*. But the research pays attention to the sound of music, rather making literary reading of lyrics or musical “texts,” or giving a social geography of the location of dancehall venues. In this respect, it follows Kodwo Eshun in *More Brilliant than the Sun* with his sonic journey into Jazz and Funk and James Sneed’s prescient essay *Repetition in Black Culture*. It also builds on Michael Veal’s recent *Dub: Soundscapes and Shattered Songs in Jamaican Reggae* that is of
particular importance for the detail with which it addresses the genre’s music studio production techniques and the sound of the music, as is Louise Meintjes’ *Sound of Africa! Making Zulu Music in a South African Studio*. But *Sonic Bodies* concentrates on the skilled techniques of the sound system crew playing pre-recorded music as a performance, rather than either studio work, or the traditional “live” music.

Though the research has been undertaken almost entirely in Jamaica, the project is not an investigation of a particular “local” culture as such, as with Mimi Sheller’s most valuable *Consuming the Caribbean*, Deborah Thomas’ *Modern Blackness*, or Obika Gray’s *Demeaned but Empowered*. Instead it pays attention to how a particular culture – which is Jamaican - resonates through the particular apparatus - the sound system. *Sonic Bodies* is not a historical study of a musical culture. Any history to the story it tells is always expressed in the present tense, as it were, as sounding itself has to be. The sound system certainly combines retro vinyl phonographics and the latest digital music and video software, together with the bass culture of diasporic African traditions and Rastafarianism. But because *Sonic Bodies*’ primary concern is sound itself, rather than musical forms or genres, it is not an ethnomusicological study in the manner of Olive Lewin and Garth White’s pioneering research on Jamaican folk music. Neither is the book an anthropological or ethnographic study in the manner of Huon Wardle’s *An Ethnography of Cosmopolitanism in Kingston* on Kingston’s street culture, or Tim Ingold’s study of skilled craft practices (though these are those of artic Laplanders). Like those works and John Mowitt’s *Percussion* and Barbara Browning’s *Infectious Rhythms* on Brazilian samba, *Sonic Bodies* uses its research findings on embodied skills to fuel discussion of the broader issues of the logic of practice.

*Sonic Bodies*’ investigation of sound systems locates them in the midst of particular Jamaican folk, African and oral traditions - a *bass* culture, to use dub poet Linton Kwesi Johnson’s term. To do this, it draws on the cultural studies approach to subcultures, initiated with the work of Richard Hoggart, Raymond Williams and Stuart Hall, and developed by Dick Hebdige, Dave Morley, Iain Chambers, Paul Willis, Paul Gilroy, Angela McRobbie, Laurence Grossberg and many others. It is concerned with “culture” and systems of signification that include everything that people do in and with their expressive practice. Style and fashion are critical. Jamaican Dancehall is possibly the fastest-moving, most creative and occasionally violent of music scenes. As a study
concerned with Jamaican music in particular, the Sonic Bodies does have to be located in the musical cauldron of the Caribbean region, in relation to work on other Caribbean genres, such as Gordon Rohler’s Calypso and Society and Jocelyne Guilbaut’s on zouk music, and recently kaiso. Also the Reggae of the sound systems can be considered in a broad range of influences, namely from African music, with Kofi Agawu’s work, and African dance and visual culture with that of Bibi Bakare-Yusuf. Reggae’s own influence on Hip Hop, is explored for example in Trisha Rose’s Black Noise.

Further to these connections, the research project takes the specifics of the sound system material as ammunition for its second objective of thinking through some larger issues of modernism, music and technology. In this respect, the context of the research comes from David Scott’s Refashioning Futures and Conscripts of Modernity, Antonio Benítez-Rojo’s The Repeating Island and much of the work published in the journal Small Axe. In An Intellectual History of the Caribbean Silvia Torres-Saillant identifies what he calls the “favorite spot” Caribbean scholarship has for popular music, which he then criticizes as a collapsing of culture with history. According to Torres-Saillant there is “[an] apparent incongruity between the power that writers and cultural critics ascribed to Caribbean music and the power that the rhythms and their performers have actually exhibited in the modern history of the region” (Torres-Saillant 2006: 33). Sonic Bodies tries to avoid the mistake of overestimating the power and significance of music by taking the idea of sound as its starting point.

With the apparatus of the sound system as an archetypical phonographic one, the investigation pays attention to an increasingly rich body of work on auditory culture and recording. This includes the investigation of recording technologies that have featured in the work of Jonathan Sterne’s social and cultural history in The Auditory Past, Alexander Weheliye’s Phonographies: Grooves in Sonic Afro-Modernity, as well as Mark Katz on recording, Nicolas Bourriaud’s on DJ aesthetics and Frank Broughton and Bill Brewster’s on DJ practice. Jean-Luc Nancy’s recent philosophy of listening and the timbre of sound is also relevant here. The project refuses to consider the apparatus of the sound system as a technology divorced from its embodied, social and cultural relationships. This has been recognised by Dick Hebdige, Paul Gilroy, Louis Chude-Sokei, Michael Veal and others. But with the idea of the vibrations of sounding, Sonic B
Bodies takes this further, aiming to do for the popular culture of the dancehall session, what Christopher Small has done for his example of a classical symphony concert, with his concept of musicking.

Finally, the research project uses the findings on the working practices of the sound system crew to develop an understanding of embodied ways of knowing, connoisseurship, or savour-faire, as distinct from systems of formal knowledge. Their skilled performance makes reference Henry Louis Gates account of rhetorical tropes in the African American vernacular and Judith Butler’s concept of performativity. Further to this, according to Hans Kayser’s understanding of Pythagorean music theory, such proportional relationships produce a harmony between measure and value. In this way, the research findings on the sound system crew are intended as examples of the kind of skilled practices that occur in other settings, that have nothing to do with sound systems, or even music. To do this, the findings are located in relation to Pierre Bourdieu’s social anthropology of The Logic of Practice, psychologist Jean Lave’s observations of situated learning, philosopher Michael Polanyi’s concept of tacit knowing, neurologist Francisco Varela’s experiments on “enaction” and Richard Sennett’s recent sociological exploration of the importance of the craftsman’s role. With this concern for subjectivity and knowing, Sonic Bodies returns me to my first research interests in Ideology & Consciousness journal and Changing the Subject. But I would also like to acknowledge that a major theoretical inspiration for Sonic Bodies comes from the embodied knowing it seeks to understand. In particular the often nuanced, textured and subtle account that dancehall argot and popular Jamaican expressions can provide, have helped me develop an “overstanding” of the “vibes” and “balance” of a sound and the “livity” of a way of life. Indeed, the imaginative resources of Jamaican popular culture - in the 1940’s religious cults - were also central to my father’s social anthropological study - Family and Colour in Jamaica. In any event, thinking through sounding is touched with the experimental spirit of the studio recording practices of versioning and dubbing, where as is said, “every spoil is a style.”
Chapter 1

Jamaican Sonic Culture and a Methodology of Listening

This chapter identifies the sound system within the popular culture of the Jamaican dancehall scene. This is located within (1) Jamaica's sonic culture characterised by a) its orality, b) its musical traditions (Beck 1929, White 1984, Cooper 1993, Stolzoff 2000, Stanley-Niaah 2006, Hope 2006, Bakare-Yusuf 2006) and c) its auditory values. From this a research (2) methodology of listening is introduced (Idhe 1976, Levin 1989, Sterne 2003) to describe a) the researcher's relationship with the phenomenon, b) the sources of research material and c) the skilled performance of the sound system crew.

This research project investigates the skills and performance techniques of the dancehall sound system crew. It concentrates on three key crewmembers: the audio engineers who design, build, fine-tune and maintain the sound system “sets” of equipment; the selectors who choose recorded music played in the session; and MCs (or DJs) who “voice the mic.” The investigation is conducted on the basis of participant observation, in-depth interviews and examination of the CDs, DVDs, websites and other commercially available materials, using Jamaica’s foremost sound system, Stone Love Movement, as a case study. Sound systems are a unique and emblematic musical instrument and medium without which the open-air all-night Jamaican “dancehall sessions” - or “bashments” as they are called - could not take place. These, in turn, are at the heart of the Dancehall scene, around which much of the popular musical, cultural and commercial life of Jamaica revolves. The excitement, energies and complexities of a dancehall session make it a rich topic for research. Sound systems perform as sonic war machines, vehicles for cultural expression, vessels for identity and pleasure, economic engines, commercial ventures, instruments for musical production, institutions for artists' training, multi-media communication systems, test-beds for technological innovation, laboratories for sonic science, programme content providers for local commercial cable TV stations and ambassadors for Jamaican music abroad.
Not surprisingly, sound systems have had a substantial musical influence. As Veal puts it, “These sound systems have been more central to musical innovation in Jamaica than live performance, and the creative practice developed in the sound systems have in turn influenced the evolution of recording conventions” (Veal 2007: 51). This is such that Reggae and Dancehall music in Jamaica has developed in tandem with the sound systems themselves (see also Bradley 2000, Stolzoff 2000). In his comparative study of the Kingston and Montreal music scenes, John Constantinides describes the sound system as “the lynchpin of Jamaican music... not only a mediator or diffusor of recorded music, but an influential creative actor in the production of Jamaican musical culture wherever it may be found” (Constantinides 2002: 1). In addition, the Jamaican musical influence has been felt internationally in Hip Hop, Jungle, Drum & Bass, Garage and currently Grime and Dubstep. As an instrument for enjoying music, sound systems have also shaped DJ performance technique, the studio practices of versioning and re-mixing as well as the pleasures of listening in Raves, Clubs and Carnivals. Furthermore, there are vibrant sound system scenes in many European countries, Japan, Mexico, Brazil, Mexico, Canada and the USA. These Sounds² are crewed not by Jamaicans, but by natives of those countries. Some of these, especially the Japanese and German sound systems, have the enthusiasm, skills and confidence to compete against Jamaican Sounds on their own island turf and take part in international competitions. For instance, Sentinel, a German Sound, won the 2006 World Cup Clash (as described in Chapter 6).

One of the reasons why the Jamaican sound system scene makes a compelling object for investigation is its specifically popular character, at the opposite end of the social spectrum to the experimental vanguard of European classical Avant-garde such as, for example, IRCAM (see Born 1995). This is not to assume, however, that such popular traditions are any less creative. The Dancehall scene is bursting with an inventiveness and creativity to which this research project aspires. Every night of the week and every week of the year, the maintenance crews set up their huge stacks of speakers and massively powerful amplifiers and large live video projection screens. These sessions are attended by crowds of hundreds and flourish amidst the poverty, hardships and violent gang warfare of inner city Kingston where they began over fifty years ago. Jamaican sound systems have proved themselves to be amongst the most resilient of social and cultural institutions. For many from poor backgrounds the sound system
scene provides a livelihood, for others a way of life and for many more, a source of consumer-led style, fashion and entertainment. In terms of economic importance, identification and numbers, the only comparison to the sound systems would be the local football teams, or the Jamaican churches.

Figure 1.1 Bar on Baker Street, Jones Town, Kingston

On the smallest scale sound system sessions start as a couple of speaker boxes inside (see Figure 1.1) or outside, virtually every rum shop and street corner. The music played helps in the local economy, encouraging sales and sometimes this is organised as a "round robin", whereby the bar owners in community take it in turns to have one busy night per month. Then there are "birthnight" sessions (see Figure 1.2), weddings and christening parties, street dances and bigger events promoted by the local Don at regular intervals, and advertised with small handbills and posters (see Figures 1.3 and 1.4). There are also regular large sessions that attract a "crowd" (audience) of thousands and are broadcast live on local cable television. Some are staged midtown around Half Way Tree. Others, interestingly, retain their location in the ghetto, as with
Passa Passa on Wednesdays in Tivoli Gardens, on the Spanish Town Road (Hope 2006b) and Rae Town on Sundays (see Figure 2.9). These are the only occasions when people from outside these particular communities would feel safe to travel there (see Stanley-Niaah 2004a, 2004b). These sessions therefore provide members of the crowd one of the very rare points of contact with others across the divisions of the Jamaican class system.

Figure 1.2 “Birthnight” session, Jones Town. Note videoman, picture left.3

The sound system scene is also of research interest as a culture that is working class - or lumpen, given the levels of unemployment - and marginal, given its involvement in the black or grey economies and criminal activities, as for example with “The British Link-up Crew” (see Hope 2004). Urban geography reflects what has long been acknowledged to be a society sharply divided along colour and class lines (see Fernando Henriques 1953). In terms of entertainment, as well as everything else, the poor downtown Kingston areas and other ghetto communities consider themselves to be largely isolated and excluded from mainstream civil society (see Levi and Chevannes 1996, Clarke 2005). Formerly middle class and prosperous areas, these downtown inner city locations in West Kingston might now be likened to favelas or shanty towns in other parts of the world. For decades they have had only minimal access to economic and educational opportunities and a marginal position in relation to
government agencies and institutions of the Jamaican State, principally the police (see Lacey 1977, Harriott 2000). The prevalence of poverty and violence has, however, encouraged an alternative unofficial political patronage system to established itself in which local area Dons provide resources, authority and protection for their communities known as "garrisons" (see Gunst 1996 and Gray 2004). Inner city schools, and, in a few areas the churches, constitute the only local institutions whose representatives the local media can call upon for comment on local issues. In this respect, sound systems operate at the margins between their own world downtown and that of the mainstream.

Figure 1.3 Handbill for a street dance, Jones Town. Note: Admission price of “buy out the bar” that is no charge but that of the drinks. Also the street corner of “Bibow HQ” at which the dance is located is the headquarters of the local Don.

Another reason for a research interest in the “bashment” is that it is something of a unique kind of event. A dancehall session is a specifically sonic destination, providing intense, visceral, immersive and sensory pleasures for the crowd. Each session is a liminal experience, often at the limits of loudness and always crossing over the threshold into the dawn of the following day. While a session is a specifically auditory sensory experience, described as sonic dominance (Henriques 2003), at the same time it involves a range of all the senses of vision, touch, smell, taste, temperature,
movement and so on, as is expressed in the poster iconography of the scene itself (see Figure 1.10). Furthermore, although a sound system is a specifically auditory medium, at the same time it is nothing short of a multi-media apparatus in which live video projection and dancing have become increasingly important. The sound system set can configure the latest digital equipment together with retro turntable and vinyl reproduction and even valve amplification. This contributes to an experience of listening that has to be shared and social, as distinct from that on ipods and other personal devices. The qualities of a session are appreciated in terms of its “vibes” and “excitement.” This is the ambiance, atmosphere and feelings generated within and between the embodied presence of the crowd. In short, a dancehall session is exemplary in exploiting each waveband of sounding, namely: the material vibrations of sounding, with the qualities of auditory propagation; the corporeal vibrations, with its range of sensory affects and expressive dance movement; and the ethereal vibrations with its resonances with different folk and West African social and cultural traditions. (These three wavebands of sounding are elaborated in Chapter 3.)

Figure 1.4 Stone Love posters on a zinc (corrugated tin) wall, Jones Town
In such a rich and complex location as a dancehall, the skills and performance techniques of the sound system crew have to stand out. The conventions of the session demand that the crew “perform” already recorded music tracks on a phonographic apparatus, rather than allowing them the expressive possibilities of “live” musical performance. Another challenge to the skills and performance techniques of the crew is that sounding is necessarily transitory, non-representational and indeed invisible. Most selectors remain in darkness, unseen by the crowd throughout the night. Restricted in these ways the crew’s skilled performance has to be particularly powerful, exciting and memorable to make an impression on the crowd. Sound system competitions or “clashes” with rival sounds where selector’s skills “tested” against the performance of others have certainly contributed to their profile. Indeed, sound system selectors (as DJ’s are known) are the “brand name” for a sound system and advertised “crowd-pullers” for a particular session. Similarly the Dancehall Queens, crowned at national and international contests, are the leading personalities on the scene. So as a site for the investigation of the logic of sound practice, the dancehall scene provides a wealth of material with which to discuss some important theoretical issues about culture, technology and embodiment. To give a feel of the research material some field notes on the “stringing-up” of a session are included (in the Appendix 1), as well as a short video film of a further session (Appendix 2).

(1) Jamaican Sonic Culture
A particular value and status is given to the auditory sense is evident across Jamaican society, especially in the downtown ghetto areas of Kingston where Dancehall originates (see Figure 1.5). In these areas there is a rich soundscape, to use Schaffer’s (1977) term, or an acoustic space, as McLuhan (1989) would describe it (see also Augoyard and Torgue 2005). With open windows and corrugated zinc walls sonic privacy impossible. The tropical heat downtown pushes people out onto the streets. This makes for a cacophony of children playing, car horns, motorbikes, radio, television, church services, sound systems, cocks crowing, not to mention the occasional gunshot. This distinctive shared open-air sonic “livity” - as is said in Jamaican English - or “form of life” as Wittgenstein would have called it, is part of Jamaica’s rich African musical heritage (see White 1984, Ryman 1984, and Lewin 2000, 2005, Bilby 2003, 2005). In short, sound itself provides the orientation of a symbolic order, as Alain Corbin (1999)
describes with the uses of church bells in the rather different setting of 19th century French village life.

Figure 1.5 **A street in the downtown community of Jones Town, Kingston**

In Jamaica and the diaspora, sound not only expresses power, but also resistance to it - "an attitude" as would be said in the lingo. As one London pirate radio station DJ Charlie B on Vibes FM has it: "Tune in, pump up the volume, and rip off the knob. We just don't care." In his study of the social power of the urban poor in Jamaica, Obika Gray coins the phrase "badness-honour" to describe this:

Badness-honour is a repertoire that employs language, facial gesture, bodily poses and an assertive mien to compel rivals or allied to grant power, concede respect, accord deference or satisfy material want.... Acts of badness-honour constitute a gestural-symbolic system and a carrier of moral communication. Through badness-honour, inter-subjective understanding about the basis of identity and the terms of power are conveyed... (Gray 2004: 129 - 130).
According to Gray this repertoire is by no means restricted to Jamaica, extended currently to the “gansta rap” culture in the USA, and historically to the slave-masters and colonial authorities (Gray 2004: 120 -151).

a) Orality
Jamaican culture has a particular orality (following Ong 1982), or orientation towards the spoken word. The voice, as the *viva voce*, has particular value, as exploited in the MC’s rhetorical performance (described in Chapter 6). Besides music, the liveliest of the media in Jamaica is undoubtedly radio, especially the talk shows. Also story telling, with Anancy and a host of other folk tales, proverbs, and even “tracing” (family name calling as an insult) are all key elements of the richly expressive dramatic performance of everyday Jamaican culture. By way of contrast, on other Caribbean islands such as Trinidad and Tobago, newspapers and magazines are the most sophisticated of media, besides the strong popular tradition of Carnival. In Haiti, it is painting rather than music, that dominates popular culture. Martinique, on the other hand, is famous for its literature, with the late poet-president Aimé Cesaire. The particular sensibilities of Jamaican culture can also be located more broadly in Antonio Benitez-Rojo’s (1996) study of the commonalities across Caribbean cultures, *The Repeating Island*, in a Deleuzian framework, and in Silvia Torres-Saillant broad-ranging *Intellectual History of the Caribbean* (2006).

The Jamaican oral tradition is also developed in vernacular or “labrish” poetry pioneered by the late Louise Coverely-Bennett, a.k.a. Miss Lou, (Bennett 1966). This rich oral tradition has also been developed over the decades by Edward Kamau Brathwaite with his performance poetry (Brathwaite 1973) and by a host of dub poets such as Michael Smith and Mutabaruka, as well as Linton Kwesi Johnson and Jean Binta Breeze in the UK. Brathwaite has also given cultural and political status to this tradition of oral performance, improvisation and popular vernacular expression, with his concept of *nation language* (Brathwaite 1984). The opus of the St Lucian Nobel Literature prize-winning poet Derek Walcott can be located as a compliment rather than in opposition, to this popular tradition, as it has often been considered to be. Walcott invariably draws on classical European literary traditions, forms such as iambic pentameters and the
mythical figures of Classical Greece, such as Achilles - in his epic *Omeros.* But he mixes these with French creole expressions, rhythms and expressions (Torres-Saillant 1997). Furthermore, there are literary approaches to Caribbean sensibility in the work of the Guyanese novelist Wilson Harris (1969) and the very important, but neglected, philosopher Sylvia Winter (see Scott 2000). The social anthropologist Huon Wardle (2000) makes a similar connection in his ethnographic study of the values and judgements of street vendors and others in inner city Jamaica, interpreting these as being an expression of Immanuel Kant’s philosophy. This Classical-Caribbean mix is certainly one that resonates with thinking through sounding when concepts from Aristotle’s rhetoric are used in the analysis of the selector and MC’s performance (in Chapters 5 and 6). Its value is in providing a way of recognising the complexity of and creativity achieved, in the embodied skills and performance techniques of the sound system crew.

The strength of the churches and Jamaica’s long-established Baptist, Pentecostal and Revivalist traditions (Austin-Broos 1997) make another connection between the oral and textual currents of Caribbean culture. There are reputedly more churches in Jamaica per capita, than anywhere else in the world. A traditional religiosity pervades Jamaican sensibility, evidenced by the frequent use of Biblical proverbs in speech and Biblical quotations painted on the walls of inner city communities (see Figure 1.6). Biblical literacy is so high that in some instances only the reference, rather than the text, appears to be required (see Figure 1.7). Such religious sentiments mean that in Jamaica the sound of the spoken word can be considered as a spiritual medium, such an approach centring on the idea of a creative power of the spoken word. This discursive interpretation of the *logos,* (that is as *word,* rather than *ratio,* as discussed in Chapter 7), takes its cue from the opening of St John’s Gospel: “In the beginning was the word …” Indeed, the Jamaican Pentecostal churches are so-named for their reference to the descent of the Holy Spirit at the feast of the Pentecost. With a strong following in Jamaica, their services give free reign to *glossolalia* or speaking in tongues, which is another reference on which the MC’s rhetorical performance draws. This also resonates with the even more ancient idea of a magical power of words, proverbially *abracadabra,* to change things in the world. Poet Derek Walcott picks up on this idea with his account of the Caribbean artist who is “blest with a virginal, unpainted world”
and "Adam's task of giving things their names." Chambers (2001: 204-5) discusses the importance of such a "linguistic turn" as does Gell (1992) in respect to the art and magic of technology. This magical approach is one among several types of understanding that audio engineers have within their repertoire (as discussed in Chapter 4).

Figure 1.6 Quotations from the Gospels on the wall, next to adverts, Jones Town
b) Musical Traditions

The musical and preaching style in Jamaican Revivalist churches informs the sensibilities of the dancehall session and Reggae and Dancehall music. Beckford (2006) begins to explore these links between church hall and dancehall through the Reggae music technique of dubbing. But the dancehall scene also draws on even more ancient traditions; from the island’s rich African musical heritage, particularly the religious cults of Kumina and Pocomania that still have their practicing followers. Puerto Rican sociologist Angel G. Quintero Rivera claims that these musical traditions have a particular value across the region:

In the Caribbean, before the word, in the beginning it was the drum, rhythm, and movement. In the complex conditions of ‘encounter’ among ‘migrants’ speaking diverse languages, music and dance preceded the first ‘discourses.’ The contribution of socio-cultural identities for Caribbean peoples has been
inextricably linked to our sonic forms of expression and communication (Quintero Rivera 1998:14, translated and quoted, Torres-Saillant 2006: 144).

One of the earliest studies to research Jamaican popular culture was Fernando Henriques' (1953) *Family and Colour in Jamaica*. This described some of the popular cults with fieldwork conducted in Portland, a rural Parish on the north east coast of Jamaica in the late 1940's. The collective all-night music-making rituals, where drumming is particularly important such as with a Kumina "duty," as it is called, has much in common with a dancehall session (see Figure 1.8). Henriques describes Pocomania as being "... publicly practiced. In its group activity the individual can feel identification with something greater than himself. This identification acts as a form of compensation for the general ills of life which affect everybody" (Henriques 1953: 79-80). Trained at Oxford by the leading post-war social anthropologists, Radcliffe Brown and Meyer Fortes, my father's work initiated an interest in Jamaican popular culture that I would like to see this research as continuing and developing. As he writes:

As all cult groups are strongly condemned by the upper and middle classes it is probable than many individual are reluctant to admit their connection with Pocomania. The attendance at 'meeting houses' in Portland suggests a substantial support from the lower class... Pocomania is essentially a proletarian movement (Henriques 1953: 78-9).

This line of research also encouraged the development of Stuart Hall's cultural studies approach in the UK (as discussed in the next chapter). Against the grain of prevailing middle-class prejudices dismissing popular culture in Jamaica, there has been a small stream of research giving attention to the local popular cultural or folk forms. Initiated between the wars by Beckwith's *Black Roadways: A Study in Jamaican Folk Life* in 1929, the stream includes journal articles such Simpson's (1955) *Political Cultism in West Kingston*, Edward Seaga's (1969) *Revival Cults of Jamaica* (before he was Jamaican Prime Minister, 1980 to 1989), Garth White's (1984) important *The Development of Jamaican Popular Music* as well as Cheryl Ryman's *Kumina - Stability and Change* (1984). Book length studies include Edith...

Musically, the links between African traditions and the dancehall scene are not difficult to establish. Traditional African rhythms, and Nyabinghi drumming in particular, provided the rhythmic beat that turned Ska into Reggae as a musical form. Indeed, Rastafarian spiritual beliefs were crucially important in the formation of Jamaican popular music in the 1960’s, as has been comparatively well-documented (see for example Murrell et al’s *Chanting Down Babylon*, 1998, and Chevannes, 1994, 2006). This influence only increased as the perceived failures of the political and economic project of national independence after 1964 paved the way for the cultural nationalism of the 1970’s (see Gray 2004). This “cultural” strand to music, as it is called - as distinct from that of the “rude bwoy” or gangster lyrics – has also continued to flow through the dancehall scene in the 1980’s and 1990’s, with recording artists such as the late Garnet Silk, Luciano and Capleton up to the present. Such grass-root popular musical and cultural traditions may be contrasted with government-supported local cultural production that the sculptor and artist Edna Manley, wife of Jamaica’s first Prime Minister Norman Manley, ensured was a part of Jamaica’s nationalist project (Laduke 1986, Paul 2005, Emery 2007). Despite all this - and Bob Marley’s international popularity as a Jamaican cultural export in the early 1980’s - it is only recently that the commercial potential of Dancehall music and the dancehall scene has begun to be exploited (Henriques 2007a). Currently Dancehall “riddims” make use of Kumina rhythms (as reggae had previously Nyabinghi rhythms) although interestingly, the musicians themselves are not necessarily aware of their origins as such (see also Bilby 2003). In this way, ancient old world African traditions come “up to the time,” to use an Elephant Man catch phrase, with the latest digital technologies at the top of the Jamaican hit parade.
Figure 1.8 **Kumina Duty, Spanish Town.** Note the Haile Salasse face on the drummer's T shirt, as an indication of the mixing of traditions.
Contemporary research interest in Reggae and Dancehall as a popular culture has been pioneered by Carolyn Copper who founded the Institute of Caribbean Studies at the University of the West Indies at Mona, Jamaica. Cooper’s (1993) *Noises in the Blood* and more recently *Sound Clash* (2004) take a literary textual approach to investigate the lyrical content of the music, which has attracted some criticism (Hippolyte 2006). Debate has been encouraged and important issues raised in *Small Axe*, a journal focused on Caribbean arts and politics (for example, Scott 2000). The field of study is now being broadened with approaches stemming from social geography and with a new generation of scholars, notably Stanley-Niaah (2004a 2004b, 2004c) and Donna Hope (2004, 2006a, 2006b). Furthermore, Bibi Bakare-Yusif (2001 and 2006) brings some very welcome theoretical rigour with a phenomenologically inspired consideration of the dancehall session and Dancehall fashion. Sound systems have also featured in contemporary research and there is useful descriptive material to be found in Norman Stolzoff’s (2000) *Wake the Town and Tell the People* and Lloyd Bradley’s (2000) *Bass Culture: When Reggae Was King* and the very few studies of the Reggae genre, such as Kwame Dawes’s monograph *Natural Mysticism: Towards a New Reggae Aesthetic in Caribbean Writing* (1999). Then there are the more popular guides to the music such as Chang and Wayne’s (1998) *Reggae Routes: the Story of Jamaican Music*, and Barrow and Dalton’s (1997) *Reggae: the Rough Guide*, and Salewicz et al’s (2001) *Reggae Explosion: The Story of Jamaican Music*, David Katz’s (2003) *Solid Foundation: An Oral History of Reggae* and (2000) *People Funny Boy: the Genius of Lee ‘Scratch’ Perry*.

These works have given some attention to the object of the sound system and the historical development of the scene, together with background details on the key performers and producers. However, whilst descriptively useful, they do not raise any analytical questions. More pertinent to the current research are those writers who have detailed the performance practices of the sound system crew. On the musical front this includes Marshall and Manuel’s (2006) journal article *The Riddim Method: Aesthetics, Practice and Ownership in Jamaican Dancehall* and Michael Veal’s (2007) monograph devoted to the subject *Dub: Songscapes and Shattered Songs in Jamaican Reggae*, and Chude-Sokei’s “Dr. Satan’s Echo Chamber:” *Reggae, Technology and the Diaspora Process* (1997a) and his *The Sound of Culture: Dread Discourse and the Jamaican Sound Systems* (1997b). There is also Broughton and Brewster’s (2002) general
practical manual *How to DJ Properly* and Andrew Campbell’s (1997) very useful account of sound system crew practices in *Reggae Sound Systems*, as well as John Constantinides’ (2002) *The Sound System*. The recent documentary film *Dub Echoes* by Bruno Natal also makes an important contribution to the research field.¹⁰

Particular sound system scenes have also been described (as discussed in the next chapter) in Dick Hebdige’s pioneering cultural studies approach to the Reggae and Punk scene in the UK, with *Subculture: the Meaning of Style* (1979) and *Cut ‘n’ Mix: Culture, Identity and Caribbean Music* (1987). Amon Saaba Saakana’s (a.k.a. Sebastian Clarke) *Jah Music: the Evolution of Popular Jamaican Song* (1980) was an early study of the UK scene. Paul Gilroy (1987) devotes a chapter in *There Ain’t No Black in the Union Jack* to British sound systems, while Iain Chambers in *Popular Culture: the Metropolitan Experience* discusses “reggae’s ‘black truth’” (1988: 167) on the UK pop scene. The influences of the Jamaican sound system on the American Hip Hop scene were documented in Tricia Rose’s seminal (1994) *Black Noise: Rap Music and Black Culture in Contemporary America*. Furthermore, on the specifically phonographic character of the technology used in the sound system, Alexander Weheliye’s (2005) *Phonographies: Grooves in Sonic Afro-Modernity* is very useful. Weheliye draws on novelist Ralph Ellison’s (1947) introduction to *The Invisible Man*, and his essay *Living with Music* (1955) that explore the African-American musical and technological sensitivities particularly to what he calls the “lower frequencies” (as described in Chapter 3). Furthermore, there are several precedents for thinking through sounding, if not in a specifically Jamaican context. One of the finest is Kodwo Eshun’s (1998) *More Brilliant Than the Sun: Adventures in Sonic Fiction*, where jazz, soul and reggae are located in, and thought-through, a sonic imagination to great effect. Jacques Attali’s (1985) *Noise: The Political Economy of Music* uses European traditions of music making as a way of understanding their social and political formation. Iain Chambers goes further: “We could consider music as one of the languages we inhabit, dwell in, and in which we, our histories, cultures and identities, are constituted. As language it is seemingly immaterial and yet profoundly terrestrial” (Chambers 2001: 115).

One of the opportunities that the dancehall phenomenon offers is to explore the relationship between the particular specific details of the “low” or popular cultural forms
of life of the sound system material on the one hand, and the abstract “high” culture of Western social, cultural and philosophical theory, as distinct from anthropological or ethnographic approaches, on the other. In this respect, the relationship between the research material and theory could be characterised as dynamic encounter, or a “clash” between rival sound systems, as it were. The competing crews represent ancient African traditions and Modern Euro-American ideas; popular culture and philosophy; tacit and theoretical knowing; folk forms and technology; New World and Old; periphery and metropolis, classical Greece and Creole Caribbean - as poet Derek Walcott put it “the Aegean in the Caribbean.” Indeed, such encounters have often been proved to be the most creative, with for example the encounter of African traditions with modern American music technologies producing Jazz music, or that between West African Kumina rhythms (as referred to above), and current digital music technologies - to produce the current Dancehall “riddims.” In the Jamaican or Caribbean research context, precedents for such an encounter, though not numerous, are notable. These include Huon Wardle’s An Ethnography of Cosmopolitanism in Kingston, Jamaica, (2000) where he describes the inner-city dwellers as acting out the philosophy of Immanuel Kant; Bibi Bakare-Yusuf’s The Sea of Memory: Embodiment and Agency in the Black Diaspora (2001) where she takes Merleau-Ponty’s phenomenology to understand the dancehall session; and Antonio Benitez-Rojo’s The Repeating Island: The Caribbean and the Postmodern Perspective (1996), taking a Deleuzian approach to the unique social and cultural mix across the Caribbean region. So the sound systems and the dancehall scene have been approached from social, cultural, literary, geographical, anthropological and musicological quarters. While this research provides a valuable background, the present project has a different emphasis. This can be described as giving attention to practices, performance and values of sounding - to which we now turn.

c) Auditory Values

Jamaican sonic culture has a particular affinity with audition, that is, sound itself, as well as speech and music. It is of course the audio engineers who are responsible for the bass-heavy signature of the sound system - deserving as much credit for the sound of Jamaican music as their better-known music producer cousins, such as King Tubby or Lee “Scratch” Perry who invented dub music in the recording studio. The special value
of sound in the popular culture of Jamaica comes to the fore in many different ways, some of which have already been made evident whilst others will be elaborated upon as the investigation progresses. These may be summarised as follows:

- the sheer size and music power of the sound system equipment with several speaker stacks the size of a double-decker bus round the open-air dance-floor, delivering up to 19,000 watts of music power that can be decisive in a competitive “clash” between sound systems (see Figure 1.9)

- the special resonance for the substance of sound, the bass vibrations or “the lower frequencies,” to use American novelist Ralph Ellison’s (1947) phrase, rather than mid or top. This has been referenced by the UK Jamaican dub poet Linton Kwesi Johnson’s 1980 album of that name as Bass Culture, the term “massive” for the crowd, and their experience of sonic dominance (as a discussed in relation to the material vibrations of sounding in Chapter 3)

- the secrecy surrounding the audio-engineer’s work causing them to wire the electronics of their sets in a single colour, rather than the usual colour coding – to prevent industrial espionage from rival sound systems (see Appendix 1)

- the pioneering technological sophistication of the equipment such as the five-way music signal split from treble to sub-bass, with amplifiers dedicated to each frequency on each channel, as was taken up with the Grateful Dead’s “Wall of Sound” stage sound system

- the fine-grain detail of the expert embodied knowledge and connoisseurship of the engineers that gives them an extend sonic vocabulary, and can causes them to spend several days working to fine-tune equipment after a repair (as described in Chapter 4)
Figure 1.9 Erecting the Young Fresh Sound System speaker stacks at Skateland. Note: each sound system builds its own speaker stacks for the event, so those next to this one are those of another Sound (see also Figure A1.4).
• the years spent learning the craft of audio engineering in an apprenticeship system with a direct line over five generations to the inventor of the sound system (as described in Chapter 4)

These considerations of the particular value given to speech, music and sounding in Jamaican society, calls for a methodology of listening, to which we now turn.

(2) Listening as a Research Methodology
Listening undoubtedly emphasises the particular auditory sensory modality. But it can also do more than this. The idea of listening can also inform the reciprocal relationship between research, researched and activity of researching for which the call and response of antiphony provides a primary example (as detailed in Chapter 6). It also provides a way of generating research materials, as well as stimulate an understanding of the reflective character of the research process in which the subjects are also expert listeners. Listening as a research methodology also allows an exploratory questioning and a “sounding out” of the research materials. This is listening as a whole-mind-and-body activity, to gloss Idhe (2002). It compliments all the practices of sound-making or sounding, and far exceeds simply hearing (as discussed in Chapter 3). In this manner, listening is part of a reciprocal movement, breathing out and breathing in, as it were, or giving and receiving, as Marcel Mauss (1950) famously discusses in his anthropological study of The Gift. The giving - or “paying” - of attention, is not only a reciprocal feature of listening, it is also a reciprocal feature for the mechanics of hearing (as mentioned in Chapter 3). Listening is not a “sitting back” but a “coming forward.” This recalls the practice of bearing witness, where the embodied presence of another person listening and viewing, rather than any expressive action on their part, counts for something, as with the validation of a legal document, for example (see Henriques 2003). Listening also suggests the object of sound, in the way hearing suggests noise, as appreciating does music.

The relationship between listening subject and object, or listener and listened-to, is quite different from the dichotomies of viewer and viewed, or reader and text, on which the major cultural and social scientific turns in recent decades have pivoted. The type of
understanding achieved by each is quite distinct. Listening is concerned with the
embodied qualities of tone, texture and timbre, whose subtleties for the listening
subject Jean-Luc Nancy (2007) explores (as discussed with the respect of the MC’s
voicing in Chapter 6). Listening concerns participation, understanding and “making
sense” as Hans Kayser (1970: 21) is keen to emphasis with his adoption of the Greek
word akr̄asis (ακρ̄ασία) for listening. This, he contrasts with the widespread privilege
for the value of viewing, “reflected” so to say, by the fact that the term aesthetics come
from the Greek word aesthesis (αισθησία) for seeing or perceiving. Listening
emphasises the sensual world of actual embodied presence, corporeal performance,
matter, energies, intensities, relationships, flows and affects (see Abram 1996). With
listening, even when this is to a recording, there is no separation in time and space
between the subject and object of sounding. Consequently, social, cultural and political
theory has tended to give very little attention to the qualities of the sonic or haptic,
compared to the vast literatures there are on visual cultures. Indeed, it can be said
that the Western philosophical tradition has tended to be much more comfortable
contemplating visual objects in space, rather than listening to acoustic events in time
(see for example Rorty 1979, Jay 1993, Jacobs 2001). Thus the relationships of
listening may be contrasted with those of viewing, observing or reading, without
compromising the co-operation, complimentary and integration of the different sensory
modalities that are critical to thinking through sounding.

Traditionally, this visual focus has been couched as abstract ideas of reflection or
representation that are often considered to separate viewer and viewed (as discussed in
Chapter 3). With viewing, and more particularly, reading, the object is invariably a text or
image produced in another time and place. Viewing and reading are believed to
introduce the “critical distance” of interpretation, decoding, deciphering and
hermeneutics across the “objective” divide between the spectator and the spectacle.
The power in a visual relationship is always inclined towards the viewer, rather than
being the kind equal exchange between listener and performer that, for instance,
Small’s (1998) concept of musicking attempts to theorise. This visual relationship may
be preoccupied with power, with its apotheosis in Foucault’s (1977) panopticon, where
mere viewing becomes a medium for surveillance, manipulation and control. Or viewing
may be consumed with desire, as the idea of the Gaze, beloved of psychoanalytically
inspired film theorists (see Mulvey 1975). One figure embodying a different aspect of viewing is Benjamin’s flâneur. Casual and disinterested, he (for it is most often a man), strolls along the boulevards of inter-war Paris, gazing at life passing by and the riches displayed in the windows of the then novel department stores (Benjamin 1935 and 1936/1970: 174-6). By contrast, listening relationships have a different feel. If this research were to suggest an alternative figure expressive of the attitudes attaching to listening, it would be the “bashment gals” (see Figure 5.9), the most regular and dedicated members of the crowd in the session. These dancehall followers certainly pay attention to how good they look with their costume, jewellery, makeup and hair, and their dance is explicitly sexual, but they are also completely involved and participating, immersed in the sound of the music, leading the dancing, and indeed the vibe of the whole event.

Listening, like sound-making, can only take time and place in particular instances (as described in the next chapter). The particular Jamaican sound system that serves as an exemplar or case study is the Stone Love Movement (see Figure 1.11). After thirty years at the top of the sound system scene, Stone Love may be considered Jamaica’s premier Sound. In a scene where competition and rivalry between sound systems is central to Dancehall’s “excitement,” there are few who would either dispute Stone Love’s unique position at the top, or its commercial success (see Henriques 2007a). One way that this is evidenced is the fact that Stone Love is the only Sound that does not take part in sound system “clashes” in which all other Sounds compete (as described Chapter 6). It should also be noted how the relationship of listening, while taking its cue from the material vibrations of sounding, is not restricted to what are conventional considered as particular sensory modalities. In short, we can listen with our eyes, fingers, whole-bodies or any sense organ, as well as with our ears (see Figure 1.10). So what is the instrument needed to conduct such listening? This has been described as the “third ear” which has a similar mystical ring to it as the third eye. Nietzsche mentions this organ in Beyond Good and Evil as has been taken up in Joachim-Ernst Berendt’s The Third Ear (1992) an informative account of the ear as a “way to wisdom” based on his social anthropological research. Also psychoanalyst Theodor Reik’s (1948) in Listening with the Third Ear describes how, “one mind speaks to another beyond words and in silence” (p 144). As Bianca Theisen puts it: “The ‘third
ear Nietzsche asks for would try to perceive this asemantic, rhythmic stratum as a scansion of language, a split between enunciation and énoncé; a rhythmic scansion to which our perception is usually oblivious because it rests upon it” (Theisen 1994: 86). It is of interest to note how it is rhythm that comes into play has what is being heard with subtle form of listening. Theisen continues: “Rhythm here could be defined as liminality: within the parameters of distinction theory it could be called form, that is, the fact that a distinction can be drawn.” The “thirdness” of this quality of listening is a theme taken up in the concluding chapter.

a) Research Relationships
The philosophical tradition of phenomenology, from Husserl and Merleau-Ponty onwards, has investigated the idea of a relationship of listening, which is useful for understanding research relationships. Listening could be described in phenomenological terms as being-in-the-world, intentionality, and an embodied connectedness and intertwining, or chiasm, as Merleau-Ponty (1962) called it, between listener and world. Don Ihde developed this approach first with his Listening and Voice: A Phenomenology of Sound (1976) and later in what he calls “whole-body” perception (Ihde 2002). This term certainly describes the experience of sonic dominance (Henriques 2003). This is listening at very high volumes, with all sensory organs at the same time, effecting an apparently immediate translation into feeling and kinetic dance movement and a dissolving of the listening subject with his or her sensory environment. Furthermore, Michael David Levin (1989) in The Listening Self argues for a phenomenological “methodology of listening.” The first stage of the orientation of listening Levin carefully describes as skilful listening, as the process of “our primordial attunement.” Secondly, there is everyday listening, then skilful listening, and finally what Levin calls hearkening [sic] (after Heidegger’s term das Horchen). Hearkening requires “letting-go and letting-be… a distinctly spiritual accomplishment” (Levin 1989: 48).

Though he uses the word “hearing” rather than “listening” Jacques Attali has similar intensions when he says at the start of the first chapter of Noise: “For twenty-five centuries, Western thought has tried to look upon the world. It has failed to understand that the world is not for the beholding. It is for hearing. It is not legible, but audible” (Attali 1985: 3). More recently listening has also been taken up as an issue of sociology (Back 2007), philosophy (Nancy 2007) and modernity (Lastra 2000, Thompson 2002, Erllmann 2004).
Figure 1.10 *Bashment poster* Note: prominence of dancers (John Hype, Bogle), selector (Fire Links) and videoman (Jack Sowah), alongside artist (Beenie Man).
But a hundred years before phenomenology, listening was certainly recognised by the nineteenth century German poet Johann Wolfgang von Goethe as an important part of what he called the “way of science.” Goethe’s scientific work is indeed now being reconsidered after years of neglect (Bortoft 1996, Holdrege 2005). As Goethe puts it: “Our full attention must be focused on the task of listening to Nature to overhear the secret of her process, so that we neither frighten her off with coercive imperatives, not allow her whims to divert us from our goals” (Naydler 1996: 72, emphasis added, Miller 1988: 309). While Goethe’s language may appear a little quaint to contemporary ears, the quality of methodological relationship he describes is entirely in tune with the aspirations of the present research. For Goethe this attentive listening is central to his particular scientific methodology that he describes as a delicate empiricism (Zarte-empirie). According to Goethe: “There is a delicate empiricism which makes itself utterly identical with its object…” (Naydler 1996: 72, Miller 1988: 309). So what does this delicate empiricism mean for research practice? In the first place, whether cultural or natural phenomena, this idea of delicate empiricism indicates a complete immersion in the particular phenomenon and the processes of perceiving it. This is an acceptance of the phenomenon without judgement and a suspension of evaluation. The immersive
aspect of this delicacy is also expressed, very powerfully, with the intensive corporeal and sensory engagement required by the *sonic dominance* of a session (Henriques 2003) where the listener has little choice but to become "utterly identical with the object." This immersion can only occur by means of a complete familiarly with the entire world of the phenomenon of the session, that is the dancehall scene.

Secondly, Goethe's delicate empiricism as applied to social phenomena can only be achieved on the basis of equality, that is, without the "coercive imperatives" typical of inequalities of power. For the present approach the word "delicate" describes a non-interference with the phenomenon that serves to qualify the quantitative, objective, if not brutal, manipulation of "data" for which empiricism has come to stand. Listening emphasises the particular type of *relationship* that has to obtain in every social and cultural investigation between researcher and subjects. This is a complex personal, social, cultural, political and economic relationship of which the key ingredients are trust and respect. These values are possibly the most salient of all in Jamaican society as a whole, and on the Dancehall scene in particular, given its location in mainly poor communities. This idea of respect for the integrity of the whole is evident, for example, in the research approach whereby the investigation of the phenomenon takes place *in situ*, as distinct from intervening or manipulating the subject of the enquiry in any way, or experimentally isolating variables outside the context in which they are to be found. The idea of trust between researcher and subject is of course the "bottom line" of any social investigation. Often this is born out of the respect earned by an outside person, in my case a person of Jamaican ancestry coming from "foreign," but taking a serious professional interest in what they themselves took very seriously - their music.

As the research progresses the researcher, of course, becomes more knowledgeable. This trust is also earned by having sufficient knowing of the etiquette and social rules of the scene so as not to embarrass your hosts. Often the importance of such rules only becomes apparent when they are broken. For example, the rule: "Don't take photographs without first asking permission from whoever is the most important person around." On one occasion I broke this very elementary rule because I failed to recognise the Don who had virtually collapsed drunk behind the bar. I was fortunate that the consequent penalty was only to have the film removed from the camera, unravelled
and ritually stamped into the ground, rather than having the camera itself destroyed. Generally, when researching in the ghettos of Kingston, the only way to proceed is to show complete respect to those that have earned the respect – and sometimes fear – of the local community. This is of course the particular Don of the area, whose auspices then becomes your protection. He will often simply let everyone know this, by allowing you to be seen with him, as was the case, for example, with Security Chief for the Skateland Session (as mentioned in the field notes above), to whom I had been introduced by the right hand man to the owner of the Stone Love Sound System. Furthermore, one Don arranged for a public viewing of one of my films, so everyone in the community had the opportunity to know who I was and what I did.

Thirdly, together with immersion and respect, the listening of a delicate empiricism also involves a sensitivity, appreciation and sensibility for the fine-grain detail of the phenomenon, with all its tones, inflections, nuances and subtleties and minutia of a Geertzian (1973) “thick” description. This, of course, also includes the research subjects’ own understanding of what they are doing, as discussed below. There can be few fields of research more sensitive to the vicissitudes of changing style and fashion than the Jamaican dancehall scene (Bakare-Yusuf 2006). In short, a delicate empiricism requires skills, knowledge and expertise on the part of the researcher. And this resonates with that of the subjects being researched, described for example as the audio engineer’s “connoisseur’s judgement” (Henriques 2006) and the selector “reading the crowd” (Chapter 5). Indeed, the present approach extends two of the key procedures of the methodology of participant observation by taking them completely literally. One is a particular emphasis on an awareness of time (Bruyn 1966), as with the schedule of the session, and the other is the enumeration of frequencies of observed behaviours (Zelditch 1962), as with repeating and reiteration as a technique (the selector’s techniques described in Chapter 5). While not a radical departure from a methodology based on observation, the idea of listening tends to encourage participation in activities of the phenomenon being researched. The fact that the term observation alone does not place sufficient emphasis on the researcher’s practical involvement is betrayed by the supplement of “participant.” With a methodology of listening, I would suggest that participation is simply unavoidable, attesting to listening as a two-way reciprocal process.
By listening, the listener goes half way to meet the listened, giving the other their attention, unlike simply hearing, overhearing, or eavesdropping, or indeed visual observation. Roland Barthes describes this as a particular two-way type of listening where listening is to “not what is said or emitted, but who speaks, who emits such listening is supposed to develop in an inter-subjective space, where 'I am listening' also means 'listen to me'…” (1976/ 1985: 246). He goes on to elaborate this way of understanding listening as the basis of the relationship between subjects:

The injunction to listen is the total interpellation of one subject by another: it paces above everything else the quasi-physical contact of these subjects (by voice and ear): it creates transference: 'listen to me' means touch me, know that I exist (Barthes 1985: 251, emphasis in original).

In the present research context, these ideas are explored in the discussion of the 'call and response,' or antiphony, by which the MC encourages participation of the crowd in the Session, as well as the MC’s techniques for using their amplified voice as part of the auditory experience of the event (as discussed in Chapter 6). Louis Althusser’s use of the idea of “hailing up” to describe how we recognise each other sonically (1971: 170-177) also describes this auditory relationship. This is called a “shout,” a term in common usage on numerous Jamaican radio shows to describe precisely this process of recognition and identification over the airwaves. Althusser suggests that this sonically mediated ideology transforms individuals into subjects “by that very precise operation which I have called interpellation or hailing… along the lines of the most commonplace everyday police (or other) hailing: ‘Hey, you there!’” (Althusser 1971: 174). This is somewhat like the calling-into-being-through-sound that Levin identifies as “hearkening.” We say, “it’s me” and mean it; it, the sound of my voice, is indeed me. Sound gives us a particular material bodily identity, distinctive from that of our visual image.

b) Research Materials
The second respect in which listening is important is as a source of research material. These include a large number of one-to-one research interviews, all sound recorded and then transcribed, and some filmed on video. The subjects of these interviews
include sound systems owners, promoters, engineers, selectors, MC's, videomen, maintenance crew. This stage of the research took place on research trips to Jamaica between 2002 and 2004. Over this time there were also very significant periods of participant observation of all media of the practice and performance around the sound system, including attending sessions in downtown West Kingston, Mid town, Up town as well as in the country, and club sessions at Cactus and Asylum (see Figure 2.9). Several dancehall sessions were video filmed (see Appendix 2), and many provided opportunities for stills photographs, providing the material for the figures. Furthermore, there were visits to sound system speaker box carpenters and engineers' workshops over that period. Besides recording, note taking took place at the time, written up into field notes directly afterwards. In addition, to these primary sources, the research materials also include commercial products in the form of 12" and 7" vinyl singles and some LPs, music videos shown on local cable channels, and CDs for individual artists, compilations, and mix CDs from a particular Sounds, DVDs of sessions, parties and concerts, as well as posters, flyers, advertisements. Such merchandise has a range of outlets, from Kingston's street vendors often found outside petrol stations, to numerous websites devoted to selling the music and the scene, promoted by artists, record companies and the fans themselves. Also there are the dancehall fashion and accessory labels and Kingston boutiques such as Ouch.

Listening is a key part of the practice of the research process itself: listening to recordings after interviews, while transcribing them; listening to the engineers' fine-tuning a sound system set, listening to what they say about what they are hearing; listening to the auditory qualities of a session; and finally, listening to audience or readers' comments on my presentation of these research findings. As with many varieties of ethnographic investigation, quite a substantial part of the research data in this study consists of such interview material. Listening carefully to what participants have to say about what they do, as well as observing this, provides the wealth of material for a Geertzian “thick” description. This detailed, fine-grained and nuanced understanding is particularly important for the present research, given its concerns with the practical embodied knowledge, understanding and judgements informing participants' skills and techniques. The present approach is also consistent with Clifford and Marcus' (1986) concept of anthropology as an activity of writing, though with a trope
listening — that is twice removed from the scriptural. It is auditory rather than visual, and, of course, listening rather than speaking. Further to such ethnomethodological approaches, the ethnographic methodology as practiced by anthropologists (Hammersley and Atkinson 1983), has informed the methodology of the participant observation, dating from the sociological classics of Whyte’s (1955) *Street Corner Society* and Goffman’s (1961) *Asylums*. And this participant observation in turn has been adopted by much cultural studies research, of sub-cultures in particular, initiated by Stuart Hall at the Birmingham Centre for Cultural Studies in the early 1970’s, such as Dick Hebdige’s (1979) *Subculture: the Meaning of Style*, mentioned above.

But this is not to suggest that participants’ own accounts are exhaustive or definitive of what they are doing, and this raises a series of important and interesting issues. Valuable though it is, what the participants are say cannot, of course, be considered as neutral information or entirely objective data. There are two reasons for this. The first is that it cannot be assumed that the researcher’s listening is entirely value-free or without expectations. The researcher’s listening can be motivated by what they want to hear, what they already know, their research questions, hypotheses and theoretical interests, their research access, their expectations and so on. Also the fact of recording the interviews, putting the subject on the record, could affect what they say. In this way, my listening as a researcher is informed by this local and personal understanding as well as by the theoretical issues and debates within which the research questions have been formulated. The second reason why listening to what participants have to say about what they are doing does not yield entirely neutral information (in the way observation might be considered to do) is that they may or may not be prepared to reveal what they know to the researcher. To take one example, the audio engineers might have a variety of motives for thinking or talking about what they do in the way that they do. The person they think they are talking to will certainly affect this. The audio engineers were certainly ready and pleased to talk with me, as someone taking an interest in what they do. Their services are in great demand within the limited circle of sound system owners, but outside this there is a general lack of recognition for their work. Used to their “back room,” so to speak, on the sound system scene, they appreciated the attention. By contrast, the popular MC’s and selectors are always in the limelight and have little time for interviews.
Furthermore, what sound crew may tell the researcher in one to one interviews might also be affected by them trying to impress me, or use me - to give themselves status on the scene. On one occasion, for example, I was encouraged by one engineer to ask another engineer I was due to interview next, what had happened at such and such a session and who first used such and such a piece of equipment. This was to make the point that the first engineer was responsible for the particular technical innovation in question. It would be surprising if engineers were without egos, especially in such a competitive scene, with its ritualised warfare of the sound system clashes that have been such a central feature from the very beginning in the 1950's (as described in Chapter 6). Taking a great deal of pride in their work, what they told me might also be motivated by a desire to distinguish themselves positively from other audio engineers. Again, as their interlocutor, I had the advantage of some understanding, but no involvement with another rival sound system. Also, what they told me could also be intended to have the effect of associating or disassociating themselves from other discourses on sound - such as the technological or professional one of the sound engineering magazines they read. How and what the audio engineers say is imbricated in power relations. Even their language might be designed as a special code or argot designed to exclude certain groups by "baffling them with science" for example. These might include novice engineers or women, or most importantly, other competitors, as noted with respect to the deliberate absence of colour coding of the Stone Love amplifier wiring at Skateland, above. This is considered to have important competitive advantages – to prevent the opposition from being able to decipher the wiring configuration of the components at the back of the equipment rack. In this respect, what I was asking them to share with me was a form of secret, esoteric or even magical knowledge. As Alfred Gell (1992) highlights for artistic practice, the magic of technology and the technology of magic are often intertwined.

Another consideration regarding the listening the engineer has to do is that sound has a particularly limited descriptive vocabulary. Like smell and taste, sounds are not easily represented as such. Engineers tend to talk about sound demonstratively, by pointing a sound out, and comparing it to others, as we will hear in more detail below. They refer to one sound in terms of another, saying: “like this… or needs to be more like that…”
and so on. The other means they have for talking about sound is demonstratively, in practice. In this respect, the soundman speaks in the language of a recipe book. Without recourse to any description of the distinctive, taste, smell or texture that makes the dish *what* it is, a recipe book - or indeed any instruction manual (so called, it might be assumed a book for the hands rather than the mind) - tells you simply *how* it is made.\textsuperscript{19} The engineers often describe sounds in terms of how they are made - “you hear what happens when I do this...” This is listening to what the audio engineers have to say about what they can hear and what they do. Immediately there is a problem – because what and how the engineering hears is not directly accessible.

It also has to be added, however, that practitioners are not necessarily aware of what they are doing or, if they are, not necessarily able to express it verbally, as Bourdieu (1977) has been noted (and is discussed in terms of Polanyi’s concept of *tacit* knowing in Chapter 7). This does not however invalidate what they have to say. Any privileging of the audio engineer’s discourse acknowledges the fact that sonic engineering has created the phonographic sound of Jamaican music as such. There is a pleasant irony in making improvisation key to the engineer’s working practice. This is because Levi-Strauss (1962) considered the engineer to be the model for the modern creator of specialised tools for specialised purposes to be distinguished from the primitive *bricoleur* jack-of-all-trades, grabbing whatever is needed from what lies to hand. The engineers’ authority as authors, as it were, of the Jamaican sound, is without challenge, emphasising the importance of their *logic of practice*, to use Bourdieu’s (1990) phrase.

Finally, it has to be said that in Jamaica there is also a particularly rich local dialect or patois to be listened to, infused with folkloric expressions and Rastafarian vocabulary and phraseology. Terms like “vibes” for ambience, “forward” meaning to move off, “overstand” for understand, “I-an-I” as a uniquely singular plural (MacFarlane 1998) and “this ‘ere time” emphasising the timelessness of the present moment (see Cassidy 1961, Pollard 1998) each have a tremendous expressive depth to them. This energetic idiomatic vocabulary is yet another reason to be listening to the subjects of this research, as Wardle (2006) points out with respect to his inner city Kingston research. Indeed, Rastafarian and other expressions provide an inspiration and in some instances, as with “vibes,” a confirmation of the conceptual vocabulary of the research.
framework. It also encourages a particular care and attention to be paid to theoretical terms themselves. These are couched entirely in the auditory modality with, for example, standpoint rather than viewpoint or perspective, resonate rather than reflect, consider rather than appear, respect rather than regard, emphasise rather than highlight, in relation to rather than vis-à-vis and so on. Furthermore, the recourse to etymology often achieves a conceptual clarity otherwise lacking. So the forms of vocabulary and structure of language can be treated as repositories, embodiments, or congealing of what are considered here to be non-conscious practical processes of giving meaning (see also Lakoff and Johnson 1980).

c) Expert Listeners
While any phenomena, auditory or otherwise, can be listened to, listening, in the case of the session and the sound system is, in addition, a key component of the object of the investigation. This includes the skilled listening techniques the engineers use to fine-tune the audio output of the set (detailed in Chapter 4). One Stone Love engineer, Denton Henry, told me how the engineer to whom he was apprenticed “shape my whole listening.” This is what enabled him to learn how to make the adjustments to fine-tune the auditory output of the set. Henry was told: “If it don’t sound right, use the condenser and the resistor to compensate to get the sound that you want to hear” (ibid). This listening requires a skill and an expertise that has to be acquired and developed, a far cry, so to speak, from merely having the physiological apparatus of the ear that enables hearing (as described in the next chapter). Furthermore, there is the expert listening of the MC and the selector playing the music for the session (described in Chapters 5 and 6), and the professional listening of the owner for the latest artistic talent and commercial opportunities. The crowd, too, have to learn to listen and to appreciate the sonic dominance of the session.

Listening to sound systems in dancehall sessions is a skilled technique that I myself have had to learn, which returns us from the researched to the researcher and the relationship of listening with which we started. In fact, the research could be said to have began with an immersion in the phenomenon of the session for film-making purposes, over a period of about fifteen years, beginning as research for making documentary and fiction films in the UK and Jamaica (as mentioned in the introduction),
rather than social scientific research as such. Subsequently there has been a continuing progressive attunement, refinement, filtering-through or as the audio engineer would say, “fine-tuning,” of various research methodologies. This process of “making sense” has therefore been a cumulative one, starting with participant observation of the crowd, then talking with the audio engineers as prompted by my observation of their work at the Skateland session (see Appendix 1). This produced a wealth of research material from which was built a more systematic methodology of this study. One example:

Firebrands of burning cardboard scour the beaten earth of the floor of the open-air dancehall for dropped jewellery. The dawn sun rises over the Caribbean Ocean and a gentle sea breeze rattles the palm tree fronds. The Stone Love crew, victorious from their clash with a rival earlier in the night, play the final mellow track of the session. The last of the exhausted exhilarated crowd straggle out to the neighbouring church for Sunday morning service...

This experience attuned me to many of the issues explored in the present research, such as the relationship indicated here between the secular if not profane world on the dancehall session, and the spiritual world, discussed below.

Living in Kingston, while working at the University of the West Indies from 1996 to 2000, gave me numerous research opportunities, such as a visit to a Kumina session (see Figure 1.8), or “duty,” as it is called:

What the drums say with the drummers fingers hammering on the stretched goat’s skin; what the drums say vibrating the parchment surface; what the drums say as the goat has its throat slit and the spirits take over; what the drums say as the possessed walk over burning coals and up the zinc walls of the small yard where I watch this Kumina duty in a poor suburb of Kingston… (ibid).

This Jamaican sojourn also gave me the time to build comparatively long-term research relationships and friendships in one particular inner city community, Jones Town, where I initiated a video project for some of the local young people. Understanding of the performance technique of each crewmember was further enriched by the theoretical
consideration each was given as the findings were written up, chapter by chapter. Thus the crew’s performance techniques gradually emerged as the embodiment of the relationship between the material, corporeal and ethereal vibrations of sounding (discussed in Chapter 3).

Furthermore, as the sound system crew are themselves expert listeners, there is a homology between research subjects and the researcher as a social scientist. Indeed, many crew, engineers and music producers would consider themselves in this manner - as scientists of sound. The tropes of “scientists of sound” and “dub scientists” have traditionally circulated on the Reggae scene with King Tubby’s engineer and producer Scientist (a.k.a. Hopeton Brown) and Mad Professor (a.k.a. Neil Fraser) in the UK. Furthermore, the selector and the MC can be considered as adopting the role of experimental scientists in that they have to have complete control of the session, in order to conduct and “guide” the crowd safely through the procession of the night (as described in Chapter 4). Their job is to “build the vibes” of the crowd in a manner made possible under the special quasi-experimental conditions of the sonic dominance that the session provides, reversing normal sensory standards of everyday life (Henriques 2003). In a dancehall scene that thrives on novelty and innovation, there is an onus on MCs and selectors to be continually experimenting. This involves testing a fresh catch phrase with the crowd or trying out a new artist to make themselves stand out, stay “ahead of the game,” in order simply to maintain their popularity. Likewise, the audio engineers are also continually experimenting with their fine-tuning of the sound of the set, and introducing new sound f/x (Henriques 2006). From a methodological standpoint, the sound system could be identified as an experimental apparatus or a laboratory.

Finally, it can be pointed out that the term “science” has two distinct meanings in Jamaican English. One is the contemporary electronic science of circuit diagrams and so on; the other as obeah, witchcraft, or black magic, informing African traditions, Haitian voodoo and the Pocomania and Kumina cult mentioned above. During the stringing-up of the set, I observed what could only be called a ritual practice on the part of the audio engineers, as described in the field notes, above. This consisted of washing the inside of the speakers with soap and water and the knobs and dials of control.
surfaces were dusted down with a dry paint-brush (see Figure A1.3). From this it can be said that they are equally comfortable with this African sense of science as with the modern Western one the instruments of which, in this instance, included a soldering iron and replacement transistors, as required after the breakdown at the Skateland session (see Figure A1.4).

To conclude, it is important to note the emergent character of this theoretical framework described as thinking through sounding (in Chapter 3). This is to assuage any impression that what is outlined in this chapter could ever have been articulated other than after a long-term immersion in the research materials, and at the conclusion of the research process. Each chapter describes the performance techniques of a particular crewmember as closely as possible, before attempting to identify any particular processes or relationships of relevance to the theoretical framework. The research can therefore be considered as an example of grounded theory (Glaser and Strauss 1967, Glaser 1992). It is grounded in the sense of being empirical, inductive, emergent and organically “grown” from a practical embodied engagement with the research process and materials. The sound system material has not been selected to provide evidence for a pre-existing theory, or a priori category, or make predictions or test an already-established hypothesis. As well as being grounded, thinking through sounding also provides a dynamic conception of theory as technique, a practical process, or way of “making sense” of the research materials, rather than a “law of nature” as it might normally be conceived. This is theory in the sense used by David Bohm, with the word theory being derived from the Greek theoria meaning to view, with the same root as “theatre.” Thus “theory is primarily a form of insight, i.e. a way of looking at the world, and not a form of knowledge of how the world is” (Bohm 1980:4, emphasis in original). To give this a sonic turn, the auditory equivalent of “insight” could be Levin’s (1989) term hearkening, which he identifies as the final stage of skilled methodology of listening, mentioned above. Indeed, the difference in emphasis itself is noteworthy. Insight suggests a viewer’s perspective into an object, an outsider penetrating the surface, as it were. On the other hand, hearkening, and even attunement, suggests a harmonious or sympathetic relationship between two equal parties of observer and observed. Theory, in this respect, is a gestalt, pattern, or what Bateson (1979) calls a metapattern, made through the engaged process of perception, rather than anything
existing before or after this engagement, isolated in the material itself. This is also theory in the sense that Goethe would have approved, as a complete expression of the phenomenon. As he was quoted above: "There is a delicate empiricism which makes itself utterly identical with its object..." from which he continues by saying, "... thereby becoming true theory" (Miller 1988: 309, emphasis added, quoted Naydler 1996: 72). In this respect, “true” theory emerges from an engagement with the phenomenon, an invitation that the sonic dominance of the dancehall session, makes it virtually impossible to refuse. With this methodology of listening, attuned to the background of Jamaica's sonic culture, we can now turn to the phenomenon of the dancehall sound system session.

1 The term Dancehall denotes the particular current variant of reggae, dancehall, the open-air place of a session.
2 A Sound is sound system.
3 This picture credit Annie Paul, all others J. H., unless otherwise stated.
6 I would like to thank my friend the film maker John Akomfrah for pointing this out to me.
7 Personal conversation, Port Antonio, Jamaica, August 2004.
9 As I found in a conversation with up and coming DJ Sanjay, September 2004.
10 Bruno Natal's Dub Echoes (2007) was shown at the Copenhagen international Documentary Film Festival, 9-18th November 2007; see http://www.dubechoes.com/ [Accessed 23 December 2007].
12 James Baldwin explore the importance of the witness in his The Evidence of Things Not Seen (1985) about the Wayne Winters child murders in Atlanta in the early 1980's. Baldwin told me in a BBC interview in 1984 that the writer's responsibility is to listen, and repeat back what they hear, no matter how others might respond to what they then read.
13 One exception to this is the work of Paterson (2005) on haptic spaces, see also http://www.ggy.bris.ac.uk/postgraduates/ggmp/haptics/touch.html [Accessed 23 November 2007].
15 Part VIII, para 246.
16 I have reflected that the minute memory stick of a digital camera might not have served this ritual of destruction purpose so well, possibly resulting in the loss of the entire camera.
17 This was Babymother in Jones Town, in 1996.
19 A musical score works in the same manner. The notation instructs the performer what to perform. This is a different type of "language" to the written description of the tempo marking.
20 Interview with Mr Denton Henry, Kingston, 24th June 2004.
21 From my Catch the Vibes, Touch the Groove, documentary proposal, August 2003.
22 For which I would like to thank the choreographer L'Antionette Oshu Stines.
Chapter 2

The Sound System: Techniques, Instruments and Media

This chapter identifies some (1) features of the phenomenon of the dancehall session as they have been addressed in some of the research to date. The most commonly noticed feature has been: a) the technology of the sound system "set" considered as a combination of social and cultural factors (Hebdige 1979, Gilroy 1987, Bijker 1995, Chude-Sokei 1997a, 1997b and Latour 2006). Another noticeable feature is b) the crowd’s auditory experience of the dancehall session as addressed by an anthropology or psychology of the senses (Howes 2004, Stoller 1989a, Ong 1982). Thirdly c) the dynamics of the session could be considered in terms of circuits of culture and rhythms (Hall 1980, Lefebvre 2004, Bourriaud 2002). From the phenomenon of the (2) the sound system is described as comprising a) the crew and their embodied skills; b) the “set” within the session; and c) the dancehall scene. On this basis, the sound system is considered as (3) a propagation apparatus, not only for sound waves, but also the rhythms of the crew and the crowd’s kinetic performance, as well as the social and cultural “vibes” of the event. Three elements are required for propagation: the crew’s performance techniques as the primary concern for the investigation, the instrument of the set within the session with which they perform, and media of the dancehall scene through which they perform. The research questions concern the style and skills of these performance techniques.

This chapter begins by noting some of the features of the phenomenon of sound system session that have been the focus of previous research. As well as those approaches that have addressed the sound system specifically, others are more general, and so can easily be applied to the particular phenomenon of the present research. This provides the background, as it were, from which to identify the research object the present investigation - as the apparatus of the sound system, comprising crew, set and session – on which the propagation model of social and cultural vibrations is proposed. This model explores the resonances between auditory vibrations – as the mechanical waves that are the subject of hearing – and other kinds of vibrations in different media.
(1) **Features of the Phenomenon of the Dancehall Session**

Three research approaches give attention to some relevant features of the phenomenon. In the first place, the sound system has been seen as a piece of technology essentially separate from its users or social and cultural context. When this is the case, being so evidently a "social" technology, it then has to be placed in relation to various social, cultural factors, forces or components (Hebdige 1979, Gilroy 1987, Bijker 1995, Chude-Sokei 1997a, 1997b and Latour 2006). Secondly, the experience of the dancehall crowd (audience) can be approached in terms of social anthropology and psychology of the senses (Howes 2003, 2004, Stoller 1989a, Ong 1982). A third approach would be to consider the sound system session as an example of a dynamic system of social, cultural and technological processes, whose movement can be described in terms of circuits (Hall 1980), rhythms (Lefebvre 2004), or reciprocal relationships (Bourriaud 2002).

**a) The Technology of the Sound System**

The research literature addressing the sound system specifically tends to assume sound system technology to be a social combination of different components, factors, aspects or functions. John Constantinides (2002) considers the sound system as both technological and embodied, with the distinction between the sound system "in the strictest sense, [where] one would be dealing with a mechanical system of musical amplification and diffusion including turntables, speakers, and a PA (public address) system" and "the Jamaican sense of the [where] term sound system (or soundsystem) is expanded to include certain human actors" (Constantinides 2002: 1). Gray (2004) emphasises the importance of the value systems embodied in the Jamaican concerts and dancehalls of the 1960's:

> The spectacle and performance in the dance halls and concert venues were nothing without the moral culture for which they were the vehicle... the dance hall allowed the ecstatic indulgence of cultural dissidence and collective black joy... well beyond the immediate scrutiny of an intrusive state and a racially discriminatory society, the aesthetic experience of the urban poor achieved authentic representation. In this regard, kinetic prowess, verbal play and instrumental virtuosity by performers on stage could carry little force without
related norms of cultural autonomy, personal excellence and black mastery... hence, concern for aesthetic values and technical expertise was never far from sentiments of collective cultural redemption (Gray 2004: 109-10).

Louis Chude-Sokei goes further in describing the sound system as a “cultural apparatus.” As he puts it:

In Jamaican English a ‘sound’ has meant many things simultaneously. In addition to the basic definition of the word, it means also a song, a style of music or sound system. It is in the final definition that all the different meanings find dynamic peace. To describe a ‘sound’ via a sound system, is to define sound by way of what I would call a cultural apparatus – in this case one that requires, deejays, selectors, engineers, producers, people who build up the sound and disseminate it through speakers or across record shop counters (Chude-Sokei 1997a: 4, emphasis in original).

This two-fold technological and social constitution of sound has been a particularly important idea for the debates on Afro-modernity, to which Alexander Weheliye (2005) has made an important contribution:

In the force field of sonic Afro-modernity, sound technologies, as opposed to being exclusively determined or determining, form a relay point in the orbit between the apparatus and the plethora of cultural, economic, and political discourses (Weheliye 2003: 113).

This leads Weheliye to a discussion of the particular value of phonographic technologies for understanding modernity. Together Weheliye and Chude-Sokei’s remarks emphasise how musical sounds have traditionally served as bearer of social and culture values, especially in Africa and the African diaspora.

Taking a different tack, Jonathan Sterne’s historical account of the development of the nineteenth century auditory technologies of the gramophone, and the stethoscope, in his admirable The Audible Past (2004), is also very useful. Sterne establishes in

Furthermore, addressing the sound system specifically, Dick Hebdige describes how the apparatus had a key social and cultural role, on the British scene, in the 1970’s:

The ‘sound-system,’ perhaps more than other institutions within West Indian life, was the site at which blackness could be most thoroughly explored, most clearly and uncompromisingly expressed. To a community hemmed in on all sides by discrimination, hostility, suspicion and blank incomprehension, the sound system appeared to represent, particularly for the young, a precious inner sanctum, uncontaminated by alien influences, a black heart beating back to Africa on a steady pulse of dub (Hebdige 1979: 38).

Hebdige expands: “The ‘system’ turned on sound; the sound was intimately bound up with the notion of ‘culture,’ and, as in Jamaica “The music itself was virtually exiled from the airwaves.” As he explains:

It could only live in and through the cumbersome network of cabinets and wires, valves and microphones which made up the ‘system’ and which, though legally the property of an individual entrepreneur, was owned in a much deeper sense by the community… (ibid 39).

Furthermore, Paul Gilroy in There Ain’t No Black in the Union Jack, a decade later, describes the UK Sound Systems of the 1980’s (1987: 153 - 222). The Sound System generates “its own aesthetics and a unique mode of consumption” (Gilroy 1987: 164). Relying on records, rather than live performance, Gilroy notes how the DJ aesthetic was “built around the pleasures of using exclusive or specialised language in cryptic coded ways which amused and entertained as well as informed the dancing audience” (Gilroy 1987: 194). This makes it clear that the role of the apparatus of the sound system as a medium and instrument for musical entertainment, with its own form and history, quite different and distinct from radio, live concerts, music television, internet sites and so on.
There is certainly something “technological” about a sound system, so this might provide a useful line of enquiry. Of course there is a substantial tradition of investigation on the effects of the tools, instruments, machines and technologies of which the sound system could be considered an example. This body of work includes Sigfried Giedion’s (1948) *Mechanization Takes Command*, Marshal McLuhan’s (1967) *The Medium is the Massage*, and Fredrick Kittler’s (1999) *Gramophone, Film, Typewriter*, that address those technologies in particular. Jonathan Crary with *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (1992) and *Suspensions of Perception* (1999) has detailed the subtle and constitutive powers of technologies of visuality. With the cinematic medium there are also numerous accounts on the effects and affects of its technology, including Vivian Sobchack’s (1992) *The Address of the Eye: A Phenomenology of Film Experience*, Mary Ann Doane’s (2002) *The Emergence of Cinematic Time: Modernity, Contingency, the Archive*, Siegfried Zielinski’s (1999) *Audiovisions: Cinema and Television as Entr’actes in History* and Rachel Moore’s (2000) *Savage Culture: Cinema as Modern Magic*.

The specifically sonic characteristics of the sound system as an instrument for sound reproduction can also be located not only in relation to Sterne and Weheliye’s work already mentioned, but also Evan Eisenberg’s (1987) *The Recording Angel: The Experience of Music from Aristotle to Zappa*, Mark Katz’s (2004) *Capturing Sound: How Technology has Changed Music* and James Lastra’s (2000) *Sound Technology and the American Cinema: Perception, Representation, Modernity* are relevant here, together with John Mowitt’s (2002) *Percussion: Drumming, Beating and Striking*. But the danger of a technological focus is that it can lead to technological factors as being considered, if not as determining, then certainly separate from the social and cultural relationships. This raises important issues for further research as discussed below (in the final chapter). One way of avoiding this has been to broaden the conception technology to include bodies, following Marcel Mauss (1935/1992) when he says, “the body is man’s first and most natural instrument” (Mauss and Schlanger 2006: 83). In this approach, the human voice can be considered as corporeal technology, or prosodic means of production, as with Don Ihde’s (1976) *Listening and Voice: A Phenomenology of Sound*, and Steven Connor’s (2000) *Dumbstruck: A Cultural History of Ventriloquism*.
Another approach relevant to the sound system is to emphasise the importance of the social features of technology is SCOT theory (Social Construction of Technology) (Bijker 1995). From this perspective a dancehall session would be considered as an example of a sociotechnical ensemble. Indeed, the SCOT approach has been applied in admirable detail, to the first mass-produced electronic musical instrument - the Moog synthesiser (Pinch and Trocco 2002). As one of the SCOT pioneers, Bijker puts it: “Society is not determined by technology, nor is technology determined by society. Both emerge as two sides of the sociotechnical coin during the construction process of artefacts, facts, and the relevant social groups” (1995: 274). He continues:

The sociotechnical is not to be treated merely as a combination of social and technical factors. It is sui generis. Instead of technical artefacts, each unit of analysis is now the ‘sociotechnical ensemble.’ Each time ‘machine’ or ‘artefact’ is written as shorthand for ‘sociotechnical ensemble,’ we should, in principle, be able to sketch the (socially) constructed character of the machine. Each time ‘social institution’ is written as a shorthand for ‘sociotechnical ensemble’… The technical is socially constructed, and the social is technologically constructed. All stable ensembles are bound together as much by the technical as by the social… (Bijker 1995: 273-4).

While the SCOT approach is helpful in identifying the importance of the relationship between the social and the technological, these remain as separate factors, all be they in interaction with each other.

The distinctive qualities that make the sound system what it is are perhaps better recognised in terms of Bruno Latour’s (1993) idea of quasi-objects. Latour takes “the hole in the ozone layer” as an example of a quasi-object, drawing on his collaborative work with Isabel Stengers (1997) on scientific discourses. Latour describes a quasi-object as an amalgam of social, cultural, political and scientific considerations. He then developed this as Actor Network Theory (ANT) with his collaborators (Latour 2005). Indeed, the present framework shares some of ANT’s key assumptions concerning the “sociology of associations” (Latour 2005: 9). This is a radical type of socialité, required for investigating the relationships, assemblages and mixtures between things, or
different kinds of materials - technological, biological, physical and so on. Crucially this reverses the direction of explanation from that of sociological tradition established by Durkheim. According to Latour this has become tautological by trying to explain "society" as a material made up of social relations. Latour takes Gabriel Tarde, Durkheim's student, as the founder of this "sociology of associations" whose aim is to investigate how the stabilities of "society" are achieved:

If inertia, durability, range solidity, commitment, loyalty, adhesion, etc have to be accounted for, this cannot be done without looking for vehicles, tools, instruments, and materials able to provide such stability... this [ANT approach] draws attention to the means necessary to ceaselessly upkeep the groups... (Latour 2005: 35).

This idea of the continual “upkeep” required to maintain the status quo certainly resonates with the incessant performance of auditory propagation necessary to maintain sounding, not to mention the multitude of musical and other rhythms found in the dancehall session. In short, sound, like music, may end up as an object of digital code, or the product of a recording, or a score, but it cannot start up as such, or be appreciated - until it re-enters the corporeal medium.

b) The Crowd's Auditory experience

Another orientation on the dancehall sound system session, given both the visceral impact of sonic dominance and the importance of sound for Jamaican culture, might be to consider the crowd’s embodied sensory experience. Here the temptation might be to isolate the auditory sensory modality from others. This is exactly what tends to happen when audition is deployed as a sonic weapon, as it were, to attack the traditional privilege of vision in Western philosophy. This indeed has been subjected to various different critiques (see for example Ong 1982, Jay 1993, Jacobs 2001, Rorty 1979). Vision is often considered as a cold, rational and separating sense, compared to the forgotten values of the warm, emotional and connective sense of hearing. But to consider any one sense in isolation from other senses, is a mistake. In the first place, it is an error to consider the hearing and seeing as perceptual faculties that are generic, essential, unchanging, or natural (just as it would be to consider sound as an object).
Rather sound and vision are always specifically, historically, culturally and locally constituted, invariably subject to particular cultural and technological expression, and most often mediate each other (just as auditory propagation is always a particular unique instance). At the same time it is also a mistake to go to the other extreme. Such external factors cannot assumed to be the most salient for explaining what goes on in a session, however rich and varied they may be in Jamaica's New World African, Indian, American and European, and specifically British, creolised configuration. While such approaches have their value, they can tend to assume that the key lies outside the session, in what is brought there, such as the particular cultural and social background of the participants, for instance. By contrast thinking through sounding concentrates on what goes on within the apparatus of the session itself.

The second reason why it is a mistake to consider the senses as separate from each other is because in practice this is very rarely the case - except in psychological laboratories, as Gibson (1979) points out. For most practical purposes, certainly in the dancehall session, sound and vision operate in a complementary fashion in combination with each other, rather than in isolation or opposition to each other. The senses only make sense by cooperating between themselves, or with each other, so to speak. This is certainly true with the visual and sonic media of the dancehall sound system session, such as the current use of large video projection screens and the increasing energy and display of the dance styles. Furthermore, the assumption that the sense of sound has a “touch” to it, and is more natural, intimate or personal compared than the visual sense also needs to be addressed. Walter Ong in his *Orality and Literature* (1982) takes such an approach, in an attempt to identify the auditory sensory modality as having specific qualities that have tended to be undervalued or disregarded with the advance of text-based written literatures and civilisations. The specific positive value attributed to the sonic has also been deployed as a critique of the ever-increasing visual emphasis of contemporary Western societies, as evidenced by the ubiquity of screens in every aspect of our daily lives. Ong’s approach is useful in so far as it gives attention to the auditory (as it was used in the previous chapter, for instance). But the major shortcoming of Ong’s “phonocentric” position is its lack of interest in the various distinct and particular ways in which sound signifies across different places, times and societies. As Marx put it: “The forming of the five senses is a labour of the entire history.
of the world down to the present” (see Smith 2003: 1). This is to emphasise their social, cultural and historical specificity. This can only be appreciated with an investigation of the detail of particular instances, of which Alain Corbin’s (1999) Village Bells is an exemplar.

Against this, Ong resorts to numerous a priori generalisations such as “sight isolates, sound incorporates” (71) and “writing tyrannically locks them (words) into the visual field forever” (12) and “hearing dominance yields to sight-dominance” (1982: 115) with the onset of literacy. This essentialist tendency is also evident in much of the literature of the social anthropology of the senses (see Stoller 1989a, Howes 2004) and aesthetics of sound (see Kahn 2001). Those approaches tend to privilege hearing as being essentially, interior, intimate, immersive, affective and subjective.² By contrast looking is disparaged as exterior, distancing, perspectival, intellectual and objective. Ong’s (1982) approach certainly fosters no interest in the investigation of the technological and other mixing processes that might affect sound and listening in different contexts – which is one the principle concerns of this investigation of sound systems. In The Audible Past Sterne (2003) provides a valuable critique of what he calls Ong’s “audiovisual litany” in which the abstract idea of the faculty of hearing is contrasted with the equally abstract idea of seeing.

As a consequence of this perspective, Sterne points out, the understanding of hearing has been condemned to a romanticised, essentialist, transhistorical, and universal humanism. Sterne’s argues against Ong’s auditory bias on the grounds that it assumes an essentialist understanding of listening. This in turn obviates any need to investigate the cultural and technological mediating of the sonic that Sterne’s work demonstrates is so useful. Even where the auditory sensory modality has also been used to promote the value of the range of senses, as in social anthropology, this still tends to preserve their status as discrete faculties. Such work offers examples of the reordering of the sensory hierarchy, for example peoples for whom balance, rather than vision, is the most important sense (Geurts 2003). While reorganising the hierarchy of the senses, the limitations of this approach are that it leaves entirely in tact the traditional framework of the separate sensory modalities, as well as the sensing body’s separation from its sensed environment. James Gibson’s (1979, 1986, see also Reed 1996) ecological

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psychology of perceptual systems provides a most valuable critique of these limitations. As an alternative he proposes considering the environment as what he calls a "multi-sensory flux" in which all the senses together form a connected perceptual system, as does the individual organism with its environment (as discussed in further research).

c) The Dynamics of the Session
Possibly the most fruitful approaches to the sound system are those based on ideas of movement. The phenomenon of the dancehall session provides a wealth of evidence for this, including the kinetic movement of the dancers, the peripatetic movement of the sound system between changing locations for gigs, their seasonal staging and anniversaries and the rapid turnover of style and fashion, not to mention dynamics of auditory propagation and hearing processes themselves with their rhythms, tempos, beats and so on (as discussed in the next chapter). So the idea of circuits and circulation resonates with the "vibes" of the dancehall. Hall's (1980) concept of the circuit of culture, that has been a central plank of the cultural studies approach particularly important in this respect, provides a useful conception of social flow processes. The key text here is Stuart Hall's Encoding/Decoding (1980) essay in which he criticises the linearity of the sender/message/receiver model, instead, Hall tells us:

[It] it is also possible (and useful) to think of this process in term of a structure produced and sustained through the articulation of linked but distinctive moments – production, circulation, distribution/consumption, reproduction. This would be to think of the process as a 'complex structure in dominance,' sustained though the articulation of connected practices, each of which, however, retains its distinctiveness and has its own specific modality, its own forms and conditions of existence (Hall 1980: 128).

And this idea of circulation now has a wide currency across the social sciences pioneered by Arjun Appadurai's (1996) account of the circulations in Modernity at Large. The importance of the concept of circulation is that it helps break with linear ideas of causal effects. Thus production processes as such are considered as one among the five processes contributing to the circuit of culture (see Figure 2.1), identified with the example of the Sony Walkman (Hall 1981, du Gay et al 1997).
One of the most striking features of the sound system is how, in space and time of the session, it assembles together not only the processes of production and consumption, but also the other three of regulation, identity and representation. In fact, the session provides a very concentrated example of these processes, compared to the Walkman, or more currently the MP3 player. With the sound system, the production involved is the ticketed event of the session, in which the "set," as the equipment is called, is one of the means of production, with the additional products of CDs, DVDs and cable television programmes. The session is also a site for consumption both by the followers of the sound, music and vibes, and for the phonographic reproduction of the records played by the DJ. The regulation involved is both internal to the Sound, as with the owner's music policies, and external, with the police locking-off Sessions for causing a disturbance. The identity of the Sound is what Stone Love's followers feel through the music itself and the Dancehall scene, as well as a status they embody and enjoy. This is an economy of pleasure, rather than production, kinetically expressed in the joy of the dance (see Figure 2.2). Finally the representation of Stone Love could be located in its brand logo and what this means to those on the Dancehall scene (see Figure 2.3).

Figure 2.1 Diagram of Hall's circuit of culture

![Diagram of Hall's circuit of culture](image-url)
This idea of a circuit embodies an important emphasis on the radical connectedness within the multiple whole. This breaks with linear and determinist formulations of culture in terms of production alone. It is also consistent with Bateson’s (1972) account of negative feedback in a cybernetic system. The circuit emphasises the idea of “articulation” as a “form of connection that can make a unity of two or more different distinct elements, under certain conditions” (du Gay et al 1997: 3). What a circuit of culture might not recognise sufficiently, in the context of the sound system scene, is its kinetic and affective dynamics, fluidities, energies, sensory intensities, creativity and excesses that are the focus of this investigation (see also Henriques 2003, 2006). Also it can lead to an over-emphasis of the role of “cultural intermediaries” (Negus 2002). Indeed, David Morley and others have developed an audience reception theory that emphasises the complexities of audiences who not so much act as passive receivers of for example broadcast programmes, but rather actively negotiating and even opposing the intentions of the programme-maker or broadcaster (Morley 1992, 1997, 2006a, 2006b, see also Press 2006). With thinking through sounding such transmissions would be considered as the media, on which the crowd bring to bear their instruments and techniques.

Figure 2.2 Dancers at Chuchu Benz session, August Town
Figure 2.3 Stone Love Movement and Guinness logos wrapping the bass bins, maintenance crew building speaker stacks, La Roche, 2002
The sound system scene is replete with circulations. One example of this would be the peripatetic circulations of the sound systems, from one gig to the next, around Kingston, the Jamaican "country," and indeed with Stone Love, round the world. Another is the MC's guidance of the crowd round the circuit or procession of the night. Another example would be what Wee-Pow calls "musterings," that is feedback sessions. In Stone Love's early days after each session, before they went on to the next gig, or home to sleep, the entire crew would gather for a de-briefing session to discuss "what went right, and what went wrong." Thus the cycle repeating of the event, through what in cybernetics would be called "negative" feedback, leads to improvements in their performance for the next session. Furthermore, the vibes of a dancehall scene continue to circulate outside the venue and the event on the night with the vendors of the CD recordings (previously mix-tapes) of particular sound system sessions, as I found when filming "Father's" stall by the Esso service station on Constance Spring Road, for example (see Figures 2.4 and 2.5). As school children wait for their mini-bus out of town after school, this corner became a hub of musical activity, with Father providing the music from his car battery-powered CD player, and his own-brand CD compilations. In the Summer of 2004 with the new dance craze sweeping the island and dance crews demonstrating their skills, very often the size of the crowd all but prevented the through traffic, literally a "road block" – the term used for a sell out session. As the dancehall scene develops, these practices continue with its founding commercial impetus of increasing record sales (Henriques 2007a, see also Veal 2007).

Figure 2.4 Cover of a mix CD, as sold at "Father's" nearby street stall
The impetus of Hall’s idea of circulation has also been developed in other contexts, recently by Nicolas Bourriaud, though without citing Hall. In Postproduction, Culture as Screenplay: How Art Reprograms the World (2002) he emphasises this mixing of production and consumption, with the example of the DJ practice of “performing the archive” called for by the specifically phonographic character of the instrument of the sound system. Bourriaud continues:

DJ culture denies the binary opposition between the proposal of the transmitter and the participation of the receiver at the heart of many debates on modern art. The work of the DJ consists in conceiving linkages through which the works flow into each other, representing at once a product, a tool and a medium. The producer is only a transmitter for the following producer, and each artist from now on evolves in a network of contiguous forms that dovetail endlessly. The product may serve to make work, the work may once again become an object: a rotation is established, determined by the use one makes of the forms (Bourriaud 2002: 34, emphasis in original).

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This mix of production and consumption is also clearly in the technique of versioning, or "re-licking" what have become the rhythmic standards, such as for example *Feel Like Jumping*, or *Sleng Ting*, as with a jazz improvisation. In Jamaica, generations of music producers have returned to such "foundation riddims" to build and re-build them over again. In this respect, there is never only production, but always re-production, never use, only re-use and re-cycling.

Furthermore, with the sound system, the continuous character of circulations has to be considered in terms of its temporality, that is movement in time, as well as spatially or geographically as is normally the case. To put it simply *circulation in time is rhythm*. This turns attention away from an exclusive emphasis on flows, as spatial visual circulations tend to do, towards the idea of *repeating frequencies*. These are central to the present framework, expressed for example as the repeating frequencies of hearing and auditory propagation, the repeating call and response in the antiphony between the MC and the crowd (Chapter 5), the selector’s juggling performance practice of cutting, mixing and the repeating of these techniques (Chapter 4), or the apprentice audio engineers repeating various techniques, on the ground that “practice makes perfect” as part of their apprenticeship (discussed in Chapter 4). These examples amount to what Henri Lefebvre calls a *rhythmanalysis*, a term coined in his seminal *The Rhythmanalysis of Mediterranean Cities* (1985). The continuous or repeating pattern of circulation is also expressed in the set’s amplifying circuits, feedback loop sound f/x (effects), the dub echo in record production, not to mention the circuits of monitoring and manipulating in the audio engineer’s compensation technique or any amount of performance practice routines done by the crew. The idea of amplifying circuits and cycles are also expressed in the terms such as “vibes” and “excitement” commonly used describe the Dancehall scene.

The concept of repeating, as both similitude and difference, engages the research in a number issues and debates, notably Deleuze and Guattari’s concept of the *refrain*, most usefully explicated by Bogue (2003), Baraka’s (1969) concept of the *changing same*, and Snead’s (1981) prescient discussion of Hegel and negative evaluation of repetition in Western culture (as explored in relation to the selector’s techniques in Chapter 5).
Furthermore, the idea of rhythmic repetition, its speed or frequency, and its size or amplitude, covers an entire spectrum of cycles expressed in the dancehall session. These range from the yearly calendar of fixtures, such as the Valentine’s night dance, to the auditory frequencies of the music itself as is explored in respect to the temporalities of the session (Henriques 2007b). But lest this emphasis on circulations appears reductive or determinist in any way there is one further aspect of Hall’s thought especially relevant for thinking through sounding. Following from the break with linear causality that the circuit of culture introduces, this is the idea of contingency (see Scott 2005). The sound system session, as with any other social and cultural phenomenon, is not to be defined by “forces we can predict with the certainly of natural science, but by the existing balance of forces, the specific nature of the concrete conjuncture” (Hall 1983: 83 - 4). This resonates with the particular and specific auditory character of sounding, and the unique character of the event of every dancehall session and the crew’s performance in it.

(2) The Apparatus of the Sound System

The research object of the dancehall sound system can now be outlined, further to how the phenomenon of the session has been approached in previous research. As an apparatus, the sound system can be described as comprising three elements. These are: the skilled crew; the “set” of phonographic equipment within the session; and the Dancehall scene within which the whole is located.

a) The Crew

The crew are required to operate the sound system “set,” as would be expected. The maintenance crew, for instance, are needed to “string up” the “set” every night (see Appendix 1). Without them, it cannot “play out.” This makes the style, skills and performance techniques of the crew a major interest of the research. To introduce this, the specific roles of audio engineers, selectors and MCs (each of whom has a chapter devoted to them) can be mentioned in brief here. The selector’s job is to choose the records, cue them up (via their headphones), and mix between them. Stone Love’s top selector Rory was hanging out at the venue, as many of the crew do, at about 5pm before a session, or at the Stone Love HQ yard (see Appendix 1). The MC (Master of Ceremonies) on the microphone “chats” to the crowd. These two crewmembers are the
ones most in the ear, if not the eye, of the crowd, in two roles. On other music scenes these are often amalgamated into the single one of the DJ. Although vital to the functioning and auditory quality of the Sound, the audio engineers keep a low profile on the scene.

This is also the case with most sound system owners, the exception being Stone Love’s owner Mr Winston “Wee-Pow” Powell, a.k.a. Father Powell (see Figure 2.6). As the official company profile tells, Stone Love’s story began with seventeen-year-old Winston saving up for his first set of equipment: “Wee-Pow worked relentlessly at his trade in order to come up with the money that he would use to buy the component set. When he had finally made enough money, Wee-Pow purchased the set and this was his biggest achievement in life.” Today Wee-Pow is one of the leading figures and authorities on the sound system scene and the founding president of the Sound System Association of Jamaica (see Henriques 2007a). In person, Wee-Pow cuts an impressive figure, as I noted at Skateland, when the Stone Love set broke down a second time:

The crowd and crew move out of the way for Stone Love founder and owner for thirty years Winston “Wee-Pow” Powell, 6’4” in his flowing lilac shirt and matching pants, sweeps onto the scene. There’s an empty hush across the amphitheatre of speaker stacks usually full with sound. When even his chief engineer can’t sort out the fault, he does it himself. An anxious crew surround the trolleys of amplifiers holding bare light bulbs aloft for Mr Powell to conduct emergency electromagenetic surgery. The music bursts back to life...  

Generally the owner’s role is as manager and final decision-maker for every aspect of the operation of their Sound from hiring selectors, to equipment investment, to taking bookings from promoters for particular gigs.

The maintenance crew, or roadies, also occupy a role entirely critical for the Sound’s operations, but with very little status or profile in respect of the crowd. During the session itself they are often to be found guarding equipment against damage or theft or more likely, sleeping-off the exhaustion of their labours nearby. The maintenance crew’s job includes transporting the equipment (see Figure 2.7), assembling it (see Figure 2.3,
above and Figure A1.3), “stringing-up” (wiring it together, see Figure 4.2) and then dismantling the set each night, as the Sounds are entirely peripatetic. This takes several hours of heavy work (see Appendix 1).

Figure 2.6 Winston “Wee-Pow” Powell at Weddy Weddy Wednesday, Stone Love HQ

Wee-Pow has adopted this inclusive approach to crew membership. On Sounds other than Stone Love the maintenance crew are called “boxmen.” But having grown up in Molynes Road, a downtown (that is poor and working class) area, Wee-Pow has been particularly sensitive to the social class divisions permeating Jamaican society. This made him aware of the “inferiority of the boxmen,” motivating him to “change [their name] to the maintenance crew,” though they still have to perform “the dirty work to lift the boxes.” This illustrates, according to Wee-Pow, his “hands on” management style:

On other systems the boss wouldn’t do that [dirty work], but I do that. I set example around here. When we just started out we didn’t have help, so you just have to do it, so we just go along in the same trend. So today I still do everything.
I go up there and lift my box and roll my wire and do everything. I don’t have to do it but I still do it. Right now I’m doing an interview with you, but the work still have to carry on, so every now and then I will just pop in to see where the breakdown is (ibid).

Figure 2.7 Stone Love truck driver in front of his truck. Note the word Stone from the logo on the truck window glass (almost completely blurred).

The extent of Wee-Pow’s involvement in all aspects of his Sound, which I witnessed on several occasions, might help explain why Stone Love is the longest surviving of Jamaica’s sound systems. His inclusion of the maintenance crew as bona fida crewmembers is consistent with a theoretical approach that give the widest possible definition of what constitutes performance to include every necessarily required for the performance to take place. This follows Christopher Small’s (1998) concept of musicking (described in Chapter 3), rather than only those on stage in front of the audience.
Figure 2.8 Running repairs following a breakdown for the Stone Love set at the Skateland session
b) The Set within the Session

The sonic cultural setting evidence a considerable importance for the sound system “set” of equipment. The present approach takes the set *within* the session as one of its objects. By contrast most of the other approaches discussed above assume technologies to exist prior to, or isolated from, their use, and thus are concerned to establish this relationship. Certainly the technological device of the set affords the possibility of the no phonographic reproduction of sound. So the set has to be considered as a “tool of the trade,” or an instrument, or a means of production - in so far it is what the crew require in order to perform their roles of “building the vibes” and thereby creating the event of the dancehall session. From selector or MC's standpoint, the set is merely the means to carry across his or her voice or music, to the crowd.

Such instruments require no knowledge on the part the user, in the same way a vehicle requires no understanding by its driver to reach its destination - unless it breaks down. Otherwise, its functionality tends to be invisible and entirely taken for granted. For the audio engineer, on the other hand, the set itself demands expert knowledge, time and effort to maintain at its best. As with a hand-made musical instrument every set is different, with distinct and unique auditory qualities and the audio engineer must be in tune with or attuned to distinctive characteristics of each person’s voice, especially performers such as the MC (as discussed in Chapter 6).

The set is what generates, propagates, or “builds” - to use the Jamaican music producers’ music term – the auditory impact by which a dancehall session is defined as such. It produces the sound system's signature bass sound, along with the entire range of other frequencies. A set can be identified as an example of what novelist Ralph Ellison (1947) and Weheliye (2005) describe as a phonographic apparatus: that is one designed to play previously recorded music, as with a hi-fi system, CD or MP3 player. Stone Love engineer Horace McNeal put this crucial point to me: “With a sound system you're reprocessing a product that has been processed already. That's the big thing about it” (emphasis added). It is indeed a very important point: each sound system gives its particular mix to the already-mixed record (but without the individual pre-mixed tracks that are available to music producer in the recording studio). To do this, a set assembles together a large number of component parts including amplifiers, pre-amps, f/x boxes, equalisers, crossovers, mixers,
microphones, cables, driver units, speaker bins, record and CD decks, mixing consoles and numerous other gadgets and devices, that the maintenance crew unload and erect every night the sound system “plays out.” This technology was developed largely in the 1970’s when a second turntable, cross-fader mixer and headphones for the selector were introduced. Whereas a sound system may be an apparatus for the propagation of a range of vibrations, the sound system set of equipment has material frequencies as its special concern. It is this that the audio engineers fine-tune (as detailed in the Chapter 4).

One of the features of the sound system set that make it particularly suitable as the subject of investigation, is the sheer physically large scale of a sound system, with the speaker stacks towering up into the night sky (see Figure 1.9) and the bass speaker bins often large enough for members of the crowd to climb inside. This makes a set a physically accessible object (notwithstanding the difficulties of negotiating research access, as discussed above). It can also be added that global geographical spread of sound system culture further makes it an accessible object of investigation. Another factor, associated with its size, is that the sound system is a retro technology, rather than a contemporary one. The physical form of a sound system with its various distinguishably different electronic component parts such as crossovers, mixers, extenuators and so on, expresses its functionality. With current electronic technologies these different functions tend to be amalgamated together, hidden and simulated within microscopic integrated circuits inside identical anonymous oblong grey boxes.

The sound system set also makes a contrast with most contemporary cultural technologies that tend to be developed in isolation from their actual users, possibly with a process of market testing and focus groups. The Walkman, ipod or play station would be examples of this. The sound system has evolved over decades in a process of gradual development by means of an informative feedback loop with its users and participants, rather than being launched onto the market at as a new product at a particular moment. This is more akin to a natural and organic process than to a manufactured one. As with the music itself, this ensures that each step of technological development is an incremental one, an example of this being the introduction of a second turntable to the set. Both technological and cultural progressions - the latest hit
sound, artist or dance craze to sweep the island – consolidate and innovate in equal measure: preserving the tradition of what had gone before and at the same time introducing something new and different.

Another advantage of the sheer size and power of the sound system set for the research is that it draws attention to the dynamic, transitory and temporary nature of the auditory medium at the heart of the session. Sound itself is only ever an effect, needing continuous propagation. This fact has been literally amplified and turned into an audio art form by the engineers who have introduced an entire repertoire of sound f/x, now emblematic of the auditory atmosphere of the session. Indeed the role call of crewmembers, should include that of the f/x man, whose job it is to operate a special console, next to the decks, for this purpose (see Figure 5.1). From a methodological standpoint, the ephemeral nature of the auditory medium makes the set required for its production all the more important as a kind of solid object suitable as the subject of investigation. It might be said, therefore, that a sound system is the set. Evidently this is the case in the respect that a Sound requires a set in order to operate as such. On the other hand, it is not the case that a sound system can be reduced to being only its set. A sound is much more. As well as an instrument for auditory production, it is just as much an apparatus for the social and cultural and indeed political and economic, aspects of the session, all of which have to be attended to by the owner.

For these reasons, the dancehall sessions, as with Skateland whose preparation was observed, are at the heart of the Dancehall scene (see Appendix 1). The term “dancehall” refers to the open-air venue for the session, and “Dancehall” as the current genre of Jamaican music, the successor to Raga, Reggae, Dub and so on, which in turn is at the heart of Jamaica’s popular culture. Dancehall music is reputed to have got its name from the venue of the dancehall, as music initially regarded as unsuitable for radio play. A session should be considered as part of the instrument of sound making and listening, in reciprocation with the set, as with the call and response of antiphony (discussed in Chapter 6). Sessions in the plural, on the other hand are to be considered as the media of sounding; in the way the air can be considered as the auditory medium (as discussed below). A particular session can be considered in a number of different ways, including as a particular physical space with a specific geographic location (see...
Figure 2.9). It is also, of course, a social place where the individuals come together to become the crowd, or audience. But it is not only the physical quantity of bodies that make up a crowd, but further the knowledge, understanding, appreciation, sensitivity, expectations and so on that they embody from, very often, years’ experience of attending dancehall sessions. This is to describe the session as a social and cultural medium, or milieu, which is also evidently the case (as discussed in relation to the wavebands of sounding in the next chapter).

In this respect, it can be said that the dancehall session is the crowd and that a sound system is its “followers” as they are called. Each member of the crowd has the current hit songs in their head before the start of the session. They all have their tastes, loyalties, memories, personal associations and expectations depending on their knowledge of the selectors on the bill, sound system, venue and so on. Selectors are known for the style or styles of music they play from “Rare Groove” and “Golden Oldies” to their exclusive “dubplate specials” (described in Chapter 5). Further the crowd itself is composed of different sub-groups of dance crews, “followers” and individuals such as Dancehall Queens (Henriques 2007b). Indeed, the dancehall crowd provides a dynamic example of a multiple whole, for which many-is-one and one-are-many.

c) The Dancehall Scene
The third component of the apparatus of the sound system, besides the crew and the set and the session, is the Dancehall scene. This is the medium afforded by the numerous dancehall sessions taking place every night of the week, throughout the year in Kingston (see Figure 2.9). Without specifying any details, it can be said that his scene is the meaningful context within which a particular session, like Skateland, “makes sense” to its participants. This is within the cycle of activities over the week, an annual season, confident upsurge or downturn of activities, as Wee-Pow described to me, and even the broad sweep of the development of Jamaican popular culture since the 1950’s. In this manner, the Dancehall scene extends way beyond the boundaries of any one particular dancehall session into the entire history of Jamaican sonic culture.
Figure 2.9 Map of Kingston uptown and downtown with the locations of some of the dancehall sessions attended for research.¹⁰
In the summer of 2002 Dancehall was enjoying a considerable resurgence both creatively and in terms of a widening audience. Indications of this include:

- Several new local Cable TV channels dedicated to Dancehall and Reggae music e.g. Hype TV, Channel View. Artists are seeing their value and “investing in videos rather than gold chains”

- The traditional terrestrial channels TVJ and CVM now have their own Dancehall shows

- Internal commercial success for certain artists such as Shaggy and Sean Paul

- Dancehall nights at uptown clubs, notably the Asylum in New Kingston

- Continuity in the music with Beenie Man and Bounty Killer remaining the top artists for an unprecedented ten years in reggae and any other genre

- Strong new artists, for example Elephant Man and emerging artists such as such as Vibz Cartel and Wayne Marshall

- The crowd’s dance becoming more obviously important for the sessions, with new dances such as the Drive By, the Log On and the On Line helping to generate a relaxed and dynamic energy to the vibes of the session.
(3) Sound System as Propagation Apparatus and Research Questions

The sound system can now be described as a propagation apparatus. It makes waves. In addition to operating as a phonographic apparatus for auditory propagation, it also propagates both the kinetic rhythms of the crowd and crew’s performance, as well as the values and meaning of the social and cultural “vibes” of the session. It is important to emphasise, the principles and relationships it specifies are not restricted to sound propagation alone. In fact, the value of vibrations, for thinking through sound system operations, is the attention it gives to movement of all types: mechanical, kinetic and vibratory and so, rather than any particular priority for the sensory modality of hearing, over that of viewing. This propagation model aims to provide a framework for the present investigation, as well as encourage its wider application to other types of apparatus.

The special value of sound is that it makes movement difficult to avoid, compared to the conventional visual metaphors of the reflection of images, representation and the like. (In fact, lighting and touching are as equally dependent on movement as sounding, as explored in further research). The frequency dynamics on which the model is based are considered to be common to the propagation of all kinds of media, rather than suggesting any direct link between the sine waves of sound mechanics, and the sign waves of communication. In addition, it should also be noted that there is a continual active reciprocal relationship between the propagation and the reception of vibrations. There is always a feedback loop, often literally a call and response, between crew and crowd, where the selector “reads” the vibes or mood of the crowd, for instance (as described in Chapter 6). So the apparatus of the sound system cannot be one for propagation alone, without at the same time, also being one for listening.

An apparatus for the propagation of sound and other vibrations requires three elements. In order for a sound to be heard there has to some sort of instrument to excite vibratory movement, that is, a sound source. This may the instrument of the body, as with hand clapping or vocal chords, or mechanical as with a drum, or electronic as with a sound system “set.” Secondly these vibrations require a medium through which to diffuse. This can be the gaseous medium of the air, whose sound waves the tympanic membrane of the eardrum is sensitive. For social and cultural “vibes” of session, on the other hand,
the medium required is that of the entire dancehall scene and the values and sensibilities of Jamaica’s sonic culture. Thirdly the instruments and medium have to be triangulated by specific performance techniques. With any musical instrument, considerable skill and practice goes into their playing, though once the corporeal skilled techniques such as walking or talking are mastered, they tend to be taken for granted.

These three elements for the propagation of vibrations may be outlined as follows:

- **Instruments**: include tools, mechanisms, implements, devices, gadgets, technologies and so on that are necessary for generating sounds. Besides musical instruments as such, a hammer on a nail in a wooden plank, for instance, is also an instrument in this sense. In the case of the dancehall session it is, of course, the instrument of the sound system that is required for auditory propagation for the crowd to hear the music. This is the physical technology of the “set” of phonographic equipment that the maintenance crew assemble for every session. It is important to note that the idea of instrument is not synonymous with that of “technology.” Instruments may be fleshly, as Marcel Mauss (1935) reminds us in *Techniques of the Body*: “The body is man’s first and most natural instrument” (Mauss and Schlanger 2006: 83). This takes to the long history of debates of techné, which unfortunately cannot be explored within the scope of this research project (see Ingold 2002, Feenberg 2005, Stiegler 1998, Serres 1995, Latour 1995, Leroi-Gourdon 1993).

- **Media**: the medium through which a sound is heard, that is the air molecules of the atmosphere. These are required to carry or transmit the longitudinal auditory waves or pulses. This idea of media is elaborated in terms of the Heider’s (1926) concept of medium and the idea of milieux (following Serres 1982 and Canguilheim 2002) in the next chapter. But the idea of media is not restricted to physical matter as such, but also includes social, cultural and corporeal materials. Media afford the environment, setting, context, situation and location for instruments and techniques of propagation. Understood in this way media have their own dynamic energy, as well as their particular grain, texture and tone.
Techniques: the manner in which the instrument is used, the performer's skilled practice and their embodied kinetic movement in relation to the instrument. With musical instruments this often requires considerable amounts of practice, not to mention talent. With naturally occurring sounds, or an Aeolian harp, this movement takes place without human intervention. Not only are there techniques of sound production, there are also those of sound reception - techniques of listening (as detailed above). Techniques of listening are of course only one of a variety of embodied performance skills round which the investigation turns. Others, such as the selector's dexterous techniques juggling records are given detailed attention (in Chapter 5). Such skills have to be learned, they are not innate, habitual or automatic, though the better they are learned the more they become so (Sennett 2008). Many performance techniques are functional and practical ways of doing the kind of things that all or many people have to do, rather than ritualised symbolic displays. Yet at the same time they often express a distinctive personal style and tone by which we recognise an individual by the intonation of their voice or their gait.

There are three important points to note from the discussion so far. One is that the propagation model suggests resonances between the auditory vibrations of hearing, the sonic vibrations of listening, and the social and cultural "vibes" of the dancehall session. The second point is that the crew, the set and the session in which the crowd and the Dancehall scene are embodied are considered as being configured in relationship with each other. Each element is sustained in dynamic and reciprocal relationship with each of the others, thereby forming a whole system, or ecosystem, or indeed, sound system. This recalls Hall's (1980) circuit of culture, as a critique of any simple linear cause and effect relationship between, for example, production and consumption (as discussed above, see Figure 2.1). The relationship between instruments, techniques and media that pertain to auditory propagation (see Figure 2.10) may be compared with those for the propagation of vibrations (see Figure 2.11).¹¹

The third point is that the propagation triad of instruments, techniques and media, may be contrasted with the conventional one of transmitter, propagation and receiver, most often used to describe sound. Another is that of sender, channel and recipient

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commonplace in the transport model of communication theory (Shannon and Weaver 1949, see also Carey 1989), or McLuhan's dyad of medium and message. With auditory propagation, this would routinely be considered as the exchange of a sound object (all be it a wave), between the "active" sound source and it "passive" reception for hearing. So the transport model is entirely mechanical with only two kinds of elements required — the instruments for transmission and reception on the one hand, and the medium and message on the other. What is missing from such mechanical dyads, of course, is the third term of the human context or practical use of the instruments, or put another way, the communication content of the message (as is mentioned in the conclusion). It should be noted that such subjective/ objective or internal/ external dichotomies and absence of meaning in the analysis, are precisely what the triadic approach developed through this research endeavours to challenge (as discussed in the final chapter). By contrast with techniques, the triad includes what would be considered as "subjective," "internal" and evaluative considerations, as well as mechanical and "objective" ones.

Figure 2.10 Diagram of Auditory Propagation

- **TECHNIQUES**
  - e.g. clapping, banging, singing

- **INSTRUMENTS**
  - e.g. hands
  - lungs, vocal chords, trumpet, guitar

- **MEDIA**
  - air, water etc.
Finally it can be added, from the propagation model the initial research question can be formulated as: how does a sound system work? This paves the way for to the investigation of the skills and techniques of some of the crew described in the chapters on the audio engineer, selector and MC. These techniques could be describes as the efficient or moving cause of the dancehall scene, which is itself the final cause or purpose, to use the distinctions of Aristotle’s account of how things come into being (see Bodnar 2006, Heft 2001). Thinking through the sounding to the phenomenon of the sound system session raises two different types of questions. On the one hand there are those questions concerning how things work, of which the manufacturer’s manual for a piece of equipment would be an example. These questions are intended to help build a model of the functioning of sound system on the basis of the kind of laws of the natural sciences, describing general classes or types, such as the sound system session would be said to be. This kind of explanation aims to be objective, concerning single variables and mechanical causes and their effects. It identifies, for instance, the corporeal skills and performance
techniques of the crew as one central concern for the research, as is explored in the chapters that follow on the audio engineers, selector, MC and crowd. The crew are therefore what Aristotle would call the *efficient* or moving cause of the phenomenon of the sound system scene (as the *final* cause or purpose, see Bodnar 2006). On the other hand there are questions of a different *logical* type (as Bateson reminds us, below), that ask *why* the sound system session operates in the way it does, for which an audio engineer’s expertise at fine-tuning a set would be an example. This requires a *narrative* type of understanding that is concerned with unique instances, such as a particular set in a particular dancehall session. Vibrations provide a way of understanding how all media at every frequency is entirely dependant on such particular instances; the Dancehall scene, with its emphasis on style, fashion and originality, provides a striking example of how such issues involve evaluation and judgement. Questions are concerned with feeling, motivation, subjective meaning and taste, social significance and how activities “make sense” to their participants (in ways which they are not necessarily themselves conscious), rather than evidence of any “natural law.” This is the crew’s skilled evaluations, expertise, connoisseurship and the logic of their practices by which they make sense of what they do.

One ambition for thinking through vibrations is to take a step towards resolving this dichotomy between these two types of question posed by the disciplines of the sciences and humanities. Both *how* and *why* questions should be considered as aspects of a single whole system, such as the dancehall sound system session, as is explored with the crowd’s performance. Gibson’s (1966, 1979) concept of an *affordance* is most useful in this respect, as affordances comprise both *constraints*, as “objective” causes and information concerning *how* and *what*, as well as *potentials* and possibilities as “subjective” motivations and meaning concerning *why* (as discussed in Chapter 7). For Gibson information and its meaning are never separated, but rather emerge together in the organism’s relationship with its environment, that is in the perceptual system. By considering both *how* and *why* questions, thinking through vibrations also has the ambition to bridge theory and practice, on the basis for a research methodology that addresses being, doing, becoming or bearing “in mind” as well as “in body.” This is intended to recognise what is often considered as an antinomy between body and mind as a productive
relationship. Sonic bodies are at the heart of the thinking through vibrations, as being both sonic, with the intelligence of the mind's ear and heart as much as its eye, and embodied in its practice, with the logic of the crew's style, skills and performance techniques. The crew's techniques triangulate the instruments and media of the sounding of the session. These are reciprocal relationships that resonate in the methodology of listening outlined in the previous chapter. The set is considered within the session, and the session within the scene, rather than as isolated entities. So it is the frequencies or wavebands of the vibrations of these media that now have to be addressed—in order to understand the materials, as it were, that the crew shapes with their performance.

1 Also of interest is the documentary, Moog (2003) dir. Hans Fjellestad, USA, distributors: Plexifilm, see www.plexi.co.uk
2 Another example of this privileging of the interior nature of the sonic comes the painter Cezanne working at the end of the nineteenth century as an inspiration for Cubism's fascination with volumes and internal spaces. Cezanne had an aphorism: "nature is on the inside." But of course nature is just as much on the inside as the outside—and there is no inside and outside to sound (see Stoller 1989: 37).
4 Interview with Mr Winston "Wee-Pow" Powell, 30th July 2002 at Stone Love HQ, Burlington Avenue, Kingston.
6 This makes a sound system almost a textbook diagram, or a model of itself, as with, for example Gunther von Hagens' Körperwelten 'exploded' body exhibition, London, 2003. Here we can enter into an artificial (that is non-naturally occurring) space in which the relationship between the different organs is clearly visible.
7 Interview with Stone Love audio engineer Horace McNeal, 18th September 2003.
8 This makes a sound system almost a textbook diagram, or a model of itself, as with, for example Gunther von Hagens' Körperwelten 'exploded' body exhibition, London, 2003. Here we can enter into an artificial (that is non-naturally occurring) space in which the relationship between the different organs is clearly visible.
9 Interview with Mr Winston "Wee-Pow" Powell, 30th July 2002 at Stone Love HQ, Burlington Avenue, Kingston.
10 Map adapted from Skelton's Ghetto Girls/Urban Music: Jamaican Ragga Music and Female Performance (1998), drawn by Linda Dawes, Department of International Studies, Nottingham Trent University
11 Also there is a comparison that can be made with triangulations of methodology with instruments, media and techniques discussed in Appendix 5 (Figures A5.1, 2 and 3).
12 Completing Aristotle's four causes the music would be the material cause, shaped into a session, as the formal cause.
13 I would like to thank Homi Bhabha for drawing my attention to this important distinction between the social sciences model and the humanities narrative.
Chapter 3

Sounding: Material, Corporeal and Ethereal Wavebands

This chapter develops the propagation model to consider the dancehall “vibes” literally as vibrations that include all the activities of “sounding” (based on Small’s concept of “musicking”). It suggests that the full range of vibrations the apparatus of the sound system propagates fall into three wavebands. First there are (1) the **material vibrations of sounding** described by their a) amplitudes in space, b) frequencies in time, and c) timbre as the distinctive qualities or “colour” of sound, that together draw the crowd to the session. The second waveband is (2) the **corporeal vibrations of sounding** expressed through the crew’s practices, kinetic skills and techniques (detailed in succeeding chapters). The third waveband is (3) the **ethereal vibrations of sounding** propagate the social and cultural meaning of the Dancehall scene. In conclusion, (4) the **mixing of wavebands** considers the relationship between the three frequencies of sounding as inseparable and distinctive; offering affordances (Gibson 1979) and transductions (Simondon 2002). This provides the basis for understanding how the crew’s performance techniques, together with their instruments and media, operate within and between all three wavebands of sounding.

Thinking through sounding starts in the middle of things - in the thick of it. It begins with the vibrations of the *media* of sounding, between the two other elements propagation requires – *instruments* for sound making on the one hand, and skilled *techniques* for using them on the other (as discussed in the previous chapter). This emphasis on the *sound* of the session might appear obvious, or trivial, given the visceral impact of *sonic dominance*, for example. After all, what difference does it make that it is a sound system, rather than an image system, or indeed a dance system, which it undoubtedly is as well? In fact, this attention to sounding is of critical importance, if the sound system session is to be understood as part of the oral, musical and auditory qualities of Jamaica’s sonic culture. This is more than simply giving sounding its “respect,” as would
be said by the crew. Rather, with the propagation model, it is around sound making and listening as activities, dynamics and auditory mechanics, that the entire investigation turns. It is also important to remember how this propagation model departs from the conventional ones of sender-receiver conception of communication, or the idea of transport, based on the idea of an exchange or circulation of objects (as discussed in the previous chapter). To avoid such dichotomies, the idea of sound as an “object” has to be dismantled to build an expanded, energised and intensified one - to take into account of the range of activities, persons and technologies that its propagation requires, as with the apparatus of the sound system.

Sound should never be considered as an object as such. It is only ever an effect. The ephemeral, transitory and dynamic character of sound waves prevents this. As Lastra (1992: 72) points out, sound has to be re-presented rather than represented, reproduced rather than reproduced, though these dynamics may be “captured” as a music product, for example, with an analogue trace or a digital code (Henriques 2002). Auditory dynamics are of course time-based, as is evident, for example, in the way sound played backwards is not recognisable, whereas a series of images are. Conventionally the auditory qualities of such dynamic patterns are difficult to describe, so it is the mechanisms and processes that produce them, such as with “the sound of a creaking door” for instance, by which the auditory tends to be identified. In a like manner, a recipe book does not give an account of the taste of a dish, so much as how to prepare it; the ingredients, cooking temperatures and so on. Similarly the idea of sounding does not attempt to describe sound itself, but concentrates on its production. The verb of sounding carries the kinetics and dynamics of practice. It is a making and a becoming – the dynamic pattern of a wave or vibration - rather than the object of a noun. Besides the instruments and the energetic techniques required for making them, vibrations require the third element of the substance of a medium through which to diffuse (as the propagation model describes). The first person to describe sound in terms of waves is said to be Pollio Vitruvius (circa 80 -15 BC), the Roman neo-classical architect:
Voice is a flowing breath of air, perceptible to hearing by contact. It moves in an endless number of circular rounds, like the innumerably increasing circular waves which appear when a stone is thrown into a smooth water... but while in the case of water the circles move horizontally on a plane surface, the voice not only proceeds horizontally, but also ascends vertically by regular stages (Vitruvius 1960: 138-9).

A wave's movement, kinetics, dynamics or energies deserve particular attention, though they are only one element of the triad, together with the material substance of the medium and the instruments of propagation. This is because the paradigms of Western thought, from its origins with the pre-Socratic philosophers, have tended to favour stasis rather than change. This follows Parmenides' idea that change is an illusion, rather than Heraclitus for whom the flux of movement was the ultimate reality (see Wilden 1972: 76-77). Hence the dynamic movement and kinetics of the crew's techniques have a central place for this research.

Moreover, with Reggae dub music specifically, not only is sounding a verb, it is re-verb, as with the reverberating echo, resonating as re-sounding, or the redoubling of the vibes, that has become the sonic signature of the genre (see also Doyle 2005). Not only are there the dynamics of the sound waves themselves, but also the rhythms of the sensorimotor sensitivities and kinetic motor activities of the hearer, as with dancing, as well as those of meaning and signification of the listener by which the dancehall scene "makes sense." So as well as production, thinking through sounding also pays attention to the affects and effects of sounding. The activity sounding expresses intention and agency; for example, "sounding off" in anger, or the "sounding out" of the exploratory methodology. These are some of the ways in which sounding departs from the traditional sender-receiver communication model. If sound is not an object it cannot be sent or received, or transported from one place to another. Instead, as an alternative,
the propagation model of techniques, instruments and media was outlined (in the
previous chapter).

The idea of sounding as a verb also draws on Amari Baraka's (a.k.a. Leroi Jones, 1961)
essay Swing – From Verb to Noun, where he states:

I speak of the verb process, the doing, the coming into being, the at-the-time-of.
Which is why we think there is particular value in live music, contemplating the
artefact as it arrives, listening to it emerge. There it is. And there” (Baraka 1961:
174, emphasis in original).

Mackey comments: “This movement from verb to noun is precisely a strategy of cultural
and political 'containment.'” So it’s not just that a verb is mistaken for a noun by a
cultural industry that doesn't know any better; rather, the movement from verb to noun
can be considered as a process of subjugation, if not oppression. “'From verb to noun'
means the erasure of black [sic] inventiveness...” (Mackey 1993: 266), he tells us.
Against this, the Reggae music production technique of versioning provides a good
example of precisely this kind of inventiveness (as described in Chapter 5).

This idea of sounding as ongoing performance is indebted to Small's (1998) concept of
musicking, the term he coined to describe the assemblage of everything, everyone and
all the activities - listening as well as music-making - that go into a music-making event:

The fundamental nature and meaning of music lie not in object, not in musical
works at all, but in action, in what people do. It is only by understanding what
people do as they take part in a musical act that we can hope to understand its
nature and the function it fulfils is human life... To music is to take part, in any
capacity, in a musical performance, whether performing, by listening, by
rehearsing or practising, by providing material for performance (what is called
composing), or by dancing. We might at times even extend its meaning to what
the person is doing who takes the tickets at the door or the hefty men who shifty
the piano and the drums or the roadies... (Small 1998: 8-9, emphasis added).

The sound systems session provides a ready example of musicking – though Small
takes the rather different example of a classical symphony concert. For this he provides
a textured, nuanced, fine-grained detailed “thick” Geertzian impression of what goes
into such an event, as thinking through the sounding of the dancehall session aspires to
do. As Small puts it:

Music should be viewed as an act instead of a thing. Who is doing it? where?
and who is listening? then become the primary questions. By looking at music
this way, we begin to understand the relationship between music, people, history
and the larger culture.¹

Small (1987) also draws on Chernoff’s (1977) rich and detailed account of this social
production and consumption of music in contemporary Western African music making.
It is the practice of musiking that generates meaning and feeling in the relationships
and activity of performance. Studying popular music the importance of performance has
been emphasised by Frith (1966) and Auslander (1999, 2004, 2008) and with cultural
theory of gender Butler (1990a) developed the concept of performativity, drawing on
Austin's (1962) account of this function of language.

Small's concept of musicking also has a philosophical debt to Merleau-Ponty's (1962)
phenomenology in two respects. The idea of musicking involves the kind of immersion
in the phenomenon for which the being-in-the-world, or dasein, of phenomenology is
named. Furthermore, musicking has a helpful emphasis on action and the relationship
between the agent and the world, where he describes the intimacies and intensities of
this relationship as a chiasm or intertwining (Merleau-Ponty 1968), or a doing-in-the-
world, to gloss Merleau-Ponty's term. This includes various technologies or mis-en-
scene objects of music making, as well as the musical media of the session and the
scene, together with the crew's instruments and skilled techniques. With *musicking* Small underlines the multiple activities, processes, rituals and people besides the musicians that go into "the business" of making music (see Henriques 2007a). With the dancehall session this musicking includes: the maintenance crew, speaker-box carpenters, amplifier-makers, dry roast peanut sellers, not to mention the crowd and all the instruments, props, processes, rituals and roles, from printing and fly-posting before the session, to selling its recording as a mix CD afterwards (see Figures 2.5 and 3.1).

In this way, the idea of *musicking* suggests a way of dissolving the traditionally hard and fast division between activity and passivity, agent and object, user and tool, or player and instrument, or transmission and reception, or performing and listening. It refuses to allow a fissure between the activities of performing, playing and making music, on the one hand, and participating, clapping, dancing, paying attention, listening and otherwise appreciating and enjoying on the other. As Small states: "The act of musicking establishes in the place where it is happening a set of relationships, and it is in those relationships that the meaning of the act lies" (Small 1998: 13). This echoes Raymond Williams when he says: "We have to break from the common procedure of isolating an object and the discovering its components." Williams continues, "On the contrary, we have to discover the nature of a practice and then its conditions" (quoted in Sterne 2003: 219). This emphasis on activity, practice and doing was also critical for the linguistic philosophers, as with Ludwig Wittgenstein's aphorism: "Don't ask what it means, but rather how it is used." This is entirely consistent with the research methodology of listening whose principal question for the sound system sessions is, *how does it work?*

Sounding shares many of the characteristics of musicking, as both are concerned with the dynamic relationships between practices, and the objects and subjects they make, and between hearing and propagation, as well as the listener's impressions and performers' expressions. But it is also important to distinguish between the two activities. In one respect, sounding is concerned with smaller detail than musicking, as sound is necessary...
component of music, one of the points made by possibly the most famous of avant garde compositions - John Cage's 4' 33" of "silence." At the same time, sounding specifies the unique character of musicking that differentiates it from similar areas of creative activity. Theatre or fine arts, for instance, could also benefit from being considered as scenes of multiple and various components, participants and activities. But sounding is not central to them in the way it is to the Dancehall scene. Most important, the range of practices required for sounding ensure that its dynamics are not restricted to diffusion through only a material medium alone.

Figure 3.1 Outside Stone Love HQ, Burlington Avenue, on a 'Weddy Weddy Wednesday' night in June 2004. Note commercial activity: the smoke rising from the drum-chicken vendors and man with bowl of peanuts on his head (centre frame).

In so far as thinking through the vibrations and wavebands of sounding does address sound as such, it is in contradistinction to music. Taking the idea of sound - rather than music - as a starting point avoids some of the pitfalls that Torres-Saillant (2006)
identifies (as discussed in the introduction). Sounding can be considered as more
dangerous than music. Sounding asks more questions, has a greater disruptive
potential - because it escapes the bars and all the other confines of systems of musical
meaning (as it does, of course, visual codes). This is especially the case where
sounding plumbs the depths of the low bass frequencies, or reaches the excesses of
intensity at the threshold of what I have described as sonic dominance, or noise, as
Jacques Attali (1985) explored with his pioneering book of that name (see also Serres
1995). Sounding has this, a haecceity or thisness, or a force of attack and sharpness of
edge that Attali maintains, with noise, threatens violence. That, compared to the tamed,
domesticated, culturally recuperated mid-frequencies of the more firmly theoretically
constituted object that “music” is considered to be.

So the initial answer to this question of how a sound system works - directed by the idea
of sounding – addresses specifically not only what the crew and the crowd do, but also
all the others involved. In this way, thinking through sounding demands that we dive
deep into the sonic medium itself, with all its tones, textures and intensities, described
with a vocabulary of rhythm, polyrhythm, resonance, reverberation, syncopation,
entrainment and so on. So thinking through sounding suggests sinking into sounding,
theorising down to the depths of the lower frequencies of the bass line, its roots and
routes, sinking into the substance of the subject, being immersed in it, as with the sonic
dominance of a dancehall session, and thereby deep into the frequencies. The vibes of
sounding sink into the theorising to produce sonically saturated theory, as it were – a
syncing of the dynamics auditory vibrations of sound theory with those of a dancehall.
Figure 3.2 Venus Disco owner and a maintenance crewmember washing the inside of the bass bin, before the session, Skateland, Half Way Tree, Kingston, July 2002
The Material Vibrations of Sounding: sonic dominance

Without the material vibrations of the medium of the gaseous air there would be nothing to hear. These longitudinal compression sound waves are to be contrasted with the transverse waves of the electromagnetic spectrum. For thinking through the propagation of sounding this distinction between longitudinal and transverse waves is important. Sound requires a medium for diffusion, whereas light can travel through a vacuum. It is this material medium of air molecules that carry the signature vibrations, high in volume, and low in pitch that give the distinctive feel to the auditory sensibilities of Jamaican culture. The amplitudes or loudness of volume on the one hand, and the frequencies, pitch, or wavelength of vibrations, on the other, are two of the defining attributes of a wave. Their third characteristic is their timbre, or “sound colour” which is a combination of the amplitudes and frequencies of the sine waves by which a sound is described mathematically (Smith 1977: 355-358).

a) Amplitudes

For the crowd out for the night, one of the distinctive features of a dancehall session is certainly the loud volume of the music. This sounding out of the session acts as an auditory beacon, pulling in the crowd, as moths to a light, so to speak. A session is easily heard from a distance of several city blocks, or many miles across the valleys of the Jamaican countryside. What pushes the crowd towards the sonic event of the session is their anticipation of its visceral sensory pleasure - the most powerful music machines in the world vibrating every cell of every body. This is the visceral heart and soul of the Dancehall scene. The term sonic dominance (Henriques 2003) describes such immersive liminal intensities of sound of the amplitudes of sound waves, experienced as the sheer weight, force and substantive presence of the sounding of the session, resonating with the lingo of the “massive” for the dancehall crowd. This is impossible to escape or deny - the audible becomes haptic, and the intangible tangible. This fills brim-full the “bowl” of the dance-floor between the stacks of speakers normally considered only as empty “space” (see Figure 1.9). Listening depends not only on the ears, but the entire haptic sensory skin surface of the body, as the hard-core Dancehall
followers evidence by their donning ear-plugs and standing as near as possible, or even inside, the bass ports of the vast speaker cabinets (see Figure 3.2, and also Appendix 1). Such immersive whole-body listening may be contrasted with the inserting music into the body, via in-ear headphones.

b) Frequencies
The second characteristic of material wavebands in the dancehall is their frequency pitch as a bass culture. These are the bottom end, low frequencies, as distinct from the top or mid-range of the listening spectrum (that is necessarily favoured by ipod and other personal earphone listening devices). In the mechanics of auditory propagation, the bass requires the most amplifying power and is the least directional of frequencies, compared to the mid range or top whose directional source can be identified much more easily. As Dennis Rowe, owner of the long established UK Saxon sound system told me, the music being listened to in the 70’s “was all treble and mid, it had no bass to it.”

The technology of the sound system set has been developed specifically to accommodate these low frequencies in two respects. Firstly the speakers are designed to handle not only bass, but also withstand sub-bass frequencies. Secondly the electronic frequency range from top to sub-bass is split into five discrete channels. Each one of them is then amplified separately in its own amplifier that is then linked directly to the speakers specialising in only this frequency (as described in the next chapter). This specialised amplification produces sound of the best auditory quality, I was told by Stone Love engineers Horace McNeal and Denton Henry. An early iteration of the idea of a bass culture comes in the introduction to The Invisible Man where novelist Ralph Ellison (1947) discusses the special significance of the bass vibrations or “the lower frequencies” for his hero’s sense of identity. The Invisible Man pumps his cellar not only with light, but also with sound, delivered by five radiograms simultaneously playing Louis Armstrong. The record on the turntable? Famously it was (Why Do I Always Feel So) Black and Blue recorded in 1951. More recently the idea was referenced as Bass Culture by UK Jamaican Dub poet Linton Kwesi Johnson’s 1980 album of that name. Also Bradley’s Bass Culture (2002) gives a very useful account of Jamaican sound system culture and history.
This idea of bass culture has also been accompanied with that of “low end” theory as a marketing theme on the current London Dubstep scene, with Burial’s second album *Untrue*. The distinctive sound of Burial’s music tracks explore the textures and colours of sound to achieve a particular late-night, after the club, urban feel, developing the distinctive London sounds of the 1990’s Jungle and Drum & Bass, and more recently Grime. Dubstep, along with many forms of electronic music (see Eshun 1998, Veal 2007) is also inspired by Dub. This musical genre was invented in the late 1960’s and early 70’s by the sound engineers such as King Tubby and Lee “Scratch” Perry and others in Kingston recording studio and the dancehalls. Their techniques exploited recording and phonographic technologies to excavate the texture, timbres and resonating depths of sound itself. To dub is to copy, underlining what can be described as the actual *grain* of sound, as Barthes (1977) famously discusses with “the grain of the voice” at the limits of language. Similarly at the limits of music, the particular tone and tenor characteristic of the Jamaican sound, are the cue for thinking through the vibrations of the material waveband of sounding. These are without recourse to ideas about authenticities, origins or essentials, or referring to the structural features of melodies, harmonies or even rhythms, or attempting any musical homology with social and political structures (for example Willis 1978, Attali 1985, see also Shepherd and Wicke 1997). Instead these vibrations give attention to the ebb, flow and flux of sound waves themselves.

**c) Timbre**

The third characteristic of vibrations, in addition to their loudness and pitch, is their *timbre*, or sound colour, as it is also called (see Smith 1997). Timbre is a particular quality of a sound that make it distinctive – its harmonics, or mixing of amplitudes and frequencies described in terms of the dynamic characteristics of vibrato, attack-decay envelopes, overtones and so on. Each particular type of instrument has its own “tone” (as distinct from frequency pitch), such that, at the same pitch and the same loudness the sound of a trumpet to a violin, for example, are experienced as completely different by a listener. The term *timbre*, as indicated by the synaesthetic idea of sound “colour,”
by which it is also known, is more complex and subtle feature of audition that besides amplitude and pitch, contributes to what the crowd experiences as the sonic dominance of the session. Timbre involves harmonics. The French philosopher Jean-Luc Nancy gives a most interesting account of timbre. There is no amplitude or pitch, he tells us, "without timbre just as there is no line or surface without colour). We are speaking, then, of the very resonance of the sonorous... Timbre is the resonance of sound: or sound itself (Nancy 2007: 40, emphasis added). Timbre can thus be described as the presence of the material vibrations of sounding resonating at the frequencies of other wavebands.

Nancy then goes on to link the timbre of sound with specifically percussive reverberations of the skins of drums and other instruments, claiming that the origin of the word timbre in the "Greek tympanon, that is the tambourines of orgiastic cults" (Nancy 2007: 42). He then develops this into an conception of resounding subject, "[a] sonorized body [that] undertakes a simultaneous listening to a 'self' and to a 'world' that are both in resonance" (Nancy 2007: 43). This emphasises the intimacy between sound and self. So to the expert discriminating ear, each individual example of each instrument is distinctive, as with different Stradivarius violins, for example, or indeed Kingston recording studio, as Reggae singer Berres Hammond pointed out to me. In same manner, the prosody of each person's voice has a distinctive tone, recognised, for instance, every time we say, "It's me" to someone to whom we are known (as discussed with reference to the MC's "voicing" in Chapter 6).

This material waveband is the bass and base for thinking through sounding. Its rhythms both model and pattern what are described below as the corporeal vibrations of the crew's performance practices and ethereal vibrations of the Dancehall scene. In short, the apparatus of a sound system propagates vibrations across a range of auditory and other frequencies. So a dancehall session can be described as being built of the vibrations of each of the wavebands of sounding, in the way Reggae producers talk of "building" a rhythm track out of auditory frequencies, and "laying" on the separate pre-
mix tracks. At the same time, perhaps it needs to be emphasised, that thinking through the material waveband does not concentrate exclusively on the mechanics or electronics of the sound set of equipment as such. Doing so reduces materialism to being the static dead-weight of an inert physical substance, or a final determining cause. Instead this inflection towards the material waveband can be considered as a dynamic, or “vibesy” as is said in the lingo, materialism, requiring energy as well as matter, what would be called “animate” in a Bergsonian approach (see Fraser 2006). Sounding, like every other kind of communication, is diffused through a material medium that provides both constraints and opportunities, for vibrations of other amplitudes and frequencies.

(2) The Corporeal Vibrations of Sounding: the touch of sound

When the idea of sounding is allowed to resonate with that of vibrations, the repercussions begin to open the rhythmic field. While all wave mechanics require instruments and techniques for propagation, outside the audible spectrum - as the dancehall “vibes” – this expands beyond the amplitudes, frequencies and timbres, and also media, of sound waves themselves. To accommodate the full spectrum of all the vibrations of sounding relevant to the apparatus of the sound system (and possibly others), a further waveband of sounding is introduced (Henriques 2008). Without the material vibrations of sounding, such as the air molecules and mechanics of auditory propagation, there would be silence. But in addition there are also the corporeal vibrations, as with the embodied sensory sensitivities and performance practices of the crew and the “crowd” (audience). This second waveband of sounding is propagated through the fleshly medium of the bodies of the crew and the crowd. Without these there would be no hearing or dancing.

While a dancehall session is a specifically auditory sensory experience, at the same time it groups together a range senses including vision, touch, smell, taste, temperature, kinetics and so on. So the sound system is little short of a multi-media apparatus in which live video projection and dancing have become increasingly important as rhythms
spread by "jumping" from one medium to another (see Figure 3.3). With the corporeal waveband a session becomes a particular kinetic space and shared social place (see Figure 2.2), with a specific geographic location where the individuals come together as a crowd, or audience, for the duration of the event. Listening on ipods provides an example of the importance of such locating and scheduling. The phenomenon of flash mob raves in the UK and USA evidences the appetite for such a shared social listening environment, where this is juxtaposed with private hearing. For these events ipod listeners arrange to meet at a particular public venue, such as a railway station, in order to dance together - but without anyone necessarily knowing what music others there are listening to.

In the dancehall session, corporeal vibrations are embodied in the patterns of the crowd's kinetic movement, the choreography of their dance, and the style, skills and techniques of the MC and selector and other sound system crewmembers. These corporeal vibrations resonate with material auditory vibrations, where the bass becomes the bass-line patterning of the amplitudes of inflected, emphasised, accented and unaccented moments (as Turetzky 2002 explores) that are then patterned to build the rhythm of the bass-line. In Reggae, these drum and bass rhythms have become the signature "riddim" tracks on which the Dancehall music scene flows (see Marshall and Manuel 2006). These bass lines are literally the heartbeat of Reggae music, the "classic" ones being produced in a uniquely creative period of the late 1960's and early 70's (Veal 2007). Often described as "foundation riddims," recognising yet another depth to the musical genre, they continue to re-animate the music as the basis of innumerable versions.

Furthermore, this resonating pattern between sound and embodied movement becomes that of a base culture (as discussed below), as carrier frequency, as it were, for Africa's musical gifts to its diaspora. The high volumes, low frequencies and distinctive rhythmic pattering make material and corporeal vibrations memorable, quickly becoming culturally laden, or "fully loaded," as would be said. There are resonances, entrainments
and syncopations between auditory vibrations and the breaths, pulses and heartbeats of the crowd's corporeal vibrations. This makes a phonetic connection - where none exists etymologically - between bass frequency and base matter, as the corporeal embodiment of the crowd. This is the bass and base of the flesh-and-blood body that finds expression in Cooper's (1993) *Noises in the Blood* title. It further reverberates through Linton Kwesi Johnson's *Bass Culture* lyric:

```
muzik of blood
black reared
pain rooted
heart geared...

it is the beat of the heart,
this pulsing of blood
that is a bublin bass,
a bad bad beat
pushin gainst the wall
whey bar black blood
```

As well as bodily being, heartbeat and blood pulse, this idea of base further extends to the body politic. In Marxism, the means of production is the base on which society's ideological superstructure is founded. Indeed, the sound system sub-culture has itself been described as a "cultural apparatus" (Chude-Sokei 1997:4), with "its own aesthetics and a unique mode of consumption" (Gilroy 1987: 164), escaping and even reversing dominant political ideologies (as mentioned in the previous chapter). Reggae music forges such resistance out of the intensities and dynamics of the material vibrations of sound itself at about the same historical moment of the 1960's and early 70's as it was being rendered verbally as "black power," drawing on a political history that began with Marcus Garvey in Jamaica the 1920's. This is bass and base as the bottom line of sound, from which the "vibes" bass culture has been "built," to use the studio producer's phrase.
Figure 3.3 Live video screen, dancers and camera (bottom right), Chuchu Benz session, August Town
The corporeal medium of sounding is fleshly, in the way the material medium of sounding can be gaseous, liquid or solid matter. The vibratory frequencies of the corporeal waveband are considerably slower than those of the material medium. These include the embodied kinetics of all kinds, such as the beating of percussive instruments, bowing and plucking strings, and the blowing vibrations of reeds and brass. Bodily frequencies consist of all manner of pulses and bodily rhythms, including breathing and heartbeats, as well as the circadian, monthly and season cycles, and innumerable rhythms, habits and routines for dance and indeed most other practices—not least, the skilled performance techniques of the sound system crew. This is done either with corporeal tools, such as vocal chords, or using those of hands and limbs to manipulate other non-corporeal machines and technologies. The corporeal waveband of sounding is afforded, to use Gibson’s concept (discussed below), by the potentials and constraints of the material waveband. With the dancehall session these skilled practices begin with the work of the maintenance crew long before the arrival of the selector and the MC at the venue, as Small’s (1989) concept of musicking emphasises (and as the field notes in Appendix 1 describe).

In this way, the corporeal waveband includes the sensory modality of hearing and auditory sensation, but cannot be reduced to physiological responses alone. The faculties that furnish sensation are corporeal, affording haptic impressions. This is the sensory side of the sensorimotor, as it were, compared to the kinetic expressions of propagation, as the motor side of the sensorimotor. The corporeal medium of sounding is also tactile, as with touching itself, where the coverage of surfaces is most important, especially the sensory surface of the enveloping skin as with sonic dominance. For single cell organisms with only one sense this is touch—the most basic element of animate life. As Derrida puts it: “Touch is the only sense that the existence of the living as such cannot dispense with... Touching, then, is a question of life and death” (Derrida 2005: 47, see also Manning 2007). The tactile sense, even more than the traditionally esteemed visual one, is said to provide our most fundamental test of something actually “being there.” But it is the touch localised in the skin of the hand, rather than the touch
of the skin of the eardrum, that counts in this respect. Unless sanctified by religious ritual, hearing voices when the bodies responsible for speaking them are not visible or tangible is often considered as a sign of madness, as Blackman (2002) explores. But even tactile surfaces have to be understood as being “given by” the movement of the corporeal vibrations of their being touched, rather than pre-existing as “solid objects.” In practice, touching always establishes this boundary or threshold. Touching is a simultaneous “both-and” – separating and connecting, the “toucher” and the other touched, kinetically and haptically. Being “in touch” with another person, for example, also recognises our separation from them.

(3) The Ethereal Vibrations of Sounding: the sense of sound
As well as the material waveband, and in addition to the corporeal one, a third kind of ethereal vibrations needs to be introduced to give a fully comprehensive understanding of the propagational functions of the dancehall sound system apparatus. This ethereal waveband consists of the Dancehall scene’s customs and practices, seasonal calendar, cycles of style and fashion, lingo and so on - the “vibes” of the ambiance, atmosphere and feelings the session generates. Without such social and cultural meaning, described below as ethereal vibrations, there would be no listening, understanding, valuing or “making sense” of the session or the dancehall scene - nobody would come. The word ethereal evokes the invisible ether, once considered the medium of life itself. So thinking through the ethereal waveband of sounding emphasises the thinking of sound, giving an abstract, invisible and meaningful inflection to sounding, in relation to its materiality and corporeality. The ethereal vibrations of sounding are that of communication in symbolic, social and cultural systems, or in Aristotelian terms form, rather than substance. The vibratory frequencies of the ethereal medium include social and cultural seasons and cycles, and its propagation mechanisms include school education, publishing, broadcasting and not least, the institution of the dancehall session (see Figure 3.4). These ethereal vibrations are embodied in the crowd’s way of doing and knowing with attitude, fashion and indeed life-style and way of life, in Jamaica called “livity.” It is their expertise on what’s in and what’s out, telling the “fresh” from the
This is expressed with singing, speaking, music making, dancing or simply “modelling” (posing) in the dancehall session. The ethereal vibrations of sounding are afforded by its corporeal vibrations, as it is only through these our embodied senses can be “in touch” with the material waveband of sounding, or indeed any part of the physical world.

These ethereal "vibes" are “built” from the crowd’s knowledge, understanding, appreciation, sensitivity, expectations and so on, often accumulated from the experience of years of attending dancehall sessions. Each crowd-member has their tastes, loyalties, memories, associations and expectations depending on their knowledge of the selectors on the bill, sound system, venue and so on. So for ethereal vibrations the “body” can be the esprit de corps of the ensemble crew, the Sound’s followers, and the crowd composed of different sub-groups of dance crews, such as Dancehall Queens and others. Top selectors, such as Stone Loves’ Rory or Tony Matterhorn, are each known for the particular styles of music they play, from “Rare Groove” and “Golden Oldies,” to the bespoke “dubpate specials” (as described in Chapter 5), to the latest hits. Indeed, the intensities of material waveband make multiple connections with and within the corporeal vibrations of the crowd, and between them and the ethereal ones of the dancehall, expressed, for example, in the different ancestral and utopian temporalities of the session (Henriques 2007b).

Jamaican sensibilities described as a base culture (above), draws attention to their grounding, as expressed literally through Dancehall choreography and its African inspired folk traditions (see Lewin 2000, Stines 2004). Its baseness is the ground of the earth, soil, dirt or “dutty,” as is it called in the lingo. With flat-footed stomps and stamps the dancer emphasises their earthly connection, as a distinct contrast to the pirouettes and leaps of the European classical tradition, that aspire to have as little contact with the ground for as long as possible.21 Furthermore, the dancing is literally bottom-up with its signature “bumper-grinding” sexually explicit choreography, where the bass note is struck by the body itself - displaying its fecundity and celebrating its fertility (see Figures
5.9 and 5.10). Such an aesthetic has always scandalised Jamaican middle class opinion. For them, base denotes crude, debased, unrefined, vulgar and even animal, and is condemned in the register of sexuality as “slackness” (as Cooper 1993 discusses). Thus the criticise the dancehall session as the source of this corruption. Such basic lower frequencies and embodied resonances are distinctly inferior to the higher notes only the mind is considered capable of striking - with the refined sophistication of “high” culture. So what radiates from a session are not only the material vibrations of sound itself, and the corporeal vibrations of a new “riddim” or dance step, but also the word of mouth on the next session (see Figure 3.4), not to mention all the gossip about who was there, with whom, what they were wearing and generally “what-a-go-on.” All this, as well the cable TV broadcasts, DVD videos and compilation CDs, serve as a medium for the expression of the style, fashion and values of the dancehall scene.

Figure 3.4 Flyers on the mixing decks for the MC to announce future events, Weddy Weddy Wednesday, Stone Love HQ, June 2004
Thus the ethereal vibrations of sounding are always in relation to, not separate from, its material and corporeal wavebands. In this way, a complex apparatus such as a sound system cannot be reduced to the set of equipment alone, as the material waveband of sounding, or even the crew's performance as the corporeal vibrations of sounding, or even a phenomenon of the Dancehall scene as its ethereal vibrations. In short, **sounding has to be considered as all three frequency bands at the same time**.

Recognising these ethereal vibrations also gives attention to intentions and evaluations, on the grounds that bodies are "enminded," as knowing subjects, continually trying to “make sense” of their world (rather than the mechanical instruments that the mind has to command, or whose sensory input the mind has to interpret, as discussed in Chapter 7). It is ethereal vibrations that make the distinction between material and corporeal wavebands - on the continuum between noise and sound, on which, extended further ethereal vibrations would position themselves as music. Noising, to give it a verb-form, is an activity, something that happens, but is a mere off-cut or by-product, compared to sounding, as something that is done “on purpose” – though its actual auditory qualities might be identical. This **making** of sense is something the ethereal, brings out from, as it were, the material and corporeal vibrations of sounding.

(4) **Conclusion: Mixing wavebands**

To conclude this chapter, it is important to consider the variety of relationships between the three material, corporeal and ethereal vibrating wavebands. In certain respects, they are inseparable, but also quite distinct one from the other, between which there are transductions, or translations between one and another, and also affordances, where one provides constraints and opportunities for another.

a) **Inseparable and distinct**

In the first place, it has to be recognised how inseparable the three wavebands of sounding are in practice. They only ever operate together, in relation to each other, and at the same time. Together these three wavebands of sounding, as they are propagated...
by the apparatus of the sound system, constitute the rhythmic field of the dancehall session. They also excite its various participating "sonic bodies" of the crew and the crowd. In this way, the propagation model expands the idea of sounding, rather than reducing the range of frequencies of the phenomenon of the dancehall session to the auditory alone. Thinking through sounding is a means, rather than an end, for this exploratory research methodology of listening, without necessarily having sound as its object. This is one of the ways that the idea of vibrations of sounding is distinct from the separate technological, social and cultural "causal factors" or so-called "levels of analysis" by which a sound system has most often been approached (as discussed in the previous chapter).

In other areas of practice, examples of such relational identities are plentiful, such as the everyday family roles, where a person occupies the different positions of parent, child and partner, often at the same time. These relational roles are therefore quite distinct from physical objects, categories, or classes of things, such as "animal, vegetable and mineral" in the children's game, for example. Instead the wavebands of sounding are aspects, emphases or inflections, that indicate features of a single whole, such as in this research, a sound system. They are readily expressed an auditory, rather than visual, vocabulary, suggesting a repertoire of metaphors concerning relationships, including resonance, harmony, tone, vibration, rhythm and so on. The space in which such relationships of thinking through sounding take place is, in fact, best described as an acoustic space (McLuhan 1989, Williams 1955) or auditory space (Zuckerkandl 1956). This is a spatiality of interpenetrating, infusing, gaseousness, layerings, flowings and dynamics, rather than fixed surfaces that occupy metrical "space" exclusively and in juxtaposition to each other. As Zuckerkandl puts it: "The interpenetration of tones in auditory space corresponds to the juxtaposition of colours in visual space" (1956: 299, emphasis in original). Thinking through sounding encourages conceptions of identity embodied through affordances, in the becomings, becoming different, the multiplicities of auditory space, and the sonic bodies of the crowd, as the one-who-is-many and the-many-who-are one (Henriques 2007b).
The inseparable character of the relationship between the three wavebands of sounding is also evidenced in the apparatus of the sound system. Take the two sides of the 7” vinyl single – the common currency of the Dancehall scene – as an example. Physically or materially each side is more or less identical to the other. But it can also be said that on one side is the matter of material media, the physical stuff of the black vinyl, and on the other is the matter as sense, meaning and subjective affects of which we enquire of another person: “What’s the matter?” This kind of matter of sounding is in fact its ethereal vibrations, what it means, and how it signifies (Henriques 2003). So what is the relationship between these two sides or senses of sounding, that is its material and ethereal wavebands? As a physical object the two sides can never meet. But if, instead, we consider the record in practice as an object-in-use-in-the-world, something played, that is, a component in the practise of musicking, then a different story can be told. Then it can be said that all three material vibrations of sounding: the material of the object, the ethereal of what it means and the corporeal, as the object of sensation and manipulation, emerge in the same instant. It is thus these skilled practical techniques of the sound system crew that are at the heart of this research. Returning to the 7”, it is also interesting to note that the B-side is likely to be a dub “version” of the A-side. One way of considering this specific musical form of Reggae is as a plumbing of the depths of drum and bass textures, once the melodies and lyrics have been all but removed (Veal 2007, Eshun 1998). With thinking through the wavebands of sounding this could be described as investigating the ethereal “within” the material that we recognise “through” the corporeal.

The wavebands are also different and quite distinct. For example ethereal vibrations can be contrasted with corporeal vibrations of sounding with the distinction Gregory Bateson makes (1972, 1979) between the nip and the bite. The nip is an act of communication, with which it is possible to tell a lie. It denotes play, that is to say: “these actions in which we now engage do not denote what those actions for which they stand would denote” (Bateson 1972: 152, emphasis in original). The bite, by contrast, is a
purely functional corporeal procedure. Corporeal and material vibrations may also be distinguished in terms of another of Bateson's distinction; that of the relationship between energy and information. Energy is one of the physical and corporeal requirements of auditory propagation, as is a material medium of sounding, such as the air. On the other hand, information, as a significant distinction, or the social and cultural requirements for musical transmission and social communication, would be considered as the ethereal vibrations of sounding. McLuhan (1967) famously makes this distinction as that between medium and message, only to articulate his polemic by collapsing the two. In short, materiality tends to be considered as physical qualities, ethereality social and cultural ones.

The same distinction between ethereal and corporeal wavebands can also be made, especially with the example of the crew's skills and techniques, in terms of the distinction between listening and hearing. There is little that is automatic or natural about listening, as the methodology of listening discussed in Chapter 1 made evident. It is not something that is done only with the ears, as might at first be assumed. Listening is an acquired skilled practice, as Sterne (2003) in The Auditory Past, elaborates in convincing detail: "Listening is a directed, learned activity: it is a definite cultural practice. Listening requires hearing but is not simply reducible to hearing" (Sterne 2003: 19, emphasis added). Listening is a mental, social and cultural process, a distinctive technique as such, that has to be distinguished from the physiological facility of hearing, as Barthes points out:

*Hearing* is a physiological phenomenon; *listening* is a psychological act. It is possible to describe the physical conditions of hearing (its mechanisms) by recourse to the physiology of the ear; but listening cannot be defined only by its object or, one might say its goal (Barthes 1976/1985: 245).

Barthes goes on to describe several different types of listening, one of which is "deciphering; what the ear tries to intercept are certain signs. Here no doubt, begins the
human: I listen the way I read, i.e., according to certain codes" (Barthes 1976/ 1985: 245, emphasis in original). Though using the term hearing rather than listening, the art historian Ernest Gombrich makes this same point in his Some Axioms, Musings and Hints on Hearing, where he states: "1. Good hearing does not only depend on keen ears... 2. Hearing depends on knowledge" (as quoted in Renier and Rubinstein 1986: 72 5). Listening is a social, cultural and historical technique, rather only a physiological one, as discussed in respect to the audio engineers fine-tuning the set (in the next chapter).

But listening also depends on hearing, reminding us of its affordances (discussed below) in the corporeal vibrations of sounding. This is what Thomas Csordas describes as a “somatic mode of attention” that he defines as: "culturally elaborated ways of attending with one’s own body in surroundings that include the embodied presence of others" (Csordas 2002: 244). This is a particular relationship between the listening subject and the object of their attention. It is a relationship of the body as a whole, rather than a particular sensory channel, auditory or otherwise. Indeed, listening implies a particular conception of embodiment, to be contrasted with idea of viewing has tended to be associated with disembodiment. When considered as an inflection of a reciprocal relationship with sound making, as with the dancehall trope of call and response, rather than mechanically, only as a “passive” reception of sound, it is in the place of listening to ask questions. As Connor (2001) points out, of the important features of listening or hearing “is that it seems incomplete and interrogative; hearing provides intensity without specificity, which is why it has often been thought to be aligned more closely with feeling than with understanding...” (Connor 2001: 2-3). The relational qualities of listening are also expressed, especially in the liminal conditions of the dancehall session, in cooperation with the other senses.

As well as hearing, corporeal vibrations also include the contact or tactile sense of touch. This too, is informed by ethereal vibrations, giving touching two aspects or sides, as it were. One is where the body is used as a threat, such as a source of power over
another, as a weapon for striking a blow, inflicting injury and ultimately death. But most often the ethereal vibrations of touching is associated with connection and presence, holding and being held, nurturing, caressing, stroking and sexual intimacies associated with warmth, resonance, sympathetic vibration, entrainment, being in-tune and so on. This connection and presence is also an important feature of the ethereal waveband of sounding, particularly the voice, as discussed in respect to the MC's voicing (in Chapter 6). Sounding's ethereal associations include tone, texture, timbre and a huge variety of qualities, which like sounds themselves, are most often referred to by citing instructions for their propagation, or recipe as it were, as with for example, a "valve" sound, or a "vinyl" sound. In short, sounding never looses its embodied feel; it is medium of gesture, in which it presents itself, rather the re-presents something else. Thus the ethereal vibrations of sounding and touching tend to emphasise what is most often constructed as the opposite to the ethereal – corporeal embodiment.

b) Transductions

The relationship between wavebands of sounding and the material vibrations of audio frequencies is also embodied in the process known by the audio engineering term of transduction. Within the material waveband, this describes the translation from the electromagnetic frequencies within the set into the mechanical auditory frequencies in the air outside it - that we have to faculty to hear (see also Simondon 1992, Mackenzie 2002, Deleuze and Guattari 1988: 313). One example of a transduction device vital for the operation of the sound system is the speaker coil (activated by electronic signals) and speaker diaphragm (propagating the sound waves). Another is the MC's microphone that operates in exactly this manner, but in reverse. The tympanic ossicles of the ear function similarly, to transduce auditory waves into nervous impulses (Sterne 2002: 77-85). With transduction a pattern is transferred analogously between electronic and mechanical media. Similarly a rhythm can be transduced between the media of hearing and dancing, or again, the indentations in the groove of a vinyl record are an analogous expression of the sound waves they re-present (via the stylus and phonographic equipment).
Table of the three wavebands and elements of the sound system apparatus

<table>
<thead>
<tr>
<th>wavebands</th>
<th>a) Media</th>
<th>b) Instruments</th>
<th>c) Techniques</th>
</tr>
</thead>
</table>
| (1) MATERIAL | Milieux  
molecular, electromagnetic & mechanical vibrations eg auditory propagation | Assemblages  
mixed media everything eg technologies of the “set” | Affordances  
moving around, in space eg peripatetic gigs, in time - “hard” relationship between media |
| (2) CORPOREAL | Embodiments  
full-body fleshly sensorimotor perception eg crowd kinetics, haptics & kineasthetics | Practices  
evvery-body needed for a session eg owner’s management, maintenance crew “stringing-up” the set for the session | Transductions  
moving across, eg transducer devices eg loudspeaker - “soft” membranic relationship between media |
| (3) ETHEREAL | Logic of Practice  
eg MC’s rhetorical performance, Dancehall scene, asa sociocultural “making sense” | Institutions, corporations & traditions  
eg Stone Love, crowd as one-as-many & many-as-one multiple whole, body politic, ideologies | Triangulations  
moving through – proportional evaluations eg crew’s judgements eg fine-tuning the “set,” or selector’s repeating technique – ratio, analogia |
Another way of considering the transductive resonances between wavebands is as evaluations that recognise gestalts patterns, proportional relationships, or *analogia* (to which the final chapter is devoted). One example of this, at the centre of the propagation model, would be the analogy between the three wavebands of sounding and the material vibrations of the auditory frequencies of the music that the sound system set of equipment re-produces. In terms of the speed of their frequencies, the fastest treble would be material vibrations, the mid range, corporeal, and the slowest most pervasive bass frequencies as the ethereal waveband (as elaborated in further research). Furthermore, the electromagnetic circuitry inside the set of equipment also provide examples of the mixing of the wavebands. When a record is played, the different audio frequencies - split up and separately amplified top, mid and bass - are all mixed together across the dance-floor of the session (at volumes of sonic dominance). So this procedure of the separation and then re-mixing of electronic frequencies models the relationship between the three wavebands of sounding. Not only does music mix the entire auditory spectrum, but also sounds themselves are never pure tones at a single frequency, rather their distinctive timbre combine in a highly complex range of frequencies together with their harmonics. This makes the point that while the three wavebands of sounding can be analytically amplified separately, in practice they always play out as a combo, so to say.

c) **Affordances**
The relationship between the different wavebands of sounding, with for example the corporeal vibrations of hearing and the ethereal ones of listening mentioned above, can also be those of *affordances*. Gibson (1966, 1979) uses term *affordance* to describe a relationship that is both an opportunity and a constraint. This is distinct from either simple linear mechanical cause and effect relationship (as with the stimulus-response paradigm of behaviourism), or reciprocal, or interactive relationships. One example of such a relationship of affordance would be that between the medium of the embodied kinetic movement of touching and the surface that it covers. Other than as weapons or surgical instruments, solid surfaces do not deliberately penetrate the epidermal envelopes of bodies, it is only our sensation of them of which we can be aware. An
affordance can thus be considered as a technique of material vibrations, the manner in which they work, as it were. Unfortunately with a common sense mechanical universe and most epistemologies being predicated on solid static objects, rather than on dynamic relationships, these become fixed in a dichotomy between the "inside" and "outside" of the body. This is what ecological psychologist Edward Reed bemoans as "the 'two environments' assumption: the idea that there are really two environments, a mental (subjective) world and a physical (objective) world" (1996: 6). Bourdieu reinforces this key point: "Of all the oppositions that artificially divide social science, the most fundamental, and the most ruinous, is the one that is set up between subjectivism and objectivism" (Bourdieu 1990, emphasis added).

Characterising relationships between wavebands as ones of affordance is an attempt to escape this ruination. This returns us to where we began the chapter, in the vibrating media, in the middle of things. Furthermore, the idea of affordances is also useful to describe, not only the relationship between wavebands, but also those that all three have with the three techniques, instruments and media of the propagation model (see Figure 2.8). This resulting matrix of relationships gives the broad framework within which the crew's techniques of this research are located (as summarised in Figure 3.5). Material vibrations, for instance, in relation to media, can be considered as the milieux of molecular, electromagnetic of mechanical frequencies. But in relation to instruments of propagation, material frequencies become the set of equipment, which, in relation to techniques become affordances. Besides affordances, the relationship that the material waveband has with the techniques of corporeal vibrations, via the medium of embodiment and the instruments of practice, is one of transduction.

Finally, ethereal vibrations together with the instruments of the dancehall session and scene, have a relationship of triangulation with the crew's techniques of proportional evaluation (as detailed in the final chapter). What emerges from these relationships between the three waves bands and the apparatus points out is how material and corporeal vibrations either separately, or between them, are not sufficient to account for
the propagations of sounding. The media and instrument of the apparatus of the set, for instance, could not function without the techniques of the crew. Similarly, the spectrum of vibrating frequencies also have to include the ethereal waveband, otherwise nothing would "make sense." Leaving aside a more detailed investigation to the instrument of the set of equipment for further research, it is the performance techniques of the audio engineer, selector and MC - each animated in three wavebands of vibrations - that are investigated in the next three chapters. These skilled performance techniques provide evidence - in practice - for the kind proportional relationships between the wavebands of sounding that this chapter has outlined - in theory.

Thinking through sounding, this chapter has explored how the actual mechanics of propagation might serve as a dynamic exemplar, or vehicle, or pattern - a role usually reserved for conceptual images - for thinking though practice. It has also explored the sound system as a concrete example of a propagation apparatus in terms of the common features of its range of frequencies through a variety of media. This emphasises the importance of relationships in the transductions, affordances and triangulations between frequencies bands. If Nietzsche could talk about philosophising with a hammer, this is an attempt at philosophising with sound, or rather the activities of sounding (or indeed hammering). What the sound engineers actually do in practice, such as the principle of splitting audio frequencies into top, mid and bass prior to amplification (as detailed in the next chapter), thus serves as a model of the conceptual separation between the three material, corporeal and ethereal wavebands of sounding. These are the kind of resonances between frequency bands that the research explores.

1 See http://sunsite.queensu.ca/memorypalace parlour/Small02/ [Accessed 19 September 2005].
2 The metal coil of a "slinky" toy provides a useful model of compression waves: when a section of the coil is compressed, and then released, the intensity of a compression wave travels along its length.
3 I would like to acknowledge the impetus to reconsider this idea of bass culture as being Linton Kwesi Johnson and Paul Gilroy's talk at Goldsmiths Centre for Arts and Learning, African Consciousness, Reggae and the Diaspora, 20th November 2007.
4 For this reason many domestic music systems only need a single bass speaker, but retain stereo for the mid and top.
Interview with Dennis Rowe, Burgess Park, London, October 2005.

This was discussed in several interviews from which the research findings of the next chapter on the audio engineers draw extensively.

Ellison’s appreciation of music, Jazz and technology has been comparatively well documented, see Weheliye (2005) and Maxwell (2004).

Visit http://www.hyperdub.com/. The Low End Theory was also the title of A Tribe Called Quest’s 1991 album.


The French classical composer Claude Debussy is said to have made a similar such discover of new tonal and harmonic qualities on hearing a Javanese Gamelan ensemble at the Paris Exposition of 1889.

See http://hyperphysics.phy-astr.gsu.edu/Hbase/sound/timbre.html [Accessed 15th April 2008].

In fact the OED does not substantiate this claim, stating instead the origin of the word for the French, timbre, for a small bell.

In further research I am developing from this ideas of the reverberating “tympanic” self and the “echo subject” in relation to Lacoue-Labarthe (1998) and the work of psychoanalysts Esther Bick (1968) in England and Didier Anzieu (1989) in France.

Personal communication while he was composing some of the music tracks for my film Babymother. Moreover is can be noted that the skilled practices of manipulating, monitoring and evaluating with which the engineers fine-tune the set, detailed in the next chapter resonate with the power, control and transduction functions used to describe the electromagnetic and mechanical operation the set of equipment itself (described in future research).

The medium of sounding is compared with those of lighting and touching in further research.

Visit for example http://www.geocities.com/londonmobs/

Johnson (1980).

The term haptic is used throughout as a counterpoint to kinetic, rather than is more commonly the case, as an opposite to visual modality (see Paterson 2005a, 2005b). The conventional usage is not satisfactory because it makes a distinction between senses of bodily contact, such as hearing, touch, taste and smell, on the one hand, and visual perception considered to be “at a distance,” on the other. As is explored in further research, all sensory modalities require a medium. The sense of touch is therefore termed tactile.

This idea of ethereal vibrations has a substantial history, going back at least to the 19th Century scientist belief in the ether or aluminiferous aether, derived from the Greek aithēr, meaning the upper atmosphere breathed by the immortals on Mount Olympus. The ether is the 5th element, quintessence, but undetectable to the physical senses. The ākāśa of Vedic philosophy has a similar function (see also Connor 2004c).

As I was informed by choreographer L’Antoinette Oshu Ide Stines.

Gombrich made these remarks on the basis of his listening as a Monitoring Supervisor to radio broadcasts for the government Monitoring Service at Evesham during the second World War, see also http://www.gombrich.co.uk/showdis.php?id=10 [Accessed 30 August 2007].

This division between inner and outer is found even with lighting, as Ingold (2000: 255-8) discusses in respect of the concepts of the inner lumens and the outer lux.

In further research develops Gestalt psychologist Fritz Heider’s (1959) idea of a medium. In Heider’s seminal essay Thing and Medium, first published in the original German in 1926 he explored “the objective physical aspect of media that makes them different from objects. Heider claimed: “The question has never been raised whether something that serves mainly as a mediator has not, from a purely physical point of view, characteristics which are different from those of an object of perception” (Heider 1959: 1, emphasis added). This dichotomy between thing and medium is also expressed in the fundamental Aristotelian one between form and substance. Heider’s almost completely neglected work has proved to be an evocative stimulus for my further development of the propagation model.
Chapter 4
The Engineers: Manipulating, Monitoring and Evaluating

This chapter locates the work of the sound system audio engineer in the context of Jamaica's musical and sonic culture described in the opening chapter. It starts with a step-by-step account of the audio engineers' (1) practice of “compensation” by which they fine-tune the auditory output of the phonographic set of equipment. This is then considered as a (2) skilled technique (Ingold 2000, Sterne 2003) comprising the engineering procedures of a) manipulating the value of the electronic components of the set (for example, by substituting one for another); and b) monitoring the consequence output variation. Finally the engineer has to c) evaluate the resulting auditory qualities for “balance,” “weight” and “attack,” as well as what one described as “my harmony with the sound.” These skilled techniques are acquired in (3) an apprenticeship tradition. The youngest current Stone Love engineer, for instance, is the fifth generation of engineering apprentices, starting with the inventor of the sound system set, Hedley Jones, sixty years ago. In conclusion it is suggested that the crew's (4) sonic engineering takes place with each of the three wavebands of sounding: the engineers monitor material frequencies; manipulate at corporeal frequencies, and their evaluations and apprenticeship tradition are part of the ethereal waveband.

The Jamaican audio engineers are largely responsible for the sounding of the sound system set of phonographic equipment. They maintain the set to ensure its reliable operation, the importance of which is only too apparent when it breaks down, as I observed (described in Appendix 3). The engineer is also responsible for the qualities of the sound of the “set” of equipment: its tone, timbre, texture, attack, power, balance and so on. The selector “fine-tunes” the set as the selector's musical instrument, albeit a phonographic one for playing already-recorded music. In short, the engineers specialise in the material vibrations of sounding (though this is never to exclusion of the other two wavebands). It is the audio engineers who give their Sound its competitive edge against
their rival in a sound "clash," and who also often build the leading recording studios as well. This is a highly skilled work. One of the themes explored in this chapter is how the audio engineers' understanding, appreciation and evaluating of these qualities of sound is engendered through years of training and apprenticeship, over several generations, as has been the case with the Stone Love sound system. Such an appreciation of sounding can be considered as being achieved through a triangulation of its three vibrating frequency bands (as is described in the last section of this chapter). The research involved numerous in-depth recorded interviews with several of Jamaica's most important audio engineers, including Denton Henry and his one time apprentice Horace McNeal (see Figure 4.1), each of whom have a long association with Stone Love. Also interviewed are leading sound system owners, who are engineers in their own right: Winston "Wee-Pow" Powell of Stone Love (see Figure 2.5) and DJ Squeeze (a.k.a.) Lenworth Samuels (see Figure 5.3) who owns and runs a radio station and a mobile sound system truck.

Figure 4.1 Horace McNeal, Stone Love chief engineer
These sound system engineers are true audiophiles; connoisseurs of sound, just as wine taster, perfumer or the fine artist, are connoisseurs of their respective palettes. Audio engineers like Henry and McNeal have played a key role in the shaping Jamaican sonic culture. As Winston Blake, owner of the Merritone sound system, put it, "Without sound systems there would be no Jamaican music" (Salewicz and Boot 2001: 28-29). At the risk of romanticism, it can be said that the sound engineer is the unsung hero of sound. While issues of gender and sexuality of Dancehall artists, dancers and patrons has some received attention (see Cooper 2004), so far this has not included discussion on the “gendering” of the production side of the music. There some leading female promoters, and performers, but I have not come across a single female sound engineer in Jamaica.¹

The history of Jamaican music is comparatively well known, thanks to several publications, numerous compilation CDs and some very informative websites.² This history has been told in various inflections; most often in terms of the key artists, such as U Roy, Bob Marley, or currently Elephant Man (see Chang and Chen 1998, Barrow and Dalton 1997). Other histories have included the role of record producers (see for example Katz 2000), record labels, or musical influences such as American R & B or Jamaican folk forms. When this history does mention sound systems at all, the sound engineers themselves seldom get very much attention (Bradley 2000), though Veal (2007) is an exception in this respect. But most often where such histories do mention sound engineers, as Stolzoff (2000: 41-48) does with the major contribution of the inventor of the sound system, Hedley Jones (discussed below), these accounts often ignore the actual technologies of the sound system themselves.

The engineers’ story starts in 1947 when Tom the Great Sebastian became probably the first sound system proper (as discussed below). After this, the big sounds of the 1960's included Coxonne Dodd's Downbeat, Duke Reid's Trojan, Prince Buster's Voice of the People, Winston Blake's Merritone and Bunny Goodison's Soul Shack. In the 1970's and early 1980's, Gemini, Killamanjaro and Stone Love followed the pioneer Sounds of the earlier decades. Also the renowned record producers of the 1970's –
namely Duke Reid and King Tubby – built their recording studios, were also sound system engineers (Stolzoff 2002, Veal 2007). This yet further evidences the strong link between the sound system and the sound of Jamaican music itself. In fact, the sound system engineer, next to the owner and the selector, is the person who has most influence in defining what makes a sound system what it is, and what distinguishes one from another. This relationship between owner and engineer can be the partnership on which the sound system is founded and sustained. With the Stone Love Movement this was very much the case between Wee-Pow and both his engineers Denton Henry and Horace McNeal, who told me: “I’ve been with Wee-Pow from before Stone Love, years, years, we’ve been friends from what, ’77.”3 Indeed, they had met at Denton Electronics, on one of the many trips on which the young Wee-Pow had accompanied some of his father’s sound system equipment to Henry’s repair shop.

With most sound systems it is the engineer who plays a major role in defining the sound of the sound system, its sonic signature, so to speak – one of the keys to the success of the Sound. Observing Wee-Pow and Henry working together on fine-tuning a set, this long-standing relationship was evident in the often unspoken understanding of how they collaborated. Wee-Pow is unusual in his being both a “hands-on” owner, who is also an audio engineer with a very good knowledge of sound system electronics. Furthermore, the audio engineers’ own way of explaining their skills and techniques are important to include in the analysis. With terms such as “vibes” and “balance,” their descriptive vocabulary can often be taken as directions for thinking through sounding. Of course, practitioners are not always aware of what they are doing or, if they are, necessarily able to express it verbally (as discussed in the methodology described in Chapter 2). The research process itself has effects on what is articulated or expressed. On occasion my interviewees told me that they had come to understand their working practices in a more complex way as the result of the interview itself. As DJ Squeeze put it to me:

You probably think I talk this everyday. No I don’t... You asking me things that probably inside of me dormant and what you are doing is bringing it outside, speaking it in my words... and what happens, it makes sense.4
Further to how it "makes sense" for the engineers themselves, the style and skill of their techniques have to be understood in greater depth – by considering them in relation to each of the three frequency bands of the vibrations of sounding described in the previous chapter. But first it is necessary to describe their actual practice of fine-tuning.

(1) The Fine-tuning of the Set: "compensation"
As well as designing, building and maintaining the equipment, the engineers’ key role is to "tune" the set. This fine-tuning of the sound system set is a maintenance procedure, for example, when replacing a damaged component, like a blown speaker, for example. It is also used every night, after the set of equipment is assembled together and the "stinging up" is complete (see Appendix 1). But fine-tuning also serves to optimise the set’s auditory performance; to regulate its entire frequency range, to ensure it is free from interference or distortion, and has a pleasant tone, texture and timbre. Such tuning is similar to that of a musical instrument, like a guitar, for example, where each string has to be “in tune,” or how a mechanic might talk about “tuning” the engine of a car. With a sound system set, this is a complex matter, as there are a large number of individual electromagnetic, electromechanical, electronic and mechanical components that the engineer can adjust, control or modify to vary the auditory output of the set.

According to Stone Love Chief Engineer Horace McNeal, there is a specific procedure he follows. The first step involves listening to each frequency at normal operating volume and then working with the crossover and the graphic equaliser:

First thing we put it in the rack. Set up a system, when you turn it on, you know what frequency you’re going to use it on, start play your music. You make sure everything on that frequency is flat... Whatever frequency you’re going to work on, the bass, the mids – then you start work with the crossover, just the crossover to the frequency you want to hear. Whenever you are satisfied with that frequency alone playing. That’s how we do things round here, one frequency at a time (ibid).
McNeal continued to tell me that after the crossovers had been adjusted, even finer tuning takes place, “so we add an equaliser to it, to do the little difference. Maybe you defeat some, or you add to some” (ibid). This procedure is repeated for each of the three, and most often five, frequency bands that drive the five kinds of speakers: bass, low mid, high mid, horn and tweeter on a large set. A sound system is designed to amplify discrete frequency bands, rather than the entire frequency range together, as a PA (public address) system does.5

The second step is as follows:

After you think everything is right now, you turn it down low. Very few people know about this. I learned that from in the studio. You turn it down low. And you know there is rim shot, high hat, kick drum and bass drum in a tune. Those are mostly the four frequency [sic] that you hear. So what you do now, you turn it down, and you listen and you make sure you hear all frequencies on the same volume, on the same level. Sometimes you do it and you hear the high hat a little bit loud, so you just turn it down a shade until you hear everything coming out the box same time, at the same level. That time now you know the system is well balanced (emphasis added, ibid).

Finally, the third step:

You’re going to change the record now. You’re not going to do too much adjusting after you change the record. You listen a couple tunes, and hear what is the difference within them (ibid).

This gives some idea of the care and attention the sound engineer is expected to put into the tuning of the set.
Figure 4.2 Stone Love Engineer Winston “stringing up” the set
From the above it can be said that the engineers' fine-tuning technique of compensation combines hand and ear in a recursive negative feedback loop. When I asked him, "what was the most important thing you learnt from your teacher?" Denton Henry replied with one word: compensation. As he emphasised, his teacher

... [A]lways tell me to compensate for this and compensate for that. If it don't sound right use the condenser and the resistor to compensate to get the sound that you want to hear... that what teach me to listen. Because if he didn't show me that maybe I wouldn't come to the conclusion you have to listen this and tune that to get what you want... [You] either cut the bass, or to lift off the high frequency, cut the treble. With this now can juggle juggle. Compensation is a filter circuit. You set it up for any frequency you want to hear (emphasis in original).6

The effect of compensation is to correct, or achieve a more pleasing or desirable sound output (see Figure 4.2). As he told me, "When you carry a set 'pon the road, you have to tune it a particular way so as to appeal to the people. I learnt that from him [John Jones]. From an early time I understand the whole principle of having the right sound by tuning it proper" (ibid).

Every electromagnetic power, control or transduction device of the set (as described below) can be subject of compensation, from the needle on the record, to the speaker cones, to the positioning of the speaker stacks on the dancehall floor and literally everything in between. Henry described, for example, how he compensated for the different signal output of crystal and magnetic cartridges: "I used to sit down and compensate them to make them [crystal cartridges] sound like the magnetic [ones]. You just use the resistors and the condensers to get the network to play what you want..." (ibid). Henry also used compensation to give foreign records the bass sound beloved of local audiences:
When I check it out I found out it was the recording standard foreigners used to use. And we because we were bass orientated, we used to put a bit more bass on our tunes. So even on a little system that is not so good, you still get a good sound. Foreign ones, when you put them on you don’t hear any bass, (they) flat and weak. And that’s what propel our music over their music, locally (ibid).

He went on to outline how he solves this problem:

So what I did I put a compressor and the put an equaliser on the bass, equalise the bass in such a way that if a bass frequency come at a certain level it carries it down. If it comes to low it carry it up. So if you put on a foreign tune you hear a good bass, put on a local tune, hear a good bass. You don’t have to keep tweaking your bass (ibid).

More recently Henry has used these same techniques of compensation to give the sets both “vinyl and CD tuning.” This technique of compensation – or what he calls above “juggling”⁷ - is absolutely central to the sound engineers’ working practices.

At the heart of fine-tuning lies a simple recursive principle. The engineer listens, and then adjusts, monitors and then manipulates the value of a component. He monitors, he substitutes, he listens again, and so on. He adjusts, he listens; he monitors, he compensates, he listens again, he makes another adjustment, and so on. With the auditory feed-back of what he hears, gradually in this entirely goal-orientated procedure the engineer closes the gap between what he is hearing and that which he is listening for, to make use of that important distinction established in the previous chapter. Then the tuning is complete.

For Henry this practice of compensation began with his boyhood experiments:
Anywhere a set was playing I used to go and listen, yea used to go and listen them...we sit down and we discuss what we hear and then we try to come up with something which is appealing... We tinker with this, we tinker with that (ibid).

This listening and adjusting was further informed by “reading and getting ideas from other friends,” as well as what would be described simply as “trial and error.” In this respect, compensation uses the basic electronics technique of substitution for identifying a faulty component. This way of working is therefore a refining or distilling process, whereby the output of a component is shaped and adjusted until it achieves the desired characteristics.

In the early days, this business of fining-tuning the set was even more critical than it is today, Henry told me. This is because, as he said, there were “no knobs, [you] couldn’t adjust it.” This meant that any tuning adjustment, “before equaliser become so popular,” was literally hard-wired. It had to be done with a soldering iron, replacing and re-soldering certain electromagnetic components, such as resistors, “Because at that time when you tune it was fixed. You couldn’t go out there and use the equaliser and vary it.” With the introduction of variable controls to be used for compensation, “about ‘75 or maybe even early” it become technically possible to vary the output of the set, to take into account the particular conditions of the session. An empty dancehall, for example, has very different acoustic properties compared with one that is “ram” – that is, ram full with the sound-absorbing bodies of the crowd. Henry recounts:

I remember one time I went into a dancehall, I’m there listening [to] the set, it sounds good, clean, and after the crowd came in could hardly hear the bass. So I say No, that not right. I stay and listen and work it out. I went back now and change the compensation on the amplifier, and instead of rotary switch, put slide switch so as not to give him too much option. I say this is for when Dancehall empty and this for when it full [laughter]... What I did, I tune the base, ‘cos I found out certain things about it, when the dance empty you can play it here, when it full you can play it here (ibid).
After making these modifications, Henry returned to find out how the dance, against Coxonne Downbeat, had gone:

He say yea Denton man, we alright. The place ram [packed full]. The Sound sound alright, not too bad. Him come over to me and say: “Me him not slide the switch you know.” After the place get ram ram now, he come over to me and say “I’m going to slide the switch now.” And him slide the switch and the base just swell (ibid).

Even today the fine-tuning of the set has to take into account inconsistencies in the original recordings, as Wee-Pow put it:

Some of the records have not been engineered at a level where it would go across the board, like every record don’t sound the same way. So every now and then you might have a particular tuning on the set, but when it comes up to this record it doesn’t sound proper. So you have to try and balance the set in between, so when it comes up to that record has not been properly engineered or mixed it don’t react that rashly.9

Currently graphic equalisers standard equipment on every set allow for a very full and flexible control of its sound output. Interestingly, as I observed with Stone Love, the main graphic equaliser control faders were locked away behind a grill, so they could not be changed. When I asked why this was so, I was told Wee-Pow had tuned up the set - and he had no wish for anyone to interfere with his settings. In this respect, the ownership of a Sound, is indeed the ownership of a particular sound.

(2) Skilled Techniques
The practice of fine-tuning the set, for which the engineers have developed this technique of compensation, has so far been described in the words used by the engineers themselves. But in order to further explore precisely their skills and
techniques in greater depth, it is necessary to introduce some additional terms. Thinking through the vibrations of sounding, the engineer is concerned with the material vibrations of sounding in the minute detail of the electronic circuitry of the set, and the values of individual resistors and other components. The material vibrations in which a set operates includes its electromagnetic frequencies; that is, with the electrical impulses in the electronic circuitry of its amplifiers and so on, and at much slower electromechanical frequencies, with the auditory vibration of the mechanical movement of the speaker diaphragm. This is the power process by which the recorded music is amplified to give the dancehall crowd in the session their uniquely embodying experience of the intensities of sonic dominance (Henriques 2003). Currently the top range sound system sets, like Stone Love’s, produce up to 19,000 watts of music power.10

Of course, such power would not have any practical use unless it could be controlled, governed and managed. So in addition, the set also operates with certain control mechanisms, whereby the engineers can adjust its output according to the circumstances of the venue they are playing, the size of the crowd and so on. This process concerns information, distinctions and differences, rather than energy. Besides the simple on/off switch, the key instrument for the engineers to control the power of the set is the variable gate or filter. These may be set to operate not only in terms of overall volume of the set, but also on particular frequency bands; for example, as with a crossover circuit. These power and control functions operate together, shown by Bateson (1979) with the example of the energy of the pressure of water in the pipe and the control mechanism of the tap to turn the flow partially on, fully on, or off. “The combining of the two systems (the machinery of decision and the source of energy),” Bateson tells us,

[M]akes the total relationship into one of partial mobility on each side. You can take a horse to the water, but you cannot make him drink. The drinking is his business. But even if your horse is thirsty, he cannot drink unless you take him. The taking is your business (Bateson 1979: 102).
But to understand how these two processes operate together we have to a further frequency of sounding: corporeal vibrations. The work of the audio engineers, it is important to note, cannot be restricted to a single waveband, in the way it is traditionally thought of as concerning only the “technology” of the set. One of the aims of expanding the concept of sounding across the three frequency bands is to prevent such reductionism. The engineers' techniques require them to use their ears and hands for fine-tuning: monitoring “by ear” the output of individual speaker-cone and driver unit from which the speaker stacks are assembled, and manipulating “by hand.” Invariably these two practices of manipulating and monitoring go hand in hand, or rather ear in hand, so to say, though they are described separately below.

a) Manipulating
Manipulating is simply making adjustments to vary the output of the set in some way. It operates on the material vibrations of sounding: the power processes of the set, operating at electrical and electromagnetic frequencies inside the equipment. Manipulating operates with the corporeal vibrations sounding; that is, the engineers’ embodied motor or kinetic touch, varying the control processes and thereby the power of the set. The engineers' manipulation of the signal flow within the set makes use of the instruments, such as potentiometers, variable crossovers, filters and so on, controlled by means of knobs, slide-faders or computer display screen and mouse. Such practices are distinct from the days when, as Henry told me above, “when you tune it was fixed” and therefore required manual dexterity, such as the skilled use a soldering iron, to replace one component with another of a different value.

In the late 1960’s Henry’s apprenticeship actually required building equipment; taking these adjustments into the design stage, as it were. “What I learnt from [John Jones] was the technique of building amplifiers,” including hand-winding transformer coils, he recounted:
We build the whole thing, get the components and assemble it, put them together, the transformers wound out here. We have a fellow by the name of Winston Green, he’s still here... He used to wind transformers for a whole lot of them (and) build the chassis too, for the tube amplifiers.

Sound engineering techniques have moved on since those days. Henry went on to tell me Winston Green “imports [transformer] cores now.” There has certainly been a change from the vacuum tube amplifying technology to the solid state one of transistors. The development from engineering individual electronic components, like a transistor, to that of whole units with integrated circuits, is even more substantial. McNeal took up the story:

Building days long gone now, cheaper to buy than build... When I was at Denton’s used to build pre amps and crossovers, usually use valves, but now strictly integrated, transistors... from 750 to 5,000 watts each... QSC amps is the most popular brand now.11

Engineering technology continues to move on in this same direction. McNeal went onto suggest that though, “I don’t test it yet,” there was a new generation of electronic music equipment about to replace all the different components of compressors, expanders, equalisers, crossovers etc with a single box.

Of course, what can be found to buy on the electronics market is not necessarily suitable for Jamaican dancehall purposes. One consideration is the treatment, and even misuse, that the sound system equipment receives. This is an important issue. With respect to loudspeaker driver units McNeal told me: “it’s a question of which one can stand up to the heavy use... ‘Cos you know we abuse things in Jamaica musically, we abuse equipments, what the man makes the things to do, we ahead of it” (ibid, emphasis added). This idea of abuse, or pushing the functionality of equipment well beyond manufacturer’s recommendations, is indicative of the inventive and even excessive character of the Dancehall sensibility. Another reason is that the equipment
on the open market is often suitable for the playing conditions. In Jamaica, all the
dancehalls are held in the open air. “Mostly American [speaker] boxes designed for
indoor, very rarely do they design boxes for outdoor, just of late they design a lot of
boxes for outdoors, for the big stadiums” (emphasis added, ibid). So sound system
engineers have had to be able to adapt and modify what they can find. In this manner,
the engineer is doing to the equipment exactly what Reggae musicians were doing in
the early days of the music – *versioning* (see Veal 2007). In music, creating this a local
"cover" version of an “original” American R&B tune has become one of the distinctive
features of Jamaican music (as discussed in the next chapter). Regarding speaker
boxes, McNeal continued:

> What we do now, we listen [to] them and generally we buy one [speaker box], the
original, pull it up, listen it and if we like it make one of it, compare it. Then we
listen what we hear from the two boxes to see what we have to alter to make it
work out good. I do a lot of that to get my boxes perfect (ibid, emphasis added).

As well as the electronics of the set, the wooden speaker box, or cabinet, that McNeal
builds in his workshop yard, also has to be tuned. Henry takes up this point with the
story of the Scoop boxes he had managed to find in the USA, which he “measured up
and carry down” to have one built in Jamaica (see Figure 4.3). Until he had tuned it
properly, its performance was far from satisfactory:

> Stone Love build three of them and started to play and it frighten the people.
They never hear anything like that here... Them say them never like it... The
note was kind of high, so I have to tune the box, you know pad it, special tuning
on the equaliser... and then put the foam in it to kind of cool off the high
frequencies, let you hear the lows. But what I did I tuned it properly. Then
everyone start to use it... Get that almost bass reflex sound.¹² It is a bass reflex
but for out of doors (ibid).
So the job of the engineer currently tends to be to assemble the ready-made components into the configuration that will be unique to that particular sound system. Thus the selecting and sourcing the right components is a key skill, as McNeal mentioned: "The [speaker] driver units we get them from America, Electrovoice, but right I mostly use them from Europe, European transducers, speaker drivers...right now we’re using RCF which is Italian." Henry told me the following story concerning his search for a particular type of speaker box:

I was still searching for box design and I had this box design in my head that I knew from when I was a little boy. They call it the House of Joy. I was always trying to get back the original measurement to see if I could scale it down. We use the smaller version, which is the Scoop. When I went to America in '86 and I
visit a friend in the sound business and when I look 'pon the set that them show me, I see he have some Scoop in a corner. So I say, "What you do with them box them?" He say "Cha, we don't bother with them box again." I say what you mean you mean you don't bother with them box, you know how long I look for them" (ibid).

So, in this instance Henry found what he was looking for, or rather what he was listening for, taking us to the second procedure of monitoring.

b) Monitoring
Choosing the best equipment and adapting it is done on the basis of what is probably the most important of all audio engineering skills – listening to the output of the set - as McNeal and the other engineers mention above. Such monitoring concerns the sensory side of the corporeal vibrations of sounding. What is being monitored, as the material vibrations of sounding, are the frequency vibrations the engineer hears from the set’s loudspeakers. With monitoring, the engineer takes note, as it were, of the consequences of each manipulation. The importance of the corporeal vibrations of sounding is emphasised by the fact that the engineer’s most valuable instrument for this is undoubtedly their ear. As McNeal put it, for fine-tuning the set: “You use your ears… sound system on the whole deal with your ears."14 This is especially the case for the fine-tuning of the entire assemblage of the sound system set, once all the individual components have been fine-tuned. By emphasising the value of their listening, the engineers also made the point that listening was an active, engaged and indeed stressful process – requiring that they periodically gave their ears a rest. As DJ Squeeze put it:

After a while you must always rest your ears when you tuning a sound, like I’ve been in here listening, I must get out and walk about and come back to it, ‘cos it makes a difference.
This is one of the reasons why the tuning of the set can take several days. McNeal describes the process:

You play and listen and lock it off and leave it, to rest your ears, and come back the next day with your ears fresh. And you can bet your last dollar you’re going to hear something different from what you hear yesterday. After playing, playing, playing your ears get muffled and brain get mix up (ibid).

So he proceeds as follows:

When you decide to do the thing right and proper. Take for example I build a system her now. I put in a system today. I don’t start play it today. I start play tomorrow and maybe I don’t finish until the next week Thursday, I might take some time in between still... After you deliver that system now, you have to follow up that system in a good month, at different different [sic] venues, you hear certain things, and then you know what to re-adjust (ibid).

The business of fine-tuning clearly requires time to be devoted to it for a proper job to be done.

So audio engineers have to fine-tune their ears, as much as they do the set. They do this by developing a sensitivity and sophistication to their listening, in short professionalizing it. The values, depths and complexities of this type of listening is one critical point to emerge from their accounts. For Henry this was what he learned from his teacher John Jones: “One main thing that he did was to shape my whole listening.”

This is indicated by the way in which they consider how the acuity of their listening expands what they can hear. When I asked McNeal if it was it difficult to describe what he hears, he told me: “Yes it is, but because I have the electronics knowledge - I can say things about the sound that a normal lay person wouldn’t understand really” (ibid, emphasis added). He went on to add: “Mostly when I’m doing any form of testing, it’s with Wee-Pow, we are very close.” Here McNeal is perhaps evoking Wee-Pow’s
authority and expertise as a guarantee of his own. This is because technique of
listening is notoriously subjective and evaluative. As he put it: “Everybody hear different
things.”16 Also as McNeal explained, with respect to the selection of a particular speaker
driver, “it’s a little politics.” This indicates that the kind of evaluation typical of the
ethereal vibrations of sounding (discussed below) are also involved. He went on to tell
this story:

I know about that [particular] speaker for fifteen or twenty years now, but they
didn’t hit the market. About five years ago I had a little friend who went to
England, came back with four speakers, call me up, say Horace man, set up
some speaker in a box so. And he tell me the name of the speaker and I tell
“What you doing with that idiot speaker?” He say no man, it right now, and we set
it up and hear it. And I call Wee-Pow same time… and he say the same thing me
a say – it sound wicked. Now me hear it. Alright let me buy some and test it,
these are the speakers of the moment (ibid).

Certainly in assessing the performance of a particular piece of equipment, listening has
a greater value, compared to the written technical specifications, “The figures is really
like a guideline, ‘cos you are within that ballpark,” McNeal told me. In trying to explain
the Hertz of the of the crossover filter directing frequencies between the bass and the
low mid speaker drivers, it was getting a little complicated. McNeal broke off:

Most time you don’t work directly at those frequencies. You use your ears. We
find it out, we test certain equipments and find that what they say is not really
what’s there. It’s mostly listening. Mostly listening (emphasis added, ibid).

He went on with the following story to make this point about the importance of a
knowledge and understanding based on listening, compared with “the people who go
straight after the book.” He continued:
Take for instance a man set up a system in the States and the set come here. That can't play here. That's living garbage. And you talk to them and they say they give this frequency to play the bass and that to play – and the frequency playing there. But what is that? That is not something we want to hear. You can't go in a dance and get a vibes off that... it's about listening (emphasis ibid).

Furthermore, McNeal was very clear that while frequency figures might be of use for other types of sonic engineering, for example of public address, this was not the case for the sound system:

Don't follow the figure, use your ear, it don't stray to far from the figures really though. Sound system on the whole deal with your ears. A PA [public address] system will deal with numbers. But sound system strictly ears (ibid).

So McNeal considers monitoring by ear as being the most sensitive way to appreciate the qualities of sounding.

Figure 4.4 Monitoring controls on the Skyy sound system truck, Thunder
Other equipment – such as visual signal displays, and including meter needles, amplitude bars, oscilloscopes and computer screens – besides the corporeal instrument of the engineer’s ears, may also be involved in monitoring. This equipment introduces the additional level of expertise of reading and interpreting such representations, as was demonstrated to me by DJ Squeeze. Sitting in the back of the cab, Squeeze plugged in his laptop computer, and talked me through his tuning procedure:

So what’s the frequency low end I want to punch… the punch frequency on a mobile truck, its not stationary thing, you want to the crowd to travel… 50 hertz you just want to bring it up a little bit… the high end frequency that damage… high end might want a little prettiness there… Stone Love now will play a lot of that low-end frequency… I’m going to show you, hear that slap, hear that slap, he will play that… that impact...

As he made his adjustments via the laptop mouse, he told me what to listen for, at the same time pointing out what the sound looked like in its graphic representation on the computer screen.

c) Evaluating and the Art of Listening

But what are the engineers listening for exactly? When do they know the fine-tuning is complete? What are the particular sonic qualities the engineers are aiming to achieve? When fine-tuning the set, building it, and even designing it in the first place, their purpose is to achieve a particular range of sound qualities, such as a sounding “close-up” for example, as one engineer told me. This is an evaluative judgement; a matter of personal taste, training and the values of a particular music scene. Questions about such evaluations cannot be answered in terms of monitoring alone. Nor can the hearing of the sensorimotor instrument of the ear provide the basis for understanding what the engineer is doing when fine-tuning the set. Indeed, this distinction between hearing and listening provides an example of the distinction between the material and corporeal vibrations of sounding, on the one hand, and its ethereal vibrations on the other, as
detailed in the previous chapter. As has been emphasised: “One main thing that he [Henry's teacher] did was to shape my whole listening.” From this point, a third procedure of evaluating is suggested as a fine-tuning procedure. This concerns the understanding, feeling and meaning commonly identified as social and cultural “factors.” Evaluating certainly involves judgement and expertise that has to be acquired, with the audio engineers, in an apprenticeship tradition (described below). For example, this can include the engineers’ evaluation of the qualities of the output of the set; its meaning, effects and capacities to “excite” the crowd. These are the evaluations of listening, as distinct from those of mere hearing, transforming the audio engineer into sonic body – a figure of sound triangulating the head, heart and hand of sounding, as is now discussed.

The art of listening, to recognise it as such, requires a cultivation of abilities, dispositions and talent, for achieving an appreciation for the fine-grain detail and nuances of sound. Listening can never be innocent, naïve, conducted in ignorance or, as already noted, reduced to mere hearing. Listening requires attention, and therefore likened to reading, including the reading of social, rather than literary, “texts.” Listening requires a prior knowledge of the system of signification; though concerned with meaning, unlike reading, listening is not necessarily concerned with representation. The engineers’ type of listening can be understood as an example of what the philosopher David Michael Levin (1989) has described as skilful listening (as distinct from attunement, everyday listening or “hearkening,” as discussed in the first chapter). It is the naturalist and the musician who cultivate skilful listening, the musician, Levin tells us: “Allowing her body to become, itself, a medium, an instrument, for the resonance of sound, the musician can hear sounds, fields of sound, choirs of sound, that the rest of us will never hear” (Levin 1989: 84). As Pierre Bourdieu (1977) emphasises in describing the habitus, this kind of listening is socially constructed. However, as Bourdieu’s term suggests, such practices have become habitual, taken for granted and thus often go unnoticed. This also occurs with listening. As Csordas puts it, “[t]his somatic mode of attention recedes into the horizon, once the technique is mastered” (2002: 245).
Sterne's account of the characteristics of modern of "audile technique" or "techniques for listening" in The Audible Past (2003) is very useful for understanding the practices of the sound system engineer. Though the techniques and technologies of viewing and visual apparatuses have a substantial literature (see Benjamin 1936, Sobchack 1992, Buck-Morss 1994, Crary 1992, 1999), discussion of auditory techniques and technologies is comparatively thin (see Chion 1990, du Gay et al 1997, Bull 2000, 2007, Mowatt 2002). Sterne's analysis of the auditory field is all the more pertinent on account of the clear differences between his research materials and my own. Sterne's focus is on the nineteenth century adoption of auditory technologies such as the stethoscope, radio, telephone and gramophone are used primarily by emerging American middle class professionals, such as doctors, or telegraphers, or new technology consumers. Participants in the Reggae and Dancehall sound system culture, by contrast, are predominantly working class “massives.” Another difference: Sterne's principle site for the production of sound is the recording studio, whereas with the sound system session, this is a locale for consumption as well as production, reception as well as transmission. And finally, Sterne discussed how audile technique “requires the sonic equivalent of private property” (2003:159) paving the way for its commodification. By contrast the sound system session is a quintessential shared social event. Most of the downtown “street” Dancehall sessions are not even “gated” (as detailed in Chapter 1).

Sterne lists six audile techniques emerging from his historical analysis: (1) "Listening becomes a technical skill, a skill that can be developed and used toward instrumental ends" akin to the Gaze for visual modality of observing; (2) Listening is separated from other sensory activity and “once separated, it can be intensified, focused and reconstructed”; (3) "Audile technique was not simply of acoustic space; it aimed to actively transform acoustic space”; (4) Audile technique problematizes the content of acoustic space and sounds “become meaningful precisely for their sonic characteristics”; (5) “Audile technique is premised on some form of physical distance and some mediating practice or technology whereby proximal sounds become indices of events otherwise absent to the other senses”; (6) “Audile technique could come to hold a great deal of symbolic currency: virtuosity... could be a mark of distinction in
modern life” (2003: 93-95). Each of Sterne’s audile techniques is fully in evidence from the interview material – with the exception of symbolic currency. The sound engineer really does not have a great deal of status outside the limited circle of sound system professionals, in the way the MC, selector and increasingly the videoman do. The other five listening techniques very much describe how the sound engineer uses the technique of compensation to shape and control sound of the set.

Such skilled practices are not of course restricted to listening and audio engineering. So it is not surprising when social anthropologist Tim Ingold makes his in-depth study of basket making amongst the Telefolmin people of Central New Guinea, he comes up with very similar criteria to Sterne’s. Ingold (2000) describes the “critical dimensions of any kind of skilled practice.” He summarises them as follows:

First, intentionality and functionality are immanent in the practice itself, rather than being prior properties, respectively, of an agent and an instrument. Secondly, skill is not an attribute of the individual body in isolation but of the whole system of relations constituted in the presence of the artisan in his or her environment. Thirdly, rather than representing the mere application of physical force, skill involves qualities of care, judgement and dexterity... Finally skilled workmanship serves not to execute a pre-existing design, but actually to generate the forms of artefacts (Ingold 2000: 291).

Each of these four dimensions of skilled practice has been in evidence in the preceding account. There is one further dimension: “it is not through transmission of formulae that skills are passed from generation to generation, but through practical hands-on experience” is very much in evidence in the audio engineering apprenticeship tradition (as described below). Ingold’s work is especially valuable in its emphasis of the relational qualities of the skilled practices of the audio engineers, and also each of the other crewmembers; as Ingold puts it, “the primary condition of involvement of the craftsman, [is] with his tools and raw materials, in an environment” (Ingold 2000: 353). This triangulation of materials, instrument and agent resonates closely with the present
formulation of the material, corporeal and ethereal vibrations of sounding. We can now turn to some of the particularly valued qualities emerging from this three-way relationship.

(i) Close-up

When talking about why he became an engineer, Henry told me: “What fascinated me was the drums. I used to tell my youths to listen we don’t really get back the impact from the drum” (emphasis added). His aim was to recover what the sound was “originally” in live performance, as he explains:

I went in and out [of studios] and also I like to go where the bands play, listen the actual sound and try to mimic it with the system… like when you hear a band playing and yourself amongst the instrumentalists and listening and try to mimic that with the sound system [I want to be] in the middle of it, that is what I was trying to create… Our greatest effort was to try to get the sound to sound like the band sound originally (ibid).

Henry goes on to describe the quality of this sound: “Not that far away sound, but that close-up sound, we try to get back that impact… try to get that closeness, not a distant sound (emphasis added).” It is of interest to note Henry’s use of a spatial and mimetic metaphor of corporeal relationship for this auditory quality. Somewhat tongue-in-cheek, Henry gave the following reason to account for this auditory taste: “We’re African, we used to beat the drums, so [it] cultural.” For Henry, Jamaica’s bass culture (discussed in the previous chapter) and the crowd’s predilection for the lower frequencies set the trend for others to follow, irrespective of their lack of African origins: “[I]t taking over now, other people realise its better and join us with it. They realise its better, they not inherit that, we inherit that…” So the idea of bodily proximity for describing the desired sound is coupled with that of the biology of authenticity of origins. Boasting, he adds: “We was at that end of the listening spectrum before the others” (ibid). Henry feels vindicated that the kind of “close-up” sound “at the end of the listening spectrum” for which his audio engineering strived has now been achieved. “I reach it in a sense,” he told me, and this is now the expected norm:
If you hear the set them now they are very close, very very close... But actually what it comes down to now, everyone get used to that kind of [close-up] sound, so everybody is listening for that kind of sound now, which years ago when I was trying to explain it they couldn’t understand, but now it kind of become the standard (ibid).

So in this respect Henry considers himself, and should indeed be considered, as a pioneer of the Jamaican sound system sound.

McNeal had a different way of explaining what he was listening for, in the fine-tuning of the set. Being of a younger generation, McNeal had not had his teacher’s exposure to live bands in the studio or on stage as a reference point. He explained that what he wanted to hear on the set was the “true music” available:

By listening the record on an un-amplified system like a car radio or a little tape. Every hear them say true music is from a radio, a radio don’t really amplify that much, don’t have no heap of crossovers, no EQ, a radio station don’t really carry those things (ibid).

In order to facilitate this, McNeal told me, “When I tuning a sound there’s certain records that I use… Stone Love tune… Ghost’s By Your Side that have a lot of instruments and it’s a well balances tune, you hear everything.” McNeal concluded:

When I tune the sound now I listen for everything I know in the tune supposed to come out of my box. If I don’t hear what I know in it I not stop tuning, turning, push down this, carry up this, until I hear what I want.¹⁸

(ii) Balance and bounce
Balance is another key concept that the engineers used to describe the aims and objective for their fine-tuning. As well as the range of music a Sound played, Henry
used the term *balance* to refer to the tuning of the set: "I put *balance* between the bass, the mid and the top," he told me. From Henry's point of listening, balance was even more important than the actual power of the set: "Plenty of the sets that becomes number one weren't really heavy heavy set in this modern time between the 80's, they were *balanced*, they were balanced sets" (ibid, emphasis in original). This concept of balance, as with "close-up," is a corporeal idea in so far as it refers to the sense of balance as a kinaesthetic or internal self-sensing sense of its own orientation, coming from the vestibular canals, closely associated with the cochlea of the ear and hearing.\(^{19}\) The idea of balance also makes reference to harmony, visual symmetry and proportion (discussed in Chapter 7), and therefore should also be considered as part of the ethereal vibrations of sounding. So while the power of the set is important, it is not more so than other considerations, according to Henry:

> In the whole business if you don't have a good sound, don't matter what record you play it won't work. You have to have it in combination. Can have the greatest selection but if you don't have a proper set, to bring it over, it won't work (ibid).

This emphasis on balance might be expected if the set were considered as a conventional musical instrument, rather than the phonographic apparatus for playing already recorded music that it actually is. This fine-tuning of the set goes much further than such remedial work of replacing a faulty component, as Stone Love owner Wee-Pow explained:

> [With] the reproduction of the music, you want to, sometimes even enhance the music. If you go into the studio and make a music and when its really going to be mastered [i.e. given its final mix], to go on the record that engineer in that mastering room, going to give you a little fix-up - to make the record sound more *balanced*. So when it reach down back onto the sound system now, he can also enhance it, to make it sound more sweeter.\(^{20}\)
When I asked him if this then was better than the original he said, “Yes, you can get carried away, make it sounding better.” To achieve this, “[W]e put it through our sweetening unit, what have you, do the little additional things” which in turn requires that “the tuning up on your system must be sounding proper.” Audio engineers are very much concerned with this social and cultural dimension of sounding. As Henry put it: “To me the final product, the sound you want to hear [is] to excite people to me that is the whole thing.”

The term “bounce” is also commonly used to identify the combined sonic and social qualities of the session. Wee-Pow uses the term to describe how in a session “a man who have lesser equipment than you” can configure the lay-out of the speaker boxes so well that he can “bounce to kill you” (ibid), that is beat you as the competition. Bounce also describes the vibe of the session, Wee-Pow continued: “If the music not bounce right him can’t find a girl.” On the other hand, “If the music bounce right, it give him that push, ‘cos everybody feel vibsey.” This provides an example of the relationship between the different wavebands of sounding: the material vibrations of the music and the corporeal and ethereal ones of feeling “vibsey.”

DJ Squeeze emphasised that for him sonic engineering was a matter of personal taste, again associating sounding with its corporeal vibrations. He demonstrated to me how he used the crossovers and graphic equaliser on his sound system truck Thunder to “tune out” certain frequencies; not for any practical reason, such as blowing a piece of equipment, but simply because he didn’t like them:

I’m taking out a little of the harshness 12.5 kilohertz. It’s not comfortable it screeches in your ears, the one above that is smoother… there’s a frequency about here, is just my tuning…There’s another nasty frequency about here too…at 100 Hz, take it down just a little, a real little nasty bugger...(emphasis added). 21
And indeed, there were others that he wanted to hear more of: "[T]he high end might want a little prettiness there ... 16 kilohertz give you that fine tingly top..." DJ Squeeze also boosted certain frequencies, according to the use: "[T]he punch frequency on a mobile truck... 50 Hertz you just want to bring it up a little bit..." Discussing one frequency he told me: "Not every sound man will say that, that is my harmony with the sound; what is comfortable for me is not necessarily comfortable for another person..." (ibid, emphasis added). This idea of the relationship between listener and sound expressed in Squeeze's apt phrase "my harmony with the sound" recognises how of sounding, in this instance the fine-tuning of the set, is not only a corporeal but an ethereal vibrations. Most importantly this is done in such a way as not to call for any separation of the whole of the body-mind (as discussed in Chapter 7).

Moreover, if the engineers fine-tune their sets to their own distinct and individual taste, it is not surprising that each set sounds different from others. Similarly, different recording studios, particularly the analogue ones, each have their own unique signature. This may not be apparent to the untrained ear, but to the expert it is clearly audible. As singer Beres Hammond claims he can tell just by listening to it, which of all the hundreds of studios in Kingston, a particular tune had been recorded (as mentioned in the previous chapter). Even today, with mass produced solid-state amplifiers, sound system sets are hardly any more off-the-peg pieces of equipment than in the early days when amplifier transformer coils were individually hand-wound. Vacuum tubes were, after all, always factory produced. Even where two sets share similar components, these are configured differently, and also likely to be tuned up differently. As McNeal put it: "There's no two systems sound alike. For some reason something is different. Even the simple wire you use with the speaker box can cause a difference." He continued: "That's why I more believe in what I hear" rather than any technological specifications. Such is the attention to detail that sound system audio engineering demands; only discriminating listening can be used for the job.
(iii) **Power**

The fine-tuning of a sound system is also very concerned with power, and the dynamics of the material vibrations of sounding, especially "at the end of the listening spectrum" as Henry put it. The sets have to be engineered to generate sound in sufficiently large volumes to give the bass frequencies their impact. Today, commercially available amplifiers power of the sets: "QSC amps is the most popular brand now," McNeal told me, "from 750 to 5,000 watts each. Most sounds playing like about 19,000 watts." Henry confirmed this kind of figure: "Right now we're playing 15,000 watts." He went on to say that the issue of wattage, and therefore the volume of sound the set produced, was not an objective matter; rather, it changes over time and the expectations of the crowd. In the 80's, he told me, "You would be surprised to know it was only 600 watts (laughter), 600 watts... two 600 watts on Gemini, people use to complain they feel the bass (laughter)." Henry continued:

> The body get used to it after a while, I think so, the whole thing you just get used to it, so it just get bigger and bigger and get used to it. I don't know how that works, but that's how it goes. If you play 10,000 watts and you play it and play it and play, after a while next man down the road come with 20,000. And him say: bwoy me light now, them gone to the 20,000 watts.

The sheer power of the set in a dancehall session makes for an inescapable sonic experience, described as *sonic dominance* (Henriques 2003). This identifies the crowd's *intensive* experience of the *extensive* presence of the material vibrations of sound, as well as its corporeal and ethereal vibrations. As already noted, this type of sonic power is power-with, rather than power-over, reflecting Henry's idea of "close-up" sound, with "impact," mentioned above, and detailed from the crowd's point of listening. One important issue for further discussion is the gendering of this sonic power, together with engineer's embodied way of knowing, by which he understands it. 25

The fine-tuned power of sound system set gives it such capabilities that enable it to become a "sonic weapon," in the particular kind of session known as sound system
“clash,” where different sounds compete for the approbation of the crowd (described in Chapter 6). Here, sets literally become sonic war machines, in battles where size does very much matter. The terms the engineers use to describe amplifying power include “attack,” “punch,” “force” and “hit,” which are all certainly distinctively male. Also the bass amplifying power that a set delivers can be of decisive importance, giving the set the dynamic force to thump chests and cause trousers legs to flap. Henry completed his story, recounted above, about installing a slide switch to increase the bass output, with the punch-line: “Him slide the switch and the bass just swell, him win the session because of that, because of the sound not because of the record.”

Such sound system clashes have been a feature for the development of dancehall culture since the 1960’s when battles between the rival followers of Duke Reid and Coxonne Dodd’s Trojan and Downbeat were commonplace (see Bradley 2000, Stolzoff 2002). Today there are numerous national and international sound system clashes drawing competitors from the USA, Canada, Japan, Italy, Germany and France, as well as the UK (as described in Chapter 1). Such competitions are a very well established part of the Dancehall scene. For the last few years the World Cup sound system Clash has been held in Ocean, in Hackney, East London, with the participation of BBC Radio Xfm, accompanying CD, and professional marketing and promotional campaigns (see Figure 6.3). At least one informed commentator has compiled a list of notable sound system clashes in the way others have done for highlights in a particular football team’s career (Campbell 1997). Of course audio engineering can only tell part of the story of these clashes. Even the best engineered weapon has to be used properly; that is to say, the selector has to select the right tunes, and have the suitable “ammunition” of the dub plate specials to fire off at the opposition (as detailed in Chapter 6).

In certain periods, the competition between sound systems has been so intense that it led to one sabotaging the other’s equipment. According to Ragashanti a favourite trick with the Killamanjaro sound system in the 1980’s was to stick pins through the speaker cables of their opponent sound system. Not only did this short out the amplifier, causing it to blow its fuses, but also it was very difficult to locate the pin to remove it.
This led to armed guards being stationed along the entire length of the speaker cable run from the amplifier. Currently McNeal's configuration of his sets still has to compromise sound quality for practical and indeed political considerations. Better performance could be achieved with speaker cable runs shorter than the “twelve gage cable flex, 140 feet” commonly used. But this would require the amplifiers to be next to the speaker stacks, away from the turntables in the well-supervised control booth. As McNeal told me: “They recommend you put the amp where the speakers are, but we don’t do that, we cannot afford to do that ‘cos have to have someone stationed there... things walk [i.e. get stolen] so we have everything right beside we.” The dancehall also presents other dangers to the speakers, especially the tweeters at the very top of the speaker stacks. As McNeal told me, he used “cheap Motorola Poisons to reduce replacement costs when they get bullet shots.” In such a competitive context even the engineer’s configuration of the different component of the set is considered as if it were a military intelligence. In electronics generally the standard is for this wiring to be in multi-coloured, to facilitate identification when making repairs. But for sound systems these wiring configurations are a closely guarded secret. This is evidenced by the fact that with the sets that McNeal builds, the wiring visible at the back of the amplifier rack is all the same mauve colour. He told me that this was to prevent competitors from copying his configuration for their own sets. This recalls Stone Love owner Wee-Pow’s using a grill to cover the controls, to prevent any change to his fine-tuning of the set, mentioned above.

(3) An Apprenticeship Tradition

In Jamaica, the skills and techniques of sound system engineering have been passed from generation to generation, from master to pupil, through an apprenticeship tradition. Taking Stone Love owner Winston “Wee-Pow” Powell’s recommendations, and those that they in turn recommended, it was not difficult to establish five generations of apprentices in a direct line from the person who invented the sound system technology, as it is known today. The person who should take the credit for this is Hedley Jones, as Stolzoff (2002) acknowledges. Other sound systems, no doubt, have different lineages, but these all originate in the single person who could be described as the “father” of the
sound system sound. Hedley Jones, born in 1917, was responsible for assembling the first sound system in the world in Jamaica. Jones built Tom the Great Sebastian’s amplifiers, the Downbeat sound system and the legendary Studio One itself, and was President of the Jamaican Federation of Musicians. His first achievement in electronic sound engineering was in 1940 when he designed and built a solid wood body electric guitar, as narrated in his as yet unpublished autobiography If I Knew Then What I Know Now What a Difference That Would Be. Then Jones furthered his electronic engineering skills and knowledge with his RAF training as a radar engineer during the Second World War:

On May 8 of that year (1943) I made a decision to volunteer for war service in the British Royal Air force - RAF. I had aimed that if I survived the war, I would have become an electronic sound engineer of some reckoning; so I applied for the Radar engineering category as an optional trade… (ibid).

Jones gives the following account of his training and apprenticeship, at the very end of the war:

... off to the number 12 Radio School in Swindon Wales, we went for training in basic radar theory and practice. Another three months of intensive Equipment-training. After successfully sitting the various written and oral examinations, we graduated from the number 3 Radio School in Cosford Midlands, in June [1945] as radar engineers. Fifteen of the original 18 graduated...

On the basis of this RAF experience Jones gained the understanding of electromagnetic frequencies that provided the foundation for his designing and building the first sound system proper.

Returning to Jamaica after the War, Jones continued to develop his electric guitar, supplying guitar conversions complete with amplifiers to the leading musicians of the day, Keith Stoddard, Sonny Bradshaw and Ernie Ranglin. But most importantly, he also
states that he "originally trained six apprentices." Two of these have had a considerable influence on the subsequent development of the sound system in Jamaican and abroad. The third one of the six was:

Fred Stanford, Duke Reid's sound engineer for a decade. He emigrated with his family to the USA in 1962 taking the Jamaican sound system experience to the New York Borough of Brooklyn, from whence he launched the Jamaican contribution to the world of electronic sound reproduction.

The forth of the six was "Jackie Eastwood: who served as Sir Coxonne Downbeat's sound engineer from 1956 onwards, still operates from his electronic repair establishment in Kingston." Jones also had an influence on the next generation of engineers through his classes at Kingston Technical High School, from where one of his students became chief engineer for J.B.C. (Jamaican Broadcasting Corporation, then Jamaica's only television station). Another of Hedley Jones' apprentices – second generation – was his own son John, who followed his father's electronic interests. Jones in turn had his apprentices, including Denton Henry, making him a third generation engineer. Denton Henry, besides running his own electronic business in Kingston, currently occupies the crucial role of Chief Repair engineer for Wee-Pow, owner of Stone Love. Prior to this, Henry was sound engineer for the Gemini sound system, where he was responsible for some of the key technological innovations of the seventies. Starting as a seventeen-year-old Horace McNeal was one of Henry's apprentices for a period of some fifteen years. This makes McNeal, today the Stone Love Chief engineer and Builder, the fourth generation of sonic engineers in a line going back to Hedley Jones.

\[a) \textbf{Learning to Engineer}\]

Today in Jamaican inner city communities, having a traditional skill, craft or trade, like carpentry, motor mechanics, welding, or brick laying are the preferred ways of making a living. Henry told me how learning the skill of electronics engineering was preferable to manual work: "And going along after school now, [I] needed a work, my mother sent
me to do electrical work, wiring house and chopping wall, come home my hand blister. And I said no, I don’t want this, me prefer the technician part.”34 Today the Jamaican value for such skilled trades bears comparison to Britain’s several generations ago. Furthermore, mastering such skills fits well with the particular value of independence central to what is described as the Jamaican psyche.35 A skilled trade offers the potential of self-employment as your own boss. In a society strongly demarcated along class lines, this is preferable as a means of employment within your own community, rather than working uptown, stereotypically for some exploitative middle class “brown” man.36

In the Jamaican context, the audio engineering apprenticeship operates as part of a web of social relationships based on trust, and the particular weight and significance the culture gives to this idea of respect. This recognises the importance of the apprentice’s “personal” qualities, over and above the skills necessary for doing work. Learning to engineer is a matter of orientation, inclination, attitude, interest, creative talent, “natural” ability, vocational “calling,” as well as personal taste, as DJ Squeeze emphasised. Indeed, apprenticeship learning can be described as a fine-tuning of the engineer, in the same manner as he goes on to fine-tune the set. The engineers’ own accounts of how they begin learning about electronics emphasises the importance of these personal inclinations. The idea of apprenticeship is also in common general usage in Jamaica, often abbreviated to the term prento37 and generalised to any learning relationship based on respect.

Henry described how as a schoolboy at home he was always experimenting, practising and generally “mucking about” with electronics. As young boys – well before any apprenticeship was entered into – curiosity, exploration and experimentation helped Henry develop his interests.38 He described how he and his friends begun, as in the 1960’s when there was a local cinema:

... And we get these little pieces of film that they cut off and throw away and thing, so we started experimenting with the film... So we go under [the house]
there and black it up to get the place dark and start to show, you know use the
sun light and a mirror and show the film with a magnifying glass and blow up the
film trying to make a projector. 39

Henry continued, "[We] went and get the necessary literature and read and read and
read" to find out, for example, how to make a ratchet mechanism to move the film
across the gate of their projector. He went on: "But then now we want the voice (laugh)
so that was a part of it now that really got us into the sound part, that what got me into
the technician business because we wanted to create a sound (ibid)." This took his
interest to radio, from where Henry's attention shifted yet again: "You know by teenager,
18, 19, you know music start to get to you and we went over to the amplifier section
because there was like two sound system on my road... We used to like listen them, so
we get more into the sound." He continued:

I knew transistors from that time, I could fix almost any transistor radio, 'cos I
used to practice at home, 'cos I used to have friends who used to take... an
American correspondence course. And we used to exchange books and thing,
used to by the Practical Wireless, Practical Electronics, those types of books,
read them and practice, increase our knowledge about the whole thing (ibid).

It was his practice and technical magazine reading with which Henry secured his
apprenticeship: "We buy little things and practice and make me radio and thing,
transmitters until one day," he continued:

El Cid [a well established sound system of the period] had this man working for
him and being as he knows I used to practice the thing he bring me to the man
and say check this man, him want somebody to work. And I went by the same
person's son that you ask me for, Mr Hedley Jones, [that is] John Jones. He was
well established in building amplifiers. So I went there" (ibid).
Apprenticed to John Jones, Hedley’s son made Henry the third generation of audio engineers, after which Henry went on to establish the electronics firm bearing his name that he still owns and operates. It was here that Horace McNeal became the fourth in this generational line. McNeal told me that from the early 1960’s his father, Eric, who was a carpenter and builder, also ran a sound system called Ska Rico. He continued:

I find myself loving the technical part of the sound system. It was in the country really, any time my father’s system go down with Denton, I more or less around him. From there I finish school, went to electronics school, the National Electronics School by Red Hills Road, from there I went onto Denton Electronics, that’s where I get most of my experience and knowledge.  

McNeal explains how he had known Henry Denton all his life: “I know Denton from when I was a kid, his boss and him work for my Dad and his sound system, that’s how I get to know Mr Denton, coming back long long long time” (ibid).

At the time of the research McNeal had recently taken on a young assistant, Anthony Williams, (a.k.a. MC Al Pacino) as his apprentice, making Anthony the fifth generation. “Al Pacino, he’s the one I’m giving the baton to, to take it along” McNeal told me, “If him want to. Not force him.” McNeal continued: “He’s my second [in command]. He’s more interested. I have a lot more of guys working for me but them run away, what they’re interested in is just the money. But he’s interested in knowing.” Indeed, sound engineering does not lead to huge financial rewards, and outside a limited expert circle, does not have great prestige. McNeal and Wee-Pow were both continually referred to their “love” for the music as being the essential motive and inspiration for his work:

You have to love the music. The word ‘love’ [can be] define[d] differently. You have some people say them love it, but the not really really love it... sound business I born inna it, grow by it, live by it (emphasis in original).
He would tell me how next time I came to interview him he would be building his best set yet, for his son and Al Pacino. But McNeal was also often ambivalent about this. At other times he would tell me he was about to give up on the engineering business, as he said once:

Right now to tell you the honest truth don't love it no more. The people you have to deal with. The impetus is not there again. I done it because I have to do it. I still don't draw back; still do what I have to do. But that emphasis I usually have, don't really have that again.\textsuperscript{44}

On another occasion he continued: “Sometime it get to me. 'Nuff of the time you lie down and relax, and phone ring, and sound broke down and rah rah, too much headache, and at the end of the day not see nothing (on) the bottom line” (ibid). Nevertheless McNeal’s ambivalence was usually resolved with a more philosophical and practical approach: “I don’t know a next [i.e. another] thing. If sound business mash up, me don’t know what me a start yet.”\textsuperscript{45} In other words, without his audio engineering he would not know what to do.

b) Skills Learning
The Jamaican audio engineers’ apprenticeship tradition can be distinguished from other types of learning. While Henry went straight from school and home experimentation to his apprenticeship, McNeal went to College first. This could indicate either McNeal coming from a slightly better off home, or an increase in educational provision when he was growing up, a generation later. McNeal appeared to be in two minds with respect to the value of his College qualifications for sound system engineering. He told me:

Really and truly I go to that College just for the paper, just for the paper. 'Cos what I learnt from the College totally different from what I see on the street. You get the basic training in electronics, like colour code components.\textsuperscript{46}
This introduces the distinction between two different types of knowledge. At the bottom of the hierarchy is the practical *know-how*, or *savoir faire* concerning what bodies do, as if they could be considered as without minds. On top there is the true knowledge of the mind separate from its embodiment - the *know-what*, formal theoretical knowledge, *episteme*, that in this instance, can be "read" from the instruction manual circuit diagrams. But then McNeal went on further to explain a more complex reciprocal relationship between these two types of knowledge, what he called "theory," and what he called "on the street" actual practice "knowledge." As he put it:

> College is more like the theory; you learn the theory of the thing, which in the theory really helps on the street, actually. But the first hand knowledge of the equipments and the systems, without the theory you would be lost. You see the thing and say what is this? But because of the College you know exactly what it is, 'cos you already learned the theory from in the College. When you're there on the street now, you really come into the real real thing, because you have first hand knowledge of the equipments [sic], and how equipment can be blown... But when I actually come on the street now, that's where I get most of my knowledge... (ibid).

McNeal gave this example:

> So you get this equipment and turn it on, but when you power it up there is no power, and the first thing they tell you to check is the cheater chord, which is the power chord, but when you go on the street you don't have no time for that... Sometimes the things you learn in College is just the basics, but when you go on the street you do the work different (ibid).

His conclusion on the value of theory and practice was as follows:

> The theory is really the guideline, the foundation. Just like building a house, you get a plan to build, you dig the foundation and building up you know you're
changing from the plan, but you still have the foundation that you have to go by (ibid).

So while making the distinction between what he learned at College and the practical understanding he got "on the road," McNeal appreciated their different contributions to his engineering. Furthermore, there was a combining and mixing of both of these with his actual teaching from Jones, and the "book learning" of his own reading: "Yes I was directly apprenticed to Denton, I learnt from him, along with reading, he was a man who emphasise on reading. And I love read from when I was a youngster" (ibid). McNeal continued that besides "travelling all over, seeing all the different type of [speaker] boxes... My real trade is as electronic engineer who repair and service electronic equipments, from that I gained all my knowledge and reading, that play a big part, reading I read a lot."48

The relationship of an apprenticeship, between master and apprentice, while not necessarily of the kind that goes on in a classroom, is critical for the craft of sonic engineering. It is of interest to establish what exactly is involved. McNeal told me how he acted as Al Pacino's teacher:

I give him books and tell him to buy books and read, have to do a lot of reading. Whenever I buy equipment and get the manual for it, I say read and understand. And when we are actually doing physical work now, practical work, I show him what he read and what is what.49

McNeal told me his own apprenticeship with Henry was mainly a matter of observation, rather than actual instruction:

Little teaching more looking. I don’t know about other parts of the world, but in Jamaica the bosses they hardly say anything to you, must always look and learn and I'm a very fast learner. That's basically how I get into this thing.50
It would appear from this that living craft traditions, such as that of the sound engineering in Jamaica, have a considerably more sophisticated approach to the learning process than they would normally be credited for. Such apprenticeship traditions as found today in Jamaica date back at least to the craft guilds in medieval times and to oral traditions, which in some instances have survived for literally thousands of years (see Ong 1982). In the midst of the Industrial Revolution’s displacement of craft production, the Victorian arts and craft movement leader John Ruskin revived interest in apprenticeship. Apprenticeship has more recently been the subject of renewed research interest, notably in the work of Jean Lave (1988, 1990, 1993). Apprenticeship learning, according to Lave, is an example of “theory in practice” or “outdoor psychology.” On the basis of her fieldwork on tailoring apprenticeship in Liberia, Lave tells us:

Apprenticeship forms of learning are likely to be based on assumptions that knowing, thinking and understanding are generated in practice, in situation whose specific characteristics are part of practice as it unfolds... processes of learning and understanding are socially and culturally constituted... (Lave 1990: 310-11).

Lave goes on to specify her approach of “treating relations among person, activity, and situation, as they are given in social practice, itself viewed as a single encompassing theoretical unity” (Lave 1993: 7, emphasis in original). In addition to Lave’s work (1988,1990), Guile and Young (1998) also point this out, as does Maxine Sheets-Johnstone (1999) in her philosophical exploration of the phenomenology of embodied movement. There is also the research on cognition as practice (Varela 1999), as socially distributed (Hutchins 1995) and as situated learning (Ellsworth 2005), referred to in the previous chapter. To use Gibson’s term affordances for the restrictions and potentials of an environment, the apprentice engineer is learning what to recognise in an “education of attention” (1979: 254). Most important, learning is not only the learning of skills and techniques, but also learning-how-to-learn, that is when and where and to apply them (as discussed in Chapter 7). This emphasises the importance of the
engineer's evaluations and expert judgement. It also indicates how the goal of fine-
tuning has to be located outside their manipulating and monitoring practices – and 
points the distinction between the material and motor-corporeal aspects of sounding 
on the one hand, and the sensory-corporeal and ethereal frequency bands of sounding 
on the other.

This approach to apprenticeship learning, as a way of understanding based in 
embodied practice, is entirely consistent with Ingold's (2000) account of skilled practice 
detailed above. It also resonates with Bourdieu's (1977, 1990) concept of the logic of 
practice, as detailed below (in Chapter 7). In these approaches, culture or knowledge is 
not an object or "thing" that can be transmitted or acquired, by means of so-called 
internal "cognitive processes." As Ingold puts it, "skilled practice cannot be reduced to a 
formula" (Ingold 2000: 353). This contrasts with the assumptions of most current 
pedagogical theory, founded precisely on the separations between mind, body and 
world. In this respect, the Jamaican audio engineering apprenticeship tradition provides 
a valuable example of the kind of social mechanism, in which the specifically practical, 
embodied and personal character of knowledge and expertise, can be maintained over 
decades. The apprenticeship tradition includes not the corporeal vibrations of sounding 
in terms of embodied technique, but also ethereal vibrations, in terms of values, 
attitudes and expert judgement (as explored in the final chapter). Recently, Richard 
Sennett's The Craftsman (2008) has been most valuable in drawing attention to the 
particular importance of these craft traditions. One of Sennett's points especially 
relevant here is what he calls "material consciousness," as distinct from philosophising. 
As he tells us, "this is the craftsman proper conscious domain, all his or her efforts to do 
good quality work depend on curiosity about the material to hand" (Sennett 2008: 120). 
Certainly this type of awareness of material frequencies is very much what the engineer 
has to cultivate, and Sennett's theme of the values of craftsmanship is taken up in the 
concluding chapter.
(4) **Conclusion: Sonic Engineering**

Sonic engineering - audio skills and techniques, the procedure of compensation and the apprenticeship tradition - can all be considered as evidence for how all three material, corporeal and ethereal vibrations of sounding are mixed together in practice. Sonic engineering also recognises the subtleties and complexities of the relationships between instruments, techniques and media. In this, audio engineers, such as Wee-Pow, Denton Henry, Horace McNeal and DJ Squeeze can be described as "sonic bodies." They are themselves embodied as figures of sounding in, by, and with their manipulating, monitoring and evaluating the vibrations of each of the three wavebands of sounding. With fine-tuning, the engineer is also in the middle with the "balance" of the set, responsible for the audio mix of its output. The engineers' compensation techniques is nothing if not a practice of middling: between the sound source of the record and the sound that the crowd hears, between the owner’s investment and his returns, between the MC’s ambitions and the Sound winning the clash, in the middle of the musical medium of the phonographic apparatus. He is further in the middle temporally between monitoring and manipulating, as a recursive process, exercising his expertise to fine-tune the set.

These engineers are also further embodied in their relationships with other "bodies," including the ensemble of the crew with its *esprit de corps*, their *ethos*, and their corpus of work, as well as the multiple of many-who-are-one of the dancehall crowd. The engineer is further positioned as the corporeal mid point, between the material vibrations of the hardware of the equipment, and the ethereal "vibes" of crowd. This is especially evident under the psychological "pressure" of repairing a break down in a session. This identifies two facets of the corporeal vibrations of sounding, which again locates the engineer in a middle position. While *manipulating* concerns the motor features of the corporeal, *monitoring* relies on the sensory features of the corporeal vibrations of sounding, giving the engineer a sensorimotor range of frequencies on which to operate. But the sensory-corporeal, unlike the motor-corporeal, is also in relationship with the ethereal vibrations of sounding for its evaluations. This again middles the engineer.
In Caribbean and West African mythology, the figures for middling and mixing are the Trickster, Anancy and the Shape-Shifter, capable of the “magic” of transforming their appearance and being in two places at the same time. As Gates (1988) points out, the Trickster figure of “the Signifying Monkey exists as the great trope of Afro-American discourse” (Gates 1988). Going back to the founding principles of Western thought, in the Classical world, the mythological figures of mixing and mediation were Hermes, for the Greeks, and Mercury, for the Romans (see Brown 1969, Serres 1972). The person who is in the middle, between two, is the mediator, someone who bridges this divide, a catalyst to bring parties together, operating between their differences. Both sides can trust the mediator, as with for example Wee-Pow, between the police and the Sounds (see Henriques 2007b). This idea of the “in-betweeness” of mixing is also expressed in the commonplace Jamaican response to the greeting “How are you?” with expression “betwixt and between.” But this idea is far from being culture specific, as Connor (2002a) points out with the Yiddish expression in mitten drinnen, corresponding to the German in mitten darin, meaning “in the middle of it,” or in medias res “in the middle of things,” or “right in the middle.”

Amidst the communications revolution of the late nineteenth century, particularly wireless telegraphy, there was immense interest in “ mediums” and “channelers.” Taking the technologies of communication as a model, they were perhaps so-called as a connecting bridge between this world and the “other” spirit world. The term “compensation” that the engineers use is also of interest. If this is a deficit for which they are compensating, it could be said that they are striving for a perfect wholeness, or ideal sound, which like “Africa” in the Rastafarian belief system, can never be actually attained. This relationship of “middling” is also the definitive characteristic of Heider’s medium and Serres’ milieu (mentioned in the previous chapter), and indeed, the plenitude of sonic dominance. Connor describes Serres’ idea of mediation as being, “that which stands, comes or moves between things otherwise separated or opposed” (Connor 2002a: 1). Régis Debray continues on this line of thought, when he tells us in his Media Manifestos he is “looking not for that which is behind, but what takes place
"between" (1996: 18, emphasis in original). He continues, "It is in reality the intermediate spaces and time, the betweenness of two things or periods, the trough of the wave [les entre-deux], that are decisive" (Debray 1996: 11-12). This is being between and in the middle, middling, mingling, or to coin a verb "betweening."

To bring this chapter to a close, some of the key features of the engineers' fine-tuning can be identified as characteristics of techniques more broadly. The reciprocal relationship between manipulating and monitoring, such as with the engineers, is central to cybernetic theory, for instance. Cybernetic feedback requires two types of process: those concerning monitoring, information, perception and control; and those concerning manipulating, power, action and energy (see Figure 4.5). The most basic cybernetic system is simply a sensor for variation or energy, linked to a control mechanism. First order cybernetics models this dynamic between energy and control in the simple feedback devices that allow self-correction or steering. The thermocouple in a thermostat, for example, can maintain a consistent room temperature. A steam engine governor, as shown with Clark Maxwell's mathematical analysis, maintains a constant speed across variations of load (see Bateson 1979: 103-109). Similarly, the engineers' control of the set's power outputs allows them to adjust its performance.

Figure 4.5 Diagram manipulating and monitoring in a control system

This idea of the reciprocal relationship between manipulating and monitoring, that is central to the cybernetic model as well as the engineer's techniques, can also be found in the work of the little acknowledged German theoretical biologist Jakob von Uexküll.
(see Ingold 2000: 172-8, Agamben 2004: 39-48). Uexküll made what would now be called an ecological study of the relationships of organisms, insects and animals between each other and their habit, or what he called their Umwelt (subjective world, but might be better termed as distinctive world, so as not to fall prey to subject/ object dichotomy). In his delightful Stroll Through the Worlds of Animals and Men: A Picture Book of Invisible Worlds (1934/1957) von Uexküll tells us: “Figuratively speaking, every animal grasps its objects with two arms of a forceps, receptor, and effector” (p 10), where the receptor monitors and the effector manipulates. He subsequently continues: “Behaviours are not mere movements or tropisms, but they consist of perception (Merken) and operation (Wirken); they are not mechanically regulated, but meaningfully organised (Uexküll 1940/1982: 26, third emphasis added). The engineer’s evaluation of the sound of the set would be an example of such meaningful organisation, made possible by their monitoring and manipulating.

Besides cybernetic feedback, another process useful for understanding the engineer’s techniques, and his middling in particular, is that of transduction. This describes how electromagnetic signals with the electronic circuitry of the set are translated into the electromechanical vibrations of auditory sound waves to which the ears – and bodies – of the crowd are sensitive (as described in the previous chapter). The relationship of transduction can take place between different mediums, frequency bands, or milieux within which the set, for example, operates (Simondon 1992, Deleuze and Guattari 1988, Mackenzie 2002). Transduction is always an analogue continuous proportional process (as discussed in the final chapter). As well as varying speaker crossovers, the engineers also manipulate these transduction processes by configuring the position of the speaker stacks to suit a particular site, for example.

One of the points to emerge from this investigation of the audio engineers’ techniques is that sound itself has particular values and significance. These need to be considered as demonstrative, gestural or expressive forms of communication as distinct from, and in addition to, to the values ascribed to musical structures (investigated with the techniques of the selector in the next chapter). These auditory values of sound itself,
such as its "impact" for example, are also distinct and different from those of reflection or representation, such as the meaning expressed with the MC's verbal performance (detailed in Chapter 6). Furthermore, the material, corporeal and ethereal vibrations of sounding are entirely critical as the affordance for both music and speech, and much else besides. This does not make the audio engineer's skills and techniques any the less significant or important - or indeed any less rational - as is argued in the chapters that follow. What sounding does demand, is a different way of understanding what rationality is, and what ways of knowing are, on the basis of thinking through its vibrations. This is what allows the figures of sounding – the audio engineers, crew and the crowd in the session – to touch and be touched in ways and with intensities difficult to imagine in any other medium. It is also this specifically sonic impulse that has inspired the creative aesthetic of dub music and indeed bass culture, through what has been described as an excavation of sound (Eshun 1998). Recognising the importance of the material medium of sounding, in relation to its corporeal and ethereal vibrations, as they are embodied by the audio engineers' techniques, begins this investigation. It is indeed this concept of rationality without representation, or meaning outside discourse, embodied in the crew's ways of knowing, that is explored through the performance techniques of the selector, to which we now turn.

1 This raises important issues about the gendering of the engineers' ways of knowing sound, see note 25, below.
3 Interview with Mr Horace McNeal, 26th July 2002, at his workshop, Torrington Avenue, Kingston.
5 For the very best quality domestic hi-fi, this separation of each frequency band, which then has its own dedicated amplifier and speakers, is called an "active" system.
6 Interview with Mr Denton Henry, Kingston, 24th June 2004.
7 It is of interest to note that "juggling" is the same term selectors use to describe their technique of seamlessly mixing between different versions of the same "riddim track" (described in the next chapter). The term is also used for any kind of informal money making "hustle," including drug dealing.
8 Interview with Mr Denton Henry, Kingston, 24th June 2004.
9 Video interview with Mr Winston "Wee-Pow" Powell, 24th June 2004 at Stone Love HQ, Burlington Avenue, Kingston.
10 This is with solid-state transistor amps that replaced valve, or tube, technology in the 1980's. Interview with Mr Denton Henry, Kingston, 24th June 2004.
11 Interview with Mr Horace McNeal, 26th July 2002, at his workshop, Torrington Avenue, Kingston.
12 The bass reflex speaker design has an open port below the bass speaker unit to project the sound, rather than the speaker being entirely enclosed in the more common "infinite baffle" design.
13 Interview with Mr Horace McNeal, 26th July 2002, at his workshop, Torrington Avenue, Kingston.
15 Interview with Mr Denton Henry, Kingston, 24th June 2004.
16 Interview with Mr Horace McNeal 18th September 2003, at his workshop, Torrington Avenue, Kingston.
17 Interview with Mr Denton Henry, Kingston, 24th June 2004.
18 Interview with Mr Horace McNeal 18th September 2003, at his workshop, Torrington Avenue, Kingston.
19 In certain societies balance is considered as the most important sense, in the way vision is in the Western world (see Geurts 2002, discussed in Henriques 2003).
20 Interview with Mr Winston “Wee-Pow” Powell, 30th July 2002 at Stone Love HQ, Burlington Avenue, Kingston.
21 Interview with Mr Horace McNeal 18 September 2003, at his workshop, Torrington Avenue, Kingston
22 The embodied character of crewmember’s ways of knowing means that this is necessarily
gendered, raced, classed and so on. As males, their way of knowing must be male, rather than
female. A female way of knowing sound is certainly embodied in the crowd and their active
participation in the session, as with the call and response techniques, described in chapter 6. A
full investigation of this “other half” of the session is required, but unfortunately lies outside the
scope of this research project. It might be expected that gender would be one of the ways in
which the reciprocal relationship between crew and crowd is played out. There are indeed several
ways in which the session confounds commonplace conceptions of both gay and female power
as discussed elsewhere (Henriques 2007b).
23 Interview with Mr Denton Henry, Kingston, 24th June 2004.
24 Interview with DJ Squeeze, aka Mr Glenworth Samuels, Kingston, 22nd June 2004.
26 Interview with Mr Horace McNeal 18th September 2003, at his workshop, Torrington Avenue, Kingston.
27 See also http://www.jamworldreggae.com/sounds/sounds.htm for Campbell’s account. Killamanjaro
sound (from Jamaica) versus King Addies (Bklyn’s #1 sound Killa) at Portmore (for sure!) in Jamaica
(1995). New York’s number one clash sound, King Addies with Baby Face and Tony Matterhorn, was
pitted against Jamaica’s undisputed sound killa Killamanjaro with Ricky Trooper and the Crew. There was
widespread controversy with the world split 50/50 as to who was the better of the two, but this time
Killamanjaro put an end to the confusion (by a slight margin though). . . Killamanjaro sound versus Silver
Hawk (Jamaica) (1987), dubbed forever as the dance that made the “Hawk” stop fly, this dance is a
favourite among sound system tape collectors (casette freaks) that were not fortunate enough to have
been their in person. Killamanjaro - armed with the likes of Ninja Man, the Late Great Early B, Professor
Nuts, Junior Cat, Major Mackerel, Little John, and more - put a murderation on Silver Hawk that has
perhaps never been repeated in another sound clash since then!
28 Ragashanti (a.k.a.) Kingsley Stewart is a one-time sound system follower, U.W.I. (University of the
West Indies) lecturer at Mona campus, and in 2008 very popular radio talk show host.
30 Hedley Jones invented what he claims to be the first solid wood bodied electric guitar in 1940. There
had been Spanish-Electric guitars with pick-ups since the Gibson ES 150 since 1935, but the first solid
wood-bodied model, the Fender Broadcaster, did not go into production until 1950, see
http://www.angelfire.com/music2/myguitar/page5.html
31 It might be assumed from this that sound system engineering could be described as having military
origins, as is said of the World Wide Web and indeed cybernetic theory. However in this instance, the
relationship is more complicated. As Zielinski points out, radar technology owed a great deal to the
development of television cathode ray tubes, at the BBC before the war (Zielinski 1999).
32 I spent about eight hours at Mr Powell’s home in Kingston observing and filming the two of them
installing some replacement equipment on one of his sets on 24th June 2004.
33 As Paul Willis’ described in the different British working class context in his ground breaking Learning to
34 Interview with Mr Denton Henry, Kingston, 24th June 2004.
35 As Jimmy Cliff puts it in his lyrics of The Harder They Came: “I’d rather be a free man in my grave/
Than living as a puppet or a slave.”
36 In 1997 as part of U W I. research project with Tony Bogues, I conducted a series of interviews in
Jones Town, an inner city community in West Kingston. One of the striking findings was that despite the
tremendous pride and sense of identity they had in their community, was the prejudice against that

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community from uptown Kingston. One technique to avoid this was always to find an address outside Jones Town, to put as their home address on job application forms.

37 As for example in my short fiction film We the Ragamuffin (1992).

38 This spirit of adventure in electronics recalls Ralph Ellison's sonic experiments described in Ellison, in High Fidelity, writes: "I built half a dozen or more preamplifiers and record compensators before finding a commercial one that satisfied my ear, and finally, we acquired an arm, a magnetic cartridge and — glory of the house — a tape recorder" (Ellison 1955: 194).

39 Interview with Mr Denton Henry, Kingston, 24th June 2004.

40 Interview with Mr Horace McNeal, 26th July 2002, at his workshop, Torrington Avenue, Kingston.

41 Interview with Mr Horace McNeal, 21st June 2004, at his workshop, Torrington Avenue, Kingston.

42 Interview with Mr Horace McNeal 18th September 2003, at his workshop, Torrington Avenue, Kingston.

43 Interview with Mr Horace McNeal, 26th July 2002, at his workshop, Torrington Avenue, Kingston.

44 Interview with Mr Horace McNeal 18th September 2003, at his workshop, Torrington Avenue, Kingston.

45 Interview with Mr Horace McNeal, 26th July 2002, at his workshop, Torrington Avenue, Kingston.

46 Interview with Mr Horace McNeal, 21st June 2004, at his workshop, Torrington Avenue, Kingston.

47 It is interesting to note that the MC describes their monitoring as "reading the crowd," as discussed in Chapter 6.

48 Interview with Mr Horace McNeal, Kingston, 21st June 2004.

49 Interview with Mr Horace McNeal 18th September 2003, at his workshop, Torrington Avenue, Kingston.

50 Interview with Mr Horace McNeal, Kingston, 21st June 2004.

51 As distinct from Second and Third Order Cybernetics and Autopoietic Theory, discussed below.

52 Women play a crucial role on the Dancehall scene in numerous important respects, but none, as far as I have found, have become sound system engineers. I therefore refer to engineers with the male pronoun.

Chapter 5
The Selector: Cutting, Mixing and Repeating

How does the selector know which track to play next? The chapter describes (1) the selector's role and function for the music the session that includes a) building the vibes or intensities of the session, and b) steering the crowd along the procession of the night. Then it describes (2) the selector’s corporeal performance techniques as dextrous (or "deckstrous") accomplished with fingers, turntables and their music. These comprise: a) manipulating the musical material on record or CD, which is done by (i) cutting, sampling, or selecting one particular music track or part of it; (ii) mixing a smooth transition between one selection and the next and feeding in various add-in sound f/x (effects), and (iii) repeating the record played, or part of it, and feeding in echo reverb sound f/x in response to the crowd's requests for "pull-ups" and "rewinds". The selector also engages in b) monitoring or "reading" the vibes of the crowd. The selector's third technique, as with the engineer working with auditory material vibrations, is that of c) evaluating for which they bring to bear their expertise, connoisseurship and "know how" to "make sense" of the feedback from the crowd. The chapter concludes with a discussion of (3) the modernist tropes "inna dancehall stylee," locating the selector's skills in relation to recording studio production techniques of Reggae "versioning" and Hip Hop "looping," in the context of Snead's (1981) account of widespread disparagement of the idea of repetition.

"Come in my selector" is the oft-heard call from the MC to the selector for him to play next riddim track. The "selector" is so-named as the crewmember whose job it is to decide what music to play at any particular moment. Throughout the session the selector stands within easy reach of the record boxes, turntables and the cross faders of the mixing deck, along with the mixer, whose job is to segue from one record to the next, and the f/x man, whose job is to feed in yet another auditory layer of the sound effects (f/x) (see Figure 5.1). This provides the Sound's characteristic auditory signatures in the mix with the music and the MC's chat. The selector can be described...
as a specialist in the corporeal vibrations of sounding, though of course not to the exclusion of the other two wavebands. While separate people can execute these roles, other performers, like DJ Squeeze, carry out all of them:

I select myself; I play; I talk on the mic, everything. Its not like one time have one guy playing the music ... I was playing and talking at the same time... 'Here we go Peacemaker disco...' You’re talking on the mic; you’re selecting your records; you’re playing two or three turntables... (ibid).

This is the norm on most other music scenes without the size and specialisation of the Jamaican sound systems, for example as Constantinides (2002) points out, in reference to the Canadian dancehall scene.

Figure 5.1 Fx man, MC and selector (l to r) behind the desk at the Chuchu Benz session
On the current Dancehall scene the importance of the selector’s role is well recognised, although their auditory presence is restricted to their selection of music, unlike the MC. Stone Love selectors such as Gee-Fuss and Rory are a cult figures on the scene (see Figures 5.2 and 5.3). Squiggy from Bass Odyssey and Ricky Trooper from Killamanjaro are two of the leading younger selectors. Reggae and dub in particular are often recognised as the “foundation riddim” on which many others, such as Reggaeton from Puerto Rico, or Kwaito from South Africa, as well as Trip Hop, Jungle and Dub Step in the UK, have been “built.” By contrast, the music genre itself, as distinct from its recording artists and music scene, has received little research attention, with Campbell (1997), Marshall and Manuel (2006) and Veal (2007) as exceptions. Similarly, there has been scant research focusing on Jamaican selectors, despite this being the music scene, which helped to establish this specific role. Selecting is indeed the key role for the entire “DJ culture” where the DJ invariably does the selecting. Arising on the club scene internationally in the 1990’s, this DJ culture has generated a considerable literature (see for example, Rose 1994 Poschardt 1998, Jackson 2004, Reitvelt 1998) as well as Broughton and Brewster’s (2002) How to DJ Properly practical manual on the subject. As Campbell (1997) states, “Probably one of the most important roles on a sound is that of the selector.” This is because the selector is largely responsible for “building the vibes” of the session and steering the “groove” for the crowd in the musical procession of the evening, as discussed below.

Figure 5.2 Stone Love Calendar featuring selectors Slaughter, Gee-Fus and Swamp King the Animal

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(1) **The selector's role and function in the session**

The first thing to find out is what exactly goes on once the session gets underway at about midnight (as described in Appendix 3). The Skateland dancehall open-air venue, true to its name, was built as a roller skating ring, located at Half Way Tree in mid-town Kingston, between the uptown middle class suburbs, and downtown ghetto areas of West Kingston. Skateland is a closed dancehall venue where the crowd are charged an entry price at the gate, as they would be for a club or concert.1 With the particular session observed, promoter Stretch has four top sound systems on the bill, rather than just one, as is most often the case. These four Sounds are Stone Love, Metro Media, Young Fresh, and Venus Love. Thus the event is configured as a series of sets, that is to say time slots, in which each Sound takes its turn to play. In addition to these observations, my interviews with Stone Love selectors, as well as DJ Squeeze (also interviewed about his audio engineering in the previous chapter, see Figure 5.4), have provided invaluable additions to the research materials.2

Figure 5.3 **Stone Love Movement's roster of selectors on their webpage**

![Image of a webpage with the Stone Love Movement's roster of selectors.](image-url)
a) "Building the Vibes"

The crowd enjoys the particular intensity of being present at the event of the session, immersed in an embodied appreciation of the atmosphere or *vibes* and dynamic energies of sonic dominance (Henriques 2003). "Building the vibes" increases these intensities. As DJ Squeeze describes, the vibe of a good session is so powerful it quickly consumes newcomers:

It passes on from the people who are there. You come in there and the people going 'Wicked, boop-boop-boop.' You kind of fit, or melt, right into it. You get right up to speed real fast. And you want your drink and you want to get into the thing. Real fast. In other words, *you coming to the fire you're going to get burnt* (laughter). The fire is blazing already; you come into it and you going to get burnt (emphasis added).  

Figure 5.4 DJ Squeeze (left) owner and engineer, with his Skyy sound system sound truck, *Thunder*, and generator *Lightning* (far left).
This idea of combustion and being consumed by fire, and repeating it for rhetorical effect, is commonplace trope for the Jamaican Biblical understanding of the fire of purification. For several years this has been the lyrical trope for artist DJ Capleton, a.k.a. the “Fire Man.” The idea of leaping flames “spreading like wild fire” and “catching a vibe” also resonates with ideas of the contagion and infection of intensities that DJ Squeeze mentions above (in Chapter 4). Such phrases express something of the dynamics of auditory energies, in a way that a vocabulary of solid objects and linear cause and effect fail to do. The vibes that the selector (working together with the MC) has the responsibility for building are, of course, frequency vibrations. With the material vibrations of sounding, these auditory dynamics are located in medium air molecules (as discussed in Chapter 3). These include the particular sound frequencies of the bass-line of the music (measured in Hertz and KHz), as well as the beats per minute of the tune’s tempo.

The idea of building is itself also of interest, in that it suggests the physical substance, solidity, weight of the material vibrations of sounding, as with sonic dominance. On the Reggae and Dancehall scene sound has been made sufficiently thick and “massive” so as to become a construction material, whereby musicians can talk of “building a riddim track.” Furthermore, the selector has to tune into the vibes of the crowd, with the aim to “excite” the crowd, as the lingo goes. This is accomplished across all three wavebands of sounding, with the selector’s musical choices and the crowd’s dancing (see Appendix 3, note F). The groove is another term used to describe the way in which the vibes of all these frequencies of sounding can come together in the rhythmic flow of a session, and other music events (see Schloss 2004: 138-40) where there is hook-up between drum and bass players (Monson 1996: 56). The groove of a piece of music indicates the mood and feel of a music track, rather than its more formal structure or genre.

Describing the current popularity for Elephant Man, DJ Squeeze is quite critical. He describes the artist as “sitting on” a particular “micro rhythm,” where:

> Each one of those songs connect to another song. And what they do is sit on that. And you go to a dance now and that’s all they want to play. Because all of
that is on one level. And the DJs go to the studio and continue that level. You find that there is a sameness in all of it (ibid).

The term "groove" is defined in terms of continuity and similarity, as when one music track is in the same groove as the previous one. This suggests a particular pleasure found in reiteration, repetition, the refrain and similitude (as discussed below), as distinct from that of originality and difference. The crowd’s pleasure in the similitude of the groove helps to locate them, as listening subjects in the session. As with the spiral scratch on the vinyl, the groove provides a “home” the crowd positively want to inhabit, rather than possibly escaping the rut of their working lives. Its familiarity that breeds not contempt, but contentment.

According to DJ Squeeze such grooves and vibes are not unique to the session: “You get that vibe on the streets, in a market, some neighbourhoods, get it in incidents where a lot of people are.” He continued,

It’s almost like mass hysteria. It’s the same thing why dogs pack-attack one dog, it’s a vibe that pass on. Its something we don’t really understand, but I know it exists, where your whole body transmits an energy that connects to another person energy, so that in two twos [sic] everybody is doing the same thing without even realising they’re doing the same thing (ibid, emphasis added).

DJ Squeeze’s particular formulation (emphasised), points out the important distinction between understanding-how and knowing-what, where it is implied that the latter is more fundamental than the former. His use of the single pronoun – “I know” - can also be taken as an indication of the importance of embodied sensorimotor experience of which only the “I” is capable. According to DJ Squeeze, this same vibe is also to be found in church, whose importance for Jamaican sonic culture was noted (in Chapter 1). As he continues:
It's the same thing why every say 'hallelujah' and 'praise the Lord' at the same time. And everyone feel that energy and that Holy Spirit and that energy passes on through from one person to another... If the Holy Spirit in the church already and everybody connected, there's nothing you can do to prevent that Holy Spirit from catch you (ibid).

Squeeze calls this vibe as “the rhythm of life.” He told me, “The rhythm exists. It’s a part of life, but a lot of people don’t recognise it (ibid).” Besides “building the vibes,” this theme of the ritual and spiritual aspects of the session runs consistently through the research findings, and the crowd’s experience of the session (Henriques 2007b).

**b) Steering the Crowd**

The selector's major responsibility is to steer the crowd by giving a musical shape and direction to the evening as a whole along the groove of their musical “vibes.” They are “choosing a circuit” as Chambers (1994: 52) puts it, in reference to the personal listening on a Walkman. As the selector is working with the corporeal and ethereal “vibes” of the crowd in the session he has to win their respect, coaxing them along and getting them to participate. By contrast, the engineer working the electromagnetic frequencies of the material vibrations of the sounding set can afford more direct manipulation. Under the tutelage of the selector and the MC, the session is unified into a whole experience, with the narrative structure of a beginning, middle and end coming at dawn (see Figure 5.5). The selector provides the musical frequencies of the particular tunes, as stepping-stones as it were, for this journey. Broughton and Brewster (2002) devote a chapter on instructing the aspiring MC “how to pace the night,” describing four ways of “shaping your set.” The typical procession of a session, as was certainly heard at Skateland, starts the evening with the back catalogue of classic golden oldies or “revival,” then increases the “vibe” and intensity to a climax with the current hits at about 3am (see Appendix 3 note D). This is then brought down again at dawn, for example with Bob Marley tracks, for the crowd to depart in a mellow mood. This is the procession within a session, even though this takes the form of the group of dancers processing across the arena of the dance-floor (Appendix 3, note H), as distinct from the
procession between selector's sessions when the crowd travels from one to another (as described in Chapter 2). The selector's scheduling of the event shapes the evening in time, rather than in space, as a complement to the maintenance crew's staging. Scheduling and staging also embody the relationship between duration in time and location in space (see Henriques 2007b).

Figure 5.5 Dawn, Sunday 18th August 2002, Skateland, Half-Way Tree, Kingston

With his Skyy (sic) sound system, DJ Squeeze also emphasised the responsibilities of the selector's position:

You move through those rhythms, connect with the people, connect musically with them, it's almost like you become this puppeteer, you are in charge of music to the point where you almost dictate their every move, read their every move, musically. In other words, you take them through different emotions, get them to
go crazy, calm them down, bring them up, get them screaming, get them shouting. It's a very big responsibility (ibid).

This gives a simple three-part beginning, middle and end sequence, to structure the whole night as a journey. While only the hard-core sound system followers will experience its entire length on a single night, for most of the crowd it will be sufficiently familiar for them to know where they are, so to speak, at whatever time they join the session. The selector’s musical techniques described below, in conjunction with the lyrical ones of the MC (described in the next chapter), steer the musical course of the evening. The idea of procession brings out the ritual character of the event, in which ritualised movement is not so much a physical journey from place to place, but from one stage, or state of being to another (Turner 1976). In this respect, the selector has a goal for the “vibes” of the crowd, in a similar way to the engineer’s for auditory quality of the set.

(2) The Selector’s Skilled Performance Techniques
So what exactly does the selector have to do to “build the vibes” and steer the crowd? The various performance techniques described below are based on listening to and observing selectors on Jamaican sound systems over several years. It is also of interest to note that the particular techniques described here coincide almost entirely with those that Constantinides (2002) chooses to describe Canadian sound system practices. The selector’s skilled techniques, as with the crowd’s, are to be located in the corporeal vibrations of sounding as whole-body techniques, to use Ihde’s (2002) term, emphasising the integrated character of the sensory organism. More precisely, selecting is a manual practice, done with the instrument of the hands, the human animal’s first and most important tool (Mauss 1936, Révész 1958, Tallis 2003). Instruction for such practices can be found in manuals, such as How to DJ Properly (Broughton and Brewster 2002). Selecting is a “hands-on” dextrous practice, with further extra-corporeal instruments such as the tone arm, stylus, mixing console with cross-faders and turntables or record decks, making it also a “deckstrous.” Such techniques with hands and fingers have their own rhythms and frequencies, which are
generally faster than those on the slightly larger scale of the crowd's kinetic performance in dance. DJ Squeeze, instructively, employs an engineering metaphor to describe selecting, with the records as the "tools" the selector has to hand:

The tunes that you have are the tools to achieve your goal to get the people in that rhythm of life. The tools enhance your performance... to carry them [the crowd] through different moods, different vibes, everything (ibid, emphasis added).

This musical material can certainly be used very effectively, as DJ Squeeze continues:

There's this beat, what you do is catch the wave and it passes on. It's like a spiralling effect. You can do this just by your selection" (ibid, emphasis added).

The selector's practice is also a performance in the straightforward sense, unlike the audio engineers', in that it is enacted in front of an audience, crowd or "massive" in the corporeal and ethereal vibrations of the session. With a good selector there is often a clear kinetic flow, with the movement of their entire bodies to the music, as they dance on their spot behind the turntables. It is then evident that they have not so much "caught the vibe" but are carrying it, as can often be observed. 7

Selecting is also performed in a third way, in that the selectors perform the musical material of the records they play. Bourriaud (2002b) calls this "performing the archive," which is certainly what the phonographic apparatus of the sound system set requires, or at least encourages. Brewster and Broughton put it as follows, "Out has gone the idea of introducing records and in has come the notion of performing them" (Brewster and Broughton 1999: 14, emphasis added). In this way, the selector makes a performance of already performed music, as does the Hip-Hop producer with their samples. This creates what Mudede (2003) describes as meta-music (as discussed below), further resonating with the set as a phonographic instrument for "reprocessing a product that
has been processed already," as one engineer succinctly described it (in the previous chapter).

**a) Manipulating**
The selector's manipulating – what they do – can best be described in terms of their practice, together with the *instruments* that make their techniques possible (as discussed in Chapter 3). So a selector is only such as a selector-with-instrument, and his instrument is always an instrument-in-practice. The intimacies of this configuration of human-instrument relationship, following Mauss (1935/1992) and Latour (1995), has to be explored in further research. In the session the delicacies of the engineer's treatment of the equipment, such as using a dry paintbrush to remove specks of dust, before the selector begins to play (see Figure 5.6), can be taken as indicating that the crew's relationship with their instruments is more than merely mechanical. By contrast, conventional approaches tend to make a hard and fast distinction between instruments as separate passive objects, awaiting the equally separate agency of their operator (as discussed with audio engineering in respect to Ingold's (2000) account of skills and Lave's (1988) of learning, in the previous chapter). In the case of cutting, the selector's instrument includes fingers and arm together with the stylus and turntable. For mixing, this practice is comprised of the selector's dexterity combined with the device of the cross-fader. Similarly the selector is also always selector-with-materials; that is, the contents of their record box. The selector can thus be described, like the audio engineer, as a figure of sounding, in the middle of its material, corporeal and ethereal wavebands.

(i) **Cutting: “bass drop” and “the touch”**
The selector has to decide which particular tune, or part of a tune, to include in the sequence of music played to the crowd (described in detail by Broughton and Brewster 2002). As Campbell states, "The selector is responsible for managing the turntables - *selecting* and playing the records & CDs" (Campbell 1997, emphasis added). A selector's choice is limited to the musical material they have carried to the dance, as well as what the Sound can afford to purchase in the way of the expensive *dubplate*
The manipulating practice of cutting can be considered simply as the corporeal movement of taking out a record from the box, placing it on the turntable, and lowering the stylus into the groove. There are two aspects to it: one is positive, about what is included, the other negative, about all the other tunes excluded by being left in the box. This characteristic of exclusion, or subtraction, is shared in different ways with both the phonographic character of the sound system apparatus, which excludes “live” performance, and the genre of dub music in which most of the musical elements besides the rhythm and bass are removed (Veal 2007). A different example of cutting is provided by the “bass drop,” by which the selector or mixer, with the turn of a control switch, removes the lower frequencies from the music mix, leaving the mid and top. Furthermore,

A variation of this technique is to "cut" or take away the music entirely using the mixer's fader, leaving the crowd in a state of greater suspense. The idea is then to reintroduce the bass or music at a moment of maximum tension, such as just before a verse begins. During this break in the song, the deejay [MC] can embellish the sense of tension with chatter and anticipate the striking return of the song to its full range (Constantinides 2002: 11).

Constantinides goes on to make the point that this performance technique “is important because it is one of the first instances where the influence of the sound system was clearly heard on recorded media produced in the studio”; that is to say, on the dub versions of tracks developed in the late 1960’s and 70’s.

With “the touch,” the subtractive technique of cutting is used at a more micro level of one particular section of a track, a riff, or a few bars. The selector simply lifts off the stylus from the record being played almost as soon as he’s set it down, a technique that according to my observations, reached a peak of popularity in about 2001. By giving the crowd only a little taste of a tune they are already know, the selector is blatantly using their familiarity with the tune as a tease. With the touch, the selector encourages crowd participation by flattering them to become accomplices, the “in-crowd” of those “in the
know" - by completing the tune themselves and sometimes voicing it out loud. The selector’s technique of the touch is an instance of the positive aesthetic value of what is subtracted or hidden, in the same way that bodily skin areas teasingly only half-revealed have more sexual allure than fully exposed. With the touch, the tune is positively defined by its absence, played just enough, but no more, to allow its recognition. Engineer and producer King Tubby, creating the innovation of the dub version, is credited for pioneering this classic sound system technique in the recording studio (see Veal 2007).

In both session and studio this recollection acts as a musical trigger for the memories, feelings and associations the crowd already holds. In this respect, the selector’s touch is a musical synecdoche, a part that stands for the whole. Its particular pleasure is not only that of familiarity, accessing what has already been memorialised; there is an additional source of pleasure in the experience of interiority, or intimacy. These are feelings as already embodied, present “on the inside” as it were, ready to be invoked, rather than provoked by an outside musical stimulus. This is the crowd’s subjective experience of the music - as Self rather than Other. In this respect, the techniques of the touch and the rewind (discussed below) are symmetrical opposites. For the former, the pleasure is absence, whereas for the latter it is the cyclical alternating frequency of presence and absence. By contrast, when a stage artist, or a MC, invites his or her audience to complete the song by singing the chorus themselves, the touch becomes a technique of addition. This play of touch between connection and separation is a continuing theme of the research findings.

(ii) Mixing: “juggling”

The selector’s primary job is to ensure a smooth musical flow of the evening, making the most seamless segues between records, as Campbell notes: “A selector must also be skilled in making a smooth transition from one record to the next (mixing). These skills often take years to develop, but are done with such style and ease by the good selectors that they often go unnoticed” (Campbell 1997).
Figure 5.6 Engineer Winston using a dry paintbrush to clean Stone Love decks before the session at Skateland
This is the second type of manipulating practice, of which there are several versions. One kind is transition mixing involves fading one tune down, and bringing the next one up, and mixing the tail of one tune to the head of the next one, known on the dancehall scene as “beat matching,” “juggling” or a “version excursion” (detailed in Broughton and Brewster 2002). “Juggling” is one of the ways in which the groove is established for the crowd in the session, and for the Dancehall scene more widely. The term “juggling” for suggests both the manual dexterity of manipulation to keep everything in the air, as well the monitoring. It is also interesting to note that in the lingo, the same term juggling is also used for making a living, “hustling” or “surviving” by drug dealing and other “moves” in the informal street economies.

For the selector, juggling requires matching the beats between the “riddim” tracks that are a distinctive feature of the Dancehall music scene. These “riddim” tracks are individually named, with same one being used by numerous different artists to accompany their own individual lyrics (Marshall and Manuel 2006). The selectors, and the radio DJs, make a point of playing a whole series of the artists on the same riddim, as a way of building the affective intensities of the groove.11 Sometimes from the thousands of riddims produced every week from Kingston’s hundreds of recording studio, there is often one that captures the vibe of the entire Dancehall scene, internationally, for a season. Recent examples include Damian Marley’s Jamrock riddim in 2005, and Lenky Marsden’s Diwali riddim in 2004. Others such as Wayne Smith’s Under Mi Sleng Teng have been used in hundred of versions by hundreds of artists over decades.

With transitional mixing, the selector aims for a smooth uninterrupted flow of the music from one track to the next. As Constantinides tells us, “This creates a continuous flow or "groove" that extends the rhythm indefinitely. This is akin to American disco dance mixes whose non-stop groove is meant as a service to the dancers” (Constantinides 2002:11). Continuities of musical flows increase the intensities of the crowd’s experience (as with version excursions, mentioned above), in a completely different way to interruptions and repetitions. Constantinides describes this:
A good mixer must essentially make the chosen records flow into each other... beat-matching provides a smooth, almost imperceptible transition between songs, contributing to the establishment of a "vibe" or atmosphere... This intimate relation between mixing and song choice is perhaps the main reason that the mixer and selector roles often coincide with one individual. When this occurs, the label selector is the one that is applied (Constantinides 2002: 8).

Prior to the introduction of two-turntable sound system equipment there was always a silent pause between each track while the selector changed the record. The crowd stood still, as if to attention, or praying in a church, as one sound follower told me, adding to the ritual of the event.  

Secondly, there is add-in mixing where some of the special sound f/x, or the MC's voice on the mic track, is fed into the on-going music mix. On most sound systems the f/x man is separate crewmember, with their place on the other side of the MC to the selector, in more or less the role of an assistant (see Figure 5.1). The f/x man with his console has access to a considerable number of sound f/x, which he can layer-in on top of music track in play, and the MC's voice track. "Back in the day," I was told by Stone Love engineer Denton Henry, these f/x had to be played in from a record, rather stored in computer memory. These sound f/x are particularly evocative of the crowd's auditory experience of the selector session, and consequently studio-recorded and mixed music tracks have taken to incorporating these same f/x. The value of these special f/x is so great that sets were built with three audio channels feeding three speaker columns, rather than the normal stereo two channel configuration, according to Denton Henry. This was to achieve a panning, or travelling effect, of the sound circling round the crowd (as yet another instance of rhythmic cycles in the session).

In mixing these musical and crowd frequencies, the selector makes use of two particular technological instruments, both innovations of the mid-1970's Denton Henry told me. One was the introduction of the second turntable, or record deck, that has remained the
standard ever since. This second music source, in parallel to the first, significantly increases the selector's creative options. The cross-fader was the second major innovation. The function of this device is simply to mix the signal from two inputs, such as the two turntables, into a single output for amplification. With this two-component assemblage of two turntables and cross-fader, the selector can manipulate musical frequencies with the techniques of cutting and mixing.

(iii) Repeating: "re-wind" and "pull-up"

The third manipulating practice is repeating. The "re-wind" or the "pull-up" is the selector's most trusted technique for building the vibes of the session with the crowd. "Requesting that a record be stopped and played again immediately, also referred to as a 'forward' or 'wheel'" (Campbell 1997) is commonplace. "Back to the top 'til the very last drop" is an oft-heard call over London's pirate radio airwaves as the MC demands callers' phone requests to start playing the record over again. These are instances of repeating at the frequency of the individual tune or record. The movement of repeating is cyclical, returning to the beginning each time, which cannot be enacted without cutting. Indeed, in the session, the only split second of silence (on the current two turntable set), are the moments of sensorimotor "processing" time for the selector to lift the tone arm off the vinyl and position it back at the beginning of the groove. 16 Given how important the continuities of mixing are for building the crowd vibes, the interruption of the flow of the session that the cut of repeating occasions is evidence of the distinct and different intensifying value of this practice. It should also be remembered that repeating is entirely within the auditory character of the material vibrations of sounding, given its incessant need for propagation (as discussed in Chapter 3).

There are several attractions to the idea of repeating. One is that it offers an analysis based on movement and process, that is the intensities, energies and dynamics, as well as static structures. Another is it allows an emphasis on auditory phenomena, characterised by their particularities and relationships, as well as visual phenomena. Furthermore, it allows for an understanding of identity, continuity and constitution of phenomena in terms of difference, variation and propagation, as well as similitude,
consistency and being. Finally repeating is what the body does in all its rhythms, cycles and pulses. The effect of repeating is most often to adds additional force, intensity and emphasis to all kinds of movement, from the repeating drum pattern of the bass-line of a reggae “riddim” track, to the repeated use of a particular phrase, a stock-in-trade of rhetorical techniques, as used for example by the MC in the session (as detailed in Chapter 6).

Repeating is also evident in the echo, delay and reverb type of sound f/x that the f/x man has at his disposal (as distinct from the add-in f/x, discussed above). Reverb introduces an audio feedback loop whereby the set’s output is played back into the music mix, with a time delay, exactly as a music producer does in their studio (as detailed in Veal 2007). To describe reverb in terms of the antiphony, reverb simultaneously mixes the music with itself, responding to its own call, while the call is still being made. Reverb is a special kind of repeating, enacting both cutting and mixing together. It can be described as the playing of the “original” simultaneously with its “copy” and is central to the musical studio technique of dubbing (as discussed below). If improvisation is the reinvention of a different original in every performance, both musically and lyrically, then the rewind deploys this same technique in the material medium of the phonographic technology of the set, and the corporeal and ethereal vibrations of the session.

A further instance of repeating is found within the music itself, in the repeating of certain riffs, musical or sung phrases, drum loops, break beats, sound effects and so on that have come to characterise Hip-Hop as much as Dancehall music. Hip-Hop music is generally credited with re-purposing phonographic technologies of the turntable to make them instruments of production, rather then reproduction. This allowed the selectors to break into the single vinyl spiral groove, cut out only the desired portion, and repeat “the best part of a great record” as, 1980’s Hip-Hop pioneer Grandmaster Flash is quoted as saying (Rose 1994: 73). Looping combines the sample with itself sequentially, rather than simultaneously as with reverb, responding to its own call every time, as Schloss explains:
While looping may not change the *sound* of the music – its rhythm, melody, harmony, or timbre – it changes the entire sensibility with which this sound is interpreted. Melodies become riffs. As the end of the phrase approaches, the listener begins to anticipate its beginning, in the best beats, in fact, a virtual call-and-response develops in which a break actually answers *itself* – the end of the break establishing a tension that is resolved by the return of its own beginning (Schloss 2004: 138, emphasis added).

And this technique of looping became an aesthetic form or principle with affects, according to Rose:

> Time suspension via rhythmic breaks – points at which the bass lines are isolated and suspended – are important clues in explaining sources of pleasure in black musics (Rose 1994: 67).

The particular role repeating has in extending time is as explored in respect of the crowd in the session (Henriques 2007b). Further Eshun (1998) points this out in respect to echo and reverb in dub mixes:

> As soon as you have echo, listening has to completely change. Your ear has to chase the sound. Instead of the beat being this one event in time, it becomes this series of retreating echoes, like a tail of sound (Eshun 1998: 64).

Thus repeating delays the inevitable passing of the musical moment, prolonging and stretching it out in time. Furthermore, as Doyle (2005) describes for pop music up to 1960, echo and reverb add a spatial dimension and a sense of place to musical sound.

Finally, we come to the rhythm, beat and bass-line within the music itself. This is nothing but a repeating intensity, an inflection, pulse, or emphasis in the continuous movement of the auditory frequency of the sound. This gives the sound heard by the
crowd an asymmetry or unevenness; in the way it has texture, timbre and grain. Such repeating cycles occur irrespective of the materials or frequencies at which they are articulated, as Turetzky (2002) points out, but are most affective in "the lower frequencies," to use Ellison's (1947) phrase (as discussed in Chapter 3). Certainly the entire configuration of the session is geared towards intensifying the visceral appreciation of the bass line, as this is manipulated with the selector's cutting, mixing and repeating. The f/x and selector's practices are summarised in Figure 5.7, in comparison with those of the MC, described in the next chapter.

b) Monitoring: “reading the crowd”

The selector monitors the corporeal and ethereal wavebands of sounding. Selectors are aware of the quality and volume of the sound that the set is generating, which is of course, the engineer's main concern. That is, until the set breaks down (see Appendix 3, note C). Then he or she has to call on the expertise of the engineer, as happened at about 2 am in the Skateland session observed.17 So monitoring is evidently a corporeal and sensory faculty, in that it requires an auditory sensitivity dependent on the physiology of hearing. Indeed, the introduction of headphones on which the selector could monitor the music on the turntables before being heard by the crowd was another of the key technological innovations of the 1970's, as I was told by audio engineer Horace McNeal.18

In addition, the selector's monitoring also includes the vibes of the crowd and their understanding of their music that ultimately identifies where a particular music track fits into the entire Dancehall scene and its history. So monitoring also concerns the ethereal waveband and has to be highly selective to give special attention to the particularly important features of the overall auditory scene. This is organised in auditory Gestalts, as visual scenes are widely recognised to be, described by Bregman (1990) in detail. This underlines the importance of the distinction between hearing and listening made in respect to the sound engineer's practices (discussed in the previous chapter) and the ethereal and other vibrations of sounding (discussed in Chapter 3). But it also indicates some of the common features of flows at both material and ethereal frequencies of
sounding; that is, the selector's practices of manipulating and monitoring and those of the sound engineer. It might be expected that selectors have to undergo a training process for acquiring their expertise, or connoisseur's judgement, in exactly the same manner as the engineers. This is indeed the case, though in a less formal way than with the engineers' craft apprenticeship tradition. Very often a selector will have had a father, elder brother or other family member in the sound system business, and have developed their musical ear from a very young age.

Figure 5.7 Cutting, mixing and repeating for FX man, selector and MC

<table>
<thead>
<tr>
<th>crewmember/ vibrations</th>
<th>MIX</th>
<th>CUT</th>
<th>MIX</th>
<th>CUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>f/x man material vibrations, auditory</td>
<td>same</td>
<td>different</td>
<td>“bass drop”</td>
<td>reverb, echo: same sound added back in with delay</td>
</tr>
<tr>
<td>f/x as layer on top of music</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>selector corporeal, vibrations, aural: music rhythm</td>
<td>“juggling” between music tracks</td>
<td>selecting next record from those in box</td>
<td>looping</td>
<td>pull up, rewind, the record from top</td>
</tr>
<tr>
<td>vocal tone, timbre; flesh/ vowels; versioning</td>
<td>ridding the riddim; teeth/ consonants</td>
<td>rhyme call &amp; response</td>
<td>rhetorical reiteration clash</td>
<td></td>
</tr>
<tr>
<td>pattern, intensities</td>
<td></td>
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</tr>
</tbody>
</table>
The key to the selector's applying their techniques correctly is their ability to “read” the vibes of the crowd itself, as their music, within the ethereal vibrations of sounding. As DJ Squeeze puts it: “[You] have to read your crowd, read them and know what they want… read their every move” (ibid, emphasis added). His repeated use of the term “read” indicates how much this practice, like any education, has to be acquired. Similarly, Broughton and Brewster (2002) devote considerable attention to this question of “how to read a crowd.” In addition, the selector has develop their musical judgement to know their musical material, in order to match this to the crowd, according to Squeeze:

The best thing for a DJ is schooling, a wide variety; listen to everything that you can play. I used to go out with the most amount of boxes, seven of those. And someone will say to me how come you go out with so much tune? I want to make sure that when I catch the rhythm I have the tools (ibid, emphasis added).

Squeeze goes on to complain that this schooling was currently not at a high standard:

The DJs nowadays are not doing their homework to find out what is truly a good song, what makes a good song: content, sound, engineering, everything about it, the way its goes across, how does it feel when it play. Not because it’s a Bounty Killa… a Beenie Man… all of these great DJs put out terrible songs, even Berris [Hammond] put out bad songs. You must know as a good DJ that these songs connect humanly as people, and put as many humanly connected songs together (ibid, emphasis added).

With this “reading,” “schooling” and “homework,” the selector’s specialist musical judgement has to be developed in much the same way as the engineer fine-tunes their skilled listening. The selector’s musical expertise is critical. All the selected records have their particular musical characteristics and qualities such as tempo (fast/ slow), artist (male/ female, singer/ MC), period (classic/ contemporary), recording (commercial/
special) and so on. Then the selector has to choose one version rather than another, or this piece, as a record is called, in comparison with that one (see Appendix 3, note A). As Campbell puts it:

The immense knowledge and skill required for this role (at least if you want to be considered any good) and the difficulty of this position is often underestimated. A good selector has to know hundreds of records and CDs (including the name of the artist and record/CD's location in the record box) off the top of his/her head (Campbell 1997).

Furthermore, the selector's reading of the crowd is visual as well as aural. Besides considering all the noises, shouts and responses of the crowd as critical, the selector will also look up from the record box and turntables to "scope" the dance and other movements of the crowd. With the increasing importance of dance, the videoman, camera and projection screen are now what is expected of a dancehall session (see Appendix 3, note E).

Given the realities of the social setting of a downtown session, the selector's reading is often more than only a matter of style, taste or aesthetic judgement. As Campbell indicates: "A bad selector... can be easily pointed out, and a displeased crowd will usually not hesitate to make their disapproval known (those who know what the Shandi Bottle routine is can attest to this)" (Campbell 1997). The Jamaican selector audience is notoriously vociferous, never hesitating to "fling bottle," Shandy, or anything else, at an artist or MC who does not meet their approval. The selector in a session is certainly more immediately vulnerable to the crowd's assessment of his or her work, compared to a radio DJ. So the selector's mixing between the frequencies of the crowd vibes and those of the contents of their record box is not one between equal parts. The selector is always obliged to mix the music to the crowd, rather than vice versa, with the crowd calling the shots, or the tunes. Reading the intensities and vibes of the crowd correctly depends on a considerable amount of experience. This is to say, that monitoring may be characterised as haptic, receptive, passive and subjective, operating in relation to...
manipulating, which is kinetic, active, instrumental and objective. This expressed the two sides of touch: actively touching and passively being touched, moving and feeling, kinetics and haptics, and the simultaneous separation of self and connection of other (as mentioned in Chapter 3). This gives some idea of the level of skill and expertise required for the selector’s job.

c) Evaluating
Selectors will say they have to have the vibes for their performance, for it to “feel right” and for them to do a good job. This is rarely, if ever, a rational analysis, or necessarily even a conscious one, but rather often deeply embodied as professional instincts, intuition, taste, “hunches” and “gut feelings.” This is what DJ Squeeze described, with reference to his fine-tuning of his set as “my harmony with the sound” (in Chapter 4). This requires the selector being on the beat, in the groove, riding the rhythm of the event. For Squeeze this is a special skill, not something that anyone can do:

I think it’s a gift, but a lot of people don’t recognise it as a gift, a gift that you get to connect with people that way, a communication… Even now I recognise how powerful it is… And when you as a DJ can bring that energy out of people - you’re gifted by playing popular music. A lot of the DJs don’t realise they have that power. They take it for granted and say they mash up the place… But I realise that that is a gift and if harnessed properly you can bring good things with it (ibid).

The “good” timing required is characteristically elusive, transitory and ephemeral, as is typical of auditory events.

To understand how the selectors’ performance is so effective, as with the audio engineers, it is necessary to suggest that it requires evaluating as a third kind of practice. Evaluating couples techniques for manipulating - cutting, mixing and repeating - with those of monitoring. It is important to emphasise how the practice of evaluating is more than simply monitoring, in the way that listening is more than hearing, though the
latter requires the former in each instance. This is to say, listening cannot occur without hearing; neither can evaluating take place without monitoring. While monitoring requires attention, evaluating requires *intention*. This is attention directed to a particular object, goal, purpose or destination, as with Husserl’s concept of *intentionality*, which as Butler (1990) emphasises, gives the meaningful content for all embodied relationships.

With evaluating, feed-forward is what counts. For monitoring, by contrast, it is the feedback from the crowd’s response to the tune the selector has just selected that is most important. In a homeostatic system, where the goal is to maintain equilibrium, feedback and feed-forward amount to the same thing, and past and future are equivalent. This is not the case with the sound system session, where the selector aims to create a particular shape to the evening, steering the crowd along on a “musical journey,” described as the *procession* of the night, above. The selector’s evaluating is a skilled professional judgement, in the same way as the engineer’s connoisseur’s judgement is of the sound of the set.²⁰ The choice to place one tune on the turntable, rather than another, is the result of an almost infinitely long and complex chain of previous decisions. The results of this, at once the most central and most elusive of any kind of performance, can be called “style.” This has been variously named as “swing,” or “cool” in the USA (see Pountain and Robins 2000), “ginga” in Brazil (see de Souza Tavares n.d.), or simply “attitude” on the UK Raga scene, and is often associated with a particular form of embodied movement (see also Gray 2004). The American folklorist Zora Neale Hurston (1934) describes such specifically African-American “characteristics of expression” and Henry Louis Gates (1988) accounts for them as rhetorical *signifyin(g)* tropes (as discussed in the next chapter). In this way actual manipulating action of cutting, mixing or repeating and its monitoring is only the final product of the kind practice of evaluative judgement that is common to the performance techniques of each of the crew (as discussed in detail in Chapter 7).

(3) Modernist tropes “ina dancehall stylee”

This final section of the chapter locates the selector’s performance techniques of cutting, mixing and repeating in the broader context of modernist performance and
creative techniques, included in both avant-garde and popular traditions. In this way each crew role performs his own particular version of a general method of performance and creative practice, that can be described as a modernist trope, just as each crewmember contributes his own personal distinctive inflection or style. The selector’s style, skills and performance techniques of cutting, mixing and repeating can be considered as their distinctive “version” of the kind of manipulating, monitoring and evaluating that the audio engineers do (in the previous chapter), and will be found that the MC does (described in the subsequent chapter). Furthermore, their cutting, mixing and repeating also resonates with reggae music producer’s techniques in the recording studio. This broader context is useful insofar as it might go some way toward understanding how and why such apparently simple techniques can have such substantial effects and intense affects for the dancehall crowd. Such techniques can be likened to the way the reiteration of simple mathematical algorithms can generate patterns of very considerable complexity, subtlety and beauty, as with fractals for example (see Eglash 1999). These provide examples of how meaning can be patterned in ways that are not mimetic or discursive (as discussed in the concluding chapter).

a) Cutting-out
The selector’s technique of cutting can be analytically isolated - that is, cut-off from mixing, as a principle in the abstract, in a way that never happens in actual practice. Cutting is the dynamic of separating, parting, dividing, tearing, fragmenting, dis-aggregating, or splitting. Cutting creates division, differences and boundaries. It is an interruption, discontinuity, or dis-integration in the flow. Cutting has an edge. It is hard, sharp, dry and cold, as with teeth and bone, rather than the warm soft suturing fleshly surfaces of tongue and cheek (as discussed in relation to the MC’s voicing in the next chapter). This raises the question of how cutting figures in the ethereal vibrations of the sounding: its meaning and significance. As one of the selector’s key practices for building the vibes of the session, it has several key characteristics.
(i) **Absent presence**

In practice, cutting is *cutting-out*, ceasing or excluding. This idea of the presence of the tune, through its absence, is familiar from the consideration of phonographics (discussed in the previous chapter).\(^{21}\) It is also the key trope of the influential reggae dub music genre, where only hints, snippets and snatches of the melody line and vocals remain, leaving only the rhythm of the drum and bass line (which are then often subject to reverb and echo effects). This can be considered as an aspect of the open inviting character of dub - as if the less space the music takes up, the more inviting it is for the listener to step inside and inhabit. This sound aesthetic of subtraction and idea of absent presence also surfaces the idea of the ghostly effects and the ineffable traces of sounds heard in a dub mix. Cutting can be considered as a *subtraction* process, or even an erasure or deletion, as with selectors scratching out the artists name on the record label to thwart the competition. Furthermore, with dub versions, what is removed, that is the vocals and melody, is what gives it its value. This aesthetic of subtraction, or lack, compliments that of waste (discussed below). It also contrasts with the aesthetic of creating “someting outta nuttin” expressing the material lack of resources available in the poor ghetto areas in which Jamaican music often originates. The Dancehall scene expresses this visually with a “bling” style of materialistic extravagance and excesses, with chunky gold jewellery, dollar signs and outfits fashioned from furs and other exotic fabrics (see Figure 5.9).

Cutting marks what is in, from what is out, text from context. Cutting makes the beginning and the end of the loop or the sample, giving it its duration; the edges of the frame, so to speak. Cutting is thus one type of framing device, which is critical for all cultural production, as Bourriaud points out:

> High culture relies on an ideology of framing and the pedestal, on the exact delineation of the object it promotes, enshrined in categories and regulated by codes of presentation. Low culture, conversely, develops in the exaltation of outer limits, bad taste, and transgression – which does not mean that it does not produce its own framing system” (Bourriaud 2002: 35-36, emphasis in original).

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These issues of transgression and sexual decency have certainly been central to the debates around Dancehall culture (see Appendix 3, Note L).

Cutting also has an important place outside the musical sphere as a key trope of modernist aesthetics. In his famous *The Work of Art in the Age of Mechanical Reproduction*, Benjamin shows how the cut destroys the integrity of the whole, by breaking it down into its parts.

The camera that presents the performance of the film actor to the public need not respect the performance as an integral whole. Guided by the cameraman, the camera continually changes its position with respect to the performance. The sequence of positional views which the editor composes from the material supplied him constitutes the completed film (Benjamin 1936/1970: 231).

Benjamin contrasts this distinctively modernist technique with those of older traditions:

The magician heals a sick person by the laying on of hands, the surgeon cuts into the patient’s body. The magician maintains the natural distance between the patient and himself... The surgeon does exactly the reverse... the surgeon at the decisive moment abstains from facing the patient man to man; rather, it is through the operation that he penetrates into him. Magician and surgeon compare to the painter and the cameraman... (Benjamin 1970: 235).

Cutting is an invasive technique. It seeks a causal instrumental solution by means of a direct manipulation of the patient’s body. This is so much in keeping with the allopathic medical tradition of Western science as prediction and control. By contrast, the holistic approach of Chinese traditional medicine, for instance, is concerned with the balance of the body’s pulses and energies.
The trope of cutting has been a central to the modernist idea of composition, by which they could distinguish themselves from the proceeding romantic aesthetic of individual creativity and the Old World order, before the First World War. It embodies modernism's break with this past. Modernism, as with Italian Futurism, for example, often inspired the celebration of the machine. Cutting is carving and sculpting, rather than modelling or painting. As photographer Jane Brown expresses this: "Some photographers make pictures, but I try to find them." Cutting has been used for making a deliberate decision, as with the object trouvé. It can also be used as a technique for avoiding conscious choice, as with Tristan Tzara's "Cut Up" technique taken up by William S. Burroughs, Brion Gysin, and John Cage with his chance composition technique inspired by the I Ching. Later such methods entered popular music with David Bowie's 1972 album The Rise and Fall of Ziggy Stardust and the Spiders from Mars. Cutting as the sole basis for aesthetic evaluation may be considered either as a mechanical reductionism, or as the opening up of the system to the creativity of that which lies outside - noise. The idea of random chance is currently represented by emergence, bottom-up structure generation, and computer algorithms as music compositional tools (see Roads 2002). These certainly have the effect of removing responsibility for creative evaluative proportional judgements from conscious awareness.

(iii) Turntablism

Cutting is also in evidence as a corporeal technique for manipulating records (see Smith 2000). One of the origins of the selector's craft can be located at the very beginning of the talkies, in the late 1930's in the USA, as cinema historian Emma Thompson (2002) has pointed out. Prior to the technology of combined prints, with both image and sound track on the same roll of celluloid, the dialogue and sound effects were provided to the projectionist on 78 rpm records, to be played on projection equipment such as the Vitaphone projection system (see Handzo 1985: 385-7). Before they reached the cinemas, these film sound track discs were compiled from voice recordings of the actors, together with recordings of music, as well as numerous sound f/x, all on dozens of 78s (Lastra 2000). The engineers, who selected which section of which record
according to detailed cue sheets, could be cited as the very first selectors, pioneering their "deckstrous" skills (see Figure 5.8).

Figure 5.8 Film sound mixing in the Warner Bros. Studio, circa 1929

The selector's juggling technique of cutting and the "touch" transforms the phonographic technology of turntable and stylus into something completely different. To say that an apparatus for sound reproduction becomes a musical instrument for sound production misses the point of what is going on in the session; this is the case, to an even greater extent, in Hip-Hop scratching and turntablism. For Mudee (2003), "The line between electronic and live music is unbroken." It is this continuity that Hip-Hop breaks:

Hiphop is organised around the act of *replaying* music; and it is this act, replaying, that marks the real rupture in the mode or method of production...
Hiphop is less "music," per se, and more "about music" -- so radical is its difference from previous methods or modes of music production (Mudede 2003: Scratches 1 and 8, emphasis added).

Mudede continues by developing the concept of "repurposing": giving another function to a piece of equipment, often "against the grain" of the manufacturers instructions. Such "redesigning through practice" is familiar to the sound system engineers who talk about the Jamaican tendency to "abuse" equipment, stretching it beyond its original capabilities (as discussed in Chapter 4). Mudede states:

The turntable is a repurposed object. It is robbed of its initial essence. But the void is soon refilled by a new essence which finds it meaning, its place in the hiphop universe, in the service of the DJ... a turntable is forced... to make meta-music (music about music) instead of playing previously recorded music. A repurposed turntable brings out a turntable's turtableness (Mudede 2003: Scratches 6, 7 and 11).

The selector's practice of meta-music renders the conventional distinctions between production and consumption, production and reproduction, and between transmission and reception irrelevant (as discussed in Chapter 2). It is of interest to note how this repurposing, like the breakdown and abuse of equipment (as discussed in Chapter 4), often brings to the fore characteristics of the material vibrations of sounding that would otherwise be so integrated as habitual practices as to be rendered "transparent."

(iii) Splicing and Sampling
On the Dancehall scene, one of the lyricists' stock phrases is: "make me your selection." Hereby the boy asks the girl to choose him to dance with her, as part of the social life of the session for which it has always been important, as emphasised by Stone Love owner Wee-Pow. In this respect, cutting is central to the biological world of procreation, sexual selection and reproduction. It is very much in evidence on the Dancehall scene with the sexually explicit costumes (see Figures 5.9 and 5.10, below)
dance moves (see Appendix 2), and lyrics - which disgust many of the Jamaican middle classes as being simply profanities. Cutting also unstitches, as it were, the material vibrations of sounding - or what would conventionally be called the characteristics of a technology - in other ways. One of them is by becoming an "aesthetic principle" in its own right, with the new technology, as what has been called re-mediation (Bolter and Grusin 1999). One example of this is Cutler’s concept and practice of “plunderphonics”:

I am more interested in the way pop really starts to eat itself. Here together are cannibalism, laziness and the feeling that everything has already been originated so that it is enough now endlessly to reinterpret and rearrange it all. The old idea of originality in production, gives way to another (if one at all) of originality on consumption, in hearing (Cutler 1996: 361, emphasis in original).

Figure 5.9 Dancehall costume, Ouch Crew, London 1998

[Image of Dancehall costume, Ouch Crew, London 1998]
Furthermore, DJ Spooky (a.k.a. Paul Miller), constructing a genealogy of his own performance techniques, appeals to the American philosopher Ralph Waldo Emerson as advocating the inescapable nature of re-using past materials:

Our debt to tradition through reading and conversation is so massive, our protest [sic] so rare and insignificant – and this commonly on the ground of other reading or hearing – that in the large sense, one would say there is no pure originality. All minds quote. Old and new make the warp and woof of every moment. There is no thread that is not a twist of these two strands (Waldo Emerson, *Quotation and Originality* (1875), quoted, Miller 2004: 68).

And in respect to recording technologies, the technique of cutting offered the classical pianist Glenn Gould the opportunity to give up live concert recitals, which he did in 1964. Two years later Gould wrote: “[T]he public concert as we know it today would no longer exist a century hence... its function would have been entirely taken over by electronic media” (Gould 1966/ 2005: 115). This was predicated on what Gould called “the splendid splice.” As Eisenberg comments: “Gould did not use the splice, as most pianists must, mainly to correct mistakes. He used it to weld numerous takes, all correct, each different, into a structure that would stand up to repeated listening” (Eisenberg 1987: 105). It is perhaps entirely typical of the modernist project that this idea of mechanical perfection overshadowed all other considerations, not least the embodied pleasures of the event of the concert. In this way, cutting may be identified as the creative principal across a wide range of traditions.

The link between cutting and sexual pleasure evident on the Dancehall scene, is explored by Mudede (2000), in relation to Hip-Hop sampling and looping. Mudede associates the rupture of the cut with *rapture*, or what Kristeva calls *jouissance*. As one leading New York club DJ David Morales put it: “For me it’s about sex. Absolutely. It’s classic spiritual sex” (Broughton and Brewster 2002: 135). Mudede identifies “the rupture of the beat... [as] the moment when a song suddenly stops, collapses, or
stutters.” For Mude de the “break” of the “break beat” or the loop is not the continuity of loop itself (discussed in respect to repeating, below), but “the loop’s sudden stop.” Mude de continues:

The rupture is erotic... the hole [or break] is ‘le petit mort,’ as the French, and later the Victorians (“the little death”) called an orgasm; it is a sudden release from structure, from the body, from the burden of being, into pure and warm nothingness (Mude de 2000: 3).

And part of the pleasure of the break is our knowing it is only temporary, it is part of the loop, as Mude de continues: “But when the beat suddenly returns, we are back in motion, ‘back to life,’ as Soul II Soul put it.” So one interpretation of DJ Squeeze’s idea of the Rhythm of Life is as sexual vibe.

Figure 5.10 Dancehall Queen Stacey, left, Chuchu Benz session
The practice of cutting and its association with sexual pleasure can therefore be described as control process, as distinct from power processes, identified in the electromagnetic frequencies of the set (in the previous chapter). At the same time sexual pleasure also involves a complete loss of this control and release.\textsuperscript{27} This control/release of the sexual cycle is also embodied in the procession of the session itself, reaching a climax of excitement at a particular hour, and so on. This dynamic is also evident in the night-into-day cycle of the experience of the crowd in the session, and the contrast between the normal life of work and the play of the special life of the session, that Bakhtin (1984) describes as the carnivalesque. It is also interesting to note how entirely appropriate mechanisms of control and release appear for concepts of sexual attraction based on energetic flows and instinctual drives, as with Freud's libidinal theory.

b) Mixing

Besides cutting, the selectors also have another technique of mixing, similarly used for "building the vibes" of the crowd and the intensities of their musical experience of the session. Mixing does this as an additive power process, generating energies, and operating in a similar manner as the technique with the electromagnetic vibrations of the set (mentioned in the previous chapter). Mixing makes relationships by segueing, suturing, combining, amalgamating, aggregating and synthesising, in contrast to the caesuras of cutting. Mixing has a direction or grain to it. It is as an additive process that is always more difficult to undo, than it is to do in the first place, as with mixing sugar in a coffee for example, or recording two instruments onto a single audio track. Mixing concerns incremental change, the analogue process of becoming different gradually, with one small step, proceeding from the last.\textsuperscript{28} This has the character of an organic growth process of continuous propagation, in contrast to the mechanics of production process of cutting, so celebrated by the early modernists (as mentioned above).\textsuperscript{29} The French philosopher Jean-Luc Nancy uses the term methexis for this.\textsuperscript{30} He contrasts methexis with mimesis to define it as "participation, contagion (contact), contamination, metonymic contiguity rather than metaphoric transference" (Nancy 2007: 42).
Outside the sound system session mixing can be identified as a practice operating across a wide range of areas. The re-purposing the recording studio as an instrument for musical production could be said to have been initiated by Jamaican music producers of the late sixties such as King Tubby and Lee “Scratch” Perry (see Figure 5.11). Using what was, even then, out-of-date two and four track mixing desks, the creative innovation in Jamaica was to use the re-recording to subtract, rather than add in, layers of musical material. The result is Dub music. Dubbing is both to copy, and to overlay by recording on top of what is already on the music track, that is, over-dub (Veal 2007: 62). Dubbing as a production technique is a reverse mixing of taking sound out, as Veal describes:

[D]ub serves that moment in the dancehall when excess ornamentation is stripped away to emphasise the elemental power of the rhythm pattern to provoke more intense and erotically charged dancing, and to give the improviser [the MC] free rein to excite the crowd with his or her spontaneous virtuosity – in short the moment(s) when the dancehall 'peaks' (Veal 2007: 63).

This technique remains profoundly influential on a range of popular genres to this day. Eshun describes this subtraction process as follows:

With pioneer dub producer Lee ‘Scratch’ Perry: “Revolution Dub (1975) is not so much produced as reduced by Perry...” In The Return of the Super Ape (1978) ‘The drum controls the heartbeat and the bass holds the space. I dub from inner to outer space. The sound that I get in the Black Ark Studio, I don't really get is out of no other studio. It was like a spacecraft. You could hear space in the tracks’ (Eshun 1998: 63-65).

The versioning or “re-licking” of the “foundation riddims” as the classic tracks of the 1960’s and 1970’s are known, affords them both their sameness and difference, extending their life, and the livelihood of generations of record producers through the
decades. In this way, the Reggae musical practice of dub versioning can be considered as an example of what Bortoft (1996) calls *differencing*, or what Stuart Hall calls the *translation*, or diasporisation, or the creolising that can never locate, or recreate the original. Like "home," the original of originals, so to say, this is something long left behind and irrevocably lost, we can only ever "know" through imaginative approximation - of the kind equally appropriate for utopias such as "Africa" (see Henriques 2007b).

Figure 5.11 Lee ‘Scratch’ Perry’s Black Arc recording studio, circa 1978

Discussing the recording studio as a creative tool, musician and theorist Brian Eno identifies the unique creative technique that dub versioning exploits, in contrast to others:
(Reggae) is a very interesting music in that it's the first that didn't base itself around the standard approach of making work by addition... the contemporary studio composer is like a painter who puts things on, puts things together, tries things out, and erases them. The condition of the reggae composer is like that of the sculptor... music, is hacked away at - things are taken out, for long periods (Eno 1979).

In terms of the abstract operations dubbing is adding-with-subtracting, or mixing and cutting together, as distinct from the more normal additive mixing-with-mixing technique. Mudede (2003) considers dub as a link between traditional live musical production with musicians and the meta-music of Hip-Hop, which for him,

Presents significant theoretical problems; its mode of production is never as clear as hip-hop (the total break), but always in a dub haze of live instruments and electronic equipment. Nevertheless, dub is the only link (or, more closely, a ghost of a link) between hip-hop meta-music and instrument-based music (Mudede 2003: Scratch 20).

Of course in practice, this “betwixt and between” state has been a source of creativity, rather than any kind of problem. Dub mixing is not a matter of purity but the fecund dirt of the material media of production. Finally, it should be noted that mixing and re-mixing are currently at the very centre of pop music production, with immensely successful producer-artists such as the Neptunes and self-styled “mixologists” such as DJ Spooky, Fat Boy Slim, 2ManyDJs and many others. Indeed, in recent years the technique of mixing has been taken to a new level with the technique of “bastard rock” or “mashing.” This Internet phenomenon has developed with “crash-mix” software that forces two music tracks together. Crash-mixing can be described as a third type of mixing (discussed in relation to the sound system clash in the next chapter). DJ Danger Mouse's The Grey Album, which re-mixes the vocals from Jay-Z's The Black Album and the Beatles' White Album, was a celebrated example of this in 2004.33
By contrast, the idea of mixing as smooth transition lends itself to a consideration of the procession of the session, made up of the selector's performance techniques and a schedule of events, propagating the *duration* of the event as a whole, as distinct from the *location* of the event (Henriques 2007b). In shaping this passage of the crowd's experience, the selector's role can be considered as conductor, manager or producer. The creative role of such specifically modern figures lies in their function of coordinating and organising the work of others, as with the manager of an assembly line, for instance, or the complexities of industrial production procedures, with subroutines and multiple components. This may be contrasted with the traditional conception of creativity as traditional craftsmanship, or of romantic idea of the artist. In a musical context, Attali (1985) takes the role of the symphony orchestra conductor as the classical example of this organising figure that industrial production requires. The selector occupies a similar position.

Conducting in the concert hall, and stage and film directing theatre and film set is a specifically modern practice as Bourriaud (2002) has explored. This well recognised in the literature on the role of the MC, where he or she orchestrates and arranges musical elements created prior to their performance, rather than originating them. As Bourriaud points out:

DJ culture denies the binary opposition between the proposal of the *transmitter* and the participation of the *receiver* at the heart of many debates on modern art. The work of the DJ consists on conceiving linkages through which the works flow into each other, representing as once a product, a tool and a medium. The producer is only a *transmitter* for the following producer... (Bourriaud 2002: 34).

Constantinides also addresses this point in discussing the mediating role of the sound system, not only to diffuse the music, but also as “an intermediate level between production and reception, a sub-framework on which the music is presented... [W]hat is especially unique about the Jamaican sound system is its creative role in the Jamaican musical complex” (Constantinides 2002: 13). This mix of production and consumption is
at the heart, as it were, of Hall's (1980) *circuit of culture* (discussed in Chapter 2). This indicates how considering the event of the session in terms of its continual *propagation*, can be more useful than seeing it in terms of the traditional distinctions between production and consumption. In practice they are invariably entwined and combined.

This widespread adoption of the mixing technique however, does not, according to Weheliye, prevent it from having specifically African origins:

> The 'mix,' as it appears in black cultural production throughout the twentieth century, highlights the amalgamations of it components, or rather the processes of this (re)combination, as much as it accentuates the individual parts from which it springs. As a result this 'mix' provides us with a model of modern black temporality and cultural practice rooted in and routed through the sonic (Weheliye 2005: 73).

This African route and root of the sonic is so fundamental to Western popular musical culture that it could be taken as defining the entire field. The selector's mixing from one track into another is only one example of a procedure that finds innumerable applications in music production. The mixing desk is the principle instrument of the recording studio, whereby the producer has independent control of up to 128 individual music tracks. In pop music, this has been used to engineer rich and complex musical arrangements, as with 1960's Beatles' music producer George Martin and Phil Spector's "wall of sound" technique.

**c) Cut 'n Mix**

In practice, cutting is invariably coupled together with mixing, to the extent that one would be incomplete without the other, as with reciprocating movement of breathing out and in, or complimentary energies such as ying and yang, or the rhythm of control and release. This is entirely indicative of auditory relationships, as Hebdige (1987) reminded us with his *Cut 'n' Mix: Culture, Identity and Caribbean Music*. The selector takes the record out of the box, places it on the turntable, lowers the tone arm, cues it up via the
headphones, and fades it into the sequence of previously played records. The selector's choice does not become a selection, until it is inserted into the flow of the mix. A piece cannot be taken out of one context without it being put into another one. Cutting and mixing always go hand in hand, coupled together, or are partnered, to use a Jamaican expression. The cutting to select one record can only take place in the mix provided as a pretext by the previous selection. And that can only occur within the already established context of the groove, as discussed above. Thus cutting and mixing recedes recursively to the start of the session, and by extension into the memories of the previous sessions attended by the crowd - and by further extension into the Dancehall scene and culture. An event is always already rhythmmed, as Lefebvre (2004) might put it.

Cutting and mixing are also entirely central to popular musical culture. For Hebdige the cut and mix identifies the present era of popular music: "Cut 'n' mix is the music and the style of the 1980's just as rock 'n' roll and rhythm 'n' blues formed the bedrock for the musics and styles that have made such an impact on our culture since the 1950's" (Hebdige 1987: 10). Cox and Warner, in an introduction to their popular music reader, put it as follows:

DJ Culture has worked with two essential concepts: the cut and the mix. To record is to cut, to separate the sonic signifier (the "sample") from the original context or meaning that it might be free to function otherwise. To mix is to reinscribe, to place the floating sample into a new chain of signification (Cox and Warner 2005: 330, emphasis in original).

The authors then go on to characterise the mix as a postmodern trope, compared to the cut as a modernist trope, as indicated above:

The mix is the postmodern moment, in which the most disparate of sounds can be spliced together and made to flow. It is exemplified in those musics of flow: disco, House, and Techno. But the mix is made possible by the cut, that
modernist moment in which sound is lifted and allowed to become something else, or is fractured so that it trips and stumbles around the beat. Its forms are Hip-Hop (particularly in its turntablist guise), dub, drum 'n' bass, and contemporary experimentalists DJs such as Christian Marclay, Philip Jeck, Marina Rosenfield, and Erik M (ibid, emphasis added).

Against this it can be suggested that both cutting and mixing together constitute a modernist trope, with digital replication perhaps as the postmodernist one.

The technique of the cut that Benjamin (1937) identified, as discussed above, comes together with the mixing. Indeed, cutting and mixing, or selecting and re-combining, are two favoured principles of both modernist and Africanist art and aesthetics, the former certainly being either inspired by, or stealing from the latter (Rubin 1984). And this interest in the pre-modern and cutting and mixing has also been in evidence in the social science of anthropology and Levi-Strauss' Structuralism in particular (Levi-Strauss 1966). The aptly titled The Savage Mind describes the process of bricolage as a characteristic of the pre-modern mind, in contrast to modern rational scientific thinking in which the engineer is engaged. A bricoleur improvises in order to tackle a task, cutting and mixing together whatever is to hand, in a manner that has also been very much in evidence in the style and fashion of the Dancehall scene. He or she works with what is readily-to-hand, to use Heidegger’s phrase (mentioned in Chapter 7). The same “cut 'n mix” attitude is true of the sub-culture of Punk in early 1980’s Britain that Hebdige describes in terms of bricolage as the “science of the concrete” (1979: 102), and which is remains a reference on the Dancehall scene up to the present (see Figure 6.6). This is what distinguishes bricolage as an embodied practical technique, rather than an abstract mental process.

This conception of what could be termed a subaltern creativity – a making from what’s immediately available - also extends to the kind of materials that might otherwise be cast-off and thrown on the scrap heap. Mudede (2000) associates this with Hip-Hop’s affection for error, as a particular type of waste:
Not in the decadent sense, meaning it doesn't throw away or waste as the rich do, but the very opposite: It subsists on waste. It's formed from the waste that falls from the abundant tables of the prosperous post-modern city. Tricia Rose puts it this way: "Worked out on the rusting core as a playground, hip-hop transforms stray technological parts intended for the cultural and industrial trash heaps into sources of pleasure and power." Hip-hop is made up of discarded bits and pieces (or beats and pieces, as Coldcut would have it) and so sees and expresses beauty in small, glimpsed, broken parts (Mudede 2000).

Besides Hip Hop, this idea of making creative use of waste also occurs with the Trinidad musical instrument of the steel pan, and more polemically with the human wastage of the gangster lifestyle summed up in the phrase "born fi dead" (i.e. born to be killed) described by Gunst (1995) in her book of that title. In theory, this idea is captured in Serres' concept of the parasite. Serres' (1982) icon of the grasshopper, as well as meaning "being next to," in respect to the locating character of a medium (as mentioned in Chapter 3), also has the meaning of being near at hand. As Serres puts it, regarding his grasshopper example, "...[T]he parasite is everywhere. Its voice expands, filling the space, wherever he is and where ever he goes. Voice, wind, sound, noise" (Serres 1982: 96). As well as waste, cutting and mixing can also be considered as the kind of excess that is to be described as a surplus, an instance of what Bataille (1988) described as the accursed share. This is as the non-recoupable part of an economy that necessarily has to be spent either on spectacular luxury or on violent war. It is these two sides of excess, as waste and surplus that make style, as captured in the idiomatic "every spoil is a style" mentioned in the introduction (see also the frontispiece).

Cutting and mixing is also very much in evidence with the fine art techniques of collage developed by Braque and Picasso, or in cinema, as seen in Eisenstein's technique of film montage. Bourriaud's discussion of the modernist aesthetic is most relevant here, though the material he discuses is from fine art rather than music. "The art of the
twentieth century is an art of montage (the succession of images) and detourage (the superimposition of images)" Bourriaud (2002: 36) tells us. This gave modernism its sense of freedom, excitement and power: “Any elements, no matter where they are taken from, can serve in making new combinations... Anything can be used,” Guy Debord told us in 1956, in Methods of Detournement (quoted in Bourriaud 2002: 29). Finally Bourriaud contends that cutting and mixing are central to the process of modernist creativity itself, adding that "Duchamp... completes the definition of the term creation: to create is to insert an object into a new scenario, to consider it as a character in a narrative" (Bourriaud 2002: 19, emphasis in original). In several respects, modernism is the story that Duchamp began with his urinal, The Fountain, in the scenario of a New York gallery in 1917, which has continued to repeat itself, in different versions, through 60's Pop art, and in late 20th with century conceptual art.

The important point to make from this is: cutting and mixing operations are indicative of the axes of a communication system, rather than a specifically linguistic communication system, as is usually assumed to be the case (see Figure 5.12). Wilden (1972) is emphatic on this point:

*Metaphor and metonymy are not linguistic processes: they are communicational processes.* Selection from the code and combination in the message must and do occur in any communications system whatsoever, whether in the genetic code of the DNA molecule, or in the organism, or in the life processes of bacteria, or in a social system...All communication in systems of communication – ecosystems – involves an axis of selection and an axis of combination" (Wilden 1972: 351-2, emphasis added).

Identifying selecting and combining, or cutting and mixing, as elemental procedures suggests that both non-representational communication systems, like the sound system, and representational ones, such as the language system, have the same elements to their operations. These operations apply to all communications systems, including those without the signification, representation or mimesis, such as a hug.
gesture (Rotman 2002a), viral contagion (Goodman 2002), the transmission of genetic information, or indeed the engineers’ fine-tuning of the set. The selector’s techniques of cutting and mixing may therefore be considered as those of the language user - albeit with musical units, rather than representational ones, more commonly associated with meaning.

The selector’s techniques of cutting and mixing, it is argued here, make use elemental communication techniques that can be traced back at least to the distinction Locke makes between the association of ideas by *contiguity*; and association by *similarity*, according to Wilden (1972: 37). The two operations of selecting and combining are certainly central to Freud’s (1911) theory in *The Interpretation of Dreams*, where in Chapter 6B he states, “[D]ream-displacement and dream-condensation are the two craftsmen to whom we may chiefly ascribe the structure of the dream.” This was than given a “linguistic turn” by Jacques Lacan in terms of metaphor and metonymy (Wilden 1968, Wilden 1972: 31-62). Indeed, according to structural linguistics, the two most fundamental linguistic operations are *combination* and *selection*. This makes use of the distinction introduced by Roman Jakobson, in his seminal *Two Aspects of Language and Two Types of Asphasic Disturbances* ([1956] 1971). Here he states: "[S]peech implies a *selection* of certain linguistic entities and their *combination* into linguistic units" (Jakobson 1971: 58, emphasis added). Mixing is the syntagmatic, metonymic, or horizontal axis of language that makes combination between linguistic units that are all *present* and related contiguously.

Selecting on the other hand, takes place in the paradigmatic, metaphoric or vertical relationship between units of language system that are *absent*, existing only as the potentials the linguistic system has to offer. Here each element is compared as similarities and differences with those elements with which it could be substituted, opening up a huge range of imaginative possibilities, as Gates (1998) emphases in his account of *signifyin(g)*. Such metaphorical relationships are discussed more specifically as analogical, or proportional relationships (in Chapter 7). Thus it can be said that such selecting and combining occurs virtually everywhere across the crew’s skills and
performance techniques: with each tuning of the power and control of the set by the audio engineer; with each of the selector’s musical selections, and the particular utterances of the MC, selecting and combining of tongue and teeth, vowel and consonant, phrase with phrase. Each particular combination, that is to say mix, especially when strung along in a sequence, not only prescribes what is grammatically “correct,” but also gives a unique “meaning” to the utterance, or musical sequence, or fine-tuning of the set.

Figure 5.12 Table of axes of communication

<table>
<thead>
<tr>
<th>System</th>
<th>METAPHOR</th>
<th>METONYM</th>
</tr>
</thead>
<tbody>
<tr>
<td>engineer</td>
<td>monitoring</td>
<td>manipulating</td>
</tr>
<tr>
<td>corporeal</td>
<td>ear</td>
<td>hand</td>
</tr>
<tr>
<td>set</td>
<td>control</td>
<td>power</td>
</tr>
<tr>
<td>material</td>
<td>transducer</td>
<td>amplifier</td>
</tr>
<tr>
<td>session</td>
<td>selecting</td>
<td>mixing</td>
</tr>
<tr>
<td>ethereal</td>
<td>groove</td>
<td>intensities</td>
</tr>
<tr>
<td>language</td>
<td>paradigmatic</td>
<td>syntagmatic</td>
</tr>
</tbody>
</table>

Concluding this section, it can be said that mixing and cutting can be identified as elemental processes in both the selector’s techniques and language use. This suggests that there are communication techniques, procedures or operations common to both non-representational communication systems, like the sound system, where meaning depends on the material vibrations themselves, and representational ones, such as the language system, where meaning is defined diacritically only in relations to the units of the language. Reclaiming mixing and cutting as principles of a communication processes, in this way, helps to break the habitual association of these terms with representation and discursive systems - and these as the only way to understand meaning and rationality (as discussed in the concluding chapter). Indeed, this distinction is a very ancient one. In Freud’s late philosophy, there are the two opposing instincts of
Eros and Thanatos. This distinction took inspiration from even earlier sources, namely the pre-Socratic philosopher Empedocles (see Parry 2005) for whom the world was ruled by a continual play of two forces: Love and Strife – described here as mixing and cutting. But it needs to be remembered that these two techniques never operate in isolation from each other, as emphasised at the beginning of this section. A cut is hardly a cut without a paste, or a splice, as the two procedures can only be separated in theory, analytically. To understand how in practice they flow together, we need to turn to the third of the selector’s technique - repeating.

d) Repeating
The apparently simple technique of repeating a section of the record, as with the selector’s “pull-up,” introduces a wealth of creative possibilities for musicians in performance, as well as producers who have realised “looping” with their computer composition software - or Baraka’s (1969) idea of music as verb (discussed in Chapter 3). The Reggae music production techniques of both versioning and dubbing provide striking examples of both the creative and intensifying powers of repeating, reiterating and recursive practices. It is interesting to note how these were pioneered in the live sound systems sessions themselves and then adopted as studio production techniques (as Veal 2007 emphasises). Repeating is part and parcel of musicking, sounding and all performance techniques, as literally the form of practice: the honing of skills, and, for instance with the audio engineer’s compensation, trial and error. The cyclical movement of repeating is also inseparable from the material vibrations of sounding with its rhythms, pulses, waves, rotations, oscillations, vibrations and frequencies that occur throughout the session.

As with musicking, sounding, lighting, touching and selecting itself, repeating is a verb, a doing in the world, a becoming. Musically in dubbing this is often a reverberating echo gradually diminishing into silence. Either coming or going, repeating is becoming different. This literally re-verberates through the dub, as Veal (2007) elaborates in rich depth and detail. A dub version aims to be different from the previous version, with an echo or resonance with what was. As Veal puts it: "Much of the [dub] genre's
compositional tension is generated through subversion of the listener's expectations, based on the vocal song with which they are previously familiar" (Veal 2007: 89). Dubbing makes a point of drawing attention to the characteristics of the material substance of its electronic medium, in a manner entirely consistent with Lastra's approach to sound recording as representation, rather than reproduction (Lastra 1992: 72). The analogue and valve technologies of the studios in 1960's Jamaica, from which the first dub versions emerged, appear to have provoked an aesthetic confrontation between the electronic recording, or representing, and the material vibrations of sounding itself. In this respect, to dub is to make a simulacrum, as the copy for which there is no original (and the very opposite of Benjamin's idea of "aura"), and as celebrated by the 1960's Parisian Situationist theorists, to critique the obsessively image-based spectacle that they considered society as having become (see Knabb 1981).

Each dub, as with an analogue copy, inevitably introduces noise and distortions, making it less-than the previous one, a deterioration of the original. But most important, it also removes and takes out from the original, reducing it to its bare essentials (as Eshun 1998 noted). If cutting is a modernist mechanical production process, and mixing an "organic" propagation one, as discussed above, then digital cloning might be considered as a postmodern replication process (as mentioned above). But it is interesting to note that the value of repeating does not disappear even with such digital technologies. These too have their own textures and timbres in which repeating also plays a part. The digital media theorist Manovich (2001) reduces repeating to a consequence of the physical limitations of the media itself, or bandwidth, as he states:

The history of new media tells us that hardware limitations never go away: They disappear in one area only, to come back in another... Can the loop be a new narrative form appropriate for the computer age? (Manovich 2001: 316-7).

So is that the ubiquity of the practice of repeating to be reduced to physical constraints of the material vibrations of sounding as such? Such affordances, as restrictions, are
part of the answer. So too are the memories of previous techniques that may congeal into sociocultural habits and ethereal preferences, in the way aesthetic tastes linger over defunct production techniques - as with for instance, the epicurean value of strawberry jam, outlasted sugar as a necessity for fruit preservation. Furthermore, the value of repeating also has to do with the practice of its doing; that is, our attention and participation in the musicking of the repeat. This is the potential, rather than the limitation of the affordances of the material vibrations of sounding.

The dub version is always a repeat and a fresh performance both at the same time. The aim is not fidelity to any original, but variation, version, even aberration. In this respect, dubbing, like Folk and Blues, takes its inspiration directly from oral traditions in which the work is always a live performance, rather than an artefact, text or score. The tradition of Jazz improvisation clearly partakes of this tradition, emphasising as Baraka (1969) has discussed, the active process of propagation, rather than the reified object. Further, as Sterne points out there is a certain irony in the fact that the idea of fidelity to an original could only come about in conjunction with the technologies of sound reproduction (Sterne 2003).\textsuperscript{40} The fidelity of "high fidelity" was in fact an artefact of the marketing of the first 78-rpm gramophones:

> The very idea that a reproduced sound could be faithful to an original sound was an artefact of the culture and history of sound reproduction. Copies would not exist without reproduction, \textit{but neither would their originals}. Sound fidelity was a story about sound reproduction that proved useful for selling machines (Sterne 2003: 282, emphasis in original).

This studio production technique of "versioning" makes a dub version of a tune, and is as much re-mixing as it is mixing. Traditionally this second instrumental dub mix would be released as the B-side of the 7" single. This creative technique of making something different, allowing a becoming of difference, or simply to "try a t'ing," as would be said, is at the heart of the Jamaican sensibility. Reggae music techniques, such as dubbing and the dubplate specials, evidence a particular type of creativity that is founded on
practices of echo, subtraction, re-production, re-vibration and re-activation. Furthermore, Eshun (1998) identifies the dubplate special as a key example of a contemporary kind of creativity (see also Veal 2007: 51-57). The dubplate is a one-off acetate (rather than vinyl) pressed single, usually with bespoke lyrics mentioning the sound system who commissioned it, that are vital ammunition in a sound clash (as described in the next chapter). This creative practice goes against the traditional idea of originality work of art that Benjamin described as its “aura” in his famous essay *The Work of Art in the Age of Mechanical Reproduction* (1936/ 1970: 223). As Eshun puts it:

One of Benjamin’s main points (or one his admirers use over and over again) is that in the Age of Mechanical Reproduction there’s no aura left, the single unique aura has gone. But of course as soon as you have the dubplate then that’s all gone out the window. The dubplate is where you’ve got the reproductive process, the mechanical process of pressing vinyl onto the plate that’s being played, and suddenly in the middle you’ve got a one-off mix... *So the dubplate means that the whole idea of the aura being over doesn’t make sense, because the aura is reborn in the middle of industrial reproduction* (Eshun 1998: 188-9, emphasis added).

This provides an example of how it is in actual practices, often based on necessity, whereby new types of creativity come into being. Thus the dub version is a deeply layered whole, as Veal summarises:

The version-encrusted song surface of the dub mix is simultaneously a signifier of the engineer’s musical artistry, a visceral sonic signifier of the work’s ritual history in the sound system, and (like torn layers of advertisements on a billboard) a signifier of the song’s commodity history in which producers fought to sell consumers serially manipulated versions of old music with minor variations (Veal 2007: 90).
Another example of the creativity of repeating is, of course, the selector's "re-wind." This is the action of lifting up the stylus from the groove of the record, which continues revolving, but without the stylus in silence, before they take it back to the beginning again. Rather than a going backwards, repeating goes forwards by suspending the auditory part of productive activity of musicking, which, even without sound itself, remains at the heart of the propagation of the event. The musicking continues, but within it there is an absence, a moment of silence.

Despite the creative value of repeating in practice, it has to be pointed out that the idea has received comparatively little theoretical attention, other than as the reiteration of mathematical algorithms. Otherwise reiteration has been dismissed as simply as dull and boring, as a waste of effort, a standing still, simply going back to the beginning, as Sisyphus' curse of doing the same thing again and again and again, or Nietzsche's eternal return. Deleuze and Guattari's (1988) and Deleuze's (1994) treatment of repeating in terms of the refrain is an exception in this respect. There are several grounds on which the idea of the positive value of repetition would appear to go against the grain, or even be considered an anathema, to a considerable amount of philosophising in the Western tradition.

One reason for the neglect of repeating is redolent with a particular kind of pleasure. This is the pleasure of indolence, or simply laziness, stereotypically associated with the African peoples whose music makes a feature of repetitive rhythms and repetitions. Repeating rhythms and beats have the effect of refusing the passage of time, or rather wilfully trying to suspend its progress, as the crowd was described as doing (Henriques 2007b). This is literally a waste of time, which, in terms of the Protestant work ethic, is seen as an object, a valuable commodity that needs to be accumulated rather than squandered. In fact, through the cut of repetition, an entirely different sensibility and aesthetic value system from the dominant European one is expressed (as discussed above). This broadly African musical sensibility can be described as having three key features (see Chernoff 1979). One is that it favours musicking as collective and a socially integrated production process, rather than an isolated, specialist production and
product. Another is that rhythm and timbre provide the organising principle here, as against melody and harmony in the Western classical tradition. Thirdly, creativity is a live invention, usually collectively improvised performance, as against an individually original composition produced prior to its interpretation in the performance.

Repeating has thus been heard as the antithesis to dominant Eurocentric ideas of what culture should be: linear and progressive. G. W. F. Hegel (1770-1831) first articulated this view. James Snead, in On Repetition in Black Culture (1981), reverses Hegel, so to speak, arguing that cutting is equally the beginning, as well as end of cycle of the loop, the continuity as well the cessation. With examples from James Brown, Snead makes the crucial theoretical connection between repeating and cutting as follows:

The ‘cut’ overtly insists on the repetitive nature of the music, by abruptly skipping it back to another beginning which we have already heard. Moreover, the greater the insistence on the pure beauty and valued of repetition, the greater the awareness must also be that repetition place on a level not as musical development or progression, but on the purest tonal and timbric level... (Snead 1981: 150, emphasis added).

It is certainly beat and rhythm, rather than harmony and melody, which have defined popular music, from Jazz onwards. This is particularly the case with Reggae where the selector's and studio producer's technique of dubbing invented “a new language that relied as much on texture, timbre, and soundspace, as it did on the traditional musical parameters of pitch, melody and rhythm” (Veal 2007: 64). On the one side of the cut is the moment of return, going back to the beginning, and regression. On the other side is the moment of renewal, emergence and progression. This is the point, or meaning, of the line that the cut makes. Regression and progression occur at the same time, as indeed it might be simultaneously both sexual and sacred (see Henriques 2007b). They also occur at the same time as part of, or from the point of view of, a single cycle, as with breathing out and breathing in.
But the value of these two sides of cutting is that they are not equally balanced, as Snead is keen to point out; rather, the great weight of European culture comes down on the side of progress:

A culture based on the idea of the 'cut' will always suffer in a society whose dominant idea is material progress... In European culture, the 'goal' is always clear: that which always is being worked towards... Black culture, in the 'cut,' builds 'accidents' into its coverage, almost as if to control their unpredictability. Itself a kind of cultural coverage, this magic of the 'cut' attempts to confront accident and rupture not be covering them over, but by making room for them inside the system itself... (Snead 1981: 150, emphasis in original).

Snead then identifies the theoretical grounding for this prejudice against repeating in the work of the German idealist philosopher Hegel. At the height of European Imperialism, Hegel's idealistic philosophy took the issue of repetition as the stick to beat non-European civilisation, so to say. Hegel's project, according to James Snead’s (1981) seminal essay *Repetition in Black Culture*, was to measure European civilisation as superior to all others (see also Torres-Saillant 2006: 73-75). He did this by the benchmark of progress, against it's opposite, which for Hegel was Africa. According to Hegel in *Die Vernunft in der Geschichte* (1955) Africa lacked everything that characterised European civilisation. The entire continent was without logic, lost in the immediacy of the moment, and thus, most damming of all, outside history:

In this main portion of Africa there can really be no history. There is a succession of accidents and surprises...What we actually understand by 'Africa,' is that which is without history and resolution, which is still fully caught up in the natural spirit, and which here must be mentioned as being on the threshold of world history (Hegel 1955, trans. Snead 1981: 146, emphasis in translation).

It is not without irony then that the cut as repetition should have proved itself to be the keystone of twentieth century’s modernist culture (Rubin 1984). Both avant-garde and
popular, as well as musical and visual cultures have drawn directly on African inspiration for its technique of cutting and much else besides. Repeating makes a point of celebrating this specific antithesis to the prevailing values of accumulation and creative originality. Music well suits this purpose as the dynamic of the material vibrations of sounding make accumulation unnecessary. Judged by the global ubiquity of popular culture, Hegel’s Eurocentrism has failed. Perhaps the pleasures of repetition, like many others, are all the more compulsive for being forbidden. Certainly the technique of repeating offers an important key for understanding the material, corporeal and ethereal vibrations of sounding. Indeed, it is very much in evidence with the MC’s rhetorical performance techniques, to which we turn next.

Conclusion
To conclude the selector and audio engineer’s performances may be compared. This chapter has described the selector’s skills and techniques in terms of the three practices of manipulating, monitoring and evaluating that were already identified as crucial for the audio engineer (in the previous chapter). This is the case despite the fact that these two crewmembers operate with different media, instruments and techniques. The engineer’s medium is audio frequencies, the selector’s are the musical beats in his record box; the engineer’s instruments can be a soldier iron; the selector’s a turntable and pick-up arm; the engineer’s techniques include compensation, the selector’s “rewinds.” With their manipulating, selectors control the music they play (rather than the engineer’s audio frequencies); with their monitoring they “read” the vibes of the crowd (rather than the engineer’s instruments); and with their evaluating they judge which record to play next (rather than when the set’s tuning is complete).

To the extent that there are parallels between the selector and engineer’s performance, it is taken as evidence for the common characteristics of the different wavebands of sounding that the propagation model describes. This is the case even though the two crewmembers use their techniques for very different kinds of practice. The selectors give a conventional “performance” in that it is staged in front of an audience, even though they, like the MC, may not be actually visible to the crowd (as discussed in the
next chapter). By contrast the engineers work “behind the scenes” without this public exposure (unless the set breaks down). While these difference emphases can be made between the concerns of the selector and engineer, it is most important to remember that each of the crew’s performance techniques have to be considered in respect of all three material, corporeal and ethereal vibrations of sounding. The selectors’ attention might be on their music, but by this token they could never be preoccupied exclusively with any one frequency of sounding, as each can only be heard in relation to the other two.

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1 Other dances have free entry, for example Firelinks’ Hot Monday, or Chuchu Benz’s August Town dance, which I observed in 2004. In these the promoters make their money entirely from the bar sales. 2 As a teenager growing up in the 70’s early 80’s DJ Squeeze ran the very popular Peacemaker Sound System, one of the first with a following both uptown and downtown. Since the mid 1990’s he has owned and operated his mobile sound truck Skyy (sic) Sound System and since 2002 owner and CEO of Magajamz Radio Station, see http://www.jamaicaobserver.com/lifestyle/html/20031002T200000-0500 49836 OBS DJ SQUEEZE A LONG ASSOCIATION WITH MUSIC.asp accessed 10th March 2006. 3 From http://www.imexpaqes.com/stonelove/company_profile.htm, accessed 5th July 2005. 4 Interview with DJ Squeeze, a.k.a. Mr Glenworth Samuels, Kingston, 22nd June 2004. 5 This trope of sitting on a riddim is explored in relation to the DJ techniques in the next chapter. 6 The procession of the Session, and the developmental changes that are made along the way, may be compared to the technological development of the Sound System set, addressed in the previous chapter. 7 One particular session I remember in this respect was selector and DJ on the Swatch International Sound System literally bouncing up and down with the rhythm of the music they were playing. This was at Passa Passa, Spanish Town Road, Kingston, on 23rd June 2004. Unfortunately this was one of the few occasions where it was not possible for me to film or take stills. 8 This theme of the dynamic relationship between tool and user, following Mauss (1936), Simondon (2002) and Latour (2006) is explored with the example of the “technology” of the sound system set elsewhere. 9 See also for an expanded version: http://www.jamworldreggae.com/sounds/sounds.htm accessed 2nd February 2006. 10 These are specially commissioned voicing of a popular tune by a leading artist who “bigs up” the Sound by name are of particular value in sound clashes (see Appendix 3 note B, as described below). 11 The Easy Star All Stars’ dub version of Pink Floyd’s Dark Side of the Moon, Dub Side of the Moon, is one current example of the use of the dub technique, see http://stores.musictoday.com/store/product.asp?band_id=130&dept_id=241&pf_id=ESCD12&sfid=7 Reggae music production pioneered technique of versioning and the “dub version,” (whereby only a hint of the original lyrics or melody remain, leaving the drum and bass, often extenuated with reverb). 12 This was Yvonne Iles Douglas, interviewed 20th June 2004, Kingston. In the UK, though not in Jamaica, some of these old-style single turntable Sounds, such as Jah Shaka, are still in regular operation. They tend to attract an English and European, rather than Jamaican, crowd. 13 Interview with Mr Denton Henry, Kingston, 24th June 2004. 14 One recent example of this is Damian ‘Junior Gong’ Marley’s international hit, in the summer of 2005, Welcome to Jamrock. 15 Interview with Mr Denton Henry, Kingston, 24th June 2004.
16 This is the processing time of the apparatus of selector and set, as with the whirling disc symbol of computer processing time.
17 As Latour (1986) points out, with reference to the classroom equipment of a projector, the fragility of social and technological assemblages only tends to be revealed when they malfunction.
18 This is detailed in further research.
19 They have to elicit such audience response by encouraging them to phone in, or at least make drop calls, to register their interest, and vote and so on.
20 In the late 1920’s with the first film sound track engineers (as an early example of turntablism discussed below), these evaluative judgements are presented as a fate accompli in the form of the set of instructions the cue sheet provides (see Figure 5.6).
21 Also this idea puts me in mind of the television advert for the John West brand of tinned salmon, whose strap line was: “It’s the fish John West rejects, that makes John West the best” accompanying a visual of the rejected other tins being swept off the table, presumably into the rubbish bin.
22 The Guardian Weekend, 4th March 2006, p 42.
23 Emma Thompson, keynote address at the ASCA Sonic Interventions Conference, Amsterdam, April 23rd 2005.
24 And before any sound was recorded the projectionist provided sound effects live, with various tools and instruments for this purpose. Phrases such as “all bells and whistles” and “going like the clappers” originate from these technologies.
26 Photo credit: Ouch Management.
27 This distinction between the cyclical of control and release is also of a different character to that between control and power processes. Cutting is also equally important at the higher frequencies of the causal relationality of the material world (as noted in Chapter 1), where the political strategy of “divide and rule” has been well tested.
29 This idea of growing difference through incremental change was highlighted some of Goethe’s thinking: “Whatever Nature undertakes, she can only accomplish it in a sequence. She never makes a leap. For example she could not produce a horse if it were not preceded by all the other animals on which she ascends to the horse’s structure as if on rungs of a ladder,” Goethe, Conversations with Riemer (1807), quoted in Naydler (1996: 58-9). This idea of change through difference can also be said to be elaborated in the geometric principle of gnomonic expansion “A gnomon is any figure which, when added to the original figure, leaves the resultant figure similar to the original” (Lawlor 1982: 65). Gnomonic expansion provides for material change without any change in proportion. Goethe continues to use this idea as a way of understand the whole, that expresses itself through the process of differentiation, that is identity based in difference rather than similitude, as discussed in Chapter 1. Further I would like to consider Goethe’s idea of the whole as a prescient of more current ideas of “metastabilities” (see Canguilhem (1992). Goethe continues: “Thus every one thing exists for the sake of all things and all for the sake of one, for the one is of course the all as well. Nature, despite her seeming diversity, is always a unity, a whole: and thus, when she manifests herself in any part of that whole, the rest must serve a basis for that particular manifestation, and the latter must have a relationship to the rest of the system (ibid).” For further discussion see of this (see Bortoft 1996).
30 Though Nancy does not give a derivation, this is presumably from methe, from the Sanskrit māṭti, for measure, which the OED defines as “measure, proportion... moderation... respect... modesty.”
31 Stuart Hall, talk given at the launch of Stuart Hall – Culture, Politics, Race and Diaspora, (Meeks, B., ed. 2007), Queen Mary, University of London, 24th October 2007.
This mixing of commercially available records does of course lead to consider legal problems over copyright, see http://www.mtv.com/news/articles/1485893/20040311/jay_z.jhtml?headlines=true and http://observer.guardian.co.uk/print/0,3858,4874327-102280,00.html, accessed 24th November 2005.

Attali (1985) also uses the symphony orchestra as an example of how musical forms of organisation anticipate social forms of organisation, giving music what Attali considers its predictive capacity.

The word conduct has its etymological routes in Old French, conduit and Latin conductus meaning the action of conducting, steering, managing or leading along as in the phrase 'safe conduct.' The word duct exists alone as in air duct, but as a suffix, has numerous prefixes such as production, reduction, induction, and deduction for example. The noun conductor applies equally to the directing all types of flows which now include, for example, the flow of images in the video technologies that are now a standard component of the Session.

Jamaican market traders, or higglers, often partner their wares, like for example, thyme and scallion, to increase sales.

Though it can be noted that for Structural linguistics this matter of representation is indefinitely differed, in so far as the relationship between signifier and signified is considered to be arbitrary, and signification is considered a property of the signifying system alone.

Rhythmic repetition is indeed central numerous corporeal practices, such as for example military drill, as McNeill (1995) describes.

Currently 'Glitch' music makes use of this aesthetic. Glitch is made entirely out the scratches, pops and hums of the electronic medium that would normally be minimise as noise and interference, listen for example to Fantasmagramma, see Henriques 2002a.

For copyright reasons the World Clash sound cup, for example (see Figure 6.3 and Appendix 4) make the distinction between dubplates and commercially released records: "Each dubplate featured on this DVD set was specifically recorded by each artists for the use of the sounds in the events line-up. All recording are one-of-a-kind and belong to the respective sound systems." For some examples of dubplates visit http://website.lineone.net/webloc accessed 27th May 2007.
Chapter 6

The MC: Logos, Pathos and Ethos

This chapter considers how the MC’s “voicing” adds to the vibrations of the selector’s music and the engineer’s sound. It describes (1) the MC’s role as a “figure of speech” a) “exciting” the crowd, b) “guiding” them through the session and c) championing them in the lyrical battle or “clash” against sound system competitors. Exactly how the MC’s performs these functions is then considered in terms of their (2) lyrical techniques or “lyricizing” of the crowd. These comprise a) meaningful instructions, or “chatting the mic;” their b) performance tropes such as “riding the riddim,” “conducting choir” (antiphony) and “tracing” (ritual insulting of parentage); and each MC’s c) distinctive tone of voice, usually both authoritative and entertainng. In conclusion, it is suggested that (3) the rhetorical triad of “logos,” “pathos” and “ethos” best describes the ethereal, corporeal and material wavebands of the MC’s voicing. In this way thinking through sounding can approach the dichotomies of sender and receiver, language system and utterance, and subjectivities and objectivities, as proportional evaluations.

Booming out across the packed open-air dance-floor in the dark night of the session, the MC’s disembodied voice, amplified thousands of times over, grabs the attention of the hundreds of bodies of the crowd. This provides a paradigmatic example of the viva voce, the living voice of the sounding of the logos. Voicing mixes and mingles together meaning and feeling, intimacy and power, spirit and matter and indeed, speaker and listener, as no other kind of sounding can do. The MC specialises in the ethereal vibrations of sounding, in relation to other two frequency bands. As Aristotle tells us: “Voice is a particular sound made by something with a soul; for nothing which does not have a soul has a voice.” The MC’s vocal expression, literally the breath of their lungs, via the vocal chords, coming out of their mouth as sound, contributes a unique live element to the session’s phonographic auditory production. Furthermore, the prosody of their vocal expression makes each MC distinctive. Richard Onians’ investigation of the origins of European thought is useful on this point, explaining that the Greek word θυμός (thymos) for breath, is also that for wind, spirit, movement and anima. As he states: “[I breath] means not merely ‘I have received breath’
and also 'I have breath' but also something like 'I have intelligence, wisdom'...
consciousness and intelligence depend upon the breath and lungs... wisdom is 'breathed
into' a man" (Onians 1951/ 1988: 59). The MC's voicing can therefore be described as
"phonovocal"; that is, sound speaking, as distinct from phonographic, sound writing. In
short, the MC becomes a "figure of speech" on account of their voicing.

Figure 6.1 **MC Sky Juice at Skateland, Saturday 17th August 2002.** Note the money
in his hand to give away for prizes, and his gold "bling."

In this way, the MC takes the vibes of the crowd "to another level," as is said, further
than what the selector achieves with music and the audio engineer does with sounds.
The Dancehall MC has indeed provided a unique contribution to the development of not
only the genre of Reggae music, but also Hip Hop and Rap. Indeed, the word, as
spoken or rapped rather than sung, has been the most important musical form for
Western popular music since the early 1980's, with numerous local variants, to become the global genre (Neate 2004). This chapter concerns the MC’s practice of voicing - what he or she does by speaking through sounding, as distinct from the selector’s musicking through sounding, or the thinking through the sounding with which the chapter concludes. The MC’s voicing, because of its linguistic concerns has a particular involvement with the ethereal waveband of sounding. But, as would be expected, the MC’s skills and techniques are afforded by all three wavebands.

(1) The MC’s Role in the Session
The MC works in tandem with the selector, most often standing next to them behind the record decks, "hyping up the crowd" and "building vibes" of the session (see Figure 5.1). As Campbell (1997) tells us, "The MC is the selector’s right hand man (and visa-versa)." Also the MC can perform the role of the selector (as discussed in the previous chapter). On a Jamaican sound system the one who speaks to the crowd is called MC (Emcee, Master of Ceremonies or Mic Chatter), while in the UK the MC goes by the name of DJ (disc jockey), as they do with other musical genres (see Figure 6.1). The term DJ is also, of course, used for the radio DJ, as well as for the Reggae and Dancehall recording artists who speak, or "chats," rather than sing, their lyrics. As Constantinides says, "The added feature of talking over records by Jamaican deejays is what makes these sound system performances truly original" (Constantinides 2002:13). Given the special role, function and qualities of the voice itself, the MC’s "voicing" and performance has a unique place in the dancehall session as a whole. This is evidenced, for example, by the particular techniques the MC employs, such as call and response, and by the high status of the MC’s role, though as already noted, not over and above that of the selector.

The MC’s performance has much in common with that of the selector, as described in the previous chapter. Both MC and selector share similar materials of the sounding of the session, similar performance techniques, such as cutting and repeating, and indeed the same aim of building the vibes of the crowd. During the 1960’s the MC became centrally important in the development of Jamaican music, pioneered by Count
Matchukie (a.k.a. Machuki) and King Stitt. MCing began and continues today as a live improvisation, talking over music, chatting or "toasting" to introduce a record, give information, or encourage the crowd (see Stolzoff 2000:56, Barrow and Dalton 1997:11 and Veal 2007). But this was gradually developed with MCs such as U-Roy Prince Buster, Big Youth and I-Roy for them to become recording artists in their own right. Another influence on MC technique outside Jamaica was radio DJing, as for example with Jimmy Savile in the UK (Postchardt 1998). Jamaicans who emigrated to America, such as Cool Herc, who settled in Brooklyn in the late 1970's and as a member of Grandmaster Flash's Furious Five, further developed Jamaican MCing into what became the Rapping of Hip Hop music, as Rose (1996) describes.

The MC's performance is improvised, "on the spot" and extemporised, meaning literally ex tempora, out of time, and emphasised by what is often considered as a key quality: speed of delivery. Called "free-styling" in Hip Hop, this is a technique specific to the oral traditions used throughout history in numerous cultures across the world, including Calypso singing at Trinidad and Tobago Carnival, much African music (Chernoff 1979), the Jazz tradition and the European Classical music tradition at least up until Mozart, who was famed for his improvisational techniques. The fluency of the lyrical flow of the MC's improvisations is an especially prized performance technique, for the MC in the session and the DJ recording artist in the studio. Indeed, the battle of the clash itself brings an additional nefarious vocabulary into play (as described below). In the 1990's, artist DJ Ninjaman became famous for his hugely exciting extemporising skills against rival DJs in the session, which unfortunately for his career, was never considered to have been recaptured in the recording studio. The rivalry between the veteran DJs Beenie Man and Bounty Killa, both in and outside their lyrical performances, has been a recognised feature of the Dancehall scene. Clearly this is not without its commercial value for raising "excitement" around the artists and their acts. Also DJs and singers regularly make "PAs" (personal appearances) at sessions to "voice" their current hit over its backing track.
a) "Excitement" and Control

The MC’s contribution to the success of the session is to “excite” the crowd, intensifying their musical experience, and encouraging them to enjoy themselves and participate in the dancing. The MC’s job “is a very big responsibility,” as DJ Squeeze described it:

You can tell them to jump, lie down on the ground, put you hands in the air, clap you hands, everybody scream now. You tell them say ‘I am the king’ and everyone say I am the king.’ Say ‘I am the wickedest DJ’ and they say ‘Squeeze is the wickedest DJ.’ In other words, it’s almost like mass hysteria.³

The MC also has to be in control of the crowd, otherwise “you can have a dangerous situation” according to the late Louise Fraser Bennett of the Sound System Association of Jamaica:

If the MC is not somebody positive in control of the crowd then the crowd will control the MC and you don’t have any dance because the MC must be in control at all times, watch the crowd, watch the vibes, liquor consumption. The MC must be someone who is alert and knows what he’s doing or you can have a dangerous situation…⁴

Evidently Bennett (see Figure 6.2) is very much aware of the possible risks that the MC’s power could be abused. She elaborates on the particular kind of power expressed through the MC’s amplified voice, describing selector Rory, from Stone Love, as “a mastermind for the music.” Bennett continued,

That’s why they say when you get the instrument of authority with the mic you must use it constructively… that goes right back to the point of the music being used as a weapon for or against the people (emphasis added).⁵

Furthermore, there is also a danger, as noted by Stone Love owner Wee-Pow, that the MC can use their power to turn the crowd against the police (see Henriques 2007a). So
the MC’s vocal power can be used either as power-with (puissance) the crowd, amplifying the positive vibes, as it were, or power-over (pouvoir) outsiders, encouraging the crowd’s destructive or negative potential. But this is not a one-way process. In order to have any influence on the crowd, the MC has to have their respect, to establish a rapport with them; otherwise they are just as vulnerable as the selector to the “fling bottle” techniques, that is, pelted with bottles by crowd (as described in the previous chapter). In recent years, Dancehall artists such as Beenie Man and Sizzla have met criticism from a different quarter, involving press criticism and protest over their anti-gay lyrics, to the extent that their 2004 tour to the UK was cancelled.\(^6\) Tommydread’s account mentions the selector’s playing of Baby Cham’s violently anti-gay Bum Batty Boy, for instance.\(^7\) As well as reinforcing prejudice and negative attitudes, equally striking is how the dancehall session is more often a place where the norms of sexual orientation, for instance, are reversed (see Henriques 2007b). However, for the most part the MCs, despite the aggressive and sexist lyrics, do not abuse their power.\(^8\) There is also a softer, more persuasive approach based on the cultural vibes that has also remained current in the music. As Bob Marley famously sings: “One good thing about music, when it hits you, you feel no pain.”\(^9\)

b) “Guidance”
The MC’s skill is to give “guidance” to the crowd. He or she conducts them along in the evening’s procession, following the route of the musical groove on which they are steered by the selector. MCs frequently refer to this as a sonic journey from the beginning to the end of the evening. As they captain the voyage, their job is to steer the crowd up to “higher levels” of pleasure or consciousness and safely down again at the end of the session. This allows the crowd to go about their “normal” lives at dawn, and motivates them to return to the session on another night, for another journey. One particularly striking example of the imaginary sonic journey came over the airwaves from one of London’s pirate radio station DJs, rather than from a session. For several years this particular radio personality has conducted his show within this trope of a sonic journey. With frequent catch phrases such as “all aboard” and “hold tight,” in his radio patter he describes his show as a train onto which he invites his listeners along to
join as passengers. When discussing which record he’s going to play next, eliciting requests, dedications or rewinds, it is all in terms of that particular artist coming on board the train. This sonic journey is then virtually materialised, as it were, as he describes the towns, villages, roads and landmarks for an actual journey across a particular part of the island of Jamaica: “We’re approaching... just left... look out for...” The sonic illusion has recently been completed with the DJ telling his audience first what the time is in London, and then what it is in Jamaica. This time check is a good example of information that has little or no practical purpose, but an entirely imaginary one. It also indicates the distinction between the senses that is the trompe d’eau and déjà vu, on the one side, and the trompe d’oeur and déjà entendu on the other. It is also worth mentioning that there are no trains in Jamaica; Hurricane Gilbert destroyed the last railway lines in 1987.

Figure 6.2 The late Louis Fraser Bennett, Press Secretary, Jamaican Sound System Association outside their HQ, 2002
In this way, popular phrases and tropes of the Dancehall itself, as with the term *vibes* for example, has occasioned a stimulus for thinking through sounding. In this instance, the idea of the sound system as a vehicle, and the crowd's "journey through sounding," provides an accurate description of what the Dancehall crowd come to the session to do, rather than being merely a fanciful metaphor. The MC guides the crowd in the corporeal vibrations of sounding, telling them what dance move to make, for instance (as described below). In addition, he or she also guides them in the ethereal vibrations of sounding - that is their sonic imagination, with the idea of guidance on a sonic journey embedded in the culture, lingo and argot of the event, as both earthly and spiritual, or sacred and profane (as discussed below). The MC's guidance also indicates the complimentary relationship between force and reason, energy and information, or amplification and regulation. Furthermore, the dynamic of manipulating can be an energy process and power source to drive it along, with monitoring as a control mechanism to steer it along its path. The guidance of any vehicle requires power and control mechanisms as the two features of both first-order cybernetic systems (Bateson 1979:102, Wilden 1972:141-6). Likewise the set has been described as requiring the engineers' power process of manipulation, together with their control process of monitoring (discussed in Chapter 4). This *leitmotif* of the "ship of sound" is also to be found in other popular musical genres and settings, such as George Clinton's central trope of the "mothership" (see Eshun 1998). In short, the MC is certainly the captain of the ship of sound in the session.

c) **Championing**

The sound system clash provides a particularly rich phenomenon for investigating the MC's voicing. This is because such competitions between rival Sounds are the most highly wrought, and indeed sometimes overwrought and occasionally violent, of dancehall sessions. The single night of a clash can literally make or break a sound's entire career. Led by the MC, a clash is a lyrical and musical battle between two Sounds, evidencing many of the key processes that the MC's performance requires. Such sessions demand the most from the skills of every crewmember; the selector and
the audio engineer, as well as the MC. Here the term champion, in common usage in
the lingo "champion sound," for example, carries a biblical association as the battle
between the representatives of the opposing armies, as with David and Goliath.\(^{10}\) In the
dancehall, these can degenerate into physical confrontations between the gangs of
supporters, or followers, of different Sounds, often from different downtown areas,
similar to football supporters in other cultures.

Figure 6.3 DVD cover for 2005 World Cup clash, New York
In the 1950's and 1960's early days of the dancehall scene, this often ended up in street battles and physical fights with knives and other weapons (Bradley 2000, Stolzoff 2000). But usually the exchange between the MC's of each sound is a ritualised verbal form of combat, as found in numerous cultures across the globe, and is central to all oral traditions, provoking the continuing reiterations and re-inventions that keep the tradition alive (Ong 1982). In the days of 1960's Ska, one well-known example of such a lyrical battle was Prince Buster's 1960's hit Blackhead Chineman.11 Currently such lyrical battles, often enacted over the pirate radio station airwaves, are at the heart of London's Grime scene.12 Also I scripted this same trope as the dramatic climax of my Babymother film, where the lyrical battle is between the heroine babymother and her babyfather.13

This is to be heard as a call and counter-call between the lyrics of two singers, rather than a call and response between MC and audience, though of course the two sets of followers are highly involved. A clash reaches its cathartic moment in the musical climax at the very end of the evening. The MC’s verbal exchanges are accompanied by a musical interchange between the selectors on each sound, as with turntable battles in Hip Hop, but in the dancehall session with more emphasis on music (as discussed in the previous chapter) than the scratching techniques.

Interestingly, the winner of this ritualised conflict is decided entirely on the basis of the approbation by the crowd, the tunes the selectors play, and the wit repartee, criticism, ritual insults and admonishments supplied by the MCs. The crowd makes its verdict clear by the amount of “noise,” or “forwards” it makes at the end of each round.

Commercially, the clash works as a promotional device for increasing the excitement and vibes in sessions, as a Dancehall scene is “hyper” competitive with respect to music, choreography, style and fashion. There are several national and international leagues for clashes, such as the UK Cup Clash (see Figure 6.4) and the World Cup Clash, at Elite Arc, Brooklyn, October 8th 2005.14 Extracts from a web fanzine account of this event, which was also recorded and available as a commercial DVD (see Figure 6.3), are included in Appendix 4. By no means all sessions are clashes between two or more sounds, as with the Skateland session. Indeed, according Wee-Pow both to...
emphasise its uniquely elevated position on the scene, and to discourage the violence that they can provoke, Stone Love has declined to take part in clashes since the mid 1990’s.\textsuperscript{15}

Figure 6.4 Cover of promotional booklet for UK Cup Clash, London. Note country map outlines emphasising international scope of the competition, right.

As Stone Love’s abstinence from clashes prevented direct observation of their crewmembers’ techniques, this was taken as an opportunity to include an additional type of research material in the investigation as that of a fanzine account. Though a secondary source in relation to the phenomenon of the event of the clash, such accounts provide evidence of both the popular interest and the idiomatic concepts and vocabulary through which the participants themselves describe their experience.\textsuperscript{16} Taking the particular example of the 2005 world cup clash (excerpts included in

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Appendix 4), report-author Tommydread gives the surprise result of the final round as follows:

It's almost impossible to believe, but internationally probably yet not too well-known sound system Sentinel sound from Stuttgart, Germany took the World clash trophy after a heavy battle with giants... Sentinel had a final one-on-one with Black Kat who had to appear without Squigy in a Best-of-11 Dub fi Dub round. Congratulations from Claat.com to Sentinel for not only being the first German but also the first European sound to ever take the trophy (ibid, emphasis added).

Reading like a sports commentary, it is of interest to note the detail of the information that Tommydread provides, literally blow-by-blow, record-by-record, "dub fi dub" account. Its web publication, on one of the hundreds of Dancehall fanzine websites, indicates a currency of interest. Also noteworthy, is how the competition is international in scope as an indication of the spread of the Dancehall scene. Finally, the fact that the winner was a German, rather than, a Jamaican Sound might come as somewhat of a surprise, given Jamaicans' reputation for nationalism, even against other islands of the Caribbean region. The fact that the predominantly Jamaican crowd's popular vote can recognise a “foreign” reggae sound system talent as surpassing the “original” Jamaican one can be taken as evidence for their respect of the German's performance skills and techniques. On the basis of my observation of Sentinel sound at a very small up country session in 2003, it would appear that the Dancehall crowd has a full appreciation for others who demonstrate their musical expertise (see Henriques 2008). Like any award, the World Cup clash will help Sentinel's career on the international Dancehall circuit.

The terms flow and counter-flow, action, re-action or “counter-action” are commonplace amongst the Dancehall scene's lingo and phrases. Against the flow of one sound there is the counter-flow of the other combatant, the “counter-action” of one against the “action” of the other, one musical flow contra another, perhaps reversing it, depending on the crowd's approving "forwards," as is said, to which Tommydread's account refers.

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to on numerous occasions. Such counter-actions can be contrasted with the MC’s lyrical technique of call and response, where the crowd literally follows the MC in a balanced reciprocating movement, as discussed above. Action and counter-action or “answer” are also often used to describe competitive exchanges in lyrics between DJ’s on stage, as well as on record, where one record provokes a lyrical response in the form of another, frequently by an artist of the other gender, or as a combination of singer and DJ on the same track. Also in a clash, the term “counter-action” can be used to describe the selector’s playing of one “riddim” in answer to, or rather to go-one-better or “trump” the one played by the competition (as Tommydread describes). This is a musical, that is to say rhythmic battle, as much as a lyrical one, exemplifying, once again, the particular value that Jamaican musical culture attaches to the sonic, as distinct from the lyrical, aspect of the music. This technique of counter-action expresses all three material, corporeal and ethereal wavebands of the MC’s performance. Counter-action and counter-flow amounts flow against flow, sonic force against force, with the resulting friction, interruption, interference and turbulence, and indeed a clash between sounds, as the material vibrations of sounding.

This technique of action and counter-action is inherently dramatic. One sound is rival, adversary or enemy of the other, with the MC’s argot often featuring challenges to other who, in the phrase common on the Dancehall scene “can’t test we.” Jamaican culture as one based on a code of respect, what Gray (2004) describes as “badness-honour” (or isat as it is called in Islamic culture). This provides a value system in which a dramatic mountain can instantly be built out of a trivial molehill, so to speak. The competition action of one sound against the opposing one, that is to say, the Other sound, is therefore the stuff of drama, as it is enacted on the sports field, stage, and of course in the Dancehall clash. Such dramatic ritual as conflict may be contrasted with the idea of dramatic ritual of the selector and MC’s guided procession described above. The selector’s cutting down of one tune by another in a clash, contrasts with the smooth mixing by which he or she guides the crowd along the procession of the night. As would be expected, both of these dramatic ritual processes operate hand in hand, in a complimentary fashion. The dramatic conflict of the flow and counter-flow can also be
considered as an example of the dialectical process, in which the antithesis counters
the thesis, producing the transformation of the synthesis. The similarity of dramatic and
rhetorical devices is of particular interest, as another example of how key principles of
the communication process are best understood in terms of the axes of communication,
rather than uniquely linguistic devices (as discussed below).

In this way, the MC's performance in the sound system clash draws attention to
movement as opposition and resistance, further to the swerve or the friction of matter
that Lucretius identified (as discussed in Chapter 3). Indeed, a MC's "flow" is the key
energetic movement of their performance, as with a person's "stride" or "rhythm"
(discussed below). In the ritual battle of a clash, such interference is of course exactly
what the rival MC aims to do. These actions create "turbulence" – all helping to build the
vibes, as indeed in the case with the interference patterns of material frequencies with
standing waves and resonating frequencies. This distinction between flow and counter-
flow may be compared to that between the flow of mixing and the interrupting counter-
flow of a selection, with the break of cutting as the cessation of movement, and
furthermore, as counter-flowing movement in the opposite direction. In the lyrical battle
of the clash, as with any more prosaic argument, the energy and effort goes into the
output of the lyrical flow, rather than the reception of what the other is saying. Indeed, in
the mundane domestic version of such a heated exchange, one will often accuse the
other of "not listening" to them. Such antagonistic linear movement takes place against
the other, reciprocating linear movement with the other, and rotational movement with
itself, on its own axis. The antagonistic musical and lyrical action and counter-action of
the clash in particular, emphasises the flow, grain, texture, touch and directionality of
sounding – in short, its materiality. Attack provokes counter-attack. By contrast, there is
no friction between the ethereal vibrations of ideas as such, or at least only
metaphorically speaking.
(2) The MC’s Lyrical Techniques: “voicing”
If exciting, guiding and championing the crowd is what the MC does, the next question becomes how does the MC do this? This takes into account the different kinds of performance techniques that the MC has at their disposal as a “figure of speech.”

a) Instructing the Crowd
One way IVICs use their voicing is as a medium for instruction, information, and advising the crowd, as well as providing social comment, topical jokes and gossip and making announcements, about the sound system’s up and coming gigs, for example (see Figure 3.6). The significance and signification of the MC’s voicing is made especially evident by the fact that it is the spoken word, rather than the sung lyric, with which he or she performs in relation the selector’s music (as with Hip Hop rap). In the session, the MC often uses their voicing for entirely practical purposes. As Campbell tells us:

The MC may also make announcements of upcoming events, tell jokes, control the crowd in the case of a dispute, and in some cases even make political commentaries... He [the MC] is responsible for introducing the records being played (“intros”)... The MC duties at a dance are much like those of an MC at a live stage show (Campbell 1997).

In addition, the MC can also conduct prize competitions for the best hairdo and so on, as DJ Skyjuice did at Skateland between 4 am and 5 am (see Figure 6.1 and Appendix 3).

DJ Squeeze makes the distinction between musical and vocal sounding when he says “sounds do not corrupt” - that is to say, they are natural in themselves, rather than inflected with value or meaning. He continues:

The music - doe ray me - doesn’t corrupt. It is pure in its form, its what you use it to do, the message you put with it to send. It’s the medium, then the messaging you put with it, then it connects that way.21
But this aspect of vocal power can have dangerous consequences, he continues:

It depend what [message] you put with it [the music]. All of a sudden 'put hands in the air and kill batty man' [male homosexual] becomes the norm because they are brainwashed. They caught the rhythm first, and the rhythm works for them (ibid).

DJ Squeeze’s remarks express the distance, or difference, between the MC’s words and the selector’s sounds, or the MC lyrical instrument and the selector’s musical one. 22

Recently with the craze for dancing sweeping the dancehalls, the MC also has the role of calling out the dance moves for the dancers in the crowd to follow; for example as I filmed at Firelink’s Hot Monday, 23 and observed at Chuchu Benz’s August town session. 24 Another topic for the MC is often introducing and commenting on the music the selector is playing. Talking about the music, and any and everything else that comes into the MC’s mind, serves to create a dimension for playfulness, criticism, comment and enjoyment that the crowd can then occupy. The Dancehall session and scene is spatially redolent; generated, for example, in the phonographic performance of the music, the acousmatic performance of the MC, and the spatial qualities of the musical genre of dub itself (as discussed in the previous chapter). In the MC’s lyrical “flow” on the mic - their stream of words - they often boast about themselves and their lyrical skills. This self-reflection is often one of the key characteristics to their extemporised performance. (As with many traditions with pre-modern technologies, their form has been preserved as such, in this case in the recorded medium, without current functional purpose). The MC’s voicing-over the already-voiced record, adds a live layer of expression on top of that of the music’s phonographic re-production, to encourage the participation and embodiment of the crowd.

As well as an instructor, the MC can also be considered as a conductor, as with the phrase “conducting the choir” used to describe their performance (as discussed in...
relation to modernism in the previous chapter. And the body that the MC carries along, or guides, is the multiple body of the crowd - the one who is many and the many who are one, for whose “safe passage” the MC is responsible along the journey of the night. In Jamaican common parlance, the religiously infused term “guidance” is often used for well-wishing on departure, as with “blessings” or “god willing.” The MC’s guidance of the crowd can be understood as a fine-tuning procedure with a feedback loop between monitoring and manipulating, not unlike the engineer fine-tuning the sound of the set (described in Chapter 4). The engineer has to “hit the right note,” before moving on to the next one, though not in a specified order. But for the MC and the selector the issue of timing is most important. Each have to “read” the crowd, before deciding what lyrical remark to make and so on, inscribing them in the temporal in the cycle of the evening, where each tune, each lyric, follows on in sequence from the last one, as with steps on a journey.

The MC’s exchanges with the crowd, and the instabilities of the vibes of a session, suggests how vibrations are infused with dynamics of particular movements and the contingencies of specific relationships. This is the kinetics of the pulses, oscillations and repeating frequencies that are commonly described in terms of the atmosphere, vibes and ethos of an event, as well as places or institutions. For the MC guiding the crowd, it requires particular and special skills that must be part of the single cycle of the event, until it ends at dawn; a cycle, of course, to be repeated with every event. As Lefebvre and Régulier point out, there is an intimate relationship between rhythms and rituals:

Rituals have a double relationship with rhythms. Each ritualization creates its own time and its particular rhythm, that of gestures, of solemn words, of prescribed acts with a particular sequence; but also rituals and ritualizations intervene in daily time and puncture it. That happens more often during cyclical times, at fixed hours, dates and occasions (Lefebvre 1985/ 1996: 234-5).

So the MC’s guidance of the crowd identifies a further kind of movement to the dynamics of auditory propagation and kinetics of the crowd’s dance. This is the
movement of travel, the journey of the session, for which the sound system is the vehicle - driven by the MC. Sounds systems do travel, of course, in that they are peripatetic, seldom performing in the same place two nights running. But the journey the sound system makes has also to be considered as a journey of ritual transformation over thresholds and across boundaries, as Turner (1974) describes, and can also be seen as the drama of the hero’s transformative journey (see Campbell 1949).

(i) Oral Traditions
While the material and corporeal power of the MC’s voicing is amplified by the sound system set, the ethereal vibrations of their voicing is also amplified in the session and the Dancehall scene. The human voice receives a particular respect and esteem within the strongly oral traditions of Jamaican culture (as described in Chapter 1). Glossolalia, or speaking in tongues, as has been investigated by Csordas (2002: 74-80), is a common feature of many Jamaican Baptist and Pentecostal Church services. So the logos of the MC’s voice, as the ethereal vibrations of sounding, is one of the features that makes for a close relationship between church hall and dancehall. Beckford (2006) investigates this linkage in his study Jesus Dub. The special power and authority attached to the human voice has been explored to some small extent within psychoanalysis, with the idea of the auditory superego, as Isakower (1939) suggests. Furthermore, Jaynes (1976) has explored auditory authority through his idea of the breakdown of the bicameral mind, in which early Homo sapiens heard the voices of their gods. Outside actual dialogical interaction, the voice has remained outside the purview of conventional psychological science, as Blackman (2001) points out in Hearing Voices.

In the oral context, the radio mic becomes an icon as an instrument of power, noted for example, in how the mic figures in the design of the World Cup Clash DVD cover (see Figure 6.4). The MC in the Dancehall session and the Preacher in the Jamaican Baptist churches share a similar vocal style and authority, as indeed is the case with African-American styles of preaching and political speech making. In this way, Bennett’s identification of the microphone and authority, discussed above, is particularly telling.
This is because the image of the mic invariably carries the Biblical association of Judah's Rod of Correction and the value placed on respect for authority and firm discipline in both school and home life. And this is affirmed by a moral values system with clear demarcations between right and wrong, as expressed in both Rastafarian and Christian churches in Jamaica. This raises a number of points with respect to the power of the MC's voicing, on top of the commanding power already identified in the material waveband of the vocal medium.

(ii) The Acoustic Master

Another important feature of the MC's voicing is that it is more or less entirely disembodied from its source, or acousmatic, to use Chion's term (1994: 128-13, 1999: 17-30). This is to say that the MC's, as the source of their voicings, although present and "live" in the session, are themselves not visible. The voice has been disembodied in its speaking, rather than its writing (see Rotman 2002b). It would seem that this is the way the crowd chooses it to be, rather than having the MC in lights, as a stage artist would have. While the presence of video cameras and their lights is increasingly a feature of Dancehall sessions, it is only occasionally that I have observed these being directed towards the MC. This seems to indicate a preference for the mixing-in the MC's voice at the same purely auditory manner as the music itself. As with the MC's voicing, the selector's performance is also virtually entirely acousmatic.

According to Chion's (1994) pioneering account of the relationships between sound and image, the unseen speaking voice, like the MC in the session, plays a key role in cinema. The classic film examples of this are the voice of the Wizard in The Wizard of Oz, and Hal the computer in 2001, and more recently, the protagonist in Phone Booth (2002). Chion personalises this invisible, or disembodied, auditory presence as the acousmêtre, or auditory master, a term that would certainly be an appropriate way to describe the dancehall MC:

The acousmêtre is this acousmatic whose relationship to the screen involves a specific kind of ambiguity and oscillation... We may define it as neither inside nor
outside the image. It is not inside, because the image of the voice’s source – the body, the mouth – is not included. Nor is it outside, since it is not clearly positioned offscreen in an imaginary ‘wing,’ like a master of ceremonies or a witness, and it is implicated in the action, constantly about to be part of it...


Chion then goes on to explain how “Fiction films tend to grant three powers and one gift to the acousmêtre (ibid).” What is interesting is how precisely these three powers are exactly those attributed to the MC in the darkened session:

First the acousmêtre has the power of seeing all; second, the power of omniscience; and third, the omnipotence to act on the situation. Let us also add that in many cases there is also a gift of ubiquity – the acousmêtre seems to be able to be anywhere he or she wishes (ibid, emphasis in original).

These god-like powers of the MC’s voicing of course resonate with the Jamaican oral traditions, as well as the commanding ethos of the voice itself. These qualities can now be explored in relation to the MC’s performance techniques.

**b) Performance Tropes**

As would be expected as a figure of speech, the MC in the session has a huge repertoire of stock phrases and sayings, ranging from the most up-to-date American and Jamaican slang, to Jamaican folk culture, proverbs and biblical sayings. Very often a MC, like their counterparts on the radio, have their own signature phrases such as, “Music to rock you mind body and soul…” Others are in widespread use by various MCs, such as, “From the top to the very last drop…” These are used for their rhetorical effects and affects, as distinct from information they convey. Rhythmic energies flood the sound system. These range from the electromagnetic flows within the set, such as the forces of electrical currents and the amplitudes and other characteristics of electromagnetic signals, to the audio-cultural flows of the music, the musical flow of the
selector's segueing from one track to the next, the corporeal and kinetic flow of the crowd, and the socio-cultural flow of the MC’s lyrics themselves.32

(i) “Riding the riddim”
In the session, one example of the MC’s vocal techniques is their “riding the riddim.” This is to be “in sync,” “on time,” “in tune,” or matching the prosodic delivery of their lyrics with both the rhythm of the music, as well as the “vibes” of the crowd. The idea of “riddim,” as the term used for rhythm, conveys the idea of a rhythm as energy, force or flow, as with the term “vibes.” Movement often creates and expresses transformations, as evidenced in religious rituals, as well as the crowd’s dance in the session. The propagation sound begins the vibration of air molecules and ends when these strike the eardrum. This is a reciprocating movement, as with the peaks and troughs of the sound waves themselves, and between source and listener, their energy both kinetic and haptic, transmitted by the MC and received by the crowd. These musical rhythms, and in particular the “riddim” tracks, have a unique value on the Dancehall scene. This is evidenced by the fact that each “riddim” is known as such, named and frequently referred to, as with, for example, Tommydread’s account of the clash (in Appendix 4). Uniquely on the Dancehall scene, numerous recording artists voice their different lyrics on the same “riddim,” giving it a particular autonomous value (Marshall and Manual 2006). While retaining the terminology of flows, it is possible to describe these varieties of flow as laminar, as with the calm unified flow that a good selector achieves in the sequence of tunes played; wave flow, as with the undulation of tunes, as it were, by which the selector produces the shape of the procession of the evening; and turbulence, that spells trouble, or violent incidents in the dancehall.

The idea of “riddim” also draws attention to the temporal variation or dynamics of auditory propagation in this way. One way this energy is expressed is as velocity, with an ultra fast turnover of artists, fashions, music and dance styles and continual plundering from other “scenes” in order to re-create and re-invent itself, as do many other pop scenes. In this respect, a Sound could be termed a “homeodynamic” or far from equilibrium, rather than homeostatic system. Furthermore, the energetic forces of a
rhythm are continually in danger of escaping control, throwing the rider off, as it were. Its incessant character creates energetic demands that make rhythmic repetition, or looping, inevitable as a technique by which it can sustain itself. The particular “Dancehall” energy is one for which artists such as Elephant Man, a.k.a. “The Energy God” (see Figure 6.4) are renowned. This also emphasises the intimate connection between the personality, or ethos, of the performer and the materiality of their energetic force, discussed below. Furthermore, on the Dancehall scene these energies tend to be always in chaotic and spontaneous surplus, necessarily, endemically and intrinsically excessive, as distinct from regular waves of rhythmic flows, or the smooth laminar flow of a groove. Instead, this energy flow is always trying to exceed itself, to make more of itself, to go where it has not gone before, to do the impossible, as seen, for example, in the on-stage antics of the Scare Dem crew.

Such unstable energies, or “turbulence” as it is known on the scene, can spill into physical violence, to the extent that the Elephant Man’s notoriety has made it particularly difficult for him to tour outside Jamaica. Another currently popular artist has Turbulence as his stage name. On the scene, “turbulence” is said to occur when the MC does not properly control the session, which is when the wave pattern, or steady laminar flow, of crowd vibes could be said to break down into unpredictable and chaotic forms. Rising Dancehall artists are often associated with shootings and other violent incidents, as are those in Hip Hop, and the recent post-Garage Grime scene in East London. Stone Love, for instance, tour only in the Midlands and the North of the UK, as they refuse to play in London on the grounds that they attract “too much of the violence.” In the context of the session, located in communities in which weapons are often carried as a matter of course, such ritual conflict can break down into actual physical violence between the different sound’s followers. The intrinsic intensity, excessiveness and otherness of these energies bring to mind Bataille’s example of the tiger leaping, as discussed in the Accursed Share (1988). For Bataille the tiger’s leap expresses the sheer energetic exuberance that is entirely surplus to the necessities of mere survival, based in abundance rather than lack. This Dionysian or carnivalesque aspect of the scene often involves blatant sexual display and incitements to violence.
and "gay-bashing," as mentioned above, that have recently met with considerable organised protest and the cancellation of some Dancehall artists' tours.\textsuperscript{35}

Figure 6.5 Dancehall artist Elephant Man a.k.a. The Energy God, circa 2005\textsuperscript{36}
Even in the normal practice of sonic engineering, for example, engineers like Horace McNeal talk about the “abuse” of equipment, stretching it over the limit, “Making it do what it not supposed to do” (as noted in Chapter 4). Whether by good fortune or necessity - as the mother of invention - it is often cultures that are without many resources, opportunities and material assets that are “blessed” with this particular kind of creative energy. This is another characteristic of the dynamic energies. They are incessantly making things different, “versioning,” or “making something out of nothing.” This was one of the catch phrases on the UK Ragga scene in the early 1990's. A similar spirit is expressed in the plethora of names, nick names, and monikers by which a single Grime artist will make him or herself known, eschewing the single focus of conventional music industry wisdom.

The term “riding” suggests that such rhythmic energies can be bridled to become safe and useful. This is the MC’s job to do: monitoring, steering, directing and controlling these flows, in order to turn dynamics of vibrations into a workable system - inimitably a sound system. The MC’s performance techniques with the vibrations of the session may be compared to those of the engineer, manipulating and monitoring the material frequencies of the electromagnetic flows within the set by means of specifically calibrated gates and filters and so on. Also the selector performs in a similar manner “reading” the vibes and manipulating them by cutting and mixing between the musical flows of the corporeal waveband of the session. A similar performance technique is also evident with the DJ recording artist, who, voicing a track in the recording studio, is often described having to “sit down” the “riddim.”

Stanley Burnshaw begins his seminal The Seamless Web with the statement: “Poetry begins with the body and ends with the body” (1970:1). Along this line of thought, the Caribbean Nobel Laureate Derek Walcott theorises a progression of literary forms on this basis. According to Walcott, the first literature was sung song, from which poetry was derived, with the loss of song’s musical character, from which prose was derived, with the loss of poetry’s metre. For Roland Barthes the fundamental importance of rhythm is as our entry point into the language system:
Without rhythm, no language is possible: the sign is based on an oscillation, that of the *marked* and the *non-marked*, which we call a paradigm (Barthes 1976/1985: 248-9, emphasis in original).

Barthes also suggests that this rhythmic patterning changes the nature of the practice of listening: “By rhythm, too, listening ceases to be a purely supervisory activity and becomes creation.”39 Marked and unmarked, passive listening and active creation, rhythm, as with the embodiment of touching, is double-sided. There are two aspects to the rhythmic relationships: riding and being ridden, controlling and being controlled. One is the kinetic motor connection that we make with rhythms, and the other is the haptic sensory connection those rhythms make with us. “Riding” a rhythm tames its double-sided character. But most often, formalist approaches to linguistics have encouraged a forgetting of what, in the practice of embodied performance, is an intimate and complimentary connection between sound and meaning; that is to say, signification with the prosody of language.

From this it can be said that the term “riding” also suggests that there is the frequency of regular reciprocal relationship with the “ridden.” This can be conjugated in numerous ways: between power and control, musical medium and lyrical message, or phoneme and sememe, vowel and consonant, or form and matter.40 The dynamic movement the MC rides evokes the ancient - and sometimes violent - tension characterised between the Greek mythical figures of Apollo, for control, and Dionysius for abandon (Henriques 2003). So there is a complementary relationship between “rider” and “ridden,” or control and energy, where it can be said that the “riddim” is the third term that makes this relationship possible (as detailed in the next chapter). Another way to understand these energies might be through Goethe’s concept of the dynamic of *differencing*. This is the evolutionary process of the differentiation of organic forms identified by Goethe whereby, “It is only by always becoming other that it can remain itself” (Bortoft 1996: 263).41 This would appear a particularly appropriate formulation for the sound system
and their crowd in a session, characterised as a one-that-is-many and a many-who-are-one: a unity of multiplicity.

In a similar manner to how repeating rhythms provide temporal patterns, channels provide spatial patterns and boundaries for threshold crossing of liminal states, transitions and transgressions. The constraints of each concentrates, focuses and intensifies flows to increase pressures and energies, through the mechanisms of gates, bars, filters and other regulatory devices. This is the rhythmic connection between the rider and the ridden. This connection itself has a two-sided character.⁴² One side is sacred, as expressed by DJ Squeeze’s oft-used phrase to describe the flow of the Holy Spirit as the “Rhythm of Life.” This is also evident, for example, in the way the supplicant in the Voodoo rites of the neighbouring Caribbean island of Haiti, is said to be ridden by the rhythm of the spirit (Rouget 1985, Browning 1998). These are shown and commented on by anthropologist and dancer Maya Deren’s (1983) appropriately named documentary film Divine Horsemen. The other side of rhythm is profane. In the Dancehall session, such overt spirituality is reversed, domesticated and returned to the everyday world. This is a process of transformation or transduction between frequencies. The MC has to be the one on top, “in charge,” riding the rhythm, “sitting” on it. And, as is frequently heard in the Dancehall lingo, to “ride” is used as a euphemism for sexual intercourse, as in such stock-in-trade lyrical phrases as, “You want to ride with me?”⁴³ This relationship between sacred and profane worlds is an intimate one, as Beckford (2006) explores. It is presumably as a rider of the intensities of both these kinds of rhythms that a disc jockey is so named, guiding the crowd on a journey that is both pleasurable and spiritual.

Finally it can be added that rhythms, besides requiring energetic expression through the material vibrations, also tend to express themselves in relation to other rhythms. This point is emphasised by Deleuze and Guattari in their discussion of milieux, rhythm and the refrain:
The notion of milieu is not unitary: not only does the living thing continually pass from one milieu to another, but milieus pass into one another; they are essentially communicating. The milieus are open to chaos, which threatens them with exhaustion or intrusions. *Rhythm is the milieus’ answer to chaos* (Deleuze and Guattari, 1988: 313, emphasis added).

In this manner, the event of the session can be understood as considered as a synchronisation of a broad range of rhythms and frequency vibrations, or as a combination of milieux, as well as an assemblage of components parts and performances. This range of frequencies varies from annual seasons for particular session, through the procession of the evening, to auditory rhythms to the bass frequencies themselves. Besides these, the other “riddim” the MC also has to ride is, of course, of the vibes or mood of the crowd.

(ii) **“Conducting choir”**

According to Campbell, “conducting choir” is one of the key roles for the MC, defined as, “Encouraging crowd participation in singing the popular tunes” (Campbell 1997). It includes a call from the MC and response from the crowd, one against the other in relationship of antiphony. The crowd’s response can kinetic as well as vocal, as with the ritualised routine of such children’s games and songs as “Simon Says.” This was seen at the Firelinks session where one of the MC’s calls was for the “Ghetto Bicycle” dance, duly enacted by the line of dancers, led by the late Bogle, crouching down as if sitting a bicycle seat and steering imaginary handlebars (Figure 6.6). Such a reciprocal relationships of call and response, or antimony, help to blur any hard and fast distinction between “performer” and “audience.” Such tropes are of course central to many African musical performance traditions (Chernoff 1979, Bakare-Yusuf 2001). By “conducting choir” the MC is riding the vibes or rhythm of the social body of the crowd, propagated in the ethereal vibrations of the session, as well as the corporeal riding of a particular individual “riddim” track. The MC conducting choir establishes dialogical relationship with the crowd. This power each shares with the other, *puissance* - in contrast to the *pouvoir* of power where one attempts to control the other as an oppressive authority.
Nevertheless the threat of this second type of power has to be suspended, held in the background as it were, for the MC to maintain their authority. This is a central feature of the MC’s role in a successful session. As Jamaican sound system Association’s Bennett stated above, “If the MC is not somebody positive in control of the crowd, then the crowd will control the MC” (ibid).

Figure 6.6 The late Bogle dancing the “Ghetto Bicycle,” at Firelinks, Hot Mondays, 15th September 2003. Note punk safety pin design motif of his trouser fabric.
This term "conducting choir" is also of particular interest in that it identifies the MC's role as specifically that of a conductor, as with the conductor of a symphony orchestra. Bourriaud (2002) identified this as particular kind of creativity that emerged with Modernism. The selector's sequencing and re-contextualising of already existing cultural objects of music tracks, rather than "creating" them, was discussed as another example of this (in the previous chapter). Conducting choir to build the vibes with the crowd, the MC employs the same practice of repeating as selectors, with their technique of the "re-wind" (described in the previous chapter). This technique evidences how the MC makes the connection between rhythms and repetition, in the way the selector does by eliciting a "re-wind" for the record. But with the MC calling for the crowd to respond by either repeating, or answering his or her call, it is an embodied repetition of what the MC shouts out, and what the crowd shouts back, rather than the selector's mechanical replaying of a tune. Also it is a hierarchical relationship, in that it is only the MC who holds the microphone, and the many of the crowd have to become one, and speak in unison to be heard.

The MC's technique could be considered as an example of what Lefebvre calls the "rhythm of the self and rhythm of the other" (Lefebvre and Régulier [1985/ 1996: 235), also expressed as these authors point out, in the distinction the French language makes between the informal tu and formal vous pronouns. The repeating of call and response, the MC's call and the crowd's answer, creates an amplifying circuit of repetition between them, as a substantial contribution to the vibes of the session. As interlocutor for the MC, the crowd occupies a special role in the session, not unlike that of the chorus in Classical Greek tragedy, whose role is to comment on the action. The crowd, rather than observing a spectacle as an audience is considered to do, are on the dance-floor literally in the middle of the action. Their kinetic dance movement makes them actors in the scene, and their responses to the MC's call expresses their comments on the action, as befits the role of the chorus. Both the crowd and the chorus are "the one that is many and the many that is one," as examined in detail elsewhere.
(iii) “Toasting” and “Tracing”

It is only a short step from the MC riding on and with their own musical rhythms, and achieving “forwards” for them, as Tommydread mentions, to riding against the rhythms of another MC, as the crowd’s champion against the rival Sound. This makes the move from call and response to call and counter call, or from using their lyrical improvisation to “big-up” the crowd or lyrical prowess, to “diss” (disrespect) or “put down” of the rival MC. As Tommydread writes, “Sentinel started a round by playing an unknown singer dissing up the competition, which the crowd liked,” or “Immortal requested the audience to boo Mighty Crown…” (Appendix 4, emphasis added). This is, of course, exactly how the pathetic intensities of repeating are used in a clash. The MC’s lyrical performance plays an important part in these special sessions where two sound systems are in competition with each other for the crowd’s approval. Accompanying the selector’s choice of records, each MC trades ritual insults with the other, very often with a very personal nature. As an example, Tommydread begins his account of Round Two of the 2005 World Cup Clash (see Figure 6.1), by quoting Mighty Crown’s mild insult of Black Kat: "Panther, you are the worst champion" (ibid). In a sound clash, one MC’s character assassination of the other is de rigour.

In a sound clash, “The MC’s role becomes even more crucial," as Campbell (1997) puts it, compared with others sessions. He continues:

[H]e/she is responsible for verbally ridiculing his opponents (the other sounds) by taunting them (this practice is called toasting), or telling embarrassing jokes which may be true or not true (also called "drawing cards") (ibid).

There is also what is called “tracing” in Jamaica. These insults concentrate on the MC’s family, and his mother in particular. This technique is also used in other social settings besides the clash, is commonplace across the African diaspora, and is among those noted by 1930’s folklorist and novelist Zora Neal Hurston in her social anthropological account of cultural tropes (Hurston 1934, see Thompson 1966, 1984). More recently Gates describes it as:
...[M]arking, loud-talking, testifying, calling out (of one's name), sounding, rapping, playing the dozens (a ritualized word game that consists of exchanging insults usually about the members of the opponent's family) (Gates 1988: 52).  

Tracing or playing the dozens is therefore to be located in the pantheon of pathetic techniques; that is, evoking pathos. These rhetorical techniques Gates describes as such:

Signifyin(g) is an African-American vernacular trope that is figurative, metaphorical, rhetorical way of speaking, using repetition with difference (Gates 1988: 52, emphasis added).

This describes the MC's trickery, as much as that of his American brethren and sistren, as it were, indicating some of the resonances across the African diaspora. These insults can be considered as an instance of meta-communication, of the kind encountered with Mutede's concept of meta-music discussed in the previous chapter. In the same manner as the selector makes music out of already-made music, it could be said that the MC's "tracing" is making the relationship of speech out of speaking.

Each of the examples of MC's vocal techniques described above contribute to the crowd's auditory experience of the sounding of the session, together with selector's tunes, and innumerable other factors bearing on the crowd's experience of the session, such as their alcohol consumption (as mentioned by Frazer above). This is what the crowd monitors, and, in terms of their feedback to the MC, manipulate. Similarly the vibes of the crowd are what the MC, and the rest of the crew, monitor and try to manipulate. So the MC and the crowd, in a reiterative reciprocating fashion, each provide for the other material, corporeal and ethereal vibrations on which to operate rhetorical techniques. Uniquely, with the clash, it is the crowd who has the last word.
c) **Personality**

The third way the MC is able to excite, guide and champion the crowd is through the tone, texture and qualities of their voicing. The MC’s performance is specifically vocal, in the way the selector’s is dextrous. But there is a special intimacy and intensity to the corporeal vibrations of the MC’s sounding, given its means of production, as it were, in the performer’s vocal chords, as distinct from the selector’s fingers. This can be described as the qualities of prosody, the distinctive touch of their voice.

(i) **Prosody: sounding and self**

Very often, especially to the unfamiliar ear, the MC’s voice completely dominates the sound of the session, drowning out the music. Often the MC’s hoarse rapid-fire shouts, exclamations and comments are further distorted by the electronics of the set and the shouting of the crowd, making it very difficult to make out many of the words being spoken, or even the sense of what is being said. But this is what allows the MC to perform their own fleshly embodiment, producing themselves as speakers - as we all do. This can be described as the “touch” of sound, as when we say we are “touched” by something someone says or does; that is, affected, or “moved” emotionally (to refer to the kinetic rather than the haptic medium of sound). This is the manner in which someone’s tone of voice betrays their “real” feelings, or “true” character, as distinct from what they actually say. The poet and theorist Anne Carson (1995) shows the importance of these qualities in her exploration of the gendering of sound, to be located in this relationship of the speaker to the spoken. Their incontrovertible character could also be described by Jean-Paul Sartre’s (1958/ 2003) term “facticity.” This is what is given and cannot be changed, such as the facts of when and where a person was born.

The distinctive qualities of the MC’s voicing, are its timbre, intonation, texture and auditory character can be described as examples of the material waveband of sounding. As this is only ever transitory, their *means of propagation* are the corporeal instrument of the MC’s vocal apparatus. It is these that offer consistency, or indeed, personal identity. Prosodic propagation involves an entire range of bodily mechanics including vocal chords, lungs, chest, diaphragm, stomach, throat, nose, lips, tongue and teeth.
The human voice is a wind instrument, its vibrating vocal chords akin to the reeds of saxophones and oboes. Speaking is a transduction process, whereby the mechanical vibrations of the vocal chords excite air molecules, to produce the sound frequencies we can hear. The manipulation of this propagation process is entirely responsible for the unique pitch, tone and timbre of an utterance; that is to say, the auditory qualities of every individual speaker. It is the prosodic production of a voice that gives the voice its characteristic richness and range of intonation, which of course has been fully exploited by stage artists such as DJ Buju Banton, who is known for his deep pitched gravely delivery.

There is a particular intimacy and immediacy between a speaker and their own voice, to the extent that the sound of someone’s voice can be a haptic sense, like touch both separating and connecting the speaker and their world. Connor describes this elegantly as follows:

Nothing else about me defined me so intimately as my voice, precisely because there is no other feature of my self whose nature it is thus to move from me to the world, and to move me into the world. If my voice is mine because it comes from me, it can only be known because it also goes from me. My voice is, literally, my way of taking leave of my senses. What I say goes (Connor 2000: 7).

The apparently self-evident personality of our voice is expressed when we say, “it’s me” over the phone, or from behind a door, without visual contact with our interlocutor (as discussed in Chapter 3). Such touch or connection between sound and person is also expressed in numerous everyday phrases, as when we say someone is “in tune” with something that “rings a bell” or describe a body as being “toned.” Indeed, the gramophone had as its initial purpose listening to the voices of the dead, as has been noted (see Taussig 1993, Kittler 1999 and Sterne 2003).

The acoustic instrument of the MC’s voice is then treated in the same manner as the other analogue auditory sources, such as the indentations in the groove of the vinyl
record; that is, transduced into electromagnetic signals and amplified by the set. And for the MC, as with any recording artist, this cannot be separated from the microphone technique, as discussed by Frith (1996: 188) and Connor (2000, 2001). Often what is notable about such techniques is how, the more skilled their execution, the more transparent and "natural" it appears to be for the audience. In this way, vocal production is an embodied procedure, practice and process, to the extent that the sound of a person's voice can be considered as the extended touch of their body. Connor emphasizes intimate connection between voicing and touching, by considering the mouth as primarily an organ of touch. He suggests:

...[T]he most active and exploratory portion of the skin, a primary association of hearing and touch is formed, not on the exterior skin, but in the interior skin of the mouth. For it is in the mouth that we form our first sounds, and may at first apprehend sound as a sort of plastic tangibility: the burring of the lips, the sibilant puffs of air between teeth and tongue, the uvular gulps and gurgles. Sound and touch meet, mingle and part, in the mouth (Connor 2000: 6).

This describes the haptics of sound as embedded in the kinetics of its production, indicating the intimacies of these complimentary and reciprocal features. Derrida (2005), discussing Jean-Luc Nancy, distinguishes two types of functioning of the mouth: "Orality and buccality, between os and bucca, the latter being more 'primitive' than the former. The mouth speaks but it does so among other things. It can also breathe, eat, spit. It has 'not always been speaking,' not always been an oral agency" (Derrida 2005: 20, emphasis in original). These two sides of the mouth, as it were, resonate with the corporeal and ethereal wavebands of language respectively.

Along the entire chain of the propagation process it is the last two organs of tongue and teeth that have particularly profound effects on the sound of the utterance. Connor makes the flesh and bone of tongue and teeth emblematic of the two sides of language: soft and hard, vowel and consonant, self and other, in writing,
Teeth seem alien elements within the mouth, their hardness and impersonality making them seem older, stranger and less truly of oneself than the fleshier, more elastic and more sensitive portions of the mouth, especially the mouth’s most mobile element, the tongue, which is so continuously at risk from the teeth’s harsh inattention. The teeth are the hard in the soft. They are the fundamental means of transforming the not-self into the self. Language is born, not with the accession to the symbolic order, but with the growth of the teeth. Adult words, as opposed to the toddler’s shrieking, lisping and gurgling, can be formed in one’s mouth only when there are teeth to capture them and chop them up (Connor 2000: 7, emphasis added).

The mouth incorporates soft together with hard feelings, the flow with the assistance of the lips, the interruption of breath. The fleshly tongue mixes the vibrating breath of the lungs for the instrument of the teeth to incisively cut, in a manner akin to the selector’s technique of mixing and cutting. These corporeal mechanics make the mouth the MC’s key instrument for manipulating the material of the auditory flow of their voicing. This is in a similar manner to how the engineer uses his soldiering iron and variable controls to manipulate the electromagnetic performance of the set, and the selector the turntable, cross-fader and the amplifying power of the set.

The MC’s voicing makes the crucial combination, or mix, between sound and self, or to put it another way, between incorporation and inscription, or corporeal and ethereal wavebands of sounding. These corporeal and material aspects of language have tended to be relatively neglected by linguistics, in favour of the abstract rules of a language system. Barthes (1977), however, makes a point of contrasting this corporeality of an utterance (La Parole) with that of the formal system of La Langue, in his famous essay The Grain of the Voice. Barthes tells us: “The breath is the *pneuma*, the soul swelling or breaking and any exclusive art of breathing is likely to be a secretly mystical art” (1977: 183). But for Barthes the lung is “a stupid organ” compared with the throat which is a “place where the phonic metal hardens and is segmented, in the mask
that *significance* explodes, bringing not the soul but *jouissance*" (Barthes 1977: 183). This grain of the voice for Barthes originates not in prosodic production alone, but from:

*The encounter between a language and a voice...* where the [voice] is in a dual posture, a dual production – of language and music... The ‘grain’ of the voice is not – or is not merely – its timbre; the *significance* it opens cannot better be defined, indeed, than by the very friction between the music and something else, which something else is the particular language (Barthes 1977: 181-5, emphasis in original).

This grain, so characteristic of the voicing, can be considered as a feature of the material medium of voicing, as with the gain of a piece of wood, for example, but expressing this materiality in durations, rather than surfaces, as discussed in Chapter 3.

Prosody is always the particular instance of an utterance, its performance. “The spoken word is both meaning *and* sound,” as Maiello (1995) insists in the context of psychotherapy. Against this, he continues, “We tend to consider the speaking voice and the sounds of the words as mere carriers of the verbal message, as a means but not as an end of discourse” (Maiello 1995: 24, emphasis in original). Most often it is only the content of *what* is spoken, rather than *how*, that is assumed to contain its signification: “The listener concerned with communication is usually more interested in the semantic aspect of words and in their ability to evoke images than in their *sound character*” (ibid, emphasis added). Zumthor makes a similar point about this material medium of language:

*The voice is more than speech. Its function is greater than that of conveying language. It does not convey language; rather language is conveyed through it, and the physical existence of the voice hits us with the force of a material object. The voice is a thing;* its qualities can be described and measured—tone, timbre, range, height, register. Most civilisations have attached a symbolic value to each of these qualities (Zumthor 1985, emphasis added).
Prosody concerns what Zumthor calls this "thing" of the voice, the particulars of utterance, or the material vibrations of sounding, the life in the breath of sound, as it were. This is the manner in which the MC's tone of voice betrays their "real" feelings, or "true" character, in addition to what they actually say.

(ii) Voicing: sounding and other
The amplified voice of the MC is a major component of the auditory impact of the sonic dominance that the crowd continually monitors as part of their participation in the event. As is the MCs themselves are sonically embodied, so is the crowd. The MC's voicing is part of this embodiment, with all the additional weight and authority that their vocal production receives from its transduction and amplification through the electronics of the set. Voicing makes an intimate connection between speaker and listener; like touching, at the same time it separates them, in a way does between the speaker and their own voice. For the crowd this is a touching intimacy to the MC's voice, even when this is the distorted noise that it can tend to be. The personal address and intimacy of vocal performance in the Dancehall session, as well as on stage, is of critical importance. His aim as a singer on stage, I was told by the leading Reggae balladeer Beres Hammond, was to make each member of the audience – especially the women - feel that he was singing their own song, especially for them alone.

This inter-subjective relationship of voicing is explored by Roland Barthes, with the example of the telephone, as "the archetypal instrument of modern listening." A telephone conversation:

[C]ollects the two partners into an ideal (and under certain circumstances, an intolerable) inter-subjectivity, because this instrument has abolished all senses except that of hearing: the order of listening which any telephonic communication inaugurates invites the Other to collect his whole body in his voice and announces that I a collecting all of myself in my ear... interpellation leads to an interlocution in which the listener's silence will be as active as the locutor's
speech: *listening speaks, one might say...* (Barthes 1976/ 1985: 251-2, emphasis added).

Voicing is replete with such reciprocal qualities - between speaker and self, between selves, and between speaking and listening. Barthes further describes this type of relationship with reference to the interlocutors of patient and analyst, where this kind of listening is,

[N]ot what is said or omitted, but who speaks, who emits such listening is supposed to develop in an inter-subjective space where ‘I am listening’ also means ‘listen to me’... The injunction to listen is the total interpellation of one subject by another: it places above everything else the quasi-physical contact of these subjects (by voice and ear): it creates transference: ‘listen to me’ means *touch me, know that I exist* (Barthes 1976/ 1985: 245 – 251, emphasis in original).

Further in a Freudian perspective, the subject’s imbrications in speaking and listening begins even before he or she is born, where a child has:

[A] history of the legends of parents, grandparents and the ancestors: the family *sounds or sayings*, this spoken or secret discourse, going on prior to the subject’s arrival, within which he must find his way (Laplanche and Pontalis 1986: 18-19, quoted Mowitt 2002: 147, emphasis in original).

The acousmatic listening in the session provides quite a unique example of this relationship between speaker and listener, as it is the sound itself that is listened to, rather than a human interlocutor - the “speaker” being the set’s loudspeaker. This approach to the qualities of listening is a matter for phenomenological consideration (Idhe 1976, Levin 1989) and more recently by Connor (2000) and Karpf (2006), as discussed in relation to the methodology of listening (in Chapter 2). The inter-subjectivity of the MC’s voicing is a powerful example of what Jakobson (1960)
describes as the “phatic” or “listen-to-me” aspect of communication, concerning the communication channel (see Middleton 1990: 241).

(iii) **Commanding**

As a contrast with the soft fleshy intimacies of vocal propagation, another way in which the unique quality of the MC’s voicing has to be understood is by what it does. The MC’s voicing affects the crowd. It is important to emphasise how this has to be understood in terms of the characteristics of the material and corporeal wavebands of auditory propagation, as distinct from how voicing may be used as an ethereal medium of communication. One of the ways the MC uses their voicing is often to command the crowd, to tell them what to do. This has become particularly evident in recent years with the increasing popularity of energetic dancing as part of the Dancehall scene, as observed at Skateland session (Appendix 4), in the Firelinks’ Hot Monday session and as DJ Squeeze mentions above. The basic routine is for the MC to call out the move, such as “land da plane” (that is, mimic the gestures of airport runway traffic attendants) for the crowd to follow, in the manner of the Simon Says children’s game (as described above). In this instance, the MC’s voice has to be considered as a medium of command, rather than one of communication. 49

DJ Squeeze made reference to this ancient power of command when emphasising the power that the MC carries: “You can tell them to jump, lie down on the ground, put you hands in the air, clap you hands…” (as quoted above). In *Crowds and Power*, Elias Canetti (1960) emphasises the importance of this distinction between command and language, in the following:

> The first thing that strikes one about a command is that it initiates action... It is in the nature of a command to admit of no contradiction... *Commands are older than speech.* If this were not so, dogs could not understand them. Animals can be trained because they can be taught what is required of them without understanding speech.... (Canetti 1960/ 1973: 351-2, emphasis added).
The voice itself bears its own message, besides anything that it may be used to say. This is a further aspect to Connor’s comment: “What I say goes” (as quoted above). A command brooks no contradiction. It is not only what is being said, but how and who is doing the saying. Canetti develops this argument as follows:

The original command results in flight. Flight is dictated to one animal by another stronger animal, by something outside itself. Flight only appears spontaneous; danger always has a shape and no animal flees unless it discerns it... (Canetti 1973: 352, emphasis in original).

This material presence of the voice makes an important contribution to the crowd’s experience of the intensities of the session, where the touch of sound becomes the threat of a striking blow. This needs to be distinguished from any other effects or affects it might have. These are what the MC uses it to say as a medium of communication, or the feelings that their techniques might be used to evoke, which are precisely the two aspects of the MC’s performance to be addressed below.

The most dramatic of actions is murder, and, as might be expected from the Dancehall scene, threats of violence and death get frequent lyrical mentions, particularly in the setting of the clash. Such an expectation comes from both the excesses and extremes of the scene, as well as those of the social and cultural milieu of the inner city ghettos where the sounds have their hard-core following. The term “murderation” is commonplace, and the lyrical troupe of one Sound killing and burying the other in their grave, are amongst the most common the MC employs. As Tommydread mentions, Mighty Crown playing Cocoa T’s Kill Them Now track, and “Ring the alarm another sound is dying” is a dancehall anthem chorus. Also the name of one top Sound - Immortal - should be noted in this respect. The MC’s exchanges verbalise, or rather “lyricise,” the threat of violence, with which as Canetti (1960) points out, a command is always laced. As he put it: “Beneath all commands glints the harshness of the death sentence” (Canetti 1973: 352).
To dismiss such death threats as merely "rhetorical" or "ritual" as opposed to "real" underplays their importance, and indeed that of ritual violence (see Girard 1972). The sound system clash provides an exemplary instance of the associations between repetition, rhythm and ritual. The ritualised musical battle between Sounds also provides evidence for Jacques Attali's (1985) suggestion that noise is the simulacrum of murder and music is the simulacrum of sacrifice. Certainly the noise levels in a clash can be particularly high. This would lend support to Attali's argument, as he goes on to claim:

*Noise is a weapon and music primordially, is the formation, domestication and ritualization of the weapon as a simulacrum of ritual murder...music prior to all commercial exchange, creates political order because it is a minor sacrifice. In the space of noise, it symbolically signifies the channelling and the imaginary, the ritualization of a murder substituted for the general violence...* (Attali 1985: 24-26, emphasis in original).

Furthermore, as a ritual fight to the (musical) death, to find the new champion sound, the clash can be considered as another example of *repetition with difference*. With the crowd having the final say in every round, it is in fact a relatively democratic competition. In other traditions, such as that of royal lineage, such an eternal return is expressed in the saying, "The king is dead, long live the king."

(3) *The Rhetorical Triad of Voicing*

The MC's vocal performance can be considered in the same manner as the sound system session as a whole, that is as propagating the three material, corporeal and ethereal wavebands of sounding. One of the attractions of the Aristotle's theory of rhetoric is that it offers a tripartite account of voicing, namely in terms of *logos*, *pathos* and *ethos* (see Herrick 1997, Bizzell and Herzberg 2001). The suggestion here is that these rhetorical terms could help clarify the relationship between the MC's performance practices, on the one hand, and the wavebands of sounding on the other. The MC's instructing of the crowd, for instance, can be considered as exploiting the *logos* of language, operating with the ethereal waveband of sounding. Similarly, their
performance tropes, such as their call and response, can be considered as expressing the *pathos*, or pathetic effects of language, associated with corporeal waveband. Finally the MC's personality, expressed in the tone of their voicing, embodies their *ethos*, diffused in the material waveband (see Figure 6.7).

**Figure 6.7 Voicing, rhetoric and wavebands**

<table>
<thead>
<tr>
<th>voicing</th>
<th>rhetoric</th>
<th>wavebands of sounding</th>
</tr>
</thead>
<tbody>
<tr>
<td>instruction</td>
<td><em>logos</em></td>
<td><em>ethereal</em></td>
</tr>
<tr>
<td>performance tropes</td>
<td><em>pathos</em></td>
<td><em>corporeal</em></td>
</tr>
<tr>
<td>personality</td>
<td><em>ethos</em></td>
<td><em>material</em></td>
</tr>
</tbody>
</table>

In this way with the findings on the MC's performance, we return to the initial theoretical framework of the investigation in the three wavebands of sounding. As well as being consistent with this triadic approach, what the rhetorical triad might offer is a way understanding the MC's use of language absent from more contemporary theories of communication. These tend to concentrate on meaning only as representation or the exchange of information. (A similar restriction occurs when the identity of a sound system is assumed to lie with its set of equipment). While the exchange of information is one important part of the MC's performance as a figure of speech, this alone cannot tell the whole story of their voicing of the session.

As might be expected, the role of the voice in the Jamaican sensibility, gives a particular value to rhetorical practices. Indeed, in Jamaican English there is a verb *to lyrics*, meaning to persuade, serenade or seduce someone; that is, to win over, simply with the power of words. The verb *lyricing* also indicates the active, comprehensive and transformative power of the MC's voicing, that is to say their "gift," as in the "gift of the gab." Gates (1988) captures this ritual and rhetorical power of African-American language in his figure of the *signifyin(g) monkey*. This provides an excellent precedent for the contemporary usefulness of ancient ideas of rhetoric for the investigation of
vernacular performance techniques. Carolyn Cooper (1993, 1994 and 2004) in her pioneering studies of Reggae and Dancehall lyrics, also makes specific reference to the rhetorical power and complexities of language. The MC, like Caribbean folkloric Trickster, or Anancy spider, uses the imaginative, magical and the Bakhtinian carnivalesque power of language to turn things around, swap roles, make slaves master for the day, and reverse meaning itself - as with such terms as “wicked,” “black,” “bad,” “ill” and so on.52

a) Logos
One of the ways in which the MC can be described as a “figure of speech,” the phrase itself implying a rhetorical turn, is how they use the logos of their voicing as a medium of communication. The MCs give the crowd information, instruct, guide and tell them what to do, as has been described.53 Following Aristotle’s practical art, or techné, of rhetoric, the Greek term logos is most commonly translated as word. This describes intimacy, intensity and intelligence of the MC’s “lyricizing” that associates it with the ethereal waveband of sounding (as described in chapter 3). Logos concerns what sound means in a signifying system; that is to say the infinite potential of the imagination unbounded by any physical world. Scarry (1985) has explored this theme of the development of the imagination contra the actual world. Her research located this in context of the extremes of the pain experienced by torture victims, encouraging them, she argues, to escape into the refuge of the own minds. In this way the logos gives the MC capacity to tell lies, exaggerate, embellish, extend, falsify and indeed poke fun and insult is fully exploited in the ritual verbal battle of the clash, for example. The lie, it could be said, gives birth to the possibility of drama and dramatic conflict.

It is also important to note how the elementary procedures of the logos, as the medium of the language system the MC manipulates, are identical to those of the selector manipulating the flow of their musical sounds (detailed in the previous chapter). For the selector these were the operations of cutting and mixing. The MC performs with the phonemic units of a language system, in a manner no doubt more easily recognisable for conventional linguistics, rather than the selector’s turntables. For the MC cutting and
mixing is, of course, the selecting and combining of phonemes that rise to the paradigmatic and syntagmatic axes of language as identified by Jakobson (1956), as discussed in the previous chapter.

b) Pathos

As the MC’s voicing evidences, the logos does not exhaust the full range of power and effects of their voicing, nor all that is meaningful or significant about their communication, as most often would be assumed that it does. The MC uses rhetorical tropes and “linguafied” figures, such as call and response, frequent use of the reiteration, repeating catch phrases, rhythmic accents and emphasis and so on, where they can “chat” or “lyrics” the crowd (as described above). So the MC is also a figure of speech in so far as he or she is defined by their pathos, that is the emotional affects of their performance techniques. For the MC, reiteration is a key rhetorical trope for intensifying the pathetic - that is feeling and emotional response - of the crowd. With more common usage of the word to mean object of pity, pathos is condemned by its association with the body. Indeed pathos is most closely associated with the corporeal waveband of sounding, with all the cycles, beats and pulses that embodiment entails.

Rhetoric is thus considered here contra its use as a pejorative term, as it most often is used – to dismiss the content someone says as “merely” rhetorical, as being said “only for effect.” As might be expected for Western rationalist approaches that emphasise the value of language as logos, rather than pathos, this affective side of communication has tended to be ignored or disavowed. In this view, the emotional response that the rhetorical technique, such as for example repetition, engenders in the audience is a dangerous and negative phenomenon. Hegel was certainly averse to repetition and its affects, as discussed in Snead’s (1982) critique (in the previous chapter). The affective and persuasive power of the spoken word goes back to Aristotle’s definition of rhetoric as: “[T]he faculty of observing in any given case the available means of persuasion.” It was for using such techniques that, for example, Plato, famously, had poets banned from his Republic, on the grounds that they exploited the affects of the pathos of language, rather than the rationality, truth and reason of its logos.
Indeed, the crowd, as dancehall audience is called, provides a good example of the kind of social assembly of people, as a mass, collective, or multitude, that has traditionally been considered as antithetical to rationality. The association of rationality with individuality has positioned the crowd as the Other, or antithesis to both - at least since Le Bon’s (1895) famous study of the primitive, irrational and instinctive behaviour of crowds (see Henriches 1984). This fear of the dancehall crowd in particular, and worry that it cannot be controlled by the MC, gives ground to the Jamaican middle class traditional distaste for popular culture. But elsewhere this prejudice against pathos, however, might be eroding. It certainly runs counter to what Derrida points out is the rhetorical aspect to the writing of all philosophy (see Trembath 1989), as well the current inclusion of affect on theoretical agendas (see for example Thrift 2004, Clough 2007).

The pathetic trope of repetition is the stock in trade of the MC’s lyrical performance: “From the top to the very last drop.” In this way, MC’s performance has a lot in common with those of orators throughout history, where well-known examples of repeating a word or phrase include Winston Churchill’s, “We will fight them on the beaches...” and Martin Luther King’s “I have a dream...” The poet’s use of rhyme is another example of repeating, where semantic difference is married to phonetic similitude, making the word simultaneously both the same and different. Dancehall MC’s, such as the veteran English Reggae DJ David Rodigan, and radio DJs from Jimmy Savile onwards, all tend to use their “signature” phrases over and over again, thus creating their rhetorical identity. This is the rhyme of pathos as distinct from the reason of logos. The technique of repeating, in the same manner as the selector, is technique for increasing the intensity of their performance, or pathetic effects. Snead suggests: “Repetition in black culture finds its most characteristic shape in performance: rhythm in music and dance and language...” (Snead 1981: 150, as discussed in the previous chapter). From the present research, repetition can be considered as a characteristic of all performance, especially where this involves auditory propagation. This gives a technique of repeating-with-mixing for increasing the intensities of the prosodic flow of his or her verbal delivery
and its rhyme and rhythm (Turetzky 2002), emphasising continuity and similitude, as well as repeating-with-cutting emphasising difference and conflict for the drama ritual combat (Gates 1988). Thus repeating closes the circle, resolving the distinction between same and different, at a particular moment.

c) **Ethos**

The MC can finally be considered as a figure of speech as they are embodied in the ethos of the material waveband of the sounding expressed in their voicing. With its distinctive qualities, amplified through the sound system set, each MC’s ethos is what makes their voicing distinctive. The MC’s prosody – their intonation, texture, timbre, feel, power and authority – describes their “tone of voice.” The Greek word ethos (ἐθος) is generally considered to mean character or disposition. In his short story, *In the Country of the Blind*, HG Wells (1911) describes the inhabitants there: “intonation has long replaced expression with them, and touches gesture...” Intonation and touch have very different qualities to expression and even gesture as they do not involve rationalisation or representation. In short, ethos is the unique recognisable “touch” of the voice.56

While ethos is helpful identifying the importance of the personality of the MC, even more relevant for the propagation of vibrations, is the word’s original meaning as a “starting point” or a “place for living” from ethikos (ἐθικός), or theory of meaning, from which the term “ethics” is derived (Hyde 2004). With ethos, the association of meaning with material embodiment makes it considerably more difficult to lie with the gesture of a hug, a kiss, or the tone of the speaking voice, than it is with the medium of language. The ethos of non-representational communication, such as with the auditory mode of music, or the kinetic mode of dance, is that of the gesture (Rotman 2002a). With the movement of gesture, meaning is embodied in the act of communicating, rather than the logos of the medium of language. On the Dancehall scene, the MCs voicing is considered as very much as an active practice, as with Small’s concept of musicking, as in the phrase “voicing a tune,” commonly used describe a singer’s studio recording performance. Here this has the additional resonance of the idea that he or she is
articulating the tune from music into words, expressing a “riddim” vocally. It is these vocal qualities that give each particular moment of the event its own particular character, or its vocality.

The term touch is also used to describe the placing of the needle in the groove of the record for just a few beats, or the reprise of a record just played: “Let we touch that one again.” Touching, especially the touch of sounding, perhaps more than any of the other senses, establishes our simultaneous connection with, and separation from, the world and others in it (Soesman 1990). This is expressed in the bifurcation between the “objective” material frequencies to which the crowd exposed, and its “subjective” corporeal experience of them, through the bodily senses of its members. The crucial point here is to suggest that the qualities of the MC’s voicing, that is, the material touch of a medium - for both the crowd and the MC - has to be considered as having both subjective and objective aspects. This is their corporeality and ethereality, or indeed kinetics and haptics, manipulating and monitoring. As Connor reminds us: “One apparent paradox of hearing is that it strikes us as at once intensely corporeal - sound literally moves, shakes and touches us - and mysteriously immaterial” (Connor 2001: 2-3).

This emphasis on the relationship between objective and subjective aspects of sounding releases the idea of materiality from its traditional commitment to the idea of matter as merely formless inanimate “stuff.” In this view, the objectivity of matter is seen as passive, inert and separate; that is, standing exclusively on the other side of an unbridgeable chasm from the subject. In this widely shared binary view, objectivity is an irreconcilable opposite to subjectivity. In media theory, Kittler (1999), for example, uses such a concept of materiality of media for drawing attention to the instrumental role of the technological means of communication. This emphasis has a fascination, as with for example considering Nietzsche as the first philosopher to write on a typewriter. But this tells only one side of the story. Without the ethereal and corporeal wavebands of sounding - its sense and meaning - this approach inevitably tends to encourage
technological determinism, matched by its opposite of volunteerism (see also Zielinski 1999).

By contrast, thinking through the material waveband of sounding cannot be done outside its corporeal and ethereal frequencies. This is not to deny the effects, boundaries, limitations or constraints of material vibrations. Rather, it suggests that these are variable and contingent for each at every moment. While the auditory vibrations of the session cannot amount to any more than kinetics, energies, oscillations, grooves and other ephemeral effects, as far as other frequencies are concerned, these material frequencies afford conditions, boundaries and other potentials and constraints. There are indeed relationships between wavebands, where one acts as the material, ground or affordance of another, and rhythms are transduced between them. Thus the material substance of the particles of the medium of auditory propagation, and dynamics of their vibrations, have to be considered as inseparable, in a similar manner to the wavebands of sounding. Indeed, the present approach considers the intensities, feel and touch of a session; that is to say, the experience and expression, and the haptics and kinetics of the crowd, as entirely reciprocal in character. Movement, as with the MC's guidance of the dance of the crowd, conjoins and transforms spirit with matter, ascent and descent, active touching and passive being touched. This approach to the MC's voicing and the touch of sound is consistent with the philosophy of process currently being revived from the work of Bergson and Whitehead (see Fraser et al 2006). As such, it goes against the grain of the dominant Western tradition of thinking that has assumed that matter is lifeless, inanimate, and without spirit or form (Tarnas 2006).

As well as the three material, corporeal and ethereal wavebands being propagated by the sound system session, and expressed in the ethos of the MC's voicing, it is also of interest to note they can be considered as emerging historically at the same moment. It was of course, the physical or material frequencies of sounding, referred to by Roland Barthes in The Grain of the Voice, that were captured with invention of the phonograph, attributed to Thomas Edison's in 1877. But it is the ethereal vibrations - in the form of the disembodied ghost of a deceased person - that captured the public imagination.
when the early recordings were replayed. In his Gramophone, Film, Typewriter, Frederick Kittler gives a fascinating account of how the first use for phonographic voice recordings was to listen to the literally disembodied voices of the dead (see also Stern 2003, Taussig 1993). Such “ghost effects” as Rotman (2008) calls them, are of course only summoned up as an acousmatic absence of the person’s living voice. Also both the magic of the first phonographs, and members of non-literate societies first listening to a book being read, according to anthropologists, created the same amazed effect (see Taussig 1993). But once it became technically possible to record the trace of sound or image, why were they thought to be capable of making these connections between present and absent, even the chasm between life and death? It is only because the voice has once been embodied that it can subsequently be disembodied. This is why Little Nipper in the famous HMV brand logo, is listening so attentively to his master’s voice – to the authority embodied in it. Similarly, the MC gains his authority by earning the crowd’s trust and respect, which is in part through the ethos of their voicing and the material vibrations of sounding.

Conclusions
To conclude, it is worth briefly comparing the MC’s performance with that of the audio engineers and the selector. The engineers and the selector were found to have quite a lot in common, in terms of their cutting and mixing techniques, for example. Though MC’s medium of voicing might appear rather different, in fact, the logos of the MC’s rhetorical performance cannot operate other than with two axes communication system which cutting and mixing express. In respect to the pathos of the MC’s voicing, such as the repetitions of the call and response, this is matched by the recursive nature of the engineer’s manipulating and monitoring in his fine-tuning of the set, and the reiterations of the selector’s “re-winds.” Like the selector, but not the engineer, the MC gives improvised performances in front of the crowd. Finally, the ethos of the MC’s embodiment is also to be found in medium of the material waveband with which the engineer works, and the corporeal one of the selector’s style and techniques. From this it is suggested that the vibrations of the propagation model might be as useful for
understanding the kind of meaning that is most often accounted for in terms of discourse and representation, as it is for sound and music.

It also has to be noted that the rhetorical triad of ethos, logos and pathos used to describe the MC’s voicing, resonates not only with thinking through the material, corporeal and ethereal wavebands of sounding, with which the research began, but also with the amplitude, frequency and timbre of its material vibrations. Such reverberations between different frequencies raise some of the issues addressed in the final chapter. Considering the MC as a figure of speech, in one final respect, can approach these. The MC is part of an oral tradition, in which their improvised performance embodies a living archive of techniques, rather than the more commonly conceived idea of as an archive of materials, such as the selector’s box of records. An aspiring MC has to learn and develop their techniques in exactly the same manner as the audio engineer (as detailed in Chapter 4), though without any formal apprenticeship system as such. With the aim of guiding the crowd through the procession of the event, along a path of affect, as it were, the MC’s performance techniques are further honed as the crowd’s champion in the improvised ritual lyrical battles of the sound system clash. This requires not only learning certain skills, but also when and where to apply them, what Bateson called deuto-learning, or learning how to learn (as discussed in the next chapter). Most important, the practice of the MC’s voicing techniques, like those of the engineer and selector, has to be identified as evaluative judgements. These are located in the context of the entirety of the rhetorical scene that comprises all three wavebands of sounding. As with the expertise of the selector and engineer, this is at the heart of the MC’s voicing techniques. The MC’s decision to use one word rather than another and its exact prosodic enunciation has little to do with calculation, but is embodied in practice and analogia of proportional relationships, intuition, and “gut” feelings. It is to these evaluations to which we now turn in the final chapter.

Interview with DJ 'Squeeze' a.k.a. Lenworth Samuels, Kingston, 22nd June 2004.

Interview with the late Ms Louise Frazer-Bennett, Jamaican sound system Association, 26th July, 2002.

Interview with Louise Fraser Bennett, Press Secretary for the sound system Association of Jamaica, on 26th July 2002, Kingston.


"Batty boy" is slang for male homosexual.

This is not to suggest that popular music cannot be used to inflict pain. It can, see Cloonan and Johnson (2002).

From the song Trenchtown Rock, on the album African Herbsman (1973).

1 Samuel 17

This track appeared on his album I Feel the Spirit, released in the UK in 1963.

View for example the Lords of the Mic DVD, Vol. 1, Hot Headz Promotions, 2004

Babymother (1998), Formation Films, for Film Four.


Interview with Winston “Wee-Pow” Powell, 30th July 2002 at Stone Love HQ, Burlington Avenue, Kingston.

As distinct from how a researcher might describe a particular session, see for example Stolzoff’s account of a Stone Love clash in 1994 (2000: 212 – 224).

As with for example on the UK scene, Tippa Irie and Janet Lee Davis’ Baby I’ve Been Missing You, released on the Fashion label in 1994.

This idea of testing is also central to classical Aristotelian conception of the dramatic conflict, whereby the hero can only 'find out what they are really made of' when challenged by adversity and their adversaries. It is through this they can achieve the purity worthy to receive the prize (see Campbell 1947).

For an example from my research experience, see Note 6, Chapter 1.

One of Aristotle’s principles of drama is that a dramatic character only reveals him or herself through conflict, remains relevant for today’s script-writers (see Tierno 2002).


It is of interest to note that to the extent the MC makes meaning out of sound, he or she can be considered as making ‘meta-music,’ to use the distinction Mudede (2002) draws between traditional musical performance and the selector’s (as discussed in the previous chapter).

On 19th September 2003, this was held as Hagley Park Road Shopping Plaza, Kingston.


The suffix of the term conducting is also shared with that of transducing, indicating a common root in the “ducting” as carrying along, with conducting, and across with transduction, performing their job title as Master of Ceremonies.

It should be noted however that Csordas’ (2002) explanation is entirely in terms of his theory of embodiment.

Also numerous artists have made this career transition from profane Reggae, to sacred Gospel musical worlds, such as the singers Judy Mowett and Mikey Spice; in the UK DJ Pappa San has undergone a similar conversion. Other Reggae and Dancehall artists, like Lady Saw and Buju Banton, record occasional Christian tracks. There is also the strong Christian spiritual dimension to Rastafarianism that was revived by Garnet Silk, and since his death developed by Luciano and a host of others in this "cultural" tradition.

Proverbs 29:15: "The rod of correction imparts wisdom..."

It is interesting to note that the moral framework, expressed most forcefully in what are called “cultural” lyrics in Reggae music, is almost entirely absent in the popular culture of Hip Hop. Notwithstanding this, Gangster lyrics do of course also occur in Reggae and Dancehall.

Chion’s term draws on the Greek for hearing. Indeed, it is said that certain Pythagorean followers were called akousmatikoi, the listeners, because they listened to their master from behind a screen, so as not to be visually distracted (Lippman 1963).

Phone Booth (2002), directed by Joel Schumacher, written by Larry Cohen, starring Colin Farrell.
Further to this I go on to extend this claim (in the conclusions to this research) that these material processes, such as flow, identified in the sound system are quite ubiquitous and catholic, and operate across a wide variety of settings and disciplines, including for example in natural selecting in evolutionary theory and the geological process of river erosion (see DeLanda 1999: 25-99).

One such act reported in the press in 2000 and 2001 for its associations with violence was So Solid Crew; see http://news.bbc.co.uk/1/hi/entertainment/music/1652998.stm, accessed 10th September 2007.

Personal conversation with Mr Winston “Wee-Pow” Powell, 24th June 2004 at Stone Love HQ, Burlington Avenue, Kingston.


Personal conversation with Mr Winston “Wee-Pow” Powell, 24th June 2004 at Stone Love HQ, Burlington Avenue, Kingston.


38 Personal conversation during the course of making a BBC documentary with Walcott, St Lucia, January 1993. Rather than suggesting that high incorporates popular oral elements, this suggests evidence for the popular roots oral of the classical, as proposed by Lord’s account of Homer’s writing down of the Iliad and Odyssey from what had been up until that point entirely oral, and necessarily extemporised performances (see Henries 2003). Walcott’s own Homeric epic Omeros certainly exploits Caribbean vernacular vocabulary and forms of speech.

39 To this follows from Barthes’ statement that rhythm allowed the proto-human kind to enter humanity (discussed in chapter 5).


41 A third is the idea of decomposition whereby organic matter is understood as being spontaneously creative. Interestingly, to the orthodoxy of the sixteenth century Italian church, this was a heresy in that it contradicted the absolute divine power of God as the sole creator...

42 This is without mentioning that every electromagnetic signal has a positive and negative “phase” corresponding to the trough and the peak of the wave. With a stereo amplifier when one channel is “out of phase” with the other, then the two signals cancel each other out, rather than combine to increase the power of the signal and thereby the sound. This is an important consideration when stringing up the set, as Stone Love engineer Horace McNeal told me.

43 This is taken as evidence for what Jamaican middle class media describe as “slackness” or sexual promiscuity; see Stanley-Niaah (2006). Also the openly sexual character of traditional folk dances and rhythms such as the Dinki-mini (see Lewin 2000: 140-143) has been described celebrating fertility rather than promiscuity; that is procreation as the only way to over coming death. The Dinki-mini, traditionally danced at funerals, is enjoying a revival with the large number of funerals resulting from the violence in the downtown areas (my thanks to Clinton Hutton, for this last point). In any event African diasporic belief systems tend not to make the same division between sacred and profane, as do Western ones (see Crowley 1999).


45 Yampolsky (1993) explores this intimate relationship between body and voice in relation to film dubbing in Jorges Luis Borges’ and Antonin Artaud’s writings.

46 It could be added that prosody bears a similar relationship to spoken language, as handwriting does to written language, whereby the embodied materiality of its production is a marker for the ethos of speaker and writer.
In Powell's (1991) *Homer and the Origin of the Greek Alphabet* he discusses the evidence for his theory that the vowels, that previously the Greek alphabet had been without, were invented specifically to write down the sung lyrics of Homer's epics.

Private conversation with Beres Hammond during the music production for *Babymother*, circa 1997.

This is a different point to the one made by linguistic philosopher Austin (1962) with his concept of the performative function of language. Here words change things, as with for example the words "I pronounce you man and wife" actually makes them a married couple.

In actual practice Wee-Pow runs Stone Love as a franchise operation, with three "Stones Loves" and three sets on the road at any one time, as described elsewhere (Henriques 2007a). As in DJ culture, increasingly a Sound's identity rests with its selectors.

As with Small's (1998) concept of *musicking*, or indeed that of sounding, this grammatical shift, following Baraka (1969) is quite pivotal (as discussed in Chapter 3).

Other Caribbean folkloric African inspired figures, such Anancy and the Shape Shifter, are not characterised particularly by the lyrical prowess.

Rhetoric, together with Grammar and Logic formed the basic *Trivium* of the educational syllabus taught in for example Medieval Universities. The remainder of the Liberal Arts syllabus was the *Quadri


Surowiecki's (2004) *The Wisdom of Crowds* is an exception to this.

This ghostly theme was also taken up in Jean Cocteau's film *Orpheus* where the hero listens for his instructions from the dead in radio broadcasts.

The issue of voice and personality was a research topic for British radio broadcasting between the wars (see for example Pear 1931). I would like to thank my colleague Tim Crook for drawing my attention to this work.
Chapter 7

A Logic of Sound Practice

This chapter draws together the research findings on the audio engineer, selector and MC’s skilled techniques. It describes the shared characteristics of (1) the crew’s ways of knowing as being a) situated, rather than generic, following Lave’s (1998) concept of “situated learning”; b) synthetic, rather than analytical, drawing on Bourdieu’s (1990) ideas of a “logic of practice”; and c) tacit, rather than conscious, following Polanyi’s (1958) investigation of tacit knowing and connoisseurship. The key feature of the crew’s ways of knowing is then identified as their (2) embodied evaluations, discussed in terms of the ancient concepts of logos as ratio; (Bohm 1980, Freenberg 2005); kairos (or timeliness); harmonics; analogia (Kayser 1970 and Serres 1995); and triangulation (Peirce 1976, Critchlow 1994). The selector’s repeating technique, for example, triangulates what would otherwise be incompatible opposites of their cutting and mixing. In conclusion, it is suggested that (3) the quality of threeness might be helpful as a way of conceiving how the proverbial “squaring of the circle” of measure and value is achieved in the logic of practice.

On the basis of the findings so far, the initial research question could be answered by saying that a sound system works because the crewmembers “know what they are doing.” This is how Stone Love has sustained its position at the top of the dancehall scene for over thirty years. In this concluding chapter, we draw together some common principles from the different crewmembers’ performance, in their different media of sound, music and voice. This amounts to a re-thinking through sounding of the relationship between “doing” and “knowing.” Further to the thinking through sounding so far, this is a resounding, resonating, reverberating, repeating echo of the initial note of the investigation. Not only is sound itself always resounding, as Nancy (2007) was noted as exploring, it also doubles as the “sound judgement” of the crew’s correct evaluations. It is these expert judgements that are at the heart of the logic of the crew’s
practice. With them, the crewmembers' performance techniques continually configure the relationship between the three material, corporeal and ethereal wavebands of sounding.

Figure 7.1 Table of crewmembers, techniques, media and instruments

<table>
<thead>
<tr>
<th>crewmembers</th>
<th>TECHNIQUES</th>
<th>MEDIA</th>
<th>INSTRUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINEER</td>
<td>auditory:</td>
<td>sound</td>
<td>set of equipment –</td>
</tr>
<tr>
<td></td>
<td>manipulating, monitoring and evaluating</td>
<td></td>
<td>material aspect of sounding</td>
</tr>
<tr>
<td>SELECTOR</td>
<td>dextrous:</td>
<td>music</td>
<td>fingers, turntable etc</td>
</tr>
<tr>
<td></td>
<td>cutting, mixing and repeating</td>
<td></td>
<td>corporeal</td>
</tr>
<tr>
<td>MC</td>
<td>rhetorical:</td>
<td>voice</td>
<td>Dancehall lingo</td>
</tr>
<tr>
<td></td>
<td>ethos, logos and pathos</td>
<td></td>
<td>ethereal</td>
</tr>
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The key issues for the logic of the crew's practice concern content, value, feeling and meaning. These are also the kinds of the issues that distinguish the logic of practice from the way the formal properties of "theory," "logic" and "rationality" are commonly understood. Considering the findings across all the three crew-roles, what is most evident is how evaluative judgments of the auditory and other features of the dancehall session are at the fulcrum of each of the crew's techniques (see Figure 7.1). These are subjective, embodied, and personal matters of taste, by which audio engineers use their own "harmony with the sound" to decide exactly when the sound of the set is "balanced," and thus their fine-tuning complete. With the dextrous techniques of the selector, it is the evaluative judgement of the timing of their performance, if and when to "pull-up" a record and repeat it, for example. With the MC’s rhetorical techniques, they have to choose exactly the right turn of phrase to exploit the pathos of rhetorical moment. While it is these embodied ways of knowing that the research has been preoccupied, it should also be remembered how, in practice, these have to be considered in relation to other types of knowing (just as cutting has to be considered in...
relation to mixing). One example of this would be what Stone Love owner “Wee-Pow” called his “musterings” (mentioned in Chapter 2). These end-of-the-night debriefing sessions amount to a logical analysis of what is described below as their analogical performance when the session was underway.

(1) The Crew’s Ways of Knowing

There are three key characteristics of the crew’s ways of knowing, embodied in their performance skills and techniques, as these have been explored in the previous chapters. In the first place, the crew’s ways of knowing tend to be situated, rather than generic or abstract rules. This allows the crew to modify the placing of their performance “on the spot” and its timing “in the heat of the moment.” Secondly, their ways of knowing tend to be synthetic rather than analytical. Evaluating and “making sense” of their performance as they go along is a key idea for the “logic of practice” (Bourdieu 1990). Thirdly, the crew’s knowing is tacit rather than involving conscious representations or discourse. This makes it an example of what Polanyi (1958) calls “connoisseurship” and “tacit knowing” or Peirce’s intuitive “abduction” (Peirce 1976, Mullins 2002), as distinct from formal “knowledge.” These three features of the crew’s ways of knowing are now addressed.

a) Situated: timing and placing

The crew’s way of knowing has to be described as temporally and spatially situated, as an event in relation to the entire environment of its performance, from one moment in a particular session to the entire Dancehall scene. Thus the twin dimensions of the timing and placing are of the utmost importance for situating the selector and MC’s performances, as for many others. This situated characteristic of the logic of practice, it is interesting to note, resonates with the characteristic of auditory propagation described as the vibrations in space and time of the material vibrations of sounding (in Chapter 3). There are always specific circumstances, contingencies and conjunctures, to use Hall’s (1983) terms, for the logic of practice, as there are for politics or history. Sounding always has to find expression as an event of a specific duration, in a particular location,
rather than being considered as an idea, enduring abstract principle, generic process, rule or law. To suggest that the crew's ways of knowing are specifically situated, is not to make any more radical claim for it than has already been made for cognition itself in the pioneering work of Jean Lave and her colleagues (1988, 1989, 1990, 1993, Chaiklin and Lave 1993). This has explored this the theme of situated learning and cognition in practice in depth with the examples such as apprenticeship learning and mathematical skills (as mentioned in Chapter 4).

In fact this idea of logic as a technique of situated and embodied practice also finds support from a range of current research developing a conception of cognition as something that happens in action in the world, rather than in the mind. This includes Levin’s (1989) phenomenological work on skilful listening, Sterne’s (2002) historical account of the techniques of listening, and most recently Sennett’s (2008) The Craftsman (discussed below). Also Ingold’s (2000) social anthropological exploration of the skilled practices, not to mention Butler’s (1990) conception of performativity, are most relevant, as was discussed above (in Chapter 3). So in practice any form of thinking or calculating that a performer does is inseparable from their doing of it, similarly to the way the performer’s subjectivity and objectivity are considered inseparable (see Auslander 1999, 2008). Furthermore, there is Varela’s (1979) concept of enactment in his Ethical Know-How: Action, Wisdom, and Cognition, Walkerdine’s (1988) investigations of cognition and practice and O’Regan and Noë’s (2001) physiological investigation of perception as “exploratory activity.” The framework for O’Regan and Noë’s experimental approach develops Gibson’s (1966, 1989) conception of information pick-up in an ecological system of perception (see also Reed 1996, Heft 2001). In Gibson’s framework, information and meaning arise at the same instant of exploratory activity, rather than there being any separation between stimulus and consequent cognitive processing, as is traditionally assumed. In short, here is simply no disjuncture between knowing, being and doing, or rather they are both bound up together in the practice of becoming different.
Like the timbre or harmonics of auditory propagation itself, the crew's ways of knowing are concerned with qualities and evaluations, that are invariably difficult to "pin down" or assign specific describable characteristics. To describe what they do calls for an auditory vocabulary of flows, pressures, volumes, amplitudes, frequencies, intensities, and the dynamics of kinetics and rhythms that animate, excite and "builds the vibes" of the dancehall session. There are also the crew's senses, subjectivities, sensitivities and evaluations. Their shorthand for this, if they are asked, is to say this is simply a matter of "feeling the vibes" - the beginning and end of their explanation. But for thinking through sounding, it is necessary to go further. In this respect, theory is not an end itself, but as Hall (2007) puts it, a necessary detour, "by indirection, find direction out," to arrive at what he calls "the concrete in thought." The logic of this kind of thought is embedded and embodied in performance.

The logic of practice pays particular attention to evaluative judgements required doe situated ways of knowing. By contrast, the logic of theory tends to concern itself with classes of objects, abstract principles and laws. So conventionally logic has little to say about such unique particularities of the kind that can answer the narrative why type of questions, as distinct from the question of how something works (discussed in Chapter 3). As Bateson (1979: 109-114) points out, a scientific law may tell us, for example, the temperature at which water boils, but not when or where the first boiling bubble will break:

There is a deep gulf between statements about an identified individual and statements about a class. Such statements are of a different logical type, and prediction from one to the other is always unsure. The statement 'The liquid is boiling' is a different logical type from the statement 'That molecule will be the first to go' (Bateson 1979: 42, emphasis in original).

So this difference between law-governed regularities and particular instances is one of logical type, as between a class and its members, or name and object named, or indeed the general rule and the unique contingencies, as Hall (2007) puts it in the cultural and
political context. Thus the selector’s expert evaluations as to when to cut, mix or repeat a track raise the crucial question: what determines when an evaluative judgment is correct? Bateson raises a further implication of his distinction of logical types. This is the difference between how the crew accomplish the specific technique itself (described in the previous chapters), on the one hand, and the question of deciding when, where and why to apply a particular technique on the other. Performance techniques concern not only what to do, that is to cut or to mix, but also, most crucially, when to do either. With respect to skills learning, Bateson describes this as *deutero-learning*, or *meta-learning*, as an action about the action, for example, of cutting or mixing a music track (as with Mudede’s *meta-music*, described in Chapter 5). This is learning the context of learning, or learning how to learn (Bateson 1979: 133-4, 1972: 133-149).

Such contingencies are, of course, the very stuff of live performance in the dancehall session, as elsewhere. Each decision takes place at a particular moment that may well be a unique coincidence of variables: never having happened before, and maybe never again. Actual practices are often based in evaluating contingencies that are by definition transitory, multiple and parallel, not unlike the “sensory flux” described in Gibson’s (1979) ecological perception - and vastly too complicated for representations or logical calculation. The MC, for example, has to give attention to a vast parallel array of variables, from the vibes of the crowd to a rumour of a police “lock-off” (close down) of the session. While the crew and the crowd’s experience of the sound system session have little to do with the kind of reflections or representations associated with the logic of theory, it does have a lot to do with communication.

With the selector, for instance, their most crucial evaluations judge the right moment to use a particular technique, such as the “pull-up” of a music track. The audio engineers have to make a similar choice of the correct electronic component of a particular value to substitute for another, for their technique of compensation. For both the selector’s juggling, and the engineer’s fine-tuning, goals such as “balance” cannot be specified by, or within, the technique itself. From this, the logic of practice may be contrasted with that of cybernetic systems in at least two respects (see Henriques 2006). One is that
homeostatic negative feedback loops, such as a room thermostat, have only a single “value” of a certain temperature. The other is that in First Order Cybernetics the setting of this temperature value is not something over which the system itself has any control. With the sound system, by contrast, it is the crew themselves who monitor and manipulate the evaluative criteria by which they perform, as they do so.

With respect to the timing a further feature of the situated character of the crew’s performance is how this is often embedded in a sequential order – or rather how their techniques make this apparent. While crewmember’s techniques continually articulate the relationships between the different wavebands of sounding, the engineer can only evaluate after they have monitored, and this is impossible before they have manipulated. Similarly, with the dextrous techniques of the selector, there is the repeating, on the basis of their cutting and mixing. Furthermore, with the crowd’s choreographic techniques there is the self-awareness of their kinesthetics, following the active expressive movement of their kinetics and the passive impressive movement of their haptics and what Sheets-Johnstone (1999) calls a “kinetic bodily logos” (as detailed in further research). In this way, it can be said that relationships are not necessarily equal, but based on the facts of our unique embodiment, giving us a particular stake, location and orientation in our world (Ahmed 2006).

Again with respect to timing, one more feature of the situated nature of the crew’s way of knowing, is how their logic of practice has to be instantaneous. To achieve this, the crew’s performance has to enter the realm of the imagination; they have to project themselves into the anticipated future of their performance, and the future action of the other players. Bourdieu emphasises this point:

A player who is involved and caught up in the game adjusts not to what he sees but to what he fore-sees, sees in advance of he directly perceived present; he passes the ball not to the spot where his team-mate is but to the spot he will reach… (Bourdieu 1990: 81, emphasis added).
This temporal dimension is also useful for marking the distinction between the selector's monitoring, based on feedback (as with the first order cybernetic model of a homeostatic negative feedback system), and their evaluating, based on anticipation of the future yet to come, or feed-forward. As Bourdieu continues: "Only this kind of acquired mastery, functioning with the automatic reliability of an instinct, can make it possible to respond instantaneously to all the uncertain and ambiguous situations of practice" (Bourdieu 1990: 104). This practical and applied mastery is, of course, what the audio engineer "prentos" (apprentices) have to learn for their trade, in the case of Stone Love, through five generations of apprenticeship (described in Chapter 4).

In respect of the particular placing or location of the situated characteristics of the crew's techniques, it should be mentioned that these are located in the relationships between crewmembers, rather than "within" them as individuals, or their so-called cognitive processes. The MC and selector have to work very closely together to the extent that these roles are often embodied in a single person, as noted above. This draws attention to the mutual dependencies between all the crewmembers that can be considered as a corporeal expression of the relationship between the three vibrations of sounding. The MC cannot operate without the selector, for instance; neither can either of them, without the engineer and maintenance crew to string up the set. The relationships between the crew can be described as a system of affordances, to use Gibson's (1979) term that is, constraints and opportunities, rather than simply functional causes and effects (as described in Chapter 3). Each crewmember's performance is mutually dependent on the other's work, operating in the same space. A sound system crew share a single operational space - literally with the MC and selector, where the turntable and mixing decks, can be likened to the controls on the flight-deck of an aircraft, ship's bridge, or even space-craft, with vibes of the crowd as the field to be traversed. This requires each of the crew's working practices to be near-to-hand, to employ Heidegger's expression (see Feenberg 2005), for the relationship between hammer and hand, as an example of simple technology.
The idea of near-to-hand raises several points. One relates to the importance of the relationship between tools and tool-user; that is, objects and practices that leads Latour (1986), following Goody (1977), to consider tools as “congealed labour” (see also Ingold 2000). Secondly, it emphasises the importance of spatial proximities, as with Serres’ idea of the parasite being literally near food. Thirdly near-to-hand conjures the idea of tools as prosthetic extensions of the body, following Mauss’ idea of the body itself as instrument (mentioned in the next chapter). Fourthly near-to-hand emphasises the importance of the relationship between the performer and their tools and materials, as with the selectors’ tunes in their record box and instrument of the record deck, or the MC’s repertoire of catch-phrases and their instrument of the microphone, or the audio engineers’ techniques for adjusting the auditory output of the set, such as repositioning of the speaker stacks on the dancehall floor.

But of course, not all a Sound’s crewmembers are equal, as with an actual ship. In terms of status and social hierarchy, the MC and the selector share a similarly high level of respect; then the engineer, then the fix man, with the maintenance crew at the bottom, as described by Stone Love owner Wee-Pow elsewhere (Henriques 2007a). Also there is a functional, as distinct from status, hierarchy between roles, as for example when the set breaks down. Then, suddenly, the engineer becomes the most important person in the session, as happened during the Skateland session (see Appendix 3) in the manner discussed by Latour (1986). As has been said: “Technology is the stuff that doesn’t work yet.” This is to emphasise how the material vibrations of sounding only draws attention to itself when it fails to function “transparently.”

Thus the relationship between crewmembers is proportional and hierarchical, as with that between the vibrations of sounding, rather than one of equal exchange. There is always the kind of flow, grain, texture, and orientation to it that we associate with “natural” or organic materials, such as wood, as distinct from artificial or “man-made” substances. The MC uses his or her technique to manipulate their vocal instrument, which in turn they use to manipulate the vibes of the crowd. There is a one-way directional and kinetic flow, grain and texture in the practice of these relationships,
locating them in a heterogeneous embodied space, rather than a homogeneous and mechanical one. Relationships of a similar character were identified with the selector's selecting and combining axes of communication (in the previous chapter). Neither crewmembers, nor the different wavebands of sounding, can be considered to “exist” separately, but only as they partake of the whole. In this way Bourdieu's (1990) the logic of practice describes an intrinsically socially distributed process. In short, it takes place across relationships between individuals, rather than “within” them, as cognition has conventionally been located. Furthermore, Hutchins (1995) famously describes a different type of “crew” to that of the sound, investigating the operations required for docking of a USA navy vessel. As with the sounding of the session, there is no single individual who has all the knowledge, experience and expertise to successfully complete the task single-handed. Collectively, however, this is a regular accomplishment for the sound system crew.

b) Synthetic

The second striking feature of logic of the crew’s performance techniques is that they are a synthetic procedure - a mixing process - as distinct from cutting or the separations and analysis of formal logic. The logic of practice “gets it together” as it is said. It assembles a comprehensive range of embodied knowledge, tacit understanding, common sense, folk-wisdom, ritual and many other ways of knowing, with which the crew “make sense” of what they do as and by doing it. The logic of sound practice is invariably multiple, as with the practice of musicking - assembling together all and everyone needed for an event. Indeed, the dancehall session often has the effect of gathering and connecting together people from different backgrounds, which is especially the case with the Sunday night Rae Town dancehall sessions (mentioned in Chapter 1). So the dancehall brings people together in the manner of that most ancient of institutions, the street market, but an economy of pleasure and entertainment, rather than for the purpose of buying or exchanging goods (see DeLanda 1997).

As a synthetic procedure, the logic of practice is not predicated on the separation between the knowing subject and object of knowledge that results in a "critical
distance," as is often the case with the logic of theory. The logic of practice merges knower and known - a suture for the epistemological fissures at the foundation of the Western tradition. Thinking through the vibrations of sounding helps dissolve the gulf between viewer and viewed that the visual metaphor is invariably used to describe, and indeed justify (as discussed in Chapter 3). In fact, the more the crew and crowd are "into the vibe," the more the sonic dominance erodes the boundaries between self, or other and session, and the better the session is considered to be. The deeper immersed in "the heat of the moment" and enveloped in the flow and vibes of the session, the greater the evidence will be the crew's evaluative judgements, or their acquired mastery to which Bourdieu (1990) refers. The chemist and scientist-turned-philosopher Michael Polanyi developed a conception "post-critical" thinking that is useful here. This takes belief as the basis of knowing, rather than doubt. As Mullins describes: "'[P]ost-critical' thought aims to reverse the tendency of modern thought to disparage belief as merely subjective and to regard doubt as the royal road to knowledge. For Polanyi, the critical tradition beginning with Descartes, under-values belief and skill and the traditions that supports them..." (Mullins 2002: 211). It is precisely these skill traditions that this research has been exploring.

On the basis of the synthetic relationship between knower and known, the techniques of sound practice do not have to rely on representation. In practice, embodied logic tends to be non-representational. If perceiver and perceived have not been separated in the first place, there can be little need for ideas of reflection, "internal" images or connection between "outside" or "objective" worlds on one side of the divide, and "inside" and "subjective" worlds on the other. That is what Edward Reed dubbed the "two environments' assumption: the idea that there are really two environments, a mental (subjective) world and a physical (objective) world" (Reed 1996: 6). This point was also taken up by Gestalt psychologist Fritz Heider's (1959) insistence on the importance of the relationship between medium and thing, rather than the traditional dichotomy between thing and thing, as it were (as discussed in Chapter 3). In the context of this epistemological schism, it should also be remembered how the ways of knowing
associated with their practical medium of whatever kind, such as tacit knowing, “know-how,” or savoir-faire are often disparaged as being corporeally contaminated. Such informal, idiomatic ways of knowing tend to be relegated to the merely vernacular, if not the vulgar, compared to the grand epistemological architecture of the epistêmê of pure abstractions knowledge proper. This is the “know-what” of connaissance, which interestingly, when translated into the English noun connoisseur, includes precisely the practical expertise that the French world excludes. In practice, of course, the two are combined, as Mullens reminds us: “Knowing that and knowing how are always interwoven” (Mullens 2002: 207, emphasis added).

In a similarly synthetic fashion, the logic of sound practice tends not to be discursive or symbolic, or even gestural. As with musicking, the dynamics of sounding encourages a turn towards actions, rather than objects, here it turns us towards bodies-with-minds, rather than isolated minds. This is because thinking through sounding tends erase the distinction between self and others (as mentioned above in respect of sonic dominance), in the same manner it does those between knower and world. Indeed, such feelings of commonality, it might be assumed, are among the attractions that draw the crowd to the session, such that the term “vibes” describes the empathetic feeling of each person for the others there (though this is not to say that dancehall sessions are without violent incidents). Syntheses are invariably multiples, as with the dancehall crowd itself, described as a many-who-are-one and a one-who-is-many (Henriques 2007b). If, in the shared experience of the dancehall session there is less separation between one and another, then the need for discursive or symbolic communication diminishes, each person “knowing” what others are “feeling,” as when it is said, “I know what you mean.” In addition, the sheer volume of sonic dominance makes oral communication difficult. So the account offered of this logic of sound practice suggests what could be described as an embodied “knowing” subject, that is one that knows how, rather than what, but also, reflexively knows that he or she knows, as with a “knowing look,” for instance.
c) Tacit

The third key characteristic of the logic of the crew's performance practices is that it is not necessarily open to conscious reflection, in contrast to how logic has traditionally been understood to operate. Polanyi's (1958) term *tacit knowing* is particularly appropriate for the logic of sound practice, associating it with tactile or haptic touch of sound, as evident with the *sonic dominance* of the session. Polanyi also uses the term *connoisseurship* to describe what he calls a way of knowing, rather than knowledge as such. Most important, this way of knowing does not involve representation: "Connoisseurship, like skill, can be communicated only by example, not precept..." (Polanyi 1958: 54). This includes ideas of expert knowledge, experience, intuitions, guessing, "gut feelings" and other synthetic and parallel relationships as important features of the logic of sound practice. These have little to do with conscious or cognitive processes, logical calculation or rational analysis, as with the highly skilled craft of master violinmakers to which Polanyi's approach has been applied (Witmer 1999).

In respect to the role of mind in skilled techniques, Michael Polanyi makes a second important point that many craft skills and techniques cannot be conscious processes. As he states, it is a "well-known fact that the aim of a skilful performance is achieved by the observance of a set of rules which are not known as such to the person following them" (Polanyi 1958: 49, emphasis in original). He goes on to explicate this in terms of a distinction between focal and subsidiary awareness, with the example of hammering in a nail: "I have a subsidiary awareness of the feeling in the palm of my hand which is merged into my focal awareness of my driving in the nail" (Polanyi 1958: 55, emphasis in original). Polanyi emphasises how these two types of awareness are actually mutually exclusive, implying that the selector can never be consciously aware of the know-what of their doing at the same time as the know-how of their practice. The volume, range and complexities of variations are also simply too great to be "held in mind," obviating the need for conscious reflection, as mentioned above.
So the crew's performance routines, as a series or patterning of actions, are not a matter of the performer following any pre-existing plan, design, form, schema, map or interpreting a score. Instead it is always a matter of improvisation, or *versioning*. In this respect the idea of "the original" can only ever be exactly that, *an idea* – whose actual realisation requires the particularity of a specific performance (as discussed in relation to *dubplates* in Chapter 5). Commenting on Gibson's point that "a route involves a routine" (1979: 76), Reed reminds us: "A routing is the organisation of the action, not a *representation* of the action" (Reed 1988: 302, emphasis in original). In this way, Gibson's ecological approach to perceptual systems helps to make the important point that complex performances can be understood without recourse to ideas of reflection or representation or mental maps and the like. The selector's *cutting, mixing* and *repeating*, for instance, is their routine procedure, or sequence of actions, that takes them through their performance. This is what "makes it up" and also what they do "making it up" as they go along, as with the DJ's extemporisation, or the studio producer re-mixing a version. Indeed, it also underlines the close association between reflective representations and conscious awareness that often tends to be assumed. In his discussion of film music, Michel Chion makes this point as follows: "Somehow, 'representation' and 'meaning' come to be synonymous, and arguments that music is 'nonrepresentable' are (implicitly, at least) understood as proving that music does not 'mean' in any recognisable sense of the term" (Chion 1994: 6). Necessarily without images, thinking through sounding raises questions about the different kinds of non-conscious awareness - such as those that inform practice.

American Pragmatism offers another relevant tradition in which attempts have been made to capture the type of evaluative relationship that is key to the logic of sound practice. Peirce's concept of *abduction* is of special interest. As Mullins (2002) points out, this is in fact closely allied to Polanyi's *tacit knowing* (see Polanyi 1969). As Peirce puts it: "Abduction is the process of forming an explanatory hypothesis. It is the only logical operation that introduces any new idea..." (Peirce 1931-58: 5.171, cited Mullins 2002: 199). Abduction, then, is at the core of innovation, and therefore the kind of improvisation and versioning techniques dominating Reggae and other musical
techniques, whose operation is largely outside conscious awareness. Furthermore, Peirce contrasts abduction with induction which "does nothing but determine a value, and deduction [that] merely evolves the necessary consequences of a pure hypothesis" (Peirce 1931-58: 5.171, emphasis added). Most importantly, Peirce considers abduction to be central to the procedures of science, rather than dismissing it as merely practical know-how, as he adds:

[Abduction] is the first step of scientific reasoning, as induction is the concluding step... Abduction seeks a theory. Induction seeks for facts. In abduction the consideration of the facts suggest the hypothesis. In induction the study of the hypothesis suggests the experiments which bring to light the very facts to which the hypothesis had pointed (7.218, cited Mullins 2002: 200).

Against this, traditionally scientific endeavour has been characterised by patient deduction, rather than the imaginative leaps of abduction. Sebeok and Umiker-Sebeok (1983) explore this in respect to what is considered as the scientific methodology of Sherlock Holmes’ detective work. They show how many of Sir Arthur Conan Doyle’s detective hero’s stories turn on his use of abduction, which is formulating the initial hypothesis, rather than the gathering of deductive evidence.

Pierre Bourdieu’s (1990) The Logic of Practice, based on his research on the social and cultural practices in a Kabyle village in Algeria, provides another way of considering the non-conscious character of the logic of sound practice. In the dancehall session, there is invariably “just too much going on.” There are so many variables relevant to the vibes of the crowd that the crew have to attend to, that they literally do not have the time for analysis and sequential procedures. As Bourdieu points out, besides their acquired mastery (discussed above), performers simply do not have enough time for the conscious reflection of thinking:
An agent who possesses a *practical mastery*, as art, whatever it may be, is capable of applying in his action the disposition which appears to him only in action... And he does so ‘on the spot’, ‘in the twinkling of an eye’, ‘in the heat of the moment’, that is, in conditions which exclude distance, perspective, detachment and reflexion [sic] (Bourdieu 1990: 81, 91, emphasis in original).

Furthermore, the *practical mastery* whose logic is of concern here, is *sound* practice, in both senses of this word; that is, auditory and correct. With respect to what is considered correct, it is suggested here that thinking through sounding offers something of a “royal road,” to borrow Freud’s accolade for the access dreams give to the unconscious, for understanding how a wide range of practices work. This is not due to any kind of privilege for sound, over and above vision, but rather on the grounds that the propagation of auditory vibrations might model those of corporeal and ethereal wavebands - from whose relationships an understanding of reciprocal meaningful communication could be built. With respect to audition, this practical mastery is embodied. This emphasis on corporeality and fleshly embodiment is also a component of Bourdieu’s concepts of *habitus* as, “A system of acquired dispositions functioning on the practical level as categories of perception and assessment...” (Bourdieu 1990). This idea is also expressed in Merleau-Ponty’s (1962) concept of *being-in-the-world*, which thinking through sounding has been investigating as *doing-in-the-world*. But perhaps the most eloquent expression of these bodily qualities is the term “livity,” or way of life (discussed above), as most often used in the dancehall scene and elsewhere in Jamaica.

But even within the Western tradition, that has so favoured the logic of theory, there is also an alternative figure for understanding a different kind of logic. This is the craftsman. In the *Timaeus*, Plato describes this figure of the craftsman as the demiurge, or god, who created the universe. The Greeks gave the name *technē* for this art and craft, as distinct from, but not antagonistic towards, the *epistēmē* of knowledge proper. One return of this idea of the value of craft came with the Victorian arts and craft movement, whose leader, John Ruskin (1884) coined the phrase “head, hand and
heart" to describe the "enminded," embodied and evaluative character of what is considered here as the logic of practice. Furthermore, it could be said that de Certeau's (1984) interest in the prosaic or quotidian crafting of everyday activities and cultural studies’ investigation of the popular traditions, following Richard Hoggart, Raymond Williams and Stuart Hall and more recently David Morley, Angela McRobbie and Lawrence Grossberg, inherit inspiration from the figure of the craftsman.

Richard Sennett begins *The Craftsman* with a consideration of his teacher Hannah Arendt's understanding of *Homo faber* as men and women "making life in common" (Sennett 2008: 6). Placing himself in the Pragmatist tradition, Sennett's investigation of material culture hinges on craftsmanship as "an enduring, basic human impulse, the desire to do a job well for its own sake." Sennett goes on to say how his book:

*E*xplores these dimensions of skill, commitment, and judgment in a particular way... [with a focus on the intimate connection between hand and head. Every good craftsman conducts a dialogue between concrete practices and thinking... a rhythm between problem solving and problem finding... There is nothing inevitable about becoming skilled, just as there is nothing mindlessly mechanical about technique itself (Sennett 2008: 9).

Sennett's approach is very much in keeping with this research, which besides head and hand, also emphasises the heart, as with Ruskin, as the organ critical for embodied evaluation (as discussed below). One of his crucial points for the concerns of this chapter is the idea of reason itself, as described in one of the Enlightenment's founding text, that is Denis Diderot and Jean Le Rond D'Albert's *Encyclopédie* (1751 – 1772). Contrary to the commonplace assumption that our Enlightenment inheritance largely concerns philosophical ideas, Sennett argues that the *Encyclopaedia*'s major claim was, "to assert that the craftsman's labours were icons of the Enlightenment" (p.91). The Encyclopaedists did this, “[B]y putting manual pursuits on an equal footing with mental labours” (Sennett 2008: 91). This is certainly consistent with the work's sub-title: *ou dictionnaire raisonné des sciences, des arts et des métiers (or Classified Dictionary of*
Sciences, Arts, and Trades), its profusion of engravings depicting the huge range of craft skills described, as well as Diderot's stated intention to write a book “for artisans to read [and] philosophers to think on useful lines.” Diderot complains: “Artisans have believed themselves contemptible because people have looked down on them; let us teach them to have a better opinion of themselves...”[7] Sennett takes up this point:

By restoring the manual labourer to something like his archaic Greek honour, the encyclopaedists mounted a challenge equal in force to Kant's attack on the traditional privilege but different in character: *useful labour rather than free reason challenges the past* (Sennett 2008: 93-4, emphasis added).

Sennett goes onto describe how it was the craftsman’s skills “beyond human verbal capacities to explain” (p 95), vigour and contentment that the encyclopaedists most admired and detailed through the pages of their “bible of craftsmanship” (p 91).

(2) Embodied Evaluations

The embodied evaluation of the crew's ongoing performance is a key feature of their situated, synthetic and tacit ways of knowing. This in turn configures the material, corporeal and ethereal wavebands of sounding in practice. In their performance the crew recognise a proportional ratio between one specific moment of their performance and the whole of the dancehall event, or their sense of timing of “the right moment” as to when to apply a particular technique. The evaluations of the logic of practice are concerned with both with recognition and invention, versioning as well as originality. This involves issues of value, preference, taste and aesthetic judgement on the Dancehall scene, for which issues of “style and fashion,” pleasure and appreciation rather than functionality, are the all-important (see frontispiece and Figures 7.2). There is a rapid turnover of trends, with a premium on the “one-off,” novelty, setting “the pattern,” as is said, for others to follow. This emphasises how a Sound has to be considered as a homodynamic, rather homeostatic, system.
Often crewmembers aim to create a new form of "excitement" that the crowd will notice, talk about, and bring their friends to enjoy at the next session. For the audio engineer this might be a novel sound f/x or jingle; for the selector, an exclusive dubplate or rare "Golden Oldie," for instance. This special value for style, fashion and fine clothes is commonplace in many African cultures and their diaspora as with the sartorial elegance of the Zairian Sapeurs, or the Hip Hop bling (see Bakare-Yusuf 2006). Besides aesthetic values, such as the selector's decision as to which is the right tune to play next, in order "to build the vibes of the crowd," evaluative judgments are equally in evidence for many other matters, as with the MC's audience management in the session. Exactly how the MC tells the crowd that the police are about to "lock off" the dance (that is close it down), for example, can determine whether a session ends peacefully or in a riot. Furthermore, on the Dancehall scene such aesthetic judgements are never without commercial implications, to the extent that makes it impossible to separate art from commerce, as Veal (2007) details in respect to Reggae producers' dub versions (see also Henriques 2007a).

In practice, the evaluative element of the crew's ways of knowing cannot be isolated from the crew's performance techniques. This provides evidence for rather different conceptions of rationality and meaning than those traditionally assumed. These tend to be formal, explicit, abstract, systematic, representational and discursive and based an analytical definition of logic in terms of self-consistency. The logic of theory is most often defined as not only context-free, but also without feeling, meaning and indeed content; that is, as an entirely determined as elements of a formal diacritical system. Furthermore, within the prevailing philosophical dichotomies, such matters of taste and value are considered either as personal, particular and subjectively intimate, or, at the same time (in a contradictory fashion,) as universal, general and objectively distanced matters of aesthetic appreciation (following Kant, see Zangwill 2007). From the standpoint of theory, the crew's evaluations could therefore be described as rather "awkward customers."
Figure 7.2 Dancer at Chu Chu Benz. Note jewellery, nails and accessories.
But from the standpoint of practice, on the other hand, the crew's embodied evaluations are remarkably agile. They dispense with the two key tenets of most orthodox ideas of rationality as measurement, quantification or calculation. The first tends to restrict meaning to representation, discourse, or symbolic manipulation - rather than for example musical expression. The second considers meaning as being produced by so-called mental processes, located "in the mind" - rather than the mind-body as a whole. So the crew's skills and techniques provide ready evidence of how evaluative judgements can approach the ideal of the good, the true and the beautiful that Plato describes in the Symposium. Despite this, embodied ways of knowing have most often been dismissed as not being rational at all. Certainly the idea of the logic of practice is at variance with what the anthropological pioneers, who first studied non-Western cultures at the beginning of the last century, wanted to consider as evidence of rationality. They had little respect for anything other than the formal Western idea. In his folkloric encyclopaedia, The Golden Bough, Sir James Fraser discusses primitive thought as follows: "He reasons just as he digests his food, in complete ignorance of the intellectual and physiological processes which are essential to the one operation as to the other" (Fraser 1922/1963: 11). Since then Levi-Strauss' (1962) concept of bricolage likened non-Western ways of thinking, not to physiological processes, but to those of the artisan who assembles together what is needed for the job in hand, with the tools and materials available - quite a different procedure to how a scientist discovers knowledge proper. In either case, any value for an embodied corporeal kind of rationality is completely beneath the privileged dominance of Western epistemological and scientific traditions.

It is suggested here that the proportional, analogical and reciprocal qualities of the of the crew's practice might be evidence of a different kind of rationality and logic than that recognised by the theoretical protocols traditionally laid down. These ways of knowing embrace our corporeal becoming-in-the-world, rather than removing itself into an abstract realm of "the mind," above and beyond our material incarnation. It refuses to deny or ignore what it would claim to be the embodied character or all rationality. This
amounts to what could be called a *sonic* logos. The tones, textures and timbres with which we are accustomed to thinking through sounding, it is suggested here, might also prove useful for these different ways of knowing. A sonic logos is thereby sonic in its relationships, rather than reinforcing the false division between sensory modalities (criticised in Chapter 2). In short, thinking through sounding has sounding as its process, rather than its object. This suggests that the crew's *knowing* has to be considered as a kinetic practice (as with the idea of *musicking* discussed in Chapter 3), or a propagation process, rather than as an "object of knowledge" of which ownership would be possible. As Polanyi states: "Knowledge is an activity which would be better described as a *process* of knowing" (Polanyi 1969: 132, emphasis added).

The crew's way of knowing is certainly performative and expressive rather than representational or discursive. Their techniques cannot be separated from their evaluations or "sound judgement," any more than they could from their actual embodied performance of them. The "sound judgement" around which each crewmember's performance revolves, is how they "make sense" of what they do, in the process of their do it. Such evaluative ways of knowing are literally at the heart of the logic of sound practice, with this organ itself as the seat of imaginative judgement (see Hillman 1992), evoking the idea of an "intelligence of the heart" (Lawlor 1982). This phrase is of interest for thinking through sounding, in its citing of the heart as the seat of the faculty of intelligence, rather than its more common association with organ of the brain.

The logic of sound practice is concerned with all the organs of the fully "enminded" whole body. This completely abandons what Polanyi called "the Pygmalion of the mind" (Polanyi 1958: 5) when this is considered as if separate from its embodiment. Such judgements are irrecoverably entangled with practice, within and between each action and the next, as it were. Down to the most microscopic small-scale detail, expert judgments are always nestling within the entire performance milieu infused with evaluations. Of course these are expressed in the smooth continuous flow of live performance in which millions of micro-judgements are made that are in practice inseparable from the performance itself. Indeed, only the analysis of the performance
creates any distance or distinction between evaluation and action. Breaking down these flows into their component parts, such as the audio engineer’s monitoring, manipulating and evaluating, can only happen in theory. In practice, there is only their synthesis in movement. Once again, the inflections of the Jamaican vernacular provides supporting evidence, here with the term “overstanding” indicating the higher form of the usual understanding, and “reasoning,” used to describe the social dialogue and group debate on Rastafarian philosophy, for instance.\(^{10}\) In the Western philosophical tradition, Wittgenstein’s (1953) concept of \textit{a form of life} readily resonates with the practice of the dancehall session, and importantly involves evaluations. As he states, “the speaking of language is part of an activity, or of \textit{a form of life}” where agreement is required “not only in definitions but also (queer as this may sound) in \textit{judgments}” (Wittgenstein 1953: 23, 242). Such forms of life have been understood as being both historically and culturally specific, and at the same time common to all humankind (see Biletzki and Matar 2006).

One of the conclusions to be drawn from these fields or research is how practice is the creative key to all performance, especially musical improvisation and versioning. This aligns the idea of the logic of practice with the distaff tradition of Heraclitus, Goethe, Bergson and Bohm, for whom movement, variation and becoming provide the starting point. The centrality of movement comes very much to the fore in the examination of the crowd’s performance practices and dancing among other activities, following Sheets-Johnstone (2004). Also Aristotle’s idea of movement brings with it ideas of personal relationship and evaluative judgement, so that space is considered as a vibrating medium, rather than an entirely empty void, across which action at a distance is impossible. According to Freenberg’s account of Heidegger’s (1998) reading of the \textit{Physis}, Aristotle places movement at the heart of his entire philosophical system. For Heidegger, Freenberg writes:

\begin{quote}
Aristotle’s greatness lies in having placed movement, \textit{kinesis}, at the centre of philosophical reflection. Movement in Aristotle’s sense refers not just to change of place, but more generally to any kind of change from one state to another… \textit{Bewegtheit}… movement, movedness, motility… (Freenberg 2005: 28).
\end{quote}
But rather than those mechanical forces between objects, this kind of movement has particular qualities of relationships between persons:

Aristotle does not share our idea of movement as a contingent interaction between a mutually indifferent cause and effect. Instead he understands movement through the concept of ‘eros,’ the desire which draws the moved being towards its object and in which it comes to rest (Freenberg 2005: 29).

With the crowd’s performance, particularly its intensive and affective qualities, movement as *Eros* is taken quite literally, as cupid’s arrow. This lends support to this idea of movement as reciprocal meaning and motivation expressed in the lyrical phrase “I blessed my eyes on you” by which the lover describe first seeing their lover. These are the ethereal vibrations of sounding, as distinct from their materiality (Henriques 2003). This is consistent with how Godwin (1987) discusses sound being of the ether, as the fifth element, with the word *ether* originally used to describe the air the Greek gods breathed on Mount Olympus. In order to suggest how these relationships are evidenced by sounding - rather than restricted to it - this chapter continues by considering how certain terms from ancient Greek philosophy can aid our understanding of embodied evaluations.

**a) Logos as ratio**

The poly-semantic Greek word *logos* is most commonly translated as *word* (see Bohm 1980: 27-8), as with the opening of Mathew’s Gospel, “In the beginning was the *logos...*” In this respect *logos* can be triangulated with the *ethos* and *pathos*, as was found helpful or the account of the MC’s skilled performance in the previous chapter. But this is not the only meaning of *logos*. According to Freenberg, Heidegger considered *logos* as the process of assembling things together to form a whole. He puts this at the very centre of rationality itself:
'Logos', [Heidegger] claims, is derived from the word 'legein' which means to lay out, harvest, or gather. 'Logos' is the gathering together of the relationships that make things intelligible and the making manifest of the results of this gathering... Heidegger finds logos at work not only in theoretical knowledge, but also in circumspection, the basic familiarity with things that accompanies action...
(Freenberg 2005: 31).

If the logos is to be accurately translated as a practice, rather than word or mind, as it most often is, this provides an important theoretical underpinning for thinking through sounding, also consistent with Plato's idea of god as craftsman (mentioned above). In fact, this idea of logos as gathering liberates rationality from what is considered here to be the shackles of the disembodied mind. Counter to the widespread discursive turn, logos can be understood as ratio. This can provide a conception of rationality grounded in embodied practice and proportional evaluation, rather than as representation, which as Chion (1994) points out, it commonly tends to be (as mentioned above). This entirely avoids the most common pitfalls consequent on the separation of mind, body and world. But it does not make it any less rational; rather it makes the logos relational. This gives "objects" a relational identity, in contrast to traditional analytic philosophy's foundation in prepositional logic, in which they are defined to the exclusion of others, in that A and not-A are mutually exclusive. Thinking through sounding, by contrast, resonates with such relationships, not least between its material, corporeal and ethereal wavebands.

Thus a ratio is an expression of a relationship between two elements. This is not between any two elements, but rather specifically, between part and whole. This part-whole relationship is literally the fulcrum of the crew's evaluations, given the variable, situated and particular nature of all practice. Considering logic in terms of ratio in fact harks back to a much older idea of reason, more akin to the modern usage of "reasonable," "measured," as in "a just measure" or indeed a "sound" judgement. As Bohm puts it:
In the ancient view, reason is seen as insight into a totality of ratio or proportion... the essential reason or ratio of a thing is then the totality of inner proportions in its structure, and in the process in which it forms, maintains itself, and ultimately dissolves... (Bohm 1980: 26-27).

Bohm also makes the link between this idea of ratio and that of theory when he states: “Whenever we find a theoretical reason from something, we are exemplifying this notion of ratio.” Similarly in their sound practice, the crew’s evaluative judgements emphasise this specific quality of ratio as identity-through-relationship, which is, for example, embodied in the musical production technique of versioning. This idea is also fundamental to Bateson’s idea of difference as “usually a ratio between similars” (Bateson 1979: 99) as discussed above (in Chapter 3). In short, a ratio is a qualitative relationship, concerning scale, orientation and symmetry for instance, rather than quantitative measurement of height, breadth and depth.

In the Western tradition, the first formulation of this idea of ratio as the relationship between part and whole is attributed to the earliest of the Ancient Greek philosophers, Thales of Miletus (and later formalised by Euclid of Alexandria). As Michel Serres (1995) describes, Thales arrived at this idea of consistent ratio by observation. He measured the length of shadow cast by the Great Pyramid in Egypt:

By comparing the shadow of the pyramid with that of a reference post and his own shadow, Thales expressed the invariance of similar forms over changes in scale. His theorem therefore consists of the infinite progression or reduction of size while preserving the same ratio... the theorem states a logos or identical relation, the invariance of the same form, be it on a giant or small scale, and vice versa... (Serres 1995: 78-9, emphasis added).

These ratios are more enduring than any material substance is capable of being. It is the ratio, rather than the most apparently permanent of objects that in fact endures. Serres (1995) goes on to point out this irony in saying “only the softest lasts.” As with
the sundial, or gnomon, the idea of ratio concerns a rationality of proportional relationships, and has nothing to do with quantification, measurement, or calculation. Indeed, the geometry of the Ancient Greeks was entirely proportional, a drawing practice that used only straight edge and dividers (see Figure 7.3), with no need for rulers, measurement, or indeed numbers (in fact letters were used). As was cited in relation to the material waveband of sounding (in Chapter 3), the insubstantial yet enduring character of relationships is also recognised in the way Bateson (1979) describes the relationship of difference in which information arises: “Difference is precisely not substance… It is qualitative, not quantitative… [it] is not located in time or space” (Bateson 1979: 98-100, emphasis in original). It can therefore be said that the cut makes a difference that is the difference; in the way Bateson defines information as “differences that make a difference” (Bateson 1979: 99) or “news of difference” (1979: 69). In this respect, a ratio is what makes a difference different.

One of the important points to note about these ratios is this. At the same time as it is only relationships that can endure, it is also the case that such ratios are only ever evident in so far as they are expressed through some particular instance, incarnation, material medium, integumentum, or cladding – that does not endure. This is to say such ratios can only be expressed analogously (see Critchlow 1994). The affordance the material offers - what could be described as the ethereal frequency of a ratio - resonates with the sound wave model (described in Chapter 3). To be audible a sound requires a particular situation and timing, as well actual dynamic energy. This material aspect can then afford the corporeal and ethereal vibrations of sounding, by which we feel and make sense of it. In this respect, the evaluative judgements involved in making sense of sounding serve as an example of the ratio between particular instances and abstract images or ideas, whereby these particularities afford; that is, offer constraints and possibilities, for the abstractions. This relationship of affordance between material and other vibrations of sounding is distinct and different from suggesting either that there are no abstractions, as a materialist reductionism would do, or that actual instances are nothing but the expression of the "pure" abstract idea, in the way Plato's philosophy is used to sanction such idealism. Neither can ratios take place within only
material vibrations, as might be assumed by the idea of “laws of nature” as if these were independent of our understanding of them. Nor do they occur within the ethereal aspect alone, as “pure ideas,” whatever they might be.

A ratio is a relationship that can only occur between the material and the ethereal wavebands of sounding, and this only in so far as it is recognised through the sense of the corporeal waveband. With a ratio, the distinction between these two portions can be contrasted with the way difference is conceived with reference to semiotic systems and the like. In that context, difference is diacritical difference, between the synchronic elements of the language system that distinguish a grammatical correct formulation from a mistaken one. The ratio between part and whole, on the other hand, would be more akin to analogue incremental variation (as discussed below).

b) Kairos or timeliness

Understanding the logic of the crew’s practice calls for knowing not only what to do, but also when to do it, as discussed in respect of the timing of the crew’s situated ways of knowing and Bourdieu’s idea of the player’s imagined future (above). Also Bourdieu’s anthropological researches are most helpful for addressing the special importance of the crew’s techniques for timing and placing with rhetorical concept of kairos (χρόνος). This can be defined as the timeliness of the opportune moment (Bizzell and Herzberg 2001). The selector’s judgement serves as an example of exactly the kind of timing that Bourdieu describes. As he explains:

The pedagogy of the Sophists, forced, in order to realise its aim, to produce a system of rules, as grammars or rhetorics, came up against the problem of the rules defining the right way and the right moment – kairos – to apply the rules, or, as the phrase so aptly goes, to put into practice a repertoire of devices or techniques, in short, the whole art of performance... (Bourdieu 1977: 20, emphasis in original).
Indeed, *kairos* is critical to all live performance techniques, not only the selector's moment by moment decisions, as he or she rides the vibes of the crowd with their music. Moreover this concept of *kairos* proves to be extraordinarily fecund, with several different origins. Instructively, these are based on particular craft skills and techniques, not dissimilar in character from those of the selector. One is archery, where *kairos*,

> [R]efers to an opening or 'opportunity' or more precisely, a long tunnel-like aperture through which the archer's arrow has to pass. Successful passage of a *kairos* requires, therefore, that the archer's arrow be fired not only accurately but with enough power for it to penetrate (White 1987: 13).

From this, a second source for the term *kairos* is as, “that part of the body where a weapon can penetrate to the life within” (Onians 1951: 343). A third source of *kairos* comes from the craft of weaving, where, “… there is the 'critical time' where the weaver must draw the yarn through a gap that momentarily opens in the warp of the cloth being woven (ibid).” Bringing these meanings together, according to White, makes *kairos*, “a passing instant when an opening appears which must be driven through with force if success is to be achieved” (ibid). Evaluative judgements require precisely this single act of commitment, as against the deferral, procrastination and the endless play of choice.

The practice of *kairos* couples the two opposite sides of the idea of an opening. On the one hand, there is the aspect of space, location, active force and cutting with the archer's shot - kinetics. On the other, there is the aspect of time, comparatively passive opportunity, duration and mixing with the warp and woof of the weaver’s fabric - haptics. As a practical craft activity taken as the basis for a theoretical concept, *kairos* might be contrasted with Levi-Strauss' idea of *bricolage*. Indicative of its context within the Structuralist paradigm, bricolage is defined entirely spatially, as a bringing together of what is near to hand, outside any conception of time or change. Cutting is a tearing apart, a dis-association (in Greek *diakrisis*), or analysis, or making different as against the combining together, association (*synkrisis*) or synthesis (see Critchlow 1994: 137), or bringing together. For the selector in the session, this enactment brings into
proportional relationship two sides of cutting, around the idea of the mark. This is the mark in time as the rhythm, tempo or beat, as with “marking time,” or “the nick of time,” or temple (both as place of worship and weakest part of the skull), together with the mark in space, as in “wide of the mark,” or “the straight and narrow.” The selector’s kairos is the rightness of a decision, for example, to play a particular tune, at a particular moment (rather than matching a mix between music tracks beat for beat). Such “sound judgements” require the selector’s awareness of the entire rhetorical scene, including the particular location and moment of the event, and indeed the entire Dancehall scene.14 The style and fashions of the selector change notoriously rapidly, giving rise to one popular phrase Up to the Time, being used as an Elephant Man album title. Further, in Jamaican English the word previous means prescient. By way of contrast to a conventional semiotic analysis, kairos is a practical enactment of the particularity of each place and moment of the event. The practice of kairos, with its sense of time as timeliness or timing, can therefore be distinguished from the timelessness of the crowd’s experience of the repeating rhythms of the session, mentioned above, and linear and cyclical senses of time (see Henriques 2007b).

c) Harmonics and analogia

This relationship between the particular kairotic moment and the entire rhetorical scene can be described as one of harmonics. This is not only a relationship of resonance between two more tones, but also, most important, between these and the listener, as DJ Squeeze’s describes with his phrase, “My harmony with the sound” when fine-tuning his set of equipment.15 But according to the German music scholar Hans Kayser (1970, 2006) the concept of harmonics, from the Greek harmonikos pertaining to music, had a more profound significance for the Pythagoreans. These first philosophers in ancient Greece considered harmonics as the relationship between the “two fundamental boundaries within which it is permitted to be Man” (Kayser 1970: 116), that is to say, quantity and quality, or cosmos and logos. From this proportional relationship they developed “a science of measure (number) and value (tone)... measure and value: the measure as a term for the order of things, value as a term for the law of things” (Kayser
For Kayser, harmonics provide a way of understanding - and hearing - this proportional relationship:

There must be a centre within us human beings where heart and reason join, some inseparable wholeness in the depths of our unconscious and subconscious out of whose measure and value that ‘wonderful thing’ - beauty - springs forth. In harmonics we recognise this centre in reference to the arts primarily as the value-form of ‘proportioning,’ and we see in the proportions of acoustical analysis in the different arts, where the idea of harmonical proportion must naturally not be taken in the restricted musical sense but with its wider significant, as ‘right measure’ (Kayser 1970: 75, emphasis added).

Kayser considers that with harmonics, “A bridge between being and value, world and soul, matter and spirit was found” (Kayser 1970: 30). The subtle and complex nature of harmonics is also key to the musical concept of timbre, or “sound colour” as the third respect in which sounds have to be described, besides their loudness and pitch (as discussed in Chapter 3). Timbre describes what makes the sound of different instruments distinctive, and indeed particular examples of each instrument, as it does the tone of a person’s voice (as with the MC discussed in the previous chapter). While evident in actual practice, this harmonic bridge between quality and quantity soon collapsed in theory, unfortunately for Western philosophy. This theoretical divide was manifested between the Pythagoreans themselves after the death of their teacher. This resulted in a split between the mathematikoi interested in investigating the material world, and the akousmatikoi (or listeners, as discussed with the term acoustmatic in the previous chapter), who they considered to be of a more mystical persuasion (Lippman 1963: 191). This division prefigured that of Aristotle with Plato (see Tarnas 1991).

Another approach to this issue of proportional relationships, or ratio, is to ask how does a cut make sense? This way of understanding the selector’s technique places it in the wider context of all the participants in the event, as when it is said, “It doesn’t make sense,” as distinct from being meaningless or insignificant. In this respect, sense
making can be compared with musicking. Furthermore, this idea of “making sense” can be described as *analogia* or *analogical* thinking rather than logic or logical thinking (given the impoverished character of the contemporary understanding of logic). Such ratios are between one thing and another, on the basis of what they share, “over and above” their physical characteristics, as when considering the sound system as a “vehicle.” Such a figure of speech is described, of course, as a metaphor, simile, or indeed an *analogy*. An analogical distinction is a proportional one in which every increment or variation counts as part of the whole, as with the analogue recordings of vinyl records still played on the sound systems. ¹⁶ These may be compared with diacritical systems and digital codes where parts are defined in relation to other phonemes or bits, as with the digital recordings on CDs. As Critchlow puts it: “Reasoning by analogia was then the Greek way of reasoning by whole rather than by parts” (Critchlow 1994: 139), where the part would be the quantity of measure or number, and the whole is the quality of tone or value. This idea of the whole suggests the kind of pattern or structure that cannot be reduced to the sum of its parts, as is recognised in systems theory, Gibson’s ecological psychology as well as Gestalt theory. Making use of analogia, as a concept so deep-seated within the Western thinking (albeit off the mainstream in a distaff tradition) might help us to consider the dancehall research findings as relevant to other ones. Indeed, one of the conceptual advantages of the idea of an analogia for thinking through sound practice is that it refuses the traditional reductionism based on the dichotomies of feelings and knowing, or body and mind, individual and society, and so on, with which thinking through sounding also aims to dispense.

Approached as a question of making sense in this way, the cut can be considered as the cutting of the relationship between part and whole - between the part of a body and the whole of the environment that includes that body, for example, or in Heider’s terms between thing and medium. In this way, the sensory surface or threshold between the two has a special importance (as discussed in my further research). Bateson provides a very useful definition of difference and information in which these are not fixed things, or objects, but a dynamic relationship. ¹⁷ He emphasises the importance of this non-
material character of information-as-relationship: “Difference, being of the nature of relationship, is not located in time or space,” he tells us (98). Furthermore, “Difference is not energy and usually contains no energy” (100, emphasis in original). This resonates with Gibson’s (1979) concept of affordances being neither subjective nor objective, but both and neither (as discussed below).

The selectors’ performance of the cut, as with their techniques, can also be understood as allied to the mathematician Spencer-Brown’s concept of severance, as the primary activity or act of commanding, naming, indicating, or making a distinction. “A universe comes into being when a space is severed or taken apart,” he tells us (Spencer-Brown 1972: xxix). Indeed it does, this is the world of differences, diacritical systems, such as those of language, in which meaning is generated. But maybe Spencer-Brown is not telling us enough by saying that a cut brings, “A universe into being.” Why does this happen? This is exactly the kind of decision the selector is making in their ongoing performance: when to “drop” the next track? This could be considered as a restriction and control, as the law of reason, in the manner of William Blake’s Urizen, the demiurge expressing the underside of Enlightenment rationality, depicted with his dividers in The Ancient of Days (see Figure 7.3). Or it could be considered as the act of creation. Indeed, Spencer-Brown’s performative concept of severance has been adopted as the primary cognitive act by Verala (1979) developing his influential autopoietic theory, that is the cybernetics of self-generating, as well as self-regulating, systems. In this way, the mark affords both these potentials.

To explore the second creative aspect, a selector’s decisions through a session can be imagined as running along a geometrical line, as if along a timeline. Each act of making a cut would be a mark on this imaginary line. This mark could be made randomly, expressing arbitrary chaos or meaninglessness. Alternatively, this mark on the imaginary line could be measured to be in the middle, dividing it into two equal halves, with in a stable or equal relationship between them. A third alternative is that the mark could be positioned so that there is a proportional relationship between the two parts it divides. A proportional ratio is a qualitative relationship of the parts with the whole, an
incremental or analogue variation, as with a mix, rather than a diacritical difference, as with a cut. With the mark on the line, as both a division of space and a tempo, there is one - and only one - position for a mark to divide the line to express a relationship between the two unequal lengths on either side. This is the Golden Mean, Golden Section or Phi (ϕ) that has been the basis of architectural geometry since at least the time of the Ancient Greeks (see Kapraff 1990).20

Figure 7.3 William Blake’s *The Ancient of Days* (1794) depicting Urizen with his pair of dividers21
What makes the Golden Mean different from any other position on the line is that it does this by expressing this relationship between the two lengths in relation a third one. This is the whole. At this unique point of B where BC is 0.6180339... or \((1 + \sqrt{5})/ 2\) as the shorter length, when AB is 1 as the longer, the relationship between the smaller and larger portions is the same as that between the larger and the whole (see Olson 2006: 6). Thus the Golden Section turns a dyadic relationship between two lengths, into a triadic one between these and a whole (see Figure 7.4). The geometrical expression of this is \(AB : BC = AB : AC\). Olson describes this as the relationship where "the whole to the longer equals the longer to the shorter... [and] the inverse... the shorter to the longer equals the longer to the whole... the Golden section unifies parts and whole like no other proportion" (Olson 2006: 6, 8). This is a unique expression of the proportional relationship between the two parts AB and BC, and a third AC, that is the whole. Thus the Golden Section can be considered the quintessential proportional relationship, or ratio. Musically it is best known as the proportional form of the octave (see Kappraff 1991), rather than as the inflections of the Reggae beat explored here.

Figure 7.4 The Golden Rectangle

\[AC : AB = AB : BC\]
d) **Triangulations**

In order for such proportional ratios between two elements to find expression, there has to be a third triangulating element. Plato discusses this in the *Timaeus*:

Two things cannot be rightly put together without a third; there must be some bond of union between them. And the fairest bond is that which makes the most complete fusion of itself and the things which it combines; and proportion is best adapted to effect such a union. 23

This triangulation of the proportional relationship of the parts with the whole, it is suggested here, is key to the kind of evaluations the crew are continually making with their sound system performance techniques. The engineers' practice of "compensation" by which they fine-tune their sets, for instance, has been described in terms of three practices: manipulating the electronic value of components, monitoring the resulting change, and then evaluating whether this resolution is an improvement or not. Those of the selector are described as the three-fold of cutting and mixing between records, and then repeating as with a "pull-up" or "rewind." The resolution of opposites in MC's performance, as another example, was described in the tradition of rhetorical theory falling into the Aristotelian triad of ethos, logos and pathos (in the previous chapter), as are the three wavebands of sounding (in Chapter 3); not to mention the triad of the phenomenon of the set, session and crew with which the research started.

Such three-fold relationships are indicative of synthesis. They combine and bring things together, as evidenced in the selector's performance as mixing. Dichotomies, on the other hand, indicate analysis, separation or division, and with the selector's cutting techniques which introduce a tension, energy and intensity, literally an "edge" to the performance. With the selector, this is both resolved and intensified with the third technique of repeating (as described in Chapter 5). This mixing that the logic of practice often involves may be contrasted with the logic of theory, traditionally cast in the binaries of true and false, A and not A, 0 and 1, and so on. While the dyadic logic of
theory has undoubtedly been prodigiously productive, a triadic logic of practice also has a particular value, as thinking through sounding aims to explore.24

Crucially, certain of the terms in these triangulations can be described as third terms, in so far as they offer the possibility of resolving what would otherwise remain irreconcilable opposites or dyadic antimonies between the other two terms. In geometry, a square and circle would be an example, whose irreconcilability is expressed in the phrase "squaring the circle." What then would be the third term in this instance? This could be the geometer or the entire process of geometry - all that is necessary it to take place, in the manner of musicking (discussed in Chapter 3). So the special value of trichotomies is to turn the separation and antimony of dichotomies into a system of proportional relationships. As Kayser (1970) describes it, harmony is the resolution of the division between measure and value; that is, fact and fiction, or quantity and quality (as noted above). This ratio breaks with the simple dyadic cause and effect logic of the mechanical world, to become open to the more subtle qualities of human communication embodying affect, subjectivity and meaning. Such triangulations of elements offer a different quality of relationship; for example, as the crew's evaluative techniques do for their monitoring and manipulating.

While there may be reciprocal relationships between a pair of only two principles, as with yin and yang, or active and passive, very often these are reduced to dualities, dichotomies, polarities and antimonies when the third term is repressed, as the unacknowledged supplement, as Derrida (1974) might describe it. This leaves perfect abstract formal systems on the one side, and formless, inert, passive matter on the other, an unbridgeable gulf between them. Triangulations, by contrast, tend to resolve into proportional relationships, as with for example, with lighting as resolution of lighter and light, or touching of toucher and touched (as discussed in Chapter 3). The third term has the effect of affording a complementary relationship, or analogical unity, between what would otherwise be logical opposites, as with cutting, mixing and repeating. The effect of such triadic relationships is to present the analysis in the form of a whole system, indeed a sound system. This prevents relationships from collapsing
into the antimonies of "technological" and "social" factors, or content and form, or body and mind. Feenberg is helpful on this point:

In Heidegger's account, Greek productionism [sic] is structured around 'emantia,' contraries. Contraries appear in relation to every aspect of techné, from the relation of essence to existence, matter to form, movement to rest, potentiality to actuality. But these Greek contraries are not modern antinomies. Each contrary implies its other and comes to rest in its other. Essence and existence cannot be thought separately, any more than can matter and form (Feenberg 2005: 72, emphasis added).

But as he goes on to point out, the time for this rapprochement has long passed:

Modernity consists in the diremption [sic] of the contraries into opposing principles. Facts now stand opposed to values, and techné becomes technological, the arbitrary imposition of a measure, a plan, and a goal on raw materials that have no telos and no inner tendencies of their own (ibid).

Reason turns unreasonable; it becomes unreason, as Blake dubbed Urizen, without triangulation or harmonisation. This signals an impetus for investigating the logic of practice in terms of understanding the meaning of the part in relation to the whole, as distinct from much current research in computer generated music composition; for example, where structure is reduced to the reiteration of algorithms to produce patterns and other emergent properties (see Roads 2002). Some of the triadic relationships that have emerged in the preceding chapters are depicted in Figure 7.5.
The crew's embodied practices and techniques, and indeed those of the crowd, are what is required for them to "make sense" of themselves and their environment. This is a practice of making a relationship through their senses, between the material and the ethereal vibrations of sounding. This suggests that the selector's style, skills and performance technique can be described as a matter of the re-cognition of the qualities of proportional relationships that are already there, rather than a matter of cognition, calculation or discovery. Proportional relationships are about recollecting, or re-membering; putting back together, rather than dis-membering or tearing apart. In the *Meno*, Plato uses this idea of recollection, or anamnesis, to distinguish belief from
knowledge. But with thinking through sounding, this is considered to occur instantly, in a single moment, outside linear or circular time, or rational calculations, as is required of any performance technique, such as those of the sound system crew. It is also of interest to note how the Dancehall scene's notorious pre-occupation with novelty, and the rapid turnover of style and fashion, is here being used as evidence for a kind of creativity that is the very opposite of the modernist idea of individual invention. So when the audio engineers use the term “balance” to describe the sound of the set, this can be understood to refer not only to the proportional relationship between two parts, but also how this is articulated through their embodied recognition of their relationship, or “harmony with” with the sound.

(3) Conclusions: the Quality of Threeness
With thinking through sounding, the idea of communication that includes meaning and evaluation suggests a three-fold process where listener and listened to are triangulated in the process of listening. As well as the dyad of viewer and viewed there is thirdly the process or technique of viewing, to use a visual example. Certainly the exploration of the crew's performance skills has been conceptualised in terms of numerous triads, such as that between their techniques and their instruments and media, or the material, corporeal and ethereal wavebands of sounding. The idea of the quality of threeness attempts to find a bridge across what Pierre Bourdieu (1980) called the “most ruinous” of divisions between subjectivity and objectivity, the traditional epistemological dichotomies between “pure” knowledge and its practical application (cited in Chapter 3), or the interior and exterior worlds that the ecological psychologists identified, or indeed that between theory and practice. Such divisions would tend ignore or dismiss the crew's skills and techniques as easy, automatic, natural and tied to the particular practices – rather than “proper” knowledge as such.

With the crew's ways of knowing this quality of threeness emerges as a process, rather than this embodied practice being repressed in favour of the dyad of “objective” and “subjective” elements. There are numerous examples of such triangulations in the philosophies that admit to the importance of practice. The American Pragmatist
philosopher Charles Saunders Peirce's semiotics, for example, is replete with threes, not least his qualities of iconic firstness, indexical secondness and symbolic thirdness, a fact for which contemporary philosophers admit to having no explanation whatsoever. But as The Stanford Encyclopaedia of Philosophy states:

Merely to say that Pierce was extremely fond of placing things into groups of three, of trichotomies, and of triadic relations, would fail miserably to do justice to the overwhelming obtrusiveness in his philosophy of the number three... If Peirce had a general rationale for his triadism, Peirce scholars have not yet made it abundantly clear what this rationale might be (Burch 2006).

Indeed, it should be noted that Peirce's triadic philosophy of communication goes against the grain of the dominant formalist dualism of the linguistics; notably, de Saussure's signifier and signified, La Langue and Parole and so on (see Eco and Sebeok 1983). The present value for triads is not therefore an a priori, or a question of wearing triadic-tinted spectacles, as it were, and "seeing in threes." Why not twos or fours, for instance? The triangulating proportional relationships of both the sound system crew's evaluative judgments, and thinking through sounding, can be considered as expressing a particular kind of symmetry, or "quality of threeness," as Critchlow (1994) describes it; that is, most elegantly expressed in the geometry of a triangle. In this, the number three is used to describe a quality rather than a quantity, a value rather than a measure, a relationship rather than a counting of objects in the world, as indeed the idea of number was used in the mathematics of the Ancients (Critchlow 1994). The three of a triad expresses different qualities of relationship to the two of a dyad, in the same way as in the theatre, a monologue has different qualities to dialogue. In Theisen's discussion of Nietzsche's idea of the "third ear" (referred to in the account of the research methodology in Chapter 2), she describes this quality of threeness. As Theisen puts it:

Analogous to a 'third ear' that would perceive a certain scansion, a logical third or tertium dataur would allow one to recognise the distinctions upon which cognition
necessarily operates as distinction (that is, not as the distinction true/false, but as distinction)” (Theisen 1994: 86, emphasis in original).

This “logical third” puts threeness at the heart of the matter of evaluation. This is also the issue of style, as discussed with the selector’s performance, which it is interesting to note psychoanalytic theory has taken up in terms of “listening with the third ear” (Reik 1948 and Lacoue-Labarthe 1998: 158 - 162).

Possibly the subtlety of accounts of such qualities of threeness, however, requires a further return to ancient sources - to the grammatical structure of language itself. The ancient languages of Sanskrit and Greek, and their resonances in Modern Greek and French, include the middle, medium or third voice (Kemmer 1993). The voice, or diathesis, of a verb is a grammatical category in the same way as a tense. The middle voice may be contrasted with the active and passive voices with which we are more familiar. Rather, it is suggested here, it provides the most highly wrought elaboration of the relationship of threeness. Lyons’ (1969) Introduction to Theoretical Linguistics describes the middle voice as when “the ‘action’ or ‘state’ affects the subject of the verb or his interests” (Lyons 1969: 373). A textbook on Modern Greek describes how:

Verbs have three ‘voices’, each of which indicates the relation of the subject to the action of the verb: The Active Voice: denotes that the subject is the agent of the action. The Middle Voice: denotes that the subject is both an agent of the action and also concerned with the action (often as the indirect recipient of it). The Passive Voice: denotes that the subject is acted upon (J.A.C.T 1995).

Examples of middle voice verbs would be the book sells well, or the French le ciel se fait sombre (the sky is becoming overcast), as well as the many reflexive French verbs. In Latin, vestiges of the middle voice also survive as the deponent voice that is passive in form and active in meaning. Roland Barthes takes up this issue of the importance of voicing when he claims that to write is becoming a middle verb, rather than an active one: “The middle voice corresponds exactly to the modern state of the verb to write: to
write is today is to make oneself the centre of the action of speech, it is to effect writing by affecting oneself” (Barthes 1985: 18).

While the phenomenon of the middle voice has been a challenging one for linguists, this grammatical issue raises several interesting points for thinking through sounding. The most important feature of the middle voice, or third voice, is that it is not simply a mixture of active and passive, but a distinctive quality, that of threeness. This is the relationship between the actor, acted upon and acting - the process of acting. The middle voice expresses a whole third way of doing and being in the world, not active self as agent, not passive self as object, but self-doing, reflexive and reflective, or better resonating. The third voice is literally in the middle of things, or the Jamaican expression “betwixt and between.” The particular pattern or form of this relationship recalls Plato’s triad of same, different and being. It also anticipates the findings on the crowd’s performance in the dancehall, described in terms of their active kinetic action of their dancing, the passive haptic impression of sonic dominance inter alia, and thirdly their kinaesthetic and proprioceptive self-awareness of themselves as the one-who-is-many of the crowd (as detailed in my further research).

The fact that this quality of threeness finds grammatical expression can be taken as an indication of the deeply rooted nature of this relationship in our human consciousness or way of being-in-the-world (see Llewelyn 1991). This could possibly be even more important than the shift away from the noun of an object to the verb of an action, that Baraka (1969) emphasises, above. The loss of the third voice can be considered as the erasure of an entire way of being. The fact that this ancient form is termed a voice, also serves to remind us of the oral origins of language. As languages developed - becoming modern - they have tended to become simplified. This must inevitably mean that they have become less subtle and sophisticated, dumbed-down, all but losing this middle voice. Against the Modernist orthodoxies and the ideals of progress and development, this raises a concern about how much has been lost, or rather needs to be re-remembered, concerning proportional relationships, evaluative judgments, not to mention wisdom, that is currently nearly drowned under the sea of information. The
quality of threeness emerges as a way of describing the proportional relationship of our
collection as listeners - delicate empiricists - and engaged researchers, in the
practical technique of "making sense" of the research material by thinking through
sounding.

1 Interview with DJ 'Squeeze' a.k.a. Lenworth Samuels, Kingston, 22nd June 2004.
2 Polonius to Reynaldo, Hamlet, ii. i. 64.
3 This was a theme explored in popular culture in the film The Perfect Storm (2000, directed by Wolfgang
Peterson, script William D. Wittliff, novel Sebastian Junger, starring George Clooney) where a particular
confluence of weather conditions produced an exceptionally powerful storm.
4 Malcolm Gladwell's Blink (2005) gives an accessible account of the instantaneous nature of many expert
evaluations.
6 See also Pannabecker (1992, 1994).
7 Diderot in the article Art, quoted in Denis Diderot and Charles Coulston Gillispie's (1959) A Diderot
8 It is also interesting to note how even specific motifs and traits have travelled between continents, as
Gates (1988) described with rhetorical figures of speech. Zora Neale Hurston (1934) identified similar
connections between Africa and America with particular visual forms, such as a preference for asymmetry,
as a cap worn askew, or a single rolled up trouser leg, for instance.
9 Another iteration of this important head-hand relationship being emphasised, but with the third term of the
heart, is provided by the current Accenture "IT consulting for High Performance" advertisement. This
features golfer Tiger Woods playing a stroke, where a geometrical line between the end of his club and whose
it is labelled "technological," and where this continues at a right angle to his head another line is
labelled "logical." There is no third term to complete the triangle, if there were, following technological and
logical, this would be analogical, as elaborated in the remainder of this chapter.
10 Caribbean Reasonings: Culture, Politics, Race and Diaspora: The Thought of Stuart Hall, was
conference held at University of the West Indies, Mona, 17-19 June 2004, some of whose proceedings
were published as Meekes (2007).
11 Euclid's Elements, Book 1, Proposition 26: "If two triangles have two angles of the one respectively
equal to two angles of the other, and the side of the one equal to the side of the other similarly placed with
respect to the equal angles, the remaining sides and angles are respectively equal to one another," see for
12 That is in the way the modern science of cybernetics takes inspiration from the Greek word kybernetes
for helmsmen (Heylighen 1993).
13 It is of interest to note that in geometry proportional ratios are most often not whole numbers, but inexact
or "irrational" numbers such as Pi (π) as 22/7.

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Bateson’s conception of difference and indeed information as relational is consistent with that of MacKay (see Hayles 1999: 56-57), contra the dominant Shannon-Weaver Information Theory model. This relational and dynamic approach is entirely consistent with the activities of the assembling the Sound System Set described in Chapter 2.


The proportions of the Golden Section have an appeal, as with the very widespread appreciation of the musical octave (Burns and Ward 1978, 1982), that appears to go beyond any particular historical, social and cultural contingencies. Geometry and music provide numerous examples of what Plato called the “ever true” that our human embodiment obliges us to share.


Picture source: http://photoinf.com/Golden_Mean/Volker_Muller/Proportions_Golden_Section_or_Golden_Mean_Modulor_Square_Root_of_Two_Theorie_and_Construction/qif


Besides the crew’s performance techniques, there are numerous examples of triangulation in practice and idiomatic phrases, such the idea of a story needing a beginning, middle and end, or the three requirements for a criminal conviction as motive, weapon and opportunity. It is as if three is the minimum number to “pin things down” or indeed make them “stand up.” It is also often three parameters that are required to describe things in the world, such as the height, width and depth of a physical object, the amplitude, frequency and timbre of a sound, or the melody, harmony and rhythm of music. Such threesomes give the impression forming a complete whole, as with the head, heart and hand of Arts and Crafts movement, or mind, body and soul, or the Christian three-in-one mystery of the Holy Trinity.

For Plato this is a recollecting of what the soul already knew before its incarnation: “As the whole of nature is akin, and the soul has learned everything, nothing prevents a man, after recalling one thing only — a process men call learning — discovering everything else for himself, if he is brave and does not tire of the search, for searching and learning, are, as a whole, recollection (anamnesis)” (*Meno*, 81d).

For example, Plato in the *Timaeus* discusses the third term being, in relation to *same* and *different*, and abiding in relation to *going forth* and *returning*, as Critchlow (1994) explores. Such triadic relationships are often used to describe the serial movement of transformation and resolution, as with for example thesis : antithesis : synthesis, or beginning : middle : end. This serial movement of process and progress may be contrasted with the parallel or instantaneous quality of threeness. It is in fact this proportional relationship, between the hidden or ignored third term of the triad, such as repeating, or evaluating, that allows manipulating and monitoring their actual manifestation physical world.

Thus it is possible to distinguish threeness from the two-fold or bilateral symmetry of animal life forms, the five-fold symmetry of many flowers, or six-fold symmetry of ice crystals, as examples. Other qualities of over proportional relationships are expressed in the four fold qualities of the geometry of a square, for example. The carbon atom, for instance, the basic building block of organic life forms, expresses a four-fold symmetry that maximises the number of connections, or chemical valances, with other atoms (Kappraff 1990).

Kayser (2006) also addresses this distinction between the values of ‘tone-numbers’ or ‘tone-number ratios’ of harmonics on the one hand, and the measure of mathematical number on the other, in some detail. As he puts it: “In contrast to the uniform mass of mathematical numbers, harmonics presents numbers evaluated in a non-uniform way, a sort of ‘gestalt mathematics.’ In harmonics, the number 5 is not just a row of five unities, but referred to a wholly new element which was not present in the numbers 1 through 4.” This new element is evident is so far as it can be heard as the musical interval of a third. Kayser continues: “through the application of value, harmonic numbers differ decisively from mathematical ones” (Kayser 2006: 11).

As Kemmer says: “At present there is no generally accepted definition or characterisation of the middle voice, let alone a satisfactory account of the relations among the various phenomena that have been given that name” (Kemmer 1993:1). The third voice is a linguistic anomaly as Gonda admits, but its “mixture of functions... does not alter the fact that such a curious phenomenon as the existence of the ‘third voice’ in ancient Indo-European languages and the problems connected with it raison d’être and its disappearance...” (Gonda 1960: 31).

I would like to thank classicist Nick de Mattos for drawing my attention to this.
Conclusions: “Dubwize”

Drawing the project to a close, we can listen for the echo of its findings. The distance traveled by thinking through the wavebands of sounding has been considerable: from a contemporary vernacular culture - the “vibes” of all night dancehall sessions on the streets of downtown Kingston - to thoughts about classical Greek geometry, philosophy and grammar. This should not come as too much of a surprise. The Caribbean is often considered a caldron of cultures, whose particular history affords a reading of Homer while sucking on a mango in the shade of its tree, as Derek Walcott is fond of saying. But this creolising of the classics can also be used to provoke questions about the trajectory of European thought between the two social classes, epochs and oceans of the Aegean and the Caribbean. Very broadly, this can be described as a turning away from the techniques of embodied practice as a way of knowing ourselves in relation to - and as part of - the world, and a turning towards an absorption in a disembodied mind, separate from both body and world. The sound system crew are an example of people doing what people have always done, and will always have to do, as along as we wish to enjoy the affective intensities of an embodied presence in the actual world, as distinct from its reflections. It is an indication of how wide the chasm between thinking and doing has become, that skilled techniques should be recognized as anything other than philosophy in practice.

This is possibly the most important conclusion to be drawn from the research findings – the extent to which they emphasize the significance of evaluation in the crew’s skilled techniques and performance. Those who propagate and listen to sounding embody certain ways of knowing, as with the expert judgement required for engineers’ fine-tuning of the set, for example. As with the rest of the crew this revolves around proportional analogue relationships. Recognizing these evaluations in theory - as distinct from in practice, where they are going on literally every day all the time – has several repercussions. Thinking through sounding begins to appreciate what the crew recognize in their embodied practice - the proportional relationships between internal and external realities, subjective and objective worlds, qualities and quantities, minds and bodies, sender and receiver, and thought and affect. The crew’s kind of knowing concerns more than simply the information with
which digital communications flood us. The crew’s techniques also embody “sound judgement,” or even wisdom. Many Reggae music techniques, such as dubbing itself, have been pioneered by the same Jamaican audio engineers, to whom this project has been listening. The privilege of sound and auditory communication, even more than music, and certainly more than conscious representation, is to be able to escape the stranglehold of language and diacritical systems of meaning. This may be how sounding sustains these embodied ways of knowing, in short, the wisdom of dub, its sounding wise - under the radar of what rationality is most often considered to be. The Reggae musical term “dubwise” can be used to express this quality of the dub sound (as “clockwise” describes that of clocks). The qualities of the crew’s ratio of knowing recognises the rhythmic patterning of material vibrations – from where sound comes into play - as music.

As an experiment in thinking through sounding, Sonic Bodies should be considered as indicating some potential for such an approach. It has tried to use sound to make the habitual familiarity of the visual perspective a little strange; and to make an unseen auditory world slightly more familiar. Thinking through sound is precisely that, thinking through sound, as distinct from only thinking about sound. The emphasis on sounding has been intended as a way to recognise the importance of relationships, meaning and dynamics in each and every medium of communication, not only the auditory one. Certainly, thinking through sounding wants nothing to do with the privileging of one medium, or sensory modality, over any other one. Sonic dominance is not the revenge on centuries of visual dominance in Western thought. Instead its sounding offers a different starting point, in medias res, and in the middle of things what we find is movement.

Both the propagation of auditory waves, and listening to them, has to be described in terms of kinetics. It is this movement that is at the heart of the matter of sound, every sensory modality, and indeed the propagation model. If sounding provides the opportunity for touching and being touched by vibrations, the sound system is an apparatus for doing this. The value of the idea of these dynamic vibrations for the research has been to open up the investigation of the dancehall session as a whole system, rather than with other more static approaches in which it has tended to be compartmentalized into bodily, social, cultural or technological “factors” or “levels of
analysis." The idea that vibrations are propagated in three distinct material, corporeal and ethereal wavebands, further opens up the systematic and relational aspects of sounding. It is in this way that an answer to the primary research question of how a sound system works has been attempted.

One of the possible criticisms of thinking through sounding, however, might be that the approach is reductionist, making everything vibrate, as it were. In a way, this is what it does do. But it should also be remembered that vibrations are not everything; their energy always needs a medium through which to diffuse. In short, vibrations require a material medium to express their kinetics. Thus there is a more equitable relationship between energy and matter, than the traditional one between form and matter, where the former is imposed on the latter. Indeed, the relationships between vibrating frequencies are affordances, one affording potentials and constraints for another (as with the walls of a resonating chamber, for example) instead of linear causal determinants. These are proportional analogue relationships, or patterns, rather than binary action and reaction, or stimulus and response couplets. Also the necessarily particular and situated nature of vibrations in the actual world, rather mathematical sine waves, means that they are always the subject of specific circumstances and contingencies, rather than lawful regularities or abstract absolute principles (as discussed with reference Bateson’s distinction between logical types in the previous chapter).

Another criticism of thinking through sounding might be that it makes vibrations inescapable, that there are to felt everywhere. Again, this might well be the case. In a way, this project does suggest a turn towards vibrations (if not the full circle of a revolution), against the previous discursive turn. The value of such cycles of interest - to use a vibrational term - comes with the issues and opportunities they throw up for further research and understanding. The question is not so much how do they work (as it has been with the sound system in this research) but simply what they produce. So the present kinetic shift can be described as an analogical turn, against the diacritical one privileging linguistic and digital systems. In short, its value is to reverse the emphasis from how bodies might express waves, to how waves express bodies (as explored elsewhere, Henriques 2008).
This analogical emphasis on particular proportional relationships makes it important that further investigations continue to recognise the value of the particular and specific nature of their research setting, such as the dancehall sound system session. It is only such particular settings that afford any conclusions at all - that might then be found relevant to other particular settings. One direction for further sound system research would be to extend the scope of the investigation to the ways of knowing of the crowd (audience), who are invariably active participants in the session. This would include an exploration not only of their listening, but also their experience of the multi-sensory environment of the dancehall session, as well as their expressive participation through voicing and dancing. The sonic dominance and liminal conditions of the dancehall could provide evidence to challenge the traditional divisions between the five senses and also that between the sensing body and its environment. This would develop an understanding of the sense of sound, and the ratio of the senses, as a conception of meaningful communication, for which the crew's logic of sound practice has already provided an example. This way of understanding meaning is not restricted to the representational, figurative or discursive.

Thinking through the wavebands of sounding of the crowd in this way would draw on Gibson (1979, 1996) and Reed (1996), for their conception of “information pick-up” and their critique of conventional communication theories. This would also make use of McKay’s (1968) theory of communication as content-full and meaningful, as a critique of the dominant Shannon-Weaver Information Theory, for which information is a content-free statistical probability (see Hayles 1999). This fissure between meaning and message is most often accompanied by the idea of communication as an exchange of messages between individuals, isolated not only from each other, but also from their environment. Instead, the research could employ some of concepts pivotal to understanding ecological systems found in the work of the largely overlooked German biologist Jakob von Uexküll (1926, 1934, 1940, see also Agambem 2004: 39-48). The dynamics of this approach would also draw on Sheets-Jonestone’s (1999) phenomenology of movement to develop a conception of the vibrations of the session as a triangulation of the crowd’s kinetics, haptics and kinaesthetics. This could lead to a conception of the multiple identity of the crowd as the many-who-are-one and the one-who-is-many and possibly the idea of a

A second research direction would consider in more detail the *instruments* that the crew’s skilled performance techniques require, such as the selector’s record decks. Other questions would include how such technologies embody past practice, are fine-tuned with techniques as these develop and evolve over time, for example. Within the session the entire instrument of the sound system set of equipment, for instance, then becomes an example of machine-human relationships, techné and technology as “congealed labour” (Leroi-Gourhan 1993, Latour 1995), rather than objects outside and alien to bodies. This leads to a re-configuration of the divide between bodies and machines into a relationship along the lines of Marcel Mauss’ (1935) understanding of our bodies as our first instruments. Machine systems are bodily, as much as body systems are machinic, it could be said.

A final research aim could then be to approach the session as a whole, making use of what has been learned about the vibrations of sounding from the preceding investigations of the performance techniques of the crew and the crowd and their instruments of the set in a particular session. We would then be in a position to understand how vibrating wavebands, and the relationship between them, pattern an entire rhythmic field. This continually propagated dynamic patterning could then be described as constituting what are commonly reified as physical, cultural, social and so on environments. Instead, the propagation model would detail the specific frequencies, amplitudes and timbres across the spectrum of vibrations of a particular event. Lefebvre’s (2004) *rhythmmanalysis* and architect Christopher Alexander’s (2004) *pattern language* might be helpful for understanding this. Such dynamic fluxes are in practice experienced as the affordance of *surfaces*, as inspired by Gibson’s (1979) use of this term. This would avoid the conventional rationalization of space and time as inanimate pre-existing dimensions, against which movement is considered to occur. In this way, thinking through the wavebands of the sounding of the dancehall session, for example, could be used to explore how places, bodies and events are dynamically constituted - both objectively and subjectively - as resonances, entrainments and syncopations. As a soundman would say: vibes rule.
Appendix 1: “Stringing-up” for a session at the Skateland venue, at Half Way Tree in mid-town Kingston, on Saturday 17th August 2002, 4p.m. to midnight

These notes cover the hours from about four in the afternoon to when the session was about to start at midnight (the remainder of the session to 7 a.m. is described in Appendix 3). They describe what as the researcher I saw, heard, felt and found out during the early part of the evening. This session was at the very beginning of the period of field-work, though drawing previous film research (as mentioned in Chapter 1). The notes are presented virtually un-edited, as they were written-up, immediately after the end of the session. They are intended to give a feel and first impression of a session, rather than any exhaustive or systematic coverage of the event. Some additional explanatory comments, or initial coding, as it would be called in the language of grounded theory (Glaser and Strauss 1967), gives some background information. The account concentrates on the maintenance crew, or boxmen, whose job is to “string-up” or assemble together the sound system “set” of equipment every night (see also for example Stolzoff 2000: 193 - 226). This includes the unloading (see Figure A1.3), manoeuvring and wiring up the speakers and amplifiers and so on. Beginning with the assembling of the set of equipment adopts Christopher Small’s (1998) apparently simple, but very productive concept of musicking, as the entire range of all the people, things and activities required for a musical event to be staged and performed (as discussed in Chapter 3). This is a comprehensive and “bottom-up” approach. It is also concerned with process, literally the building of the sound system out of its component parts, as a useful approach to understanding how it works.

The location of the session is of relevance in respect to the fact that geographical position is such a strong index of social positioning. Uptown means social on top, downtown is the ghetto (see Figure 2.9). Midtown is between the ghetto and New Kingston. Dancehall, as a popular culture originates in the ghetto and is more a less self-sufficient there. The culture ventures out further a-field, both geographically and socially, at times of particular strength, confidence and vibrancy of the Dancehall culture within that of Jamaica as a whole. The time of year that the session took place, August, is in the active summer period in Dancehall’s seasonal calendar, with many of the large international Reggae festivals, such as Sunfest and Sunsplash.
Figure A1.1 Promoter and "gateman" Gilly Priest, my "sponsor"
Figure A1.2 Flyer for a Skateland session (subsequent to the one observed). Note Gilly, bottom centre on his bike, mic in hand.

**Skateland Half Way Tree, Kingston, Saturday 17th August 2002**

**field notes**

4.15 The front wheel of the motorbike nudges open the p.m. gate into the large concrete yard where the session is held. Gilly Priest, “the original gateman” (see Figure A1.1) brings me on his pinion, from Stone Love HQ on Burlington Avenue. As he told me later, being seen to arrive like this with him, would help to ensure my safety for the rest of the evening.

Stone Love is already set up, that is the three columns of speaker boxes are in place and “string up” to the amps and turntables control centre under a

**comments**

Gilly Priest is my “sponsor” for the evening. With the Stone Love research as a whole, this was of course owner “Wee-Pow” who instructed his administrator Andrew to give me the help I needed. This is unusual, in so far as most sessions do not involve more than one
awning roof. Metro Media is in the processes of building their speaker columns.

Gilly Priest introduces me to Stretch (so called due to his height), the Promoter of the event. This is to be a four Sound session: Stone Love, Metro Media, Venus and Young Fresh, which is more Sounds than the norm. This is only the third such session Stretch has promoted, the previous two were in the country. His day-time job is running a firm of Wrecker (that is vehicle recovery) Trucks that has a contract with the government. Throughout the evening and night I see him checking out things and people, as would be expected of the man who has made a considerable investment in the evening. In addition to the many thousand flyers printed, Stretch also bought Radio spots in the preceding two weeks at a cost of J$17,000 (£240). The hire of each sound system is about J30,000 (£430). Stretch leaves in his huge scarlet Ford pickup, to return later with supplies of ice for the bars, then soft drinks, then beers and liquor, on succeeding trips.

There are quite a few people hanging out in the yard, nearly all men and boys on push bikes. Trucks and cars come and go. Of those hanging out, I notice several very stylishly dressed young men. What they wear (casual jeans and shirts, though not smart clothes), is carefully colour co-ordinated with necks scarves and shoes and one trouser leg rolled up (a common style). Several of these young men are quite “gay” in appearance, and one or two sounds, unless a sound “clash” (see Chapter 6).

The promoter is the person with whom the sound system have their contract, other than with their own sessions, such as Stone Love’s Weddy Weddy Wednesday, (Henriques 2007a).

The acceptance of such apparently “gay” dress codes is of particular interest, given the rampant homophobia for which Dancehall lyrics, and Jamaica society as a
give the appearance of almost being couples. One of them has a distinctive hair style of his designer locks in two pony tails on the top of his head, giving a "school girl" look. Nobody seemed pay them any particular attention.

Later in the night these young men returned in even more stylish smarter clothes, as the lead dancers. Later still they were identified on one of dedicated local Dancehall cable TV channel (89) Real TV as the Color Color Crew. The other channel (49) shows dancehall music videos continuously.

Figure A1.3 Unloading the speaker boxes, Skateland

This is a recent development for the Dancehall scene.
Note:
SL Stone Love speaker stacks, or amps and decks (at bottom)
V Venus Love
YF Young Fresh
M Metromedia

Triangles represent the speaker stacks. The control desks are along the bottom of the page. The entrance gate is on the left. I refer to the central area as the "bowl" or arena.

field notes
5 p.m. Metro Media is completing its set up. Other trucks are yard unloading their speaking boxes for Venus Love and Young Fresh. Its heavy sweaty work for the Box Men, as Stone Love calls the maintenance crew who unload them off the back of the truck and manoeuvre them into position. Only one of the trucks has a tail lift. Then there is the building of the columns, where the maintenance crew have to work together to hoist the

comments
The fact that each sound brings its own "set" (of equipment), rather than sharing a common one, indicates both the politics of the scene, and also the value placed on the
horn and tweeter boxes to the very top of the stack, about fourteen foot off the ground.

Gilly Priest introduces me to Rory, one of Stone Love's top selectors. In fact, I had seen him earlier in the yard of the Stone Love HQ, but not recognised who he was.

The maintenance crews continue to build their Columns See Figure 1.9). Each sound system with three stacks each (two left and one right channel) the twelve stacks gives the area of the yard which they surround the form of an arena (measuring 30 paces by 45 paces). This arena takes up about half the total area of the yard (see Figure A1.4).

The engineers make the connections of the speaker cables and the back of the amps, bi-wiring and quad wiring, in the case of the top treble. On several occasions the maintenance crew are directed to re-arrange and even rebuild their speaker stacks. These instructions are issued by the sound system engineer, Winston for Stone Love and Mikey for Metro Media. Despite a certain amount of under-breath cussing, these instructions are carried out without much questioning, even when the reason stated is aesthetic rather than technical, such as too much of a gap between the top boxes. The stacks are required to be "neat an' tidy."

The selectors are key for sound's identity, though they tend not to have the same public profile as artists. This creates what can be called a "bowl" of sound for the session, usually between three speaker stacks (Henriques 2003). The continuous physical wall of the twelve speaker stacks, three for each of the four sound systems is not typical.

Auditory engineering is a skilled job, for which there is an apprenticeship tradition (as discussed in Chapter 4).
Most of the stacks are now complete. The Venus P.M. maintenance crews is now occupied by washing down the speaker boxes, with buckets and wet rags, making sure there is no dust and dirt anywhere inside (see Figure 3.2). At the same time Stone Love engineer Winston takes a dry paint brush over the turntables, control desks and the amps removing any specks of dust there (see Figure 5.6).

Each sound system protects the back of the control decks and amps facing the arena from the crowd with metal crash barrier, or trolley, or speaker cable drums. This is also to make the wiring at the back of the amps less visible to others. All the wires at the back of the Stone Love system are the same mauve colour.

The washing and brushing of the equipment seems to serve more than just a technological function. Rather it could be considered as a ritualistic cleansing or purification (as mentioned in terms of the two meanings of the word “science” in Chapter 1). This is done to a Kumina yard, also by a street or market traders, before they set out their wares.

The configuration of the equipment clearly constitutes Bourdieu’s cultural capital (Henriques 2007a). One engineer told me the reason for this, rather than the normal different colour coding to facilitate identification as normal, is to reduce “industrial espionage” (see Chapter 4).
As the evening begins to darken the sound system testing begins, starting with Stone Love. Engineer Winston is completely systematic starting at the top top (tweeters); middle top (horns); top middle, middle middle; and bass. Each group of boxes in each speaker stack is tested in turn: centre (right channel) stack then two either side (left channel); first its just the high hat of the drums on the tweeter, then some top notes, then on the mid range it’s the vocals. The recorded signal is split five ways, each frequency range with its own dedicated amplifier channel. The testing continues with the playing of particular records and even the A side and B side of the same record, presumably to provide the appropriate music for the frequency range under test.

Next to be tested is the special sound f/x, those the mixer board and then fifteen effects on the dedicated f/x machine.

When the combined sound is not oppressively loud but rather seems very ‘present’ or pungent. To me it seems a full, rounded even quality of sound. This is the detail of the Stone Love sound compared to that of the others as they are tested.

Andrew, Stone Love administrator, later in the described how the system is fine-tuned (later confirmed by owner Pow and his engineers) for such auditory qualities as “balance,” “excitement” and “sweetness to the ear.”
The main gate is secured shut and a visual barrier by means of large plywood boards. In the gate maintenance crew construct a booth with more boards and large blue plastic tarpaulin of the kind often used to cover speaker stacks from the rain. Inside is a window for selling the J$300 (£4.50) tickets and a single chair for the female ticket seller. Outside a line of metal crash barriers. Venus Love sound system control arrives by battered truck and they set up. Talking to the owner of the sound, Cancer, earlier, he had explained they had had some technical problems which were being attended to at their HQ. Cancer had been with Stone Love until four years ago. Speakers line the wall from here to the entrance some 25 yards to one side. With all this in place the Gateman tells me if I pass outside now, then I will have to pay to come in. There are about sixty people inside, mostly men.

Gilly Priest leaves with the first half of the J$1,000 (£14) fee I had agreed with him, to be around if I needed him all night, and to see me to a taxi in the morning. He’s off back to Jungle to get a shower and change of clothes. In fact virtually everyone leaves at some point to return in their evening clothes. Jamaican society is in most ways very traditional and old-fashioned in its value for the appearances.

The videoman, constructs himself a table and has to hand carry in (because the gates are closed) his equipment. The session is a multi-media event, not only

(see Chapter 4).

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**field notes**

8 p.m. The main gate is secured shut and a visual barrier by means of large plywood boards. In the gate maintenance crew construct a booth with more boards and large blue plastic tarpaulin of the kind often used to cover speaker stacks from the rain. Inside is a window for selling the J$300 (£4.50) tickets and a single chair for the female ticket seller. Outside a line of metal crash barriers. Venus Love sound system control arrives by battered truck and they set up. Talking to the owner of the sound, Cancer, earlier, he had explained they had had some technical problems which were being attended to at their HQ. Cancer had been with Stone Love until four years ago. Speakers line the wall from here to the entrance some 25 yards to one side. With all this in place the Gateman tells me if I pass outside now, then I will have to pay to come in. There are about sixty people inside, mostly men.

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**comments**

This creates a boundary for the event (if not its sound). This session was a gated one, the “crowd” had to pay gain entry. Other session have free access, where the promoter making their money entirely from the bar takings (see Appendix 2 of the Firelinks session).

**field notes**

9 p.m. The videoman, constructs himself a table and has to hand carry in (because the gates are closed) his equipment. The session is a multi-media event, not only
equipment: a twenty eight inch monitor and two smaller ones, four VHS recording decks and three cameras. Those inside take an interest in watching him setting up and setting up his character generator type effects to advertise himself and the event. I’m introduced to the Stone Love Road Manager, Mr Powell’s brother.

10.00 Stone Love kicks off the session with DJ Ratty at the controls promising “foundation sounds” with some Tristran Palmer tracks; then “I will never let you go”; Barrington Levi x 6; ending with two Dennis Brown.

10.35 Young Fresh plays a similar old time selection with some Garnet Silk and Morgan Heritage. The selector is a young Indian-looking guy, who I had seen earlier on in the evening driving the truck and testing the system.

11.05 Venus Love play their first set.

A second Stone Love selector comes in to open boxes and sort through a different set of records than those that have been used so far. These are all 7inch “dubplate specials” in Arrow sleeves DJ Ratty tells me he’s ready to “make a move” and leaves.

12.00 The first paying punters trickle in, the yard almost entirely empty. The cigarette man whose been sitting under the light post in the centre of the arena

These are “Golden Oldies” typically played at the start of the evening.

These are unique bespoke versions of hits in which the artists incorporates the name of the sound system in the lyrics is a special studio voicing (discussed Chapter 5).
gets up and enjoys a little dance by himself.

Stone Love appear to have some technical problems with the power supply. Engineer Winston is working on it with numerous assistants, holding a light, screwdrivers etc. Breakdowns are often more instructive for understanding how things work than normal functioning.
Appendix 2: Fire Links Hot Monday session, Half-Way Tree, 15th September 2003

Figure A2.1 Handbill for Fire Links Hot Monday first anniversary session.

Figure A2.2 DVD Fire Links Hot Monday session (dur. 5 min approx.)

See inside back cover
Appendix 3: Skateland, Half Way Tree, Kingston, 17th August 2002, continued, midnight to dawn

These field notes continue from where those in Appendix 1 left off. Particular points of interest referred to in Chapter 5 are noted, the names of persons and sound systems are in bold, and some comments and explanations have been incorporated into the notes.

12.30 a.m. Stone Love, the technical problems sorted, plays their first set, finally takes over from Metro Media.

1.20 a.m. The power supply to all the sets collapses, leaving us all in darkness (note C). Stone Love Engineer Winston is despatched to sort it out. The four sets are pulling too much from the single power supply in the street whose earth cable has burnt out.

Andrew tells me about the business of tuning up a sound system (described in Appendix 1).

1.40 a.m. Winston has the power supply back on. Young Fresh come in with their second set. The yard is beginning to fill up a little in the other half of the space outside the arena. There appear to be some further problems with the Stone Love set, Winston is taking the backs off some of units.

2.00 a.m. Stone Love owner Mr Winston ‘Wee-Pow’ Powell arrives in mauve patterned shirt and matching plain mauve trousers. He’s obviously preoccupied with sorting out the problem, Winston working as his assistant.

2.20 a.m. The crowd (audience) are beginning to drift into the dance. Young Fresh plays Buju Bantum Inner Heights, the mood is very mellow.

The young Maintenance Man I was talking to produces his tray of gum, lighters and cigarettes and divides his stash of grass into little plastic bags. He
explains to me this is what he invests his pay in: “everyone have to have their hustle.”

2.30 a.m. The yard is beginning to fill up; women are venturing forth into the arena to stand in front of the speaker stacks on the opposite side to the sound system Controls.

Andrew tells me that Stone Love will not be playing again tonight, they have not been able to sort out their power supply problems. (Later, on the Monday, he told me that they had had to work on the problem through the rest of the night and Sunday. The testing and tuning of the sound had then taken Mr Powell until 5.00 a.m. in the Monday morning).

3.00 a.m. Metro Media start their set with their star DJ Skyjuice dressed entirely in red: trainers, leather long baggy shorts and T shirt (see Figure 6.1). His style is to up the energy and the vibe (note D). A little latter the DJ comes out of the controls and into the crowd radio mic in hand.

The yard behind the arena is now quite full. In the corners, couples dance together, several of them sought out by the video camera light.

The two video cameras are now in operation adding a new visual dimension to the evening (note E). This comes from providing a focus of interest on the TV monitors on the table in front of Stone Love. (Video projection screens have since become the norm, see Figure 3.3). But most important the video lights on the camera act as spotlights on sections of the crowd. The cameramen, trailing their power supply cables are directed by the videoman to those of interest. At this stage in the evening this is mainly the women and what they are wearing. The camera tilts up from the foot ware to legs, hips, bust, face make, up and hairdo. Stylish men are given the same treatment. They stand by their plastic crates of drinks they’ve bought at one of the bars. Very few of them reject the attention. At this time few are as yet dancing. The
cameraman encourages them with his moves. Most of this action is taking place outside the arena.

Gilly Priest comes to find me to bring me to meet Junior Reed, the veteran recording artist. We shake hands, but virtually no conversation is possible in front of the speaker box stack where he has positioned himself.

4.00 a.m. The arena is beginning to fill up and there is more dancing, which is now the focus for the camera’s attention. Sometimes an individual showing off her gyrating dancehall style with its focus on upturned bum, her hand bouncing lightly over her arse leaving nothing to the imagination, and her thrusting crutch (the lady in pink is clearly known for this). At various times through the evening she does her displays for the camera, thrusting round a pole, thrusting from the ground, and finally climbing up on top of speaker stack and thrusting the sound itself.

Other dancers perform in groups of both women and men, such as the Color Color crew (note F). Most dramatic is the Drive-By dance, where the men lean back as in a car and have their hands in the air in front of them mimicking hands on the steering wheel, driving, windscreen wipers on the cue bellowed by DJ Skyjuice (note G). A formation of five or six dancers then cross the length of the arena, proceeded by the video camera and its spotlight and surrounded by the moving circle of the crowd. Groups of women dancers make similar spot-lit dancing processions across the arena (note H).

Others women dance to themselves. The videoman scurries around directing his cameras to the action.

Through this part of the night DJ Skyjuice conducts his competitions (note J). In the first he offers a US $ 300 prize for the best hair do. He shows the dollar bills to the crowd illuminated by the video lights. Candidates volunteer themselves and are voted on by the cheers of the crowd. The next is for a bicycle, new in its box, the third and final one of a colour TV.
5.00 a.m. The arena is now full, the area outside less so, totally about 600 to 800 people. The atmosphere is light and easy; everyone appears to be enjoying the vibe. It’s easy for me to move around just behind one of the video cameras taking my stills.

Cultural vibes from the turntables: **Bob Marley** and **Junior Reed**’s anthem *One Love* (note K).

The woman in pink reaches the summit of her thrusting on top of a speaker stack.

5.30 a.m. The first signs of morning light in the sky. The atmosphere is very light and relaxed, the arena as full as at any time in the night. Groups of women dance to each other. The dance moves they were shy to do undercover of darkness earlier in the evening, they now do with completely uninhibited abandon. The mood is carefree, convivial and energised with a definite sexual charge.

6.30 a.m. It’s now completely light (see Figure 5.5). As **Gilly Priest** shows me to the taxi he’s arranged among those waiting outside the dance. Several minibuses disgorge their church-goers, bibles in hand (note L), on their way to the nearby church.
Appendix 4: The World Cup clash, at Elite Arc, Brooklyn, October 8th 2005

This is a web-published account of the event, rather than my own observation, unlike the other research materials has the methodological advantage of separating my own analysis from another person's observations. It also indicates a degree of public circulation and interest in this aspect of the Dancehall scene. A commercial DVD of the clash has also been released (see Figure 6.3). The report’s author, giving himself the by-line of Tommydread, describes the clash as follows: "There were five rounds. Sounds could not be eliminated in the first round. Eliminations were based on the crowd’s approval or disapproval of the combatants." The six sounds in the clash were Desert Storm (from Canada), Immortal (UK), Mighty Crown (Japan), Bass Odyssey (Jamaica) and Black Kat (USA) and Sentinel (Germany). It is of course more or less impossible to describe the feeling of being present at a clash, without the first hand experience of it (as would be describing the finer points a Football Cup final to someone who has never attended a match). Tommydread’s account, in which he names many of the critical features of the event, provides a useful summary of the material for the investigation. These features include:

1. The sound systems and the country from which they come e.g. Mighty Crown (JAP)

2. Individual crew members e.g. Squingy

3. The records played e.g. Jah Cure’s "Love Is the Only Solution"

4. The “riddim” track on which different artists may have recorded e.g. Answer riddim, have a unique importance on the Dancehall scene, as described by Marshall and Manuel (2006).

5. The dubplates (special one-off versions a hit in which the artist names and ‘bigs up’ the sound who commissioned them) such as Bounty Killer "Trying to Dis de Big Bad Desert Storm…"
6. Sound system crew actions such as "to draw for a few of their heavy tunes..." or verbal ritual insults of the opposition

7. Crowd reactions such as "received some forwards"

8. Particular comments made by particular MCs such as "Panther, you are the worst champion..."

Extract of Fanzene account: Round Two of the 2005 World Cup clash

The Far East Rulers [Mighty Crown] addressed Black Kat by stating, "Panther, you are the worst champion..." Mighty Crown proceeded to play an intro from the Jamaican comedy team, Twins of Twins, which imitated Bernie Mac dissing [disrespecting] the other contestants. Immediately, Crown started to draw for a few of their heavy tunes such as Jah Cure's "Love Is the Only Solution," Cocoa T's "Turn Off the Idiot sound," and Bounty Killer's / Cocoa T's "Guns Out/Lord is my Salvation." A heavy forward was obtained but not maintained. In a sign of desperation, Sammy T, stated that Black Kat and Bass Odyssey tried to bring back Biltmore (famous Brooklyn venues for sound clashes) but they never lived in Brooklyn unlike himself. He then played Buju Banton's "225" and Louie Culture's "Bogus Crown." These selections were not enough to reverse the damage that was done.

Worm and Damien followed Mighty Crown by starting the round with Cocoa T's "Kill Them Now." Bass Odyssey played some tunes on the Sick riddim such as Bounty Killer's "Scare Dem," Baby Cham's "Burn Batty Boy," and Cobra's "Dunn Wife." They received some forwards. Despite this was not the team that represents the One Rack, Squingy and Mark, it's apparent that Worm and Dwayne learned what tunes to select at World clash.

Immortal requested the audience to boo Mighty Crown for their inconsistent performance. Their initial tune was a counteraction of Fantan Mojah's "Hungry," which was played by Mighty Crown. Immortal's attempt at a
comeback received no response. Selections on the Rule the Nation/Hypocrites riddim, including Luciano's "Give Thanks to Rastafari" and Cobra's "Press Trigger" were too little and too late for the England based sound. Based on the crowd's response, they could form a loser circle with all the other British sounds that were in previous World clashes.

Desert Storm started their second round by claiming to have the baddish Biltmore Bounty Killer dubplate, "Trying to Dis de Big Bad Desert Storm..." The song got them nowhere. Immediately, Desert Storm played some more Bounty Killer dubplates that did not help their fate. To make matters worse they played back Cobra's "Press Trigger," which was played by Immortal. This basically sealed their fate. Close to the end of the round, they played some dubs on the Java and Mr. Brown riddims. Desert Storm's performance showed that some creativity but the playback made them history like 1991 invasion of Iraq.

Sentinel started a round by playing an unknown singer dissing up the competition, which the crowd liked. Apparently, Sentinel also has some creativity, as they played a Shabba Ranks/Admiral Bailey combination on the Boops riddim. In addition, they dropped Vybz Kartel's "I Never" and Beenie Man's "Any Pussy, Any Man" over a soca riddim. For this, Sentinel received massive forwards.

Black Kat relied on their old dubbox, like Federal Prison Industries Incorporated aka UNICOR, depends on cheap labour of inmates. That being stated, they played the following dubplates on the Answer riddim, Yunzi's "Another Day in Paradise," Chuck Fender's "Shut Your Mouth" and Wayne Wonder's "Live and Learn." If Black Kat played any new tunes, they were insignificant. Black Kat received the biggest forwards of the round.

**Elimination:** Immortal and Desert Storm without controversy.

The final round of the clash is described in Chapter 6.
Appendix 5: The triangulations of media, instruments and techniques in the research methodology

It is also of interest to note the practice by which the research findings were produced, as it were, that is the activity of researching, as with musicking and sounding, can also be described with the same triad of principles. In this case, the research methodology triangulates the *materials* of the research findings with what can be described as the *instrument* of participant observation, with the research *technique* of listening described in Chapter 2 (see Figure A5.1).

Figure A5.1 *Diagram of research methodology as the triangulation of the media, instruments and techniques*

Furthermore, there is also a triangulation between the research methodology as a whole and the theoretical schema of elements themselves, as shown in Figure A5.2.
Furthermore, it can be added that in the same manner as within the research methodology there is a triangulation between the parts of materials, instruments and the techniques of listening, there is also a triangulation between the research methodology as a whole and the instrument of the sound system session, and further with the materials of auditory propagation as a whole. As would be expected, as with techniques, instruments and materials are also triangulated within themselves. This "nesting" of triangulations is expressed in Figure A5.3.
Figure A5.3 Diagram of triangulations within and between instruments, media and techniques

INSTRUMENTS

participant observation

apparatus, device, "set"

ear, speaker

medium auditory propagation

INSTRUMENTS

technique methodology

instrument sound system session

TECHNIQUES

listening

management performance engineering

MEDIA

research literature, field notes, etc

dancehall scene, crowd electromechanics

air molecules

TECHNIQUES

listening

management performance engineering

MEDIA

research literature, field notes, etc

dancehall scene, crowd electromechanics

air molecules

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