MUSIC, MOVEMENT, MARTIAL ARTS

sound and gesture in West Sumatran, West Javanese, and Afro-Bahian combat-dancing

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What is a normal human being?

John Blacking, 1977, p. 12

I complained of the abnormality, and he, smiling, said that in anatomy it was the normal that was uncommon. I was only annoyed at the time, but the remark sank into my mind, and since then it has been forced upon me that it was true of man as well as of anatomy. The normal is what you find but rarely. The normal is an ideal. It is a picture that one fabricates of the average characteristics of men, and to find them all in a single man is hardly to be expected. It is this false picture that the writers I have spoken of take as their model, and it is because they describe what is so exceptional that they seldom achieve the effect of life. Selfishness and kindliness, idealism and sensuality, vanity, shyness, disinterestedness, courage, laziness, in a single person and form a plausible harmony. It has taken a long time to persuade readers of the truth of this.

Somerset Maugham, 1938, p. 67

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Mason, P.H. (2010) Degeneracy at multiple levels of complexity, *Biological Theory: Integrating Development, Evolution and Cognition,* 5(3), 277-288.

Mason, P.H. (2010) Islamic New Year in West Sumatra, *Inside Indonesia*, 102.

Mason, P.H. (2009) "Gestures of power and grace: Brutal combat, beautiful choreography and the bricolage of the contemporary", In Maria Khristina S. Manueli & Hanafi Hussin (editors), *Boundaries and Beyond: Language, Culture, and Identity of Southeast Asia*, Jabatan Pengajian Asia Tenggara.

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Mason, P.H. (2008) The End of Fasting, *Inside Indonesia*, 93.

Mason, P.H. (2008) Music for the Fight, Movements for the Soul*, Inside Indonesia*, 92.

Mason, P.H. (2008) Alam, Otak dan Kebudayaan: Neuroantropologi dengan Penari Minangkabau (Brain, Culture and Environment: The Neuroanthropologist and the Self-Accompanied dancer), *Journal of Southeast Asian Studies (JATI)*, 13, 191-204.

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ABSTRACT

Practices of combat-dancing integrate music, dance and martial arts. Indonesian and Brazilian practices of combat-dancing originate from geographically distinct societies; incorporate different ways of moving; and use almost entirely different musical structures. They are embodied social practices that exhibit idiosyncratic patterns of sociocultural entrainment and different underlying modes of embodiment. This thesis looks at two practices of combat-dancing found in Indonesia and one practice of combat-dancing originating in Brazil: silek minang is the indigenous martial art of West Sumatra, pencak silat seni is found predominantly in West Java, and capoeira is a widespread Afro-Brazilian art. Focusing on instances of combat-dancing that feature music, I examine the relationship between sound and movement—a field of research known as choreomusicology. Informed by my fieldwork experiences, this thesis situates the relationship between music and movement in each art within a social, historical and cultural context. In Indonesia, silek minang practitioners rarely train their art to music, but come together with musicians in performance for audience entertainment. The combative gestures of silek minang have a symbolic relationship to the percussion and woodwind music but exhibit few other correlations. In contrast, practitioners of the choreographed art of pencak silat seni occasionally train with recorded or live music. In performance, the sharp and abrupt movements of pencak silat seni are preferably accompanied by highly trained musicians who attempt to mimic the choreographies with corresponding dynamics, timbre and tessitura. In Brazil, capoeira practitioners practice a swaying and circular movement improvisation art that is subordinate to the steady magnetic rhythms of a percussion orchestra. Whether live or recorded, music is always present during capoeira training but is preferably produced live during performances. The contrast between Indonesian and Brazilian practices of combat-dancing illustrates patterns of culture change in socially organised human expressive systems. The cases of Indonesian and Brazilian combat-dances demonstrate dynamics of long-term, large-scale cultural change, even 'evolution,' by demonstrating the ways that diverse historical, political, religious, social and even aesthetic forces shape unpredictable transformations in these arts. Within the context of globalization, practices of combat-dancing can be predisposed to spread easily or subject to change as a result of the transnational flow of practitioners. For example, the relationship between music and movement can become disrupted as communities of practitioners swiftly become larger and more widespread and as expertise diffuses unevenly. From combat-dancing through choreomusicology to cultural evolution, this research is empirically based on fieldwork conducted in Indonesia and Brazil, methodologically inspired by developments in the study of the relationship between music and movement, and theoretically driven by a desire to contribute to models of cultural change.

Statement of Candidate

I certify that the work in this thesis entitled "Fighting for Peace of Mind: A cross-cultural survey of fight-dancing in Indonesia and Brazil" has not been submitted for a degree nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged.

In addition, I certify that all information sources and literature used are indicated in the thesis.

The research presented in this thesis was approved by Macquarie University Ethics Review Committee, reference number: 5200700271 on 02 July 2007.

Paul Howard Mason (40904970)

Monday, 28 November 2011

MACQUARIE
UNIVERSITY ~ SYDNEY

2 July 2007

Mr Paul Howard Mason

Reference: HE25MAY2007-D05250

Dear Mr Mason

FINAL APPROVAL

Title of project: ***Fighting for peace of mind: a cross-cultural comparison of fight-dancing in Brazil and Indonesia***

Thank you for your recent correspondence. Your responses have satisfactorily addressed the outstanding issues raised by the Committee. You may now proceed with your research.

Please note the following standard requirements of approval:

1. Approval will be for a period of twelve months. At the end of this period, if the project has been completed, abandoned, discontinued or not commenced for any reason, you are required to submit a Final Report on the project. If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. The Final Report is available at http://www.ro.mq.edu.au/ethics/human/forms
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Yours sincerely

Dr Margaret Stuart
Director of Research Ethics
Chair, Ethics Review Committee [Human Research]
cc. Dr Gregory Downey

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Chapter 1: Introduction

1.1 Salient gestures and Cap-gun fights

Growing up in the eastern suburbs of Melbourne, Australia, I fondly remember having cap-gun fights with friends from the neighbouring houses in our one-block street. The rules were that you were allowed to run as far as two houses up and two houses down from a tree that we also liked to climb. Each player had a cap-gun loaded with caps that would make a loud bang when fired. You were allowed to hide, but not in people's gardens, and if you were shot, you had to lie down for fifteen or twenty seconds in the location you were shot. During any one game, the rules we set would vary around these basic guidelines. Inevitably, the game led to disputes about who was shot, who had poor aim, who had slow reflexes, and who had been able to dodge an imaginary bullet. Through arguments new rules were formed.

Shooting a cap-gun was a symbolic action that inferred that the person you were aiming at would imaginarily die. Being shot was not desirable. For those of us playing, this unwanted ending felt as though it had ramifications that fed into our social interactions outside the game. At less than ten years of age, we may have not had the vocabulary to describe such complex social relations, but through our emotions we expressed our understandings of the significance of the dimensions of the game. Some players would bully their way out of a claim that they had been killed. Other players would camp out near someone who had been shot and shoot them again and again after each episode of acting dead and thus spoil the fun of a victim who had to lie on the ground indefinitely or until they decided they had enough and were going home. When flaws in the existing rules were found, the rules were changed. Players were not allowed to hang out near someone who was shot, and if two players were closer than five meters apart, whoever shot first would automatically be the victor with no allowable debate over poor aim.

In cap-gun fights, concrete evidence of successful hits was unavailable. In a water-pistol fight, however, the imaginary victims had fewer grounds to mount a verbal defence. In a water-pistol fight, if you were wetter than your adversary, you lost. If you were drier, you won. This external reference point meant that we spent less time arguing about who had

been hit and more time playing. Funnily enough, on the hot days we had water-fights, who won or lost became inconsequential. We just really had a great time getting wet.

Cap-gun and water-pistol fights were games with transient rules that never formalised into codes applied to subsequent games. We had to discuss the rules each time because there would inevitably be some players missing, an assortment of new players, and a few accustomed players who wanted to spice up the rules. Our rules were a collection of what we could remember from the last time we played and how we imagined we would like to play in the present. Being able to articulate now things I experienced then, I recall my frustration with the verbal interference in the games but my enjoyment of successfully adapting rules to solve the problems that arose from the intrinsic properties of the activity.

When I reflect upon these childhood games, I see that they formed the beginnings of my interest in socially constituted behaviour. These games were a microcosm of socially negotiated practices where bodily skill, personalities and intentions all collided. More elaborate sports and games are based on rules that have accumulated and transformed over successive generations of interacting social actors. Without knowing at the time what anthropology was, I was nonetheless fascinated by the social dynamics that give rise to cultural activity. My studies since then have given me a vocabulary to think about how "patterns of culture, once created by man, can have a force and logic of their own" (Blacking 1977:2).

In the current ethnographic research project, I chose to study formalised embodied practices that incorporate two mediums of nonverbal expression—music and movement. Combat-dancing incorporates a holistic mixture of music, dance and martial arts. Many different kinds of combat-dancing are practiced around the world including *capoeira* from Brazil, *mani* from Cuba, *mayolê* from Guadeloupe, *kalaripayattu* from Kerala in Southern India, *vajramushti* (also known as *mallavidya*) a Brahmin martial arts practice in West India, *gatka* from Punjab in Northern India, *ladja* from Martinique, *kali* from the Philippines, *calenda* stick fighting from Trinidad, *pencak silat seni* from West Java, *silek minang* from West Sumatra, and *batalla tamunangue* from Venezuela, among others. For the purposes of the current research project, I chose to study practices of combat-dancing in Indonesia and Brazil that had previously been studied by other scholars and would be the most accessible during a limited period of research: silek minang from West Sumatra,

pencak silat seni from West Java, and capoeira from Brazil.[1] My initial research interest was to observe how different communities put together ostensibly similar activities—in this case music, dance and martial arts—yet in idiosyncratic ways. Studying the interactions and relationships between music and movement was one way to explore these differences. This focus was merely a starting point for contextualising socially embedded, historically propagated, culturally constructed, environmentally situated, embodied behaviour.

A small number of descriptive and historical accounts about capoeira have been written in English (e.g. Almeida 1986; Capoeira 1995; Assunção 2005; Talmon-Chvaicer 2008) and in Portuguese (e.g. Dias 2006; Leal, 2008) and about pencak silat in English (e.g. Chambers and Draeger 1978; Mustaffa and Kit 1978; Alexander *et al.* 1970; Orlando 1996) and in Indonesian (Asikin 1983; Maryono 1998). Substantial ethnographic work has also been published on capoeira (e.g. Browning 2001; Downey 2002a; 2002b; 2005; Lewis 1992, 1995 and 1999) and pencak silat (e.g. Cordes 1992; Pätzold 2000; Wilson 2002). Early ethnographic accounts of capoeira feature in small sections of Ruth Landes' book, *The City of Women* (1947), and early ethnographic accounts of pencak silat can be found in a few select passages of *Dance and Drama in Bali* (De Zoete and Spies 1938).

In the present phase of globalisation, practices of fight-dancing originating from Indonesia are spreading throughout Southeast Asia, the Middle East and Europe; and schools of Brazilian fight-dancing are rapidly spreading throughout the Americas, Europe and Asia. At the time of fieldwork, schools of Indonesian fight-dancing had not penetrated the Brazilian market in any sizable way; and schools of Brazilian fight-dancing had only begun to gain traction in Indonesia's most internationally permeable cities (e.g. Jakarta, Yogyakarta and Denpasar). Since practices of fight-dancing in Indonesia and Brazil have been sufficiently distanced, distinctions are possible from the perspective of historical, social and geographical associations. Unmistakable distinctions in music and movement are also possible. Despite their global spread, Indonesian and Brazilian fight-dancing are nonetheless maintaining defining characteristics.

[1] Please note that silek minang and pencak silat seni are regional forms of the national Indonesian martial art of pencak silat. I have chosen to use the regional names recognized by locals in those regions within this thesis.

Prior to fieldwork in Indonesia, I had studied the language of Bahasa Indonesia for five years and I had preliminary experience in three styles of pencak silat with groups in Melbourne, Canberra and Sydney. Prior to commencing fieldwork in Brazil, I had practiced capoeira for five years with groups in Australia and around Europe and I had a basic familiarity with the Portuguese language. During the PhD I completed six months of supplementary language training in Bahasa Indonesia at Sydney University and six months of lessons in Portuguese at the University of New South Wales. My fieldwork consisted of nine months in Indonesia, six months in Brazil and three months of archive research at Leiden University in Holland. In Indonesia, I followed the advice of Dr Uwe Pätzold and contacted a pencak silat guru in West Java with whom I performed three months of fieldwork. The Department of National Education of the Republic of Indonesia also offered me a scholarship position at the Indonesian Performing Arts College (STSI, Padang Panjang) in West Sumatra where I spent six months studying the regional form of pencak silat called silek. In Brazil, I followed the advice of Dr Greg Downey and made contact with several teachers with whom he had worked previously in the city of Salvador da Bahia.

The current foray into combat-dancing is based upon fieldwork in the historical homelands of silek minang, pencak silat seni and capoeira, as perceived by their respective current-day practitioners. Silek minang constitutes part of the intangible cultural heritage of West Sumatra, pencak silat seni constitutes part of the intangible cultural heritage of West Java, and capoeira constitutes part of the intangible cultural heritage of Brazil. In the first instance, my research was multi-sited, not because it traced "a cultural formation across and within multiple sites of activity" (Marcus 1995:96), but because it looked at different expressions of a similar activity in different places, i.e. I looked at the activity of combat-dancing in West Sumatra, West Java and Brazil. With supplementary fieldwork in Australia, France and Holland, my research became translocal in the way that Hannerz (1998) describes it because supplementary fieldwork allowed me to observe translocal linkages and interconnections between different schools in multiple sites as well as the localised social traffic.

The cap-gun fights of my childhood were a form of play abstracted from the utility of real guns. The coherency of the activity was dependent on all the players recognising the symbolic action of shooting a cap-gun. Sustained play relied on no one getting hurt.

Practices of combat-dancing are similarly replete with gestures that have been abstracted from their combative utility. Simultaneously, practitioners train their skills so that physical challenges can be heightened. Lethal movements are tempered, dance-like movements are incorporated, and music has been added into a vibrant social activity that is absorbing, sharable, and emotionally engaging.

1.2 The 'art' of Combat-dancing

Combat-dancing, as Lewis (1992) surmises from his study of capoeira, eludes the Western categories of game, sport, martial art, and dance. Lewis (1992:1), using a phrase coined by Clifford Geertz (1983), describes capoeira as a "blurred genre". He finds that capoeira is not strictly a dance but is "dance-like" (1992: xxiii). Nestor Capoeira (1995) similarly finds the terms "dance" or "fight" inadequate to describe capoeira. Like capoeira, silek minang and pencak silat seni could be described as blurred genres, as dance-like and fight-like, but not strictly dance or fight. Silek minang, pencak silat seni and capoeira share similar properties to dance, but they are blurred genres and should not be confused as pure dance accompanied by music. Collectively, activities that integrate music, dance and martial arts could be loosely termed combat-dancing—a convenient term that, pending further analytical scrutiny, can be used interchangeably with 'fight-dancing'.

Out of convenience, throughout this thesis I frequently refer to the *art* of silek minang, the *art* of pencak silat or the *art* of capoeira. Art is a word lifted from common English and applied to certain kinds of symbolic activities, objects and products set apart in special places and circumstances for their aesthetic, entertainment and monetary value (Laughlin 2004: 2). For fieldwork in Brazil and Indonesia, the ethnocentricity of the English noun "art" poses little trouble as it neatly translates to the common Portuguese word "arte" and the frequently used Indonesian words "seni" and "kesenian". The word "art" should not, however, be seen to delimit the interpretations or expressions of combat-dancing. Lewis (1992) and Capoeira (1995) have already shown that combat-dancing practices such as capoeira cannot be narrowed down to fit just one category. Practitioners of silek minang, pencak silat seni, and capoeira may often call themselves artists and refer to what they do as art. In fact, pencak silat seni translates literally as the 'art of pencak

silat.' However, practitioners of these three genres also identify their activity with many other labels including sport, tradition, ritual, and play to name a few.

In addition to identifying combat-dancing as an art in some contexts, local practitioners from Brazil and Indonesia discuss a range of aspects of their embodied practices, from the practical to the spiritual. Participating in art may afford special social status, and being the benefactor of art may highlight a particular occasion and indicate or enhance social standing. Under certain conditions, contact with the work of artists and participation in a cultural practice can bring prestige and make one part of a social elite (Demarcy 1973: 184). Indeed, Hughes-Freeland (2008) in Central Java and Spiller (2010) in West Java have found that working in the performing arts was a means for social mobility within Javanese societies. Certain styles of West Javanese dancing, for example, have upper class connotations (Spiller 2010: 14). References to fight-dancing as an art among Indonesians are common possibly because silek minang and pencak silat seni were once closely related with royalty. However, adepts of fighting arts in Indonesia were once also associated with thuggery. Similarly, capoeira was once the domain of urban thugs in Brazil. The association of combat-dancing with art, or the survival of martial arts practices through the art of combat-dancing, may have enabled the legitimacy of the practice and a substantiation of particular forms of elitism.

1.3 Apprenticeship Anthropology

Art is subject to complex cultural variation and personal conditioning and is derived "from the operations of the human brain in its dynamic interaction with the world" (Laughlin 2004:2). Neuroanthropologist Charles Laughlin (2004) advocates participation in an art in a direct mimetic way to understand how individuals make sense of the world. My ethnographic fieldwork into arts of combat-dancing involved a special kind of participant-observation whereby I undertook apprenticeships under select teachers, gurus and masters. Intrinsic to apprenticeship, as Reed (1991:143) understands it, is the requirement of the learner to share and appropriate the affordances of the teacher. A guided participant involved in flexible interaction with a teacher can begin to share a degree of perceptual attunements. As Michael Jackson notes:

> …by using one's body in the same way as others in the same environment one finds oneself informed by an understanding which may then be interpreted according to one's own custom or bent, yet which remains grounded in a field of practical activity and thereby remains consonant with the experience of those among whom one has lived. (1989:135)

We learn to attend to the world "in culturally specific ways through an apprenticeship process" (Downey 2002a: 490). Without apprenticeship, individuals do not incorporate bodily predispositions from others and the experience of attention is bereft of culturally sanctioned visceral dimensions (2002: 503). Apprenticeship fast-tracks the ethnographic trajectory of experiencing the world and repeatedly facing the situations we wish to study in the hope of writing informatively and insightfully about such experiences. Apprenticeship brings about a particular way of seeing, what Charles Goodwin would term a form of "professional vision" (Goodwin 1994). As a research methodology, apprenticeship is a means to construct the embodied knowledge base in order to analyse specific episodes of activity.

"Bodily arts", as Downey advises, "provide sites where an ethnographer's collaborators may already be skilled at teaching apprentices to perceive and behave in culturally appropriate ways" (2005:205). Observing dance without participating in dance movement offers a limited understanding of the performance art. Learning to move with your research collaborators is important in both ethnomusicology and dance anthropology. Dance anthropologist Deidre Sklar asserts that cultural knowledge "embodied in movement can only be known via movement" (2001:31). She advocates observing and analysing movement, immersion in the actions and concepts of people's everyday lives, and developing "kinaesthetic empathic perception" that "produces not a blurry merger but an articulated perception of differences" (2001:31-32). Using your body in the same way as another person may bring you closer to their experience, but not to an understanding that is entirely consonant with theirs. Moving closer to the physical experience of your collaborators is a useful method of phenomenological inquiry and reveals overlapping forms of embodied knowledge. Realising the diversity of experience underlying similar action in the world, phenomenologist Jason Throop acknowledges "a spectrum of possible articulations of experience" (2003:235). In ethnographic research, these

articulations of experience have to occur through a familiar medium between socially accustomed interlocutors.

Drawing upon Mauss, Bourdieu and Merleau-Ponty, Blacking came to understand that ways of using the body "are not entirely learnt from others so much as discovered through others" (1977:4). This process of discovery is, as Jackson reminds us, "grounded in bodily movement within a social and material environment" (1989:124). The act of apprenticeship places the researcher into a subordinate relationship with a skilled practitioner through whom a new way of perceiving and interacting in a social and material environment is discovered. Initially, apprenticeship requires the learner to share and appropriate the affordances of the teacher but not the intentions (Reed 1991:143). The process of moving from partially shared actions within a common environment to completely shared actions increases the range, scope, and articulation of shared environments and actions. Participating in the identical action requires shared attention and intention. In the pursuit of an "education of attention" (Gibson 1979:254 quoted in Ingold 2000:167), kinaesthetic sense, body memory, and embodied interactions are used as primary research tools of the dance anthropologist. As an apprentice, the anthropologist is directed to the salient features of cultural activity that one must learn to become competent. Repertoires of bodily skill are collaboratively discovered through others by occupying ready-made learning positions.

Farnell points out that "anthropologists necessarily encounter, engage in, and frequently master new skills and embodied modes of expressive conduct during field research" (1999:344). Apprenticeship anthropology situates powers of observation within culturally sensitive ways of seeing. The observable and consequently describable are often those aspects of existence that we are culturally trained to see, those facets of our encounters that stand out, and those elements of experience that we can attend to. Turning to Csordas (2002:244), researchers in the field are reminded to attend "with" and to attend "to" the body. Csordas suggests, "the body is a productive starting point for analysing culture and self" (2002:87), and from this starting point he considers the body not as "an *object* to be studied in relation to culture" but as "the *subject* of culture" (2002:58). Dance is recognised as both an embodied practice and a representational system (Hughes-Freeland 2008:11), as well as embodied action and action that is referred to (Hughes-Freeland 2008:20). By participating in practices of fight-dancing, the ethnographer's body becomes

both a canvas to art and a notebook to research. Simultaneously, the ethnographer's movement becomes both brush and pen.

Human beings engage bodily in complex intersubjective practices that are laden with social and cultural significance (Farnell 1999). The salient content of intersubjective bodily dialogues in combat-dancing is particularly accessible to the apprentice anthropologist. The study of combat-dancing through apprenticeship means that the anthropologist occupies an established novice role. Students of combat-dancing are required to understand the socially sanctioned beauty, significance, or utility of the movements they learn, otherwise they risk injury, insult, or disgrace. This intense learning pressure facilitates the apprenticeship methodology because it means that the emic perspective becomes an obligatory characteristic of participation. Understanding the implications of a punch or the beauty of a well-timed gesture is not an optional feature of practice. If the participant-observer does not recognise the salience of a movement, then peers often, and sometimes confrontationally, correct the oversight or misunderstanding. Salient features of an embodied social practice are processual and relational. Practitioners constantly negotiate and substantiate the intent of movements by asserting their own skills and personalities in public arenas of open debate. The application of a movement becomes transparent through verbal and nonverbal exchanges. These task-based intersubjective bodily interactions are a catalyst for the researcher's rapid apprehension of socially sanctioned skills. Simultaneously, the researcher is an active agent in these discussions and may even negotiate new interpretations.

The participant-observation approach of apprenticeship borrows methodology from phenomenology and facilitates an attunement to the salient properties of embodied action. Phenomenology is: "the study of experience, of how things appear in consciousness, and what contributes to making them appear the way that they do" (Downey 2005:17). As a research ethic, phenomenology "does not rely primarily on the uniqueness of experience. Overall, it is propelled by a universalising impulse, since it hopes to arrive at shared meaning" (Fraleigh 1991:11). Maxine Sheets-Johnstone, speaking about dance, affirms that the lived experience is "of paramount significance" (1979:4). Music and movement, in the current project, are both the objects of investigation and the means of investigation. In apprenticeship anthropology, the body is both the research tool and the primary site of field notes. Through a socially and physically embedded corporeal approach that involves

using the body and experience as a tool of study, a direct relationship with the subject is achieved. This method situates phenomenological analysis in relation to intersubjective interactions within culturally sanctioned systems of expression. The research methodology is open-ended in order to allow the field of study to dictate what is meaningful, for "When phenomenology is true to its intent, it never knows where it is going" (Fraleigh 1991:11).

Researchers may come to the field as previously trained practitioners with pre-existing set of bodily skills. While in the field and learning practices of fight-dancing, however, the researcher has to learn how to move all over again. Learning a new bodily art entails un-learning, re-learning, putting aside personal movement biases and dispositions, and at the same time trying to superimpose a new set of dispositions. Researchers may not always find it easy to articulate the range of reflexive modifications entailed in moving from moments of estrangement to experiences of empathy and mutual attunement with interlocutors. The immediate demands of novel and constantly changing tasks can often leave little time for reflection. For example, in my fieldwork, sometimes teachers would ask me to perform movements that, based on my previous experiences, I felt would harm my body. To come closer to understanding their system of logic, and placing trust in their instruction, I had to ask why they thought that I would be safe. Assessing these situations *in vivo* can be overwhelming, particularly when the urgent priority is looking after personal health and safety. The student might query, albeit internally, the requests of the teacher, and the teacher may take issue with the actions of the student. For example, teachers would sometimes ask me to perform movements that I would execute with a different level of energy to what they wanted. When these encounters were exposed, they revealed subtle aspects of the techniques I was learning and the techniques I had learnt.

1.4 The Heterogeneous Construction of Humanly Organised Expressive Systems

Humanly organised expressive systems are distributed complexes that incorporate vocalisations, bodily movements, and external references from natural and sculpted features of the environment. Performance traditions of combat-dancing in West Java, West Sumatra, and Northeast Brazil can be considered as examples of coherently organised human expression. In these traditions, percussive and melodic music-making

combines with formalised repertoires of interactive body movements to form holistic gestural complexes. During expressive signalling, physical gestures are accompanied by self-made noises as well as percussive and melodic sounds produced by musicians. The bodily techniques of are aesthetic, acrobatic and suggestively combative. The music is salient because of the aesthetic, rhythmic, melodic, timbral, and indexical qualities. The two expressive mediums combine into new perceptual entireties with sound affecting the way we perceive movement and movement influencing the way we perceive sound. Cultural upbringing and social experiences shape the way artists are predisposed to putting sound and movement together and the way audiences respond to the music and movement of a performance.

Fieldwork revealed that each local genre of combat-dancing manifested a distinct type of relationship between music and movement. In West Sumatra, performances exhibited weak relationships between sound and movement. In West Java, however, music animated the movement with a high degree of indexicality between musical sounds and bodily techniques. Likewise, a strong relationship between sound and movement existed in Brazilian combat-dancing such that percussive musical rhythms drove the cadenced pulse of swaying and circular body movements. These descriptions simplify the basic features of each genre, but to a large extent West Javanese and Brazilian combat-dancing performances exhibited strong relationships between sound and movement, as opposed to West Sumatran performances that exhibited few contemporaneous interactions between sound and movement. To examine the differences between the three genres, I took a two-pronged approach. Firstly, I employed a synchronic analysis to illuminate the relationship between music and movement at a specific point in time. Secondly, using a diachronic approach elucidated the origins or causes of the particular relationships in each genre, how specific relationships might have arose historically, and how this relationship influenced the long-term developmental dynamics of the genre.

Choreomusicology, the study of the relationship between sound and movement, offered a primary avenue through which to categorise and conceptualise the relationships between music and movement in instances of combat-dancing performances. Being a relatively new theoretical framework within music and dance studies, I had to piece together a broad picture of choreomusicological theory from a variety of sources. The awareness of an array of different relationships between sound and movement was important for

fieldwork observations and limited the bias towards one expressive medium or the other. Concurrently, fieldwork experiences also informed the theoretical framework. Some kinds of interaction between music and movement appeared in the field but not in the literature. Choreomusicology was one of a couple of conceptual tools through which to fulfil a central aim of the thesis: to understand the myriad ways music, dance and martial arts have been put together and formalised into socially organised expressive practices.

How did three completely different types of music-movement interaction arise in the three combat-dancing genres studied? Behind the protean music-movement relationships of each combat-dancing genre was a confluence of socially instituted, culturally orchestrated, and environmentally situated variable factors specific to the history of each community. Drawing upon my ethnographic fieldwork and archival research, I sought to unpack the variable factors that influence the relationship between sound and movement of each genre of combat-dancing. For inspiration, I turned to recent developments in complex systems theory as a means to conceptualise the heterogeneous construction of music and bodily movement in human expressive systems. In particular, I delved into contemporary reconceptualisations of the theory of degeneracy in which different pathways are understood to be able to lead to the same developmental outcome. Understanding how different structures can combine to perform the same function is useful for unpacking the heterogeneous construction of an expressive system. The concept of degeneracy is one of a set of theoretical tools useful for describing and analysing processes of cultural change. As the degeneracy concept is a new introduction to cultural theory, I focus my attention on first historically situating this term and explaining its theoretical potential before discussing its application to cultural theory.[2]

[2] From the outset, the word 'degeneracy' in complex systems theory needs to be distinguished from the popular derogatory use of the term. The term 'degeneration' means an alteration in the structure of a pre-existing form. From the Latin word, *degeneratus*, something is said to degenerate when it "moves away from its genus or type, so that it is no longer general or typical" (Schwartzman 1994: 68). The 'de' prefix means 'to move away from' and 'generatus' means 'having descended from'. The 'de-' prefix is not always associated with negative overtones such as in the words 'deform', 'defame', and 'devalue'; the prefix can also have neutral associations, such as 'delimit' and 'denominate', and positive associations such as 'detoxify' and 'deodorise'. However, even these loose categories depend upon context. To 'deform' can be part of a creative artistic process, to 'delimit' can confer undesirable boundaries, and to 'deodorise' might possibly remove an important revelatory smell in certain surroundings. The word 'degenerate', which means to diverge from antecedents, gained negative associations during the industrial and agricultural revolution. Any divergence from productivity was seen as wasteful and a disease of consumption. Unfortunately, this perception of 'degeneracy' together with its brutal deployment by eugenicists has tainted our appreciation of the structural diversity that the process of degeneracy can produce. The word has fallen out of popular use by researchers, and the vast majority of researchers have been blind to recent scientific formulations of the concept of degeneracy by small pockets of systems theorists.

Turning to current trends in the transmission and global distribution of various combat-dancing practices, this thesis also explores how expressive systems that exhibit strong interactions between sound and movement spread more robustly than human expressive systems with weak interactions between sound and movement. Globalisation demonstrates the dynamics of cultural degeneracy. Combat-dancing genres from West Java and Brazil exhibit strong music-movement interactions and these forms have spread more rapidly around the world than West Sumatran combat-dancing that exhibits only modest relationships between music and movement. In the context of globalisation, human expressive systems that exhibit high levels of multimodal degeneracy spread more easily than human expressive systems with low levels. Globalisation stands as a test of the robustness of cultural systems like performance genres as they transfer across cultures.

In order to understand the relationship between music and movement, researchers can turn to choreomusicology for a synchronic approach and the theory of degeneracy for a diachronic approach. Choreomusicology offers tools to analyse the relationship between music and movement in a performance at a given, fixed point in time. Degeneracy offers a way to conceptualise how particular relationships between music and movement have come about through variable factors, play out over time, and change during transmission. Globalisation is a testing ground for the dynamics of cultural transmission and the integrity of the music-movement relationship as these bodily arts spread among translocal communities. By incorporating choreomusicology, systems theory and a consideration of globalisation, this thesis aims to investigate various facets of humanly organised expressive systems as they are heterogeneously constructed in time and space.

1.5 Supplementary Methods and Supplementary Materials

To complement my apprenticeship of combat-dancing in Indonesia and Brazil, I also took audio-visual recordings of performances where I was permitted to film. However, I was careful not to limit my research to these audio-visual recordings. MacDougall (2005) points out that the photochemical precision of photography and the sonic exactness of audio-recordings can be empirical, but inhuman. Viewing film in the absence of movement—what Edgar Morin (1956) calls the “oneiric” view—can provide spectators

with a privileged view, but it leaves them in paralysis, with an incapacity to act and interact with the stimuli.

During fieldwork, filming performances was reserved for times where I was not otherwise engaged in the construction of events. These recordings provide useful ethnographic material (and select clips accompany this thesis). Over time, I have found that my active participation in the bodily arts that I was filming has changed my relationship to the footage that I was collecting. Passively viewing footage of unfamiliar bodily movement lends itself to the oneiric view, but performances of familiar music and dance awaken the spectator. I started relating in physical ways to the captured movements and being viscerally stirred by the recorded music. My kinesthetic responsiveness to the filmed movement is not uncommon. Dancers observing dance often report a sense of dancing themselves (e.g. Marie Rambert, in Foster 1976:44; Hanna 1979). In addition, neuroimaging experiments have also supported such claims by showing a clear effect of acquired motor skills on brain activity during action observation (Calvo-Merino *et al.* 2005).

MacDougall, who recognises that the way we direct our sight is a matter of our cultural and neural conditioning, affirms that an analysis of visual images demands that we move beyond our verbal intelligence (2005). "If we are to gain new knowledge from using images," MacDougall states, "it will come in other forms and by different means" (2005:2). The dual approach of filming and participating allows a shift from the limitations of textual analysis to a study of the attributes connected to bodily sensations and physical interactions. Grounding research in the body and the body's experience changes one's engagement with related texts, artefacts, and abstractions. Audio-visual material with which we share an intimate connection and with which we can physically identify, is a useful post-fieldwork prompt and a lively ethnographic supplement. Selecting audio-visual recordings from a physically informed bias and using these recordings to represent something about the fieldwork might meet the demands of researchers like Markula who point out, "Researchers who study movement must go beyond mere textual representations and explore the liberating possibilities of a more embodied form of scholarship" (2006:4).

When referring to audio-visual material, ethnographers must keep in mind that "Representations of experience immediately create new experiences in their own right" (MacDougall 2005:16). Framing the oneiric experience is important to ethnographic accounts. Framing:

> is what lifts something out of its background in order to look at it more closely, as we might pick up a leaf in the forest. Through selection, framing also distils and concentrates experience. By isolating observations, it reveals commonalities and connections that may have gone unnoticed before. These may be the characteristic mannerisms of a person, or how a particular cultural theme emerges repeatedly in different contexts. (MacDougall 2005:4)

An informed use of data assists in the *framing* of sonic events, movement material and choreomusical relationships. Framing parts of events for analysis, representation and explanation is useful when attempting to capture the "knowledge of being" (MacDougall 2005:6) that is so ephemerally defined in music and dance. In framing the representation of the audio-visual experience, one can reconstruct experience through an acquired knowledge and expertise in the recorded activity.

When a performance art is captured on film, it delivers a product that becomes a social artefact permitting access to how people created order out of otherwise limitless and chaotic possibility. However, film cannot represent how the sweat and physicality of participation excite the intimate senses of smell and touch as well as the hidden senses of balance, proprioception and pulse. Music, dance and martial arts vigorously intertwine in performances of fight-dancing. Performers are trained to focus their attention while engaging in their art, but if a performer's awareness lapses and his attention falls from the moving canvas, even for a second, then a highly trained partner becomes a treacherous adversary who will pull this opponent back into the canvas by reminding him, confrontingly, of the dangers of the art. Participation is by choice, but in the act of art-making, if that choice is forgotten, it is imposed. During performance, the senses are constantly being demanded to absorb information from an aggregate of modalities. Failing direct participation, an aural and visual engagement with these arts through film is essential to making them more alive for the reader.

1.6 Chapter Overview

With a sensitivity to the anthropology of the body, my approach is grounded in methodology from dance anthropology and ethnomusicology and complemented by the tools of visual anthropology. I also broach the new field of choreomusicology and additionally draw upon the work of contemporary systems theorists to understand both synchronic and diachronic dimensions of combat-dancing. Chapter two is in two parts. The first part offers a literature survey of research and theory concerning the relationship between music and dance. The second part explores what the concept of degeneracy from systems theory can offer to our understanding of human expressive systems.

During fieldwork, choreomusicology became a methodological sensibility that confined my research focus to instances where martial arts and dance were accompanied by music. Theorists understand dance to have an "inherent capacity to elude entextualisation" (Hughes-Freeland 2008:237) and music as "bearing profound yet unverbalizable meaning" (Cross 2007: 510). Nevertheless, music and dance are susceptible to description and interpretation in terms outside their direct medium of expression. Musical figures, for example, can represent non-musical objects, dance motifs can portray abstract concepts, and both music and dance can evoke stirring emotional responses. Music and dance find their origins in the actions of the body, are embedded in cultural processes, and depend upon social interaction for their realisation. Taking choreomusicology as a departure point allows us to talk informatively about the heterogeneous construction of sound and movement in diverse performances of combat-dancing. In the final analysis, choreomusicology was a practical thematic supplement to the descriptions of combat-dancing in West Sumatra, West Java and Brazil.

The second part of chapter two is historical and theoretical in content. Recent re-examinations of evolutionary theory might offer useful conceptual tools for analysing the stability and transformation of human expressive systems over time. In the 1950s, George Gamow introduced the concept of degeneracy as a theoretical tool to understand genetic coding. Unfortunately, by the end of the Second World War, the word 'degeneracy' had accrued significant baggage. A historical survey of the use of the term 'degeneracy' reveals how and why the processes it once designated, and the mechanisms it now represents, have largely escaped the purview of contemporary science. Outside genetics,

Gamow's insightful idea retained a low profile for some thirty years or more. Over this period, evolutionary theorists largely disregarded the concept of degeneracy and the omission carried over to cultural theorists who tried to learn by analogy from models of biological evolution. By many accounts, these models of cultural evolution have proved unsatisfying. I propose that integrating Gamow's concept of degeneracy into these models may be integral to improving them.

We can only incorporate the biological concept, 'degeneracy,' into cultural theory if we are extremely clear about what the term signifies. Not to be confused with the word 'degenerate' within medical practice or the notion of 'degeneration' associated with anthropological primitivism, 21st century systems theorists use the word 'degeneracy' to refer to the structural variation underlying functional plasticity. Following a historical survey of various conceptualisations of 'degeneracy', I briefly review the technical definition of degeneracy employed in contemporary biological sciences. Degeneracy is a phenomenon whereby different structural permutations recurrently lead to similar end results. This use of the word, 'degenerate,' should not be confused with the way it has come to be used in medical practice where the term is employed to describe macular degradation, mental decline, or cellular decomposition. Among geneticists, neuroscientists and immunologists, the term 'degenerate' describes systems that contain multiple structures that can perform the same function. Degeneracy in biological systems and degeneracy at the cultural level are not identical processes but share many parallels. Recent recastings of biological evolution characterise processes of change as random fluctuations to changing environmental conditions, rather than as a purposeful, progressive and uni-directional trajectory of development. The time may be ripe to explore the potential contribution that biological evolutionary theory can make to models of cultural change.

Relationships between music and dance are not fixed, but are dynamic and changeable. Although the relationship is rarely strictly unidirectional, there can be a bias as to which medium leads and which medium follows. Chapters three, four, and five each cover one style of combat-dancing. As it turned out, each art had a different relationship between music and movement. In chapter three, I discuss silek minang in West Sumatra, Indonesia, where the music and the movement have no intrinsic relationship. In chapter four, I discuss pencak silat seni in West Java, Indonesia, where music convincingly

follows the movement. In chapter five, I discuss capoeira in Salvador da Bahia, Brazil, where music largely leads the movement. The relationship between music and movement in each form of fight-dancing was unique and related to a number of variable social, historical and cultural factors.

Among the Minangkabau people of West Sumatra, music appears in public performances of silek minang but is rare or absent in training and rehearsals. Silek minang performances can be integrated into scenes of local randai theatre (for examples see Pauka 1998) but can also be performed as a stand-alone choreographed presentation accompanied by available musical ensembles during public events and ceremonies. In performance, local audiences who watch silek minang do not draw a connection between the music and movement but see them as separate modes of expression that nonetheless cohabit the performance space. Instruction of silek minang was once closely affiliated with the matrilineal structure of Minangkabau society such that boys learnt from their maternal uncles. In close-knit communities where boys were given both musical and martial arts training, there may have been a closer relationship between music and silek minang. Today, however, teaching silek minang is independent of musical training. Silek minang has become a specialisation for select professionals, and instruction has opened out to both boys and girls.

Pencak silat seni among the Sundanese of West Java exhibits a strong intrinsic relationship between music and movement. The theatricality of the musical interaction facilitates the audience engagement and comprehension of the movements. Drum patterns mimic punches, hits and kicks, while shrill songs played on a double-reed aerophone match the tension of the movements. Musical accompaniment is rare in training but common during rehearsals for an upcoming performance. Pencak silat seni was developed through aristocratic modes of sponsorship during the colonial period. After independence, the genre became affiliated with nationalist ideologies and today is a regular feature at regional and national events. In his research about Sundanese popular dance, Spiller (2010) describes the expectation that movement is animated by musicians as an aesthetic related to the "social relationship between dancer and drummer—an aristocrat and a hired servant, respectively" (p.73). In the embodied practice of pencak silat seni, the relationship between music and movement is a historical artefact that has become formalised through competitions and reinforced through the economic relationships

between movement artists and musicians. While Sundanese dancing is described as "a masculine pursuit in much the way that sports are in the Western world" (Spiller 2010: 36), both men and women participate in contemporary pencak silat seni.

Unlike performances of silek minang and pencak silat seni, capoeira from Brazil is an improvised art. Vocal and percussive music guides performances of capoeira, but expert movement artists can also inspire songs, drive tempo changes, and beckon the attention of the crowd. Music begins and ends ritual performances of capoeira with an orchestra of instruments often led by a respected teacher. Music is almost always a key feature of training sessions and practitioners have to master both the instruments and the movements of this holistic art. Following Lewis (1992) and Downey (2005), who maintain a healthy suspicion of narratives that claim slaves brought capoeira to Brazil from Angola, I look at a multitude of influences that have shaped the self-contained repertoires of music and movement that form capoeira practices. Present-day practices of capoeira are the product of a multifarious array of international influences that coalesced in the ports of Brazil and over time were subject to social and political forces (see for example, Chvaicer 2002; Downey 2002b; Assunção 2005). Once a male-dominated activity, capoeira has seen many changes with the transition into academies and the introduction of a larger number of female participants. These changes have been accompanied by a formalisation of instrumentation, the development of musical repertoire and a modification in song lyrics.

My interest in fight-dancing is both as a practice and as an object. Many paths lead to the performance product of a fight-dancing spectacle. While dance is generally an elusive topic, "the anthropologist at least can explore each dance as an event, a minimum unit in the study of the performing arts in general… he can follow through the implications of the conscious intentions of the participants in relation to the situational context" (Brinson 1985: 211). In chapter six, I contrast performances of fight-dancing from regional festivals in West Sumatra and Salvador da Bahia. *Tabuik* is the name of a West Sumatran festival where townsfolk carry large cenotaphs out to sea in accordance to the demands of a *Bouraq*, a mythical creature on which the prophet Muhammad made his ascension and night-journey. *Festa de Iemanjá* is a Bahian festival during which locals bring offerings out to the ocean to appease the Goddess of the Sea, Iemanjá. Performances of fight-dancing have been incorporated into the celebrations of both these festivals and contribute to the sense of tradition evoked by such occasions. Surveying the history of these

festivals, I investigate the introduction of fight-dancing performances into each respective event.

In chapter seven, I return to the performances of fight-dancing that I documented in chapter six to theorise about cultural change and diversity through a comparative approach. Focussing on the music, movement and social role of performances of combat-dancing during regional festivals, I directly compare the structure, function and context of each performance. Structure in this instance refers to the musical arrangements and bodily movements executed within each performance. Function refers to the social roles fulfilled by a performance. Context refers to the events within which performances are embedded. Observations of silek and capoeira during coastal religious festivals in West Sumatra and Brazil demonstrate that different practices of fight-dancing can fulfil similar social roles within certain cultural contexts. The structural variation and surface similarity we see in these performances was brought about by differences in historical dynamics, transmission methods and political environments. This observation evidences a characteristic process of dynamical self-organising systems called 'degeneracy'. Degeneracy refers to structural permutations that perform a similar, but not necessarily identical, function with respect to context. Characterising this form of degeneracy at the cultural level is a step towards modelling the evolution-like processes underlying cultural diversity and culture change. Using practices of music and dance to study cultural transmission, change, and diversity is a unique complement to previous studies of cultural evolution which have focused on linguistic examples, religion, mathematical modelling, colour perception, and tool use among other traits.

In chapter eight, I look at practices of fight-dancing within the context of globalisation. Following the caution of globalisation theorist Ulf Hannerz, diasporic practices cannot be thought of as forming part of a "cultural mosaic, of separate pieces with hard, well defined edges" (1992:218). The kinds of interpersonal networks that support diasporic practices are mushrooming as a consequence of globalisation. Practices such as fight-dancing have become—to loosely draw upon Thomas Hylland Eriksen's words—"nonlocalised cultural uniformities" (1997:262). Although we may perceive a global coherence in practices of fight-dancing as they spread internationally, they do not actually exhibit the consistency that we at first perceive. Building upon the sensitivity to culture change that I developed in chapters seven and eight, I endeavour to unpack the processes

of cultural transmission involved in embodied arts participating in globalisation. I also endeavour to disentangle how some of the properties of a practice of fight-dancing affect the spread of that practice globally. The globalisation of human expressive systems demonstrates the dynamics of cultural degeneracy.

During my research into practices of combat-dancing in Indonesia and Brazil, I found myself thinking back to the cap-gun fights I enjoyed as a child. In formalised practices of combat-dancing, I could see similar social dynamics at work, but at a larger more dispersed scale. Combat-dancing included the amplified elements of historical development, social distribution, performativity and artistry actively promoted by practitioners. To the best of my ability, I have tried to unpack as many of these elements as I could using the knowledge and information that I was able to acquire during the course of my fieldtrips to Indonesia and Brazil and my archival research in Holland.

Chapter 2: Synchronic and Diachronic Approaches

2.1 Choreomusicology and Degeneracy

In this chapter I explore two fields of ideas that form the theoretical backdrop for this thesis. The first section of the chapter discusses a relatively new discipline called choreomusicology, the second section discusses the key theoretical concept from systems theory, degeneracy. Choreomusicology is the study of the relationship between sound and movement within a performance. Degeneracy is a way to conceptualise the many different pathways that lead to resembling end products, and in this case the mixing of music, dance and martial arts into diverse genres of combat-dancing. Choreomusicology and degeneracy represent synchronic and diachronic approaches that I have taken in trying to understand the configurations of music and movement in diverse practices of combat-dancing. Choreomusicology allowed me to attend to the interactions between music and movement as they were executed in performance. The evolving relationship between music and dance in any performance tradition is a socially situated process shaped by a range of historically constituted practices. Degeneracy allowed me to think about the multifarious intersecting pathways that gave rise to the music-movement relationships in each particular combat-dancing genre.

As a methodological sensibility for ethnographic fieldwork and a theoretical complement to ethnographic analysis, this chapter discusses key concepts in choreomusicology and degeneracy. Choreomusicology can be productively incorporated into ethnographic fieldwork and degeneracy can be constructively integrated into analytical thinking. Although choreomusicology and degeneracy are not always at the forefront of later chapters, the orientation towards choreomusical relationships in combat-dancing performances and a sensitivity to the heterogeneous construction of these relationships was the major theme of fieldwork. As choreomusicology and degeneracy are relatively underexplored, this chapter includes a literature survey and historical overview of both choreomusicology and degeneracy. The discussion is extensive precisely because the theories of choreomusicology and degeneracy have heretofore not been integrated and distilled by any one person.

2.2.1 Synchronic Approach to the relationship between music and movement

In the 1980s, British sociologist Anthony Giddens (1984) predicted that the next major problem for social theory was how to connect saying with doing. For social theorists of music and dance, how to connect the musician's sounds with the dancer's moving has often been given only cursory attention. Choreomusicology is a useful theoretical tool to grapple with the affinities between humanly organised movement and sound. In time and space, dance and music unfold in parallel but independent planes that coalesce in mutually impacting cadences and segmentations. Dance and music primarily excite the senses of sight and sound which feature prominently in public spheres of social activity. The relationship between music and movement is easy to describe when one medium is kept inactive. However, the evocations of music and dance performed in tandem can be difficult to capture in words.

Sound overtly rouses the ear and movement stimulates the visual senses. In music and dance, sound and movement are invested with expressive value. Through the syntactic organisation of the components of each medium, sound and movement can become emotive, mimetic, suggestive, allusive and symbolic. Sounds and movements, for example, can evoke memories, emotions, and visceral responses. The perception of these qualities is dependent upon the embodied experience and conditioning of the listeners and observers. In practices of combat-dancing, the relationship between music and movement is expressed and reinforced through the sweat and physicality of participation and the contestation of shared experience.

Australian Dance Academic Shirley McKechnie identifies movement as occupying a singularly central position in music and dance (1984). Music and dance are organically tied to the perceptual capacities of the brain and the physical constraints of the body. The conscious manipulation of body and sound through time and space depends upon the procurement of skill through individual, social and cultural development. John Blacking, British ethnomusicologist and social anthropologist, most widely known for his study of music from an anthropological perspective, defined music as "Humanly organized sound" (Blacking 1973). To echo Blacking, dance can be independently yet similarly defined as humanly organized movement. Dance anthropologist and dance educator, Judith Lynne Hanna, provides a cross-cultural and sociohistorical definition of dance that takes into consideration psychobiological mechanisms and evolutionary perspectives:

> human behaviour composed, from the dancer's perspective, of (1) purposeful, (2) intentionally rhythmical, and (3) culturally patterned sequences of (4a) nonverbal body movements (4b) other than ordinary motor activities, (4c) the motion having inherent and aesthetic value. (1979:316)

Much can be said about the structured impulse music can give to dance; the evocative inspiration dance can give to music; the dynamic reciprocity between both activities.

Joann Kealiinohomoku, a dance anthropologist who addressed ethnocentricity and unilinear progressive hierarchies in the performing arts (Richter 2010:226), observed that the "interrelatedness of music and dance is acknowledged by ethnomusicologists and choreologists alike" (Kealiinohomoku 1965:292). Blacking showed that dance and music should be considered "as modes of human communication on a continuum from the nonverbal to the verbal" (1985:64). Music and dance are highly interwoven human expressive systems. "In most cultures", as musician and theatre critic Paul Hodgins points out, "dance is seldom performed without music" (Hodgins 1992:iii). Of all the arts, music is most closely related to dance. Art historian and evolutionary theorist Ellen Dissanayake (2000:150; 2001:297) considers that music and dance in their origins were inseparable. In pre-modern societies, it is most likely that movement was automatically coupled to the rhythms of sound. Among the Andamese Islanders in the Bay of Bengal, for example, the English anthropologist Alfred Radcliffe-Brown found that singing and dancing were "two aspects of one and the same activity" (1948:334). Doris Humphrey, a modern dance choreographer and teacher, suggested that:

> Rhythm and vocal sound are born right in us…they were the very first arts and they were extant long eons before recent inventions like painting and architecture, language and sculpture. Music (the vocal kind especially) and movement have been linked from the very beginning. (Humphrey 2008:51)

Organic forms of music are always a result of movement. Whether it is the slap of the chest, a clap of the hands or a stamp of the feet, sound arises from muscular effort. Even song "is no more than a product of movement made by the various parts of the vocal tract reaching from the diaphragm to the lips" (Mithen 2005:15). Music, as Blacking more deeply described it, "begins as a stirring of the body" (Blacking 1973:111). There are four basic categories of music and movement performed by the same person contemporaneously: (1) Self-accompanied dance with an emphasis on music, (2)

mutually accompanying dance and music, (3) self-accompanied dance with an emphasis on the dance, and (4) dance with characteristic but incidental musical accompaniment (Kealiinohomoku 1965). The emphasis on sound or movement in any self-accompanied dance is reliant upon the expressive capabilities of the performer, the philosophy of the performance tradition, and the ability of the artist to open their art out to an audience.

Humanly organised sound exists on a continuum with humanly organised movement. The mechanical structure of a percussion instrument, for example, can be completed by the body of the musician (see Downey 2002a:499). When instrumental sound is reliant upon human motion, music is the shadow of movement. Technological developments in music, however, have distanced the physical relationship between soundscape and choreography. Regardless of the music-making technologies available to a society, the affinities between music and movement are often left "to form at an instinctive level, their potential completely unexplored" (Hodgins 1992:v). Elucidating these affinities empowers artists to exploit a greater range of possibilities in crafting music and dance for performance.

Dance and music stimulate different senses, have different perceptual attributes, occupy different dimensions, and yet each can alter the time, space, and experience of the other. Music and dance can be used to explore how we perceive the world and how social and cultural processes can shape human expressive systems (Mason 2009a). "It is in the areas of nonverbal communication, especially dancing and music, that we may observe mind at work through movements of bodies in space and time" (Blacking 1977:18). The conscious and intelligent exploration of the relationship between music and movement "is crucial to our understanding of how dance as an art form affects us." (Hodgins 1992:v). By trying to understand these processes, "becoming consciously rather than instinctively aware of their power, we can appreciate more readily the powerful force of dance and music…" (Hodgins 1992:215). Pulling together theory in choreomusicology allows us to unpack creative choices, unravel aesthetic preferences, and elucidate processes that would otherwise remain hidden.

2.2.2 Choreomusicological theory

It has been customary in Western thinking, Kealiinohomoku (1965) points out, "to expect music to accompany dance, and to consider dance the prime feature in a performance

while the music accompaniment provides an appropriate completion of a theatrical audio-visual effect." In Western dance performance, music and movement are often performed simultaneously, yet nevertheless can be separated as discrete arts. Music is primarily an aural art, and the dance is primarily a visual art. In the West, "The nature of the relationship between music and dance has frequently been investigated, but nearly always from the perspective of only one of the two media" (Ungvary, Waters and Rajka 1992: 59). Even ethnomusicologists and dance anthropologists can be guilty of focusing exclusively on music or dance in otherwise inseparable holistic performances. Any analysis of a dance work:

> …must adopt a broader, cross-disciplinary approach, accepting music and dance as equal artistic partners, assuming that they act in synergy (rather than independence or even opposition) in any collaborative masterwork; and an examination of the collaborative process of a given work, a knowledge of the history of a collaborative partnership, and a familiarity with each artist's aesthetic approach are all essential to comprehensive analysis. (Hodgins 1992:214)

Smith (1981) identifies four types of dance/music interaction that exist along a continuum: analogue, dialogue, structural interdependence and total independence. Any particular performance may span any of these four theoretical categories. These theoretical categories have been elaborated by Ungvary, Waters & Rajka (1992):

1. Analogue interactions are direct correspondences between musical rhythm and movement rhythm. These correspondences also invariably operate at higher structural levels (musical movements, large phrase units etc.). These interactions are often referred to as 'mickey-mousing' after the iconic sound-movement relationships of early Disney cartoons. An example of analogue interaction is Ted Shawn's *Kinetic Molpai* (1935).
2. Dialogue interactions involve the divergence and convergence of visual and musical elements. These interactions might occur at various compositional levels (rhythmic, phrasal, gestural etc.). An example of dialogue interaction is seen in Merce Cunningham's choreography *Diversions* (1948) with John Cage's *Suite for Toy Piano* (1948).
3. Structurally interdependent interactions where one of the elements (e.g. dance) relies on the other (e.g. music) for its form; either element is inadequate

without the other. An example of structural interdependence is Trisha Brown's *Accumulation with Talking* (1973).

4. Totally independent interactions are contrived in dance and music that are not produced to explicitly correspond to each other. The collaboration of composer John Cage and choreographer Merce Cunningham is the most famous example.

In the same year that Ungvary, Waters & Rajka (1992) published these theoretical categories of music-dance interactions, Paul Hodgins, then Music Director of the Department of Dance at the University of California Irvine, published a seminal book about choreomusicology called, *Relationships between score and choreography in twentieth century dance* (1992). Hodgins puts choreomusical relationships into two categories, intrinsic and extrinsic (see Table 2.1). Intrinsic relationships are rhythmic, dynamic, textural, structural, qualitative or mimetic. Extrinsic relationships are archetypal, emotional or narrative.

RELATIONSHIPS		MUSIC	DANCE
INTRINSIC	rhythmic	pulse, accent or meter	accent, meter sounds produced by the dancers
	dynamic	volume volume of musical gesture	movement intensity volume of choreographic gesture
	textural	musical arrangement number of instruments	movement corps number of performers
	structural	phrasing or form	corresponding motives or figures, phrases, structures
	qualitative	timbre and tessitura	sharpness or smoothness of movement
	mimetic	sounds mimicking movement	movement mimicking sound
EXTRINSIC	archetypal	symbolic aspects	symbolic aspects
	emotional	emotion conveyed in music	emotion conveyed in movement
	narrative	story-telling	story-telling

Table 2.1: Choreomusical relationships adapted from Hodgins (1992). Relationships between music and dance can be intrinsic or extrinsic. Any particular work may incorporate any number of elements from these two categories.

Intrinsic relationships are derived from structures and elements embedded in the music and movement. Rhythmic relationships exist when there are temporally matching elements of reiteration in music and dance. Dynamic relationships refer to amplitude and

exist when changes in the sound-level match changes in the "relative amount of distance covered or space enclosed by the body in action" (Hanna 1979: 36). Textural relationships can occur when the number of musical elements coincides with the number of dance elements e.g. a solo dancer and a solo instrument. Textural relationships can also refer to homophonic or polyphonic affinities between the choreography and the score where the number of musical lines reflects unison or variegated group movement. Structural correspondences are created when musical structures, motives and phrasing match the morphodynamic architecture of the choreography. Qualitative relationships are determined by musical shape and the relative fluidity in the dance. In qualitative relationships, the levels of musical dissonance or consonance can be choreographically acknowledged, the tessitura of a musical composition can be reflected by correspondingly light or heavy movement, staccato and legato can be reflected by sharp or sustained movements, and the timbre of a musical instrument or orchestral section can be associated with a certain dancer or group of dancers. Mimetic relationships occur when sounds deliberately mimic the expected sonic event of a movement, i.e. instruments can mimic a dancer's movement, or dancers can mime playing an instrument.

Extrinsic relationships are driven by contextual cues and prior knowledge of certain associations. Archetypal relationships are imitative (Hodgins 1992:30). Musical archetypes are symbolic units or phrases of music and movement that have particular associations to the wider aspects of a particular culture or society. Emotional and narrative relationships are expressive (1992:30). Emotional cues are driven by those musical and movement phrases that we associate with particular states of being. Finally, narrative relationships can occur when the music and movement depict a story. The story of music and dance requires an understanding of the whole creative event and "the patterning of organized sounds in time" (Gholson 2004:10).

The thematic significance of a choreomusical relationship is developed through repetition (Hodgins 1992: 31). A performance can contain any number of intrinsic and extrinsic choreomusical relationships during any given passage. These choreomusical relationships may be presented in one of three temporal alignments (Hodgins 1992: 30):

1. Direct: musical and choreographic elements are presented simultaneously;
2. Foreshadowing: either musical or choreographic element is introduced separately, followed by direct presentation; and

3. Reminiscence: either musical or choreographic element is reiterated after direct presentation.

Jordan (1993) offers examples of foreshadowing and reminiscence (what she calls 'echoes' and 'reverberations') in a choreomusical analysis of *Agon,* the work of Stravinsky and Balanchine premiered in 1957. *Agon* is described by Hodgins as exhibiting a loose and easy interdependence between the stark and arid music and the sharp-edged angular movements where there is no consistent metrical relationship but a careful matching of orchestral and choreographic ensemble size (Hodgins 1992: 102-103). In one passage, a series of *entrechats* spring down the line of dancers in bars 201 and 202 that foreshadows four shrill repeated B-flats on the flutes in bars 202 and 203 (Jordan 1993:3). Later accented kicks and *relevés* are reminiscent of those high notes. In another passage, three repeated F-sharps on the first and second trumpet in bars 283 and 284 foreshadow a dance phrase based on a series of three turning hops which begin on the last beat of bar 283, are danced at a slower rate than the musical events, and terminate at the beginning of bar 285. Later, these turning hops reconnect in a direct alignment with a series of repeating G sharps in bars 284 to 285 (1993:3). In *Agon*, choreography and music interlock together in rhythmic interplay where mimicry and counterpoint occur in various patterns, accents and meters. Jordan suggests that "The excitement of *Agon* is that shifting and volatile musical/choreographic relationships continually enliven our visual/aural awareness. Our perceptions constantly challenged, in Agon, the dance virtually begins to sound and music to move" (1993:11).

Stephanie Jordan, who was Head of the Department of Dance at Roehampton University at the time, critiqued the composer Hodgins for not being familiar enough with dance (Jordan 1994). Jordan adds to Hodgins' list by suggesting that musical volume can be matched with dance dynamics and not just choreographic gesture. She further suggests that rhythmic patterns can also find their parallel in dance. Jordan offers four categories of imitative and contrapuntal rhythmic relationships between music and dance: (1) duration and frequency, (2) stress and accents, (3) the grouping of sounds or movements through time, and (4) the patterns of tension and relaxation across a work (Jordan 2000:78).

Jordan is more subtle about the parallelism and counterpoint of music and dance. A straightforward observation is that music can be visualised through correspondences in

> …rhythm and form; dynamics; texture, instrumental layout, thick or thin chord structures, or polyphonic/homophonic sound; pitch contour; staccato and legato articulation; timbre, using established associations between a dancer or a particular sex and an instrument or instrumental group; energy pattern, patterns of tension and relaxation. (Jordan 2000:74)

In instances where dance and music may appear to begin and end in the same time, there is often a blurred overlap where the energy of each medium is "awakening and trailing to rest at different times" (2000:78). While there can be a relationship in the duration and frequency of notes and movements, the discrete units of sound can be shaped differently by the four-limbed moving body. In dance, for example, the slowing, delaying, and then catching up seen in rubato can arise from within as well as across individual moves (2000:79). Close inspection of dance movement reveals that impulses can occur at any point during a movement and in numerous parts of the body that decorate step rhythm and add piquancy to motion. Dynamic changes in the volume of a sound can be matched or juxtaposed irregularly or predictably across any number of different muscle groups. Though the physical limitations of dance are greater than those in music, there is a subtle fluidity in the exploration of space that is expressed differently through the body than it is through sound.

2.2.3 Choreomusicology in phenomenology, ethnomusicology and dance anthropology

Over the last two decades, the field of choreomusicology has maintained a low profile. Anthropologists and ethnomusicologists have on occasion noted the importance of the relationship between music and movement but have developed their theory in isolation to the work of musicologists, dance researchers and choreomusicologists. For example, an analysis of the divine link between clowns and music in Beijing opera by Thorpe (2005) offers excellent insights into the use of music as a means of conveying atmosphere and as a part of a complex symbolic sign system within traditional theatre. Thorpe's study is exemplary because it situates choreomusical relationships in Beijing opera with respect to the historical development of music in ancient China. In traditional Chinese theatre,

percussion instruments are used to integrate aural and physical performance modes. To maintain a correspondence between movements and their relative percussive accompaniment, drummers who act as a conductor for the orchestra influence and are influenced by the performance of the actors. Interestingly, when an audience attends Beijing opera, they are said to "listen" (*tingxi)* not to "see" or "watch" the event. While choreomusicology would add to the analysis by evidencing some of the fine-grained connections between music and movement, Thorpe's rich incorporation of cultural and historical perspectives also contributes to research approaches in choreomusicology.

Spiller's (2010) ethnography of dance and live kendang drumming in West Java draws on very little theory from choreomusicology. He does, however, develop some useful perspectives of his own. Exploring the relationship between music and movement in West Javanese dance, ethnomusicologist Henry Spiller finds that Sundanese dance and kendang drumming share an ambiguous dialogue relationship influenced by social relationships (2010). Spiller's entry point into his fieldwork was through the West Javanese music tradition of kendang drumming. For an outsider moving into Sundanese performing arts, starting with music has some logic. Sundanese drummers usually know how to produce both musical sounds and dance movements, but Sundanese dancers may only know how to perform dance. Drumming might be a nice ingress into examining Sundanese dance, but Spiller unfortunately only provides a scant description of dance movement. His rich descriptions of drum patterns are not complemented by vivid portrayals of dance movement. In fact, discussions of movement are introduced with phrases such as "It is my contention…" (p.51), "I imagine…" and "I speculate…" (p.64). The work of Hodgins (1992) among others is not mentioned. In a critique similar to Jordan's (1994) review of Hodgins' book (1992), Spiller's work may be criticized for not giving equal weight to dance movement in his ethnography. Nonetheless, Spiller contributes exceptional insights into the subtle power relationships involved in determining whether the dancer's movements are animated or led by the drumming. Such insights are difficult to access through observing performance alone and require a socially-embedded participant-observer.

The relationship between music and movement in popular Sundanese folk dance traditions such as *Jaipongan* and *Bajidoran* is contingent upon cultural training. The Sundanese people of West Java are exposed to music and dance from an early age and

learn to interpret drum sounds as movement cues "so that the impulse to move in particular ways seems a natural accompaniment to particular drum sounds and patterns" (p. 74). Concurrently, Sundanese dancers become skilled at creating movements that can be animated by the drums. In order to lend their movement to musical imitation, the dancers "must have an understanding of the conventions of drumming and the combination of drum patterns into choreographies" (p. 62). Resident spectators who watch Sundanese dance "participate vicariously, imagining their own bodies moving" (p. 142). Spiller contends that processes of cultural learning predispose "individuals to listen and engage with musical stimuli in particular, predictable ways" (p. 178). West Javanese music-movement relationships, in the first instance, are dependent upon a cultural disposition to associate certain musical sounds with particular ways of moving and typified dance movements with specific musical accompaniment.

Spiller's brief discussion of the rise of cassette recordings in West Java in the 1980s is a pertinent observation about how technology can influence the relationship between music and movement and subsequently alter the repertoire of a dance tradition. On cassette, kendang drum accompaniment is not able to respond in real time to human activity. Recorded music, thus, cannot create an aural analogue to live movement. In Sundanese popular dance, recorded music fixes the field of corporeal potentiality. The tight relationship between sound and movement in Sundanese dance means that when music was recorded it was destined to create predetermined and fixed choreographies. The drum sounds that once led and animated movement, became prescriptive instructions for a delimited range of movement possibilities:

> Cassette owners could listen to these tapes over and over again to memorize the sequence of drum patterns that made up choreographies and then put moves together to go with the drum patterns. In this manner, the most popular jaipongan tunes, along with their choreographies, became canonized. (Spiller 2010: 67)

Jaipongan is a popular genre of West Javanese dance, and cassette music was instrumental in the spread of its popularity. Through other genres of popular dance, Sundanese listeners were already predisposed to understanding drum sounds as signals and signifiers of movement. In this social and historical setting, recorded music was as good as movement notation to the trained ear. The introduction of recording technology may temporarily bias the direction of the relationship between music and dance, but

advances in audio-visual technology may one day create the space for freer interactions between sound and movement.

Coming from a background in dance anthropology, Hughes-Freeland's ethnography of Yogyakarta-style court dance in Central Java (2008) is another study that elides a developing body of literature on choreomusicology. Hughes-Freeland charts the education of sensibilities in the experience of Javanese dance training and examines the commoditisation of court dance as it became unhinged from its socially embedded conditions of practice. Hughes-Freeland evidences rhythmic relationships between music and movement (e.g. pp. 2-3, 35) and acknowledges that melody and sung lyrics transform "text into texture" and are involved, albeit in unclear ways, in "aesthetics, interpretation and sense making in the Javanese court dance" (p.138).

What Spiller lacks in descriptions of movement could be said to be lacking from Hughes-Freeland's descriptions of musical accompaniment. Instruments are labelled and rhythmic changes are mentioned, but the rest is left to the imagination. As someone whose entry point into the field was through learning dance, Hughes-Freeland's bias is understandable given that in Central Java, "musicians usually know more about dance movement than dancers know about music, although dancers have knowledge of drumming patterns" (p. 56). However, with statements such as the "dancer works in relation to the music, rather than being driven by it" (p. 109), and "the movement is not driven by the music, but works in dialogue with it" (p. 239), Hughes-Freeland is touching the tip of the iceberg of a deeper analysis of the relationship between the musicians' sounds and the dancers' movements within particular social, cultural, and political settings.

In his phenomenological study of capoeira, Downey (2002) notes that music does not sound the same to everyone. He demonstrates that social and cultural influences play an important role in the sensual apprehension of music. Downey vividly describes how "culture shapes the way one hears" (p. 490). Cultural experience in capoeira means that practitioners perceive music "with a trained and responsive body, through habits copied from others and socially reinforced, and by means of their own musical skills, arduously acquired and actively engaged in listening" (Ibid.). Capoeira music is seldom heard outside of training or play. In response to hearing the rhythms of the berimbau, "practitioners feel the swaying movements diligently sedimented in corporeal memory

through arduous training either as an outward movement or an inward quickening, a readiness to move" (p. 500). Live music is the preferred option and "recordings of capoeira music are generally listened to actively as pedagogical materials rather than received passively as external sound objects" (p. 498). Unlike Sundanese artists and Javanese dancers, capoeira practitioners are both musicians and movement artists. The rhythms played by capoeira performers on the lead instrument, the berimbau, initiate performance, regulate the interaction of performers, and cue specific events.

In a discussion of embodiment and music, choreomusicologist Stephanie Jordan asserts that the business of dancing to music has implications for a dancer's understanding of the music (2011:58). Conversely, musical accompaniment to dance may have implications for the perception of movement. The observations of Spiller (2010) and Downey (2002) evidence an intimate corporeal relationship between sound and body movement. In West Java, Spiller observed that drum patterns can uncontrollably inspire dance (2010: 32). In Brazil, Downey observed that experienced capoeira practitioners "respond almost involuntarily to the sonic texture" of the berimbau (2002:500). In addition to the intimate physical relationship between bodily movement and musical sound, both Spiller and Downey observed in their respective fieldsites that a disturbance in sound production can for various reasons bring movement to an abrupt halt (Downey 2002a:492; Spiller 2010:32). Spiller's theoretical framework draws upon the work of Becker (2004) who defines a habitus of listening as "a disposition to listen with a particular kind of focus, to expect to experience particular kinds of emotion, to move with certain stylized gestures, and to interpret the meaning of the sounds and one's emotional response to the musical event in somewhat … predictable ways" (Becker 2004:71 cited by Spiller 2010:48). Downey refers to the concept of "somatic modes of attention" defined by Csordas as "culturally elaborated ways of attending to and with one's body in surroundings that include the embodied presence of others" (Csordas 2002:244). The relationship between music and movement, as these authors evidence, is not simply an aesthetic relationship but also a deeply corporeal experience for both the performers and the audience.

Exposure to music and dance developmentally alters the way we perceive and react to future musical and dance events. Psychological experiments have shown that nonmusicians can acquire sophisticated musical knowledge by mere exposure to music in everyday life (Bigand 2003; Frances 1958; Krumhansl 1990; Tillmann, Bharucha &

Bigand 2000; Tillmann 2008). The experience of listening to music influences the perception of musical structures, facilitates the processing of musical expressivity, and allows developing expectations for auditory event processing. Anthropological research has revealed similar processes in dance. Blacking's notion of "bodily empathy" (1977) and Connerton's examination of "habitual memory sedimented in the body" (1989) also become handy for a choreomusicological ethnography. Entrained bodily dispositions influence the relationship between music and dance. Furthermore, intersubjective and intercorporeal experiences continually reshape these dispositions. Psychological experiments together with the work of Blacking, Connerton, Csordas, Downey and Spiller can be productively integrated into a choreomusical analysis of embodied musical and dance practices.

Life experience in an embodied art is undoubtedly more complete than sporadic periods of fieldwork. Elucidating the relationship between music and movement is possible but difficult when an embodied tradition is approached through learning either the music or movement in isolation. For example, Hughes-Freeland's understanding of Javanese court dance was limited to the movement taught to her by her dance teachers, her personal observations of live performances, and her interviews with practitioners. Without learning the music, her understanding of choreomusical interactions was incomplete. In the case of Spiller's ethnography of Sundanese dance, even though he learnt kendang drumming, he did not acquire the same appreciation of movement that he understood his Sundanese colleagues to have. Learning the holistic art of capoeira, Downey was required (and privileged) to learn both aspects of the art and was able to relate field observations and informant sentiments to his own corporeal experience. Ethnography with an orientation towards choreomusical relationships can emerge when the ethnographer gains experience in both musical and movement training.

Ethnomusicologists and dance anthropologists can go further than to simply label the relationship between music and movement in various dance traditions as ambiguous, dialogic, or fixed. Hughes-Freeland, for example, alludes to how the formalization of education in the performing arts can influence the specialization and cross-competency of performers (2008:56). How does formal training in arts academies influence the relationship between music and movement in a dance tradition? This question among others is an important starting point for an holistic overview of the relationship between

music and movement in any dance tradition. From the work of Thorpe, Spiller, Hughes-Freeland, and Downey, as well as the passing observations of other ethnomusicologists and dance anthropologists, we learn that the study of the relationship between music and movement must incorporate a comprehensive study of individual biases, social relationships, historical background, cultural training, technological resources, and perhaps other variable factors that may yet be unforeseen.

2.2.4 A case for choreomusicology

The meanings and interpretations of a combined music-movement performance cannot be extricated from music or dance in isolation, but issue from the two in tandem (Mawer 2006, 112; Minors 2006:118). The relative importance of music and dance and the question of disciplinary dominance exert a profound influence on the collaborative aesthetic executed by musicians and dancers in performance. Within the scope of my own research into practices of combat-dancing in Indonesia and Brazil, choreomusicology was a methodological sensibility that I was still developing in the field but that oriented my attention during fieldwork. I was primarily interested in instances of combat-dancing that featured both human music and movement. This orientation delimited my research. At the same time, I also remained open to events and situations that potentially intersected with the production of combat-dancing events. Martial arts performances without music did not fall into the scope of my research, but where time permitted, I made an effort to survey these practices. Martial arts practices without music did fall into the scope of my research when training was connected with musically accompanied performances. In each genre I studied, I endeavoured to learn both the movement and the musical instruments. I also made efforts to learn how to make the instruments myself. In many instances, learning how to make key musical instruments was imbricated in the physical relationship to the sound. In the end, my research was cobbled together by my ability to become involved in as many experiences as I could that would offer me greater skill and proficiency in the arts I was studying.

2.3.1 Diachronic approach to the relationship between music and movement

Having surveyed theoretical frameworks within which to situate relationships between music and movement, I now turn to ways to conceptualise the heterogeneous construction of these relationships as they come to be realised by any particular community of artists. The relationship between music and movement is variable and reveals characteristics of performance traditions housed in culturally organised social configurations. The direction of choreomusical relationships, the intrinsic interactions, and the extrinsic connections are all a result of creative processes, artistic collaborations, and aesthetic preferences within social and cultural contexts. One way to encapsulate the relationships between music and movement in a performing arts genre is to look at the interaction between sound and gesture in performance. Another way to understand the relationship is to look at how a practice has changed and evolved over time due to social, economic and political forces. To this end, I turn to systems thinking and the theory of degeneracy.

Cultural theorists have often learnt by analogy from the biological sciences in order to model processes of cultural evolution. Overlooking 'degeneracy' has resulted in a one-to-one gene-to-phenotype model being adopted in many models of cultural evolution. Cultural change is not simply the transformation of homogeneous units. The concept of degeneracy, as I will explain, addresses the shortcomings of such models. Outdated models of homogeneous cultural units can be reformulated by looking at the parallels between biological degeneracy and the processes of cultural transmission and transformation. By applying the concept of degeneracy to the notion of cultural traits, we can say something more about culture change than simply "cultural evolution rivals DNA-based evolution in its range and complexity" (Jablonka and Lamb 2007:361). The concept of degeneracy, however, may have eluded cultural theorists up until now because of the unfortunate associations the word 'degeneracy' has come to accrue.

2.3.2 Historical Overview of the Degeneracy Concept

The early Euro-American purveyors of the concept of degeneracy "were not academic laboratory scientists; these were few in number, and as a group poorly equipped to apply and popularize an ideology of deviance" (Nye 1984:xi). Value judgments attached to the word "degeneration" proliferated during a period when deviation was misunderstood and

feared. Traces of early inflections can be found in the 17th- and 18th-century Christian religious circles, which demonstrated growing concern with the "degeneracy of principles" (Sherwill 1704). Hardline religious leaders of the period considered any "departure from the standard" as corrupt, ignoble, and immoral (Willard 1673). A "degeneration" of Christianity was described as "dreadful" (Warne 1739), an "apostacy" (Wilson 1653), and a "Mark of the Beast" (Pelling 1681). A number of threats and fears fuelled anxiety about heterodoxy. In a sermon delivered in 1689 in Massachusetts Bay, Cotton Mather warned against the dangers of "degeneracy," fearing that "colonists may become barbarized, religiously dissolute" (Chaplin 2007:52). These theological takes on the definition of degeneracy were a product of the times, and they no doubt set precedents for other misunderstandings of variation, difference, and diversity.

The negative associations of degeneration may have been catalyzed by the "almost hysterical colonial defense of custom . . . from the late 1500s onward" (Chaplin 2007:51). Cultural reproduction and identity is often exaggerated in expatriate communities. Among the groups of displaced people, the image of homeland becomes static and fixed because it exists only in their memory and imagination. In rebuilding a culture abroad, memory serves as a guide, and any departure from previous cultural integrity can be feared. Among the colonies of the British Empire, for example, the mother country remained their most important cultural reference. In the reproduction of culture, laws, and customs, deviation was shunned. Not surprisingly, negative connotations of degeneration developed alongside the growth of colonial empires. As Chaplin states,

> The early modern English tended to regard changes in custom, religion, and language as evidence of degeneration. Continuity was greatly preferred, whether in pedigree, text, ceremony, or law. Degeneration could take two forms: a fall from an original and pure type, or the accretion of elements from religious or cultural inferiors through the acquisition of pagan rites or barbarian customs. (2007:51)

In 1574, the Spanish royal cosmographer, Juan López de Velasco, used the word "degenerated" in a very strategic way when he came up with a climatic theory to explain the adaptation of the Spanish to different natural and social environments in the New World (Boyd-Bowman 1971:19–20). Velasco wrote that extended stays in these foreign climates would change physical and spiritual attributes: "manners and social intercourse

have degenerated, and affect more quickly those with less powers of virtue; and therefore there has always been and still is much calumny and uneasiness among the people" (quoted by Palmié 2007:68). López de Velasco had used the idea of degeneration to denote degradation. If the colonizing culture was seen as the height of civilization, then any alteration necessarily constituted decay. In some ways, his view of degeneration anticipated a dramatic political and scientific discourse that would ensue in centuries to follow.

However, not all seafarers used the word "degeneration" to criticize non-Europeans. In the Mercure de France published in 1769, Philibert Commerçon, a French naturalist who sailed with Louis-Antoine de Bougainville on board the Boudeuse, offered a description of the society of Tahiti as the state of natural man before it had degenerated into reason. Although Commerçon saw degeneration as flowing from natural to civilized, the fear of the civilized man degenerating into savagery was to become more prevalent.

In 1748, the groundwork for a theory of degeneration was laid out in a book, *Relación histórica del viaje hecho de orden de su Majestad a la América Meridional* (*Historical Treatise of the Trip to Southern America Done by Order of his Majesty*), by a Spanish naval officer, Don Antonio d'Ulloa. D'Ulloa's thesis, which influenced the ideas of later thinkers such as Lamarck and Buffon, contended that "the human condition in the Americas was degenerate[d] as a result of a long history of colonialism, slavery, exploitation of natural resources and subjugation of the native peoples" (Thomson 2008:200).

Degeneration, as a theory of nature, was first brought to the sciences by Georges-Louis Leclerc, Comte de Buffon, a well-known and influential writer of the natural sciences in the Age of Enlightenment (see Figure 2.1). Buffon believed that in nature only individuals exist and, unlike Linnaeus, he did not consider the species as a collection. For Buffon, species were those organisms whose sexual propagation produced only their kind. In contrast to the classificatory system of Linnaeus that grouped animals by "broad and variable characteristics" (Koerner 1996), Buffon understood nature as an "unbroken continuum of individuals" (Sloan 1976). According to Buffon (1749:10a–b) the classes that Linnaeus imposed were imaginary because "it is impossible to give a general

classification, a perfect systematic arrangement, not only for Natural History as a whole, but even for a single one of its branches."

Figure 2.1: A statue of Georges-Louis Leclerc, Comte de Buffon, in the Jardin des Plantes in Paris, France. (Photo by Paul H. Mason, 2010).

Buffon explained some of the variability he saw in nature as a product of degeneracy. As a creationist, Buffon believed that all animals descended from early prototypes originating from a centre of creation to which they were ideally suited. Degeneration over successive generations allowed for the emergence of different races of animals, all from a single rootstock, whose preferred habits over time variously affected their distribution. He also argued that species must have degenerated after climate change and the activities of mankind spread those species away from an origin of creation. The term "degeneration" was employed to describe the bodily changes manifested in migrating populations who had abandoned their ideal environment for new and more difficult habitats.

In the fifth volume of his 44 volumes of natural history, Buffon drew comparisons between wild animals in Europe and the New World, as well as domesticated animals exported to the New World. He reported that such animals had degenerated and were smaller. Buffon believed that race was pliant, inflected by the conditions of the

environment. For example, he regarded Native Americans as a degenerative variety of humans. Buffon made claims based on incomplete and imperfect data from abroad, and Eurocentrism dominated his ideas about degeneracy. His perspective was a response to the growing technological, military, and economic might of Europe, which, together with the devastating impact of Eurasian disease in the New World, only contributed to an impression of racial supremacy. While Buffon's concept of species is much closer to the modern than Linnaeus', Buffon's theory of degeneration met with intense controversy. As a scientific hypothesis, degeneration attracted vehement opposition from people living in the New World, most notably from Jefferson (1982), who, among his many rebuttals, published a challenge to Buffon's ideas in 1787.

In volume 14, Buffon observed that despite similar environments, different regions have distinct plants and animals. Variations, in Buffon's opinion, were more likely a consequence of degeneration than specific adaptations (David and Carton 2007). His ideas brought special attention to the definition of species and the issue of intra-specific variability, something his scientific successors were left to tackle. Despite certain limitations, Buffon did provide some remarkable insights for his time. His concept of the degeneration of species had a considerable influence on the thinking of later writers on natural history such as Darwin and Lamarck and was echoed in the works of Anton Dohrn and Edwin Ray Lankester.

Around the same time that Darwin published *On the Origin of Species*, the French psychiatrist Benedicte A. Morel (1809-1863) put forward his definition of degeneracy as, "a morbid deviation from an original type" (Morel 1857:5). While Buffon had believed that the simple physiological alterations of degeneration did not transform human nature, Morel argued that biological alteration entailed ontological mutation (Pick 1989:60). Morel's (1857) theory of degeneracy constituted the first total etiologic theory of madness that made it possible to insert psychiatry within the framework of medicine (Schweitzer and Puig-Verges 2005). His theory functioned almost like dogma until World War I (Postel 1998). In 1974, Foucault (2006: 222) labeled Morel's concept of degeneration as "great" but "unfortunate." He distinguished degeneration from the Theory of Evolution in both conception and 20th-century interpretations. Foucault (2006) notes that it was Magnan (1893) who coupled Morel's theory with the notion of evolution and introduced a reference to the neurological localization of the degenerative process.

Inspired by Morel's work, a German journalist, philosopher, and practicing physician, Max Simon Nordau (1849-1923), rendered the concept of degeneracy fashionable in his widely translated book, *Entartung* ([1892] 1968), published in English as *Degeneration* (1895). According to Nordau ([1892] 1968: 22), degeneracy was a mental and social disease where the individual is "incapable of adapting himself to existing circumstances. This incapacity, indeed, is an indication of morbid variation in every species, and probably a primary cause of their sudden extinction." Nordau's interpretation of degeneracy was profoundly tainted with conventional ideas of order and disciplined progression typical of the late 19th-century European middle class. Entartung captured significant public attention and was celebrated in some circles (Pick 1989: 25). The book was a sensation in Germany, quickly translated into French, ran into seven editions in six months in America and England (Greenslade 1994:120), and went through as many editions in Italian as it did in the original German (Mosse 1968:xiv). The book was only a short-lived sensation though (Mosse 1968:xv). Nonetheless, Nordau's interpretation of degeneracy persisted in Western society (Mosse 1968:xxxiii).

Contemporaneous to Nordau's Entartung were the less celebrated works of Anton Dohrn (1840-1909), founder and first director of the *Stazione Zoologica*, Naples; and Edwin Ray Lankester (1847-1929), Fellow of Exeter College, Oxford. In 1875, Dohrn proposed "the hypothesis of Degeneration as capable of wide application to the explanation of existing forms of life" (Lankester 1880:29). According to Dohrn's hypothesis, forms diverge and become functionally degenerative, life evolved through a kind of metamorphosis of nature, and certain forms were thought of as degenerating groups (Breidbach and Ghiselin 2007:175). In his book, Lankester (1880) stated that Dohrn's hypothesis deserved recognition and merit and so presented his own detailed analysis showing the loss of certain anatomical structures and their modifications in animals. Modified organisms, according to Lankester (1880: 39), were "degenerate descendants of very much higher and more elaborate ancestors." Lankester (1880) understood natural selection to act on the structure of an organism, to keep it in status quo, or to increase or diminish the complexity of its structure. His descriptions alluded to a hierarchical understanding of the animal kingdom as opposed to the intricately interconnected ecology that we now understand it to be. At the time of their work, Dohrn's and Lankester's positions were unsurprisingly anthropocentric and still displayed influences of religious thought. Dohrn's

propositions suggested that all animals were really degenerate descendants of an originally perfect humanity, and Lankester (1880) suggested that degeneracy should be defined as a return from complexity to simplicity (Pick 1989:173). Their perspectives unified an understanding of evolutionary change with an assumption of initial perfection. Change or variation was necessarily a degradation. This pre-modern constellation of concepts led to our enduring popular understanding of degeneration.

Dohrn's and Lankester's explanations were steeped in the world views of their time. The subsequent work of American medical and dental practitioner Eugene S. Talbot consolidated this interpretation. In Talbot's 1898 book, *Degeneracy: Its Causes, Signs and Results*, he associated degeneration with contagious and infectious diseases, destructive behavior, toxic agents, unfavorable climate, mental decline, consanguineous and neurotic intermarriages, juvenile obesity, impure food, arrested development, skeletal anomalies, sensory deterioration, paranoia, hysteria, idiocy, and one-sided genius, as well as social parasitism, moral degradation, and cultural demise (Patrick 1899). All social ills were degenerations from a presumed ideal. By the end of the 19th century, despite the best efforts and expressed desire to resolve the conceptual questions, degeneracy was not successfully reduced to a fixed axiom or theory (Pick 1989: 7).

While Buffon (1753) had suggested that we may be driven to admit that apes are a degenerate man with whom we share a common ancestor, in 1901 the American logician Charles Sanders Peirce (1839-1914) predicted that one day a writer would describe man as a "degenerate monkey" (1979:17–18). A quarter of a century after Peirce's prediction, that writer appeared. Lodewijk Bolk (1886-1930), an anatomist and founder of modern physical anthropology in the Netherlands, read a paper before the 1926 meeting of the Anatomical Society in Freiburg entitled "The Problem of Human Development" (see Weyl 1959; Baljet 1997). In his paper, Bolk detailed his retardation theory, claiming that humans are a "degenerate monkey" incapable of normal development and an obstacle to nature (Chwistek and Brodie [1948] 2000: 5). The proposition was met with considerable opposition by Bolk's contemporaries, but today evolutionary theorists of human neoteny support a sympathetic position (e.g., Gould 1977; Shaner and Hutchinson 1990; Verhulst 1999; Deacon 2010). Recently, sociologist Halton (2008) revived Peirce's phrase, "degenerate monkey," to emphasize that we are prematurely born with few developed

instinctive capacities that require socializing attunements over a prolonged period of development before we reach maturity.

By the middle of the 20th century, Richard Dunlop Walter (1921-1986) from the Division of Neurology, University of California, Los Angeles, noted the neglect of degenerate processes (Greenslade 1994: 11). "The Phenomena that degeneracy attempted to explain are still of great current interest and far from completely understood . . . . Any concept that has been used for explanations in so many connections probably deserves interest" (Walter 1956: 429). More than 50 years later, especially in the light of genetic evidence, Walter's suggestion has become even more imperative.

Walter was likely unaware of a novel contribution to genetics being made by his contemporary George Gamow (1904-1968), a Ukrainian-born American scientist, mathematician, and theoretical physicist who introduced a "new idea" in 1954 to molecular biology and genetics (Crick 1955). Gamow played a key role in decoding the genetic script. This script is composed of chromosome fibers made up of deoxyribonucleic acid (DNA), and has a central role in building proteins out of amino acids. After learning that DNA consists of only four different kinds of nucleotides (Watson and Crick 1953), Gamow suggested that some amino acids were recognizable by two or more different nucleotide triplets (Figure 2.2). The coding of amino acids by more than one nucleotide triplet is called degeneracy. Gamow's description of degeneracy offered an explanation as to how the 64 triplet codons of the four bases in DNA were able to specify 20 odd amino acids (Woese 2001). Gamow's original idea became an essential feature of the final solution to the coding problem of DNA (Harper 2001). What Gamow and his contemporaries may not have realized is that degeneracy at other levels of complexity may be just as important in phenotypic evolution as degeneracy at the nucleotide level (Lynch et al. 2001). By describing degeneracy as the way different configurations of biological structures can produce the same outcome, Gamow had stumbled upon a crucial component for understanding the processes of natural selection. When there are structurally different features that have the same function, selection can sort these structures differentially.

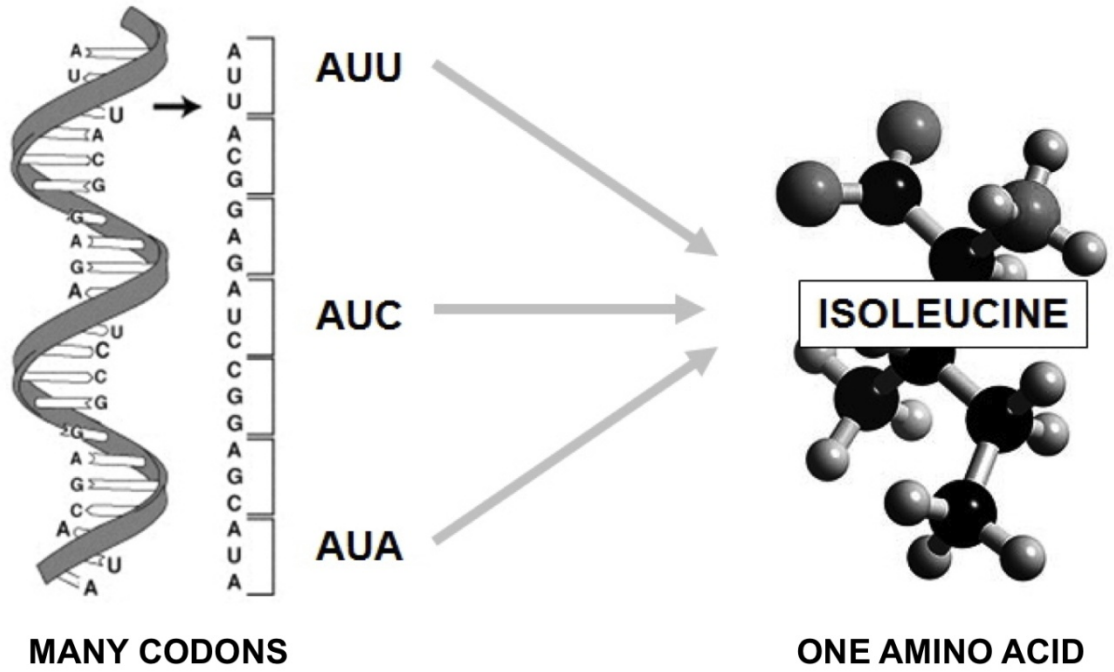

Figure 2.2: In genetics the term "degeneracy" describes a scheme where several different base sequences (i.e., two or more different nucleotide triplets) can code for one amino acid. In this example, Adenine (A), Uracil (U), and Cytosine (C) in different combinations can code for the amino acid Isoleucine.

Austrian physicist Schrödinger (1944) paved the way for Gamow to think of chromosome fibers as being a code-script (Doyle 1997: 41), and Gamow, in turn, laid the foundation for the genetic code to be understood as degenerate. The concept of degeneracy in physics is a value-free term, but when the term was imported into biology it became reunited with a great deal of historical baggage. This historical legacy has unfortunately prevented theorists from engaging with an important concept in evolutionary theory.

2.3.3 A Value-Free Scientific Definition of Degeneracy

> Trop de spécificité nuit gravement à la survie, car elle réduit l'adaptabilité. Pour remédier à cette specialization, des molecules ou des cellules reconnaissent un éventail de cibles: elles sont dégenérées. (Atamas 2005:39)[3]

The concept of degeneracy introduced into the biological sciences by George Gamow is operational and neutral. A living system exhibits degeneracy if it contains different structures that can perform the same but not necessarily identical function in a particular context. A system's ability to perform the same tasks by different mechanisms prevents unbearable fluctuations and the propagation of cascading failures (Csermely 2004). In a

[3] Translation: "Too much specificity goes seriously against survival, because it reduces adaptability. In order to remedy this specialization, some molecules or cells recognize a range of targets. These molecules and cells are degenerate."

dynamic self-organising system, there has to be a compromise between the over-stabilisation of networks and the noise within and between various networks. As Atamas (2005) suggests in the epigraph, too much specificity goes seriously against survival, because it reduces adaptability. In order to remedy this specialization, some molecules or cells recognize a range of targets. These molecules and cells are degenerate. For example, dissimilar genes can produce the same developmental output, unrelated populations of neurons can subserve the same behavioural task, and different patterns of muscular contraction can yield similar movements.

In the biological sciences, degeneracy is characterized by the presence of structurally different, functionally similar variants integral to processes of selection. Degenerate components have a structure-to-function ratio of many-to-one. In the brain, for example, different populations of neurons (i.e. many structures) in response to identical external stimuli (i.e. matching context) can produce similar behavioural responses (i.e. same function) (Noppeney, Friston and Price 2004). With changes in context, the elements of a system might change function in which case they are described as pluripotential with a structure-to-function ratio of one-to-many. A gene involved in the transformation of healthy cells to cancerous cells in humans, for example, can also play a role in placental growth in the three-toed skink (Murphy 2010). Pluripotentiality is the complementary counterpart of degeneracy (Noppeney, Friston and Price 2004). In the immune system, for instance, degeneracy of antigen receptors enables any single epitope to activate many different lymphocyte clones, and simultaneously any single lymphocyte clone is able to recognize many different epitopes (Cohen, Hershberg and Solomon 2004). Tieri et al. (2010), borrowing a term from Csete and Doyle (2004), refer to the overlap between degeneracy and pluripotentiality as a bowtie. Many inputs funnel into a thin knot of interlocking networks and subsequently many corresponding outputs fan out. Diagrammatically the coupling of degeneracy and pluripotentiality can be represented with the shape of an hourglass or a bowtie. The prime example of a bowtie is the transcription and translation of DNA to proteins. A large variety of genes produce a few universal polymerase modules—the 'knot' of the bowtie—and a large variety of proteins result.

New directions in the evolution of an organism start with a population of variably responsive, developmentally plastic mechanisms (West-Eberhard 2003). As a mechanism

of intraspecific variation, degeneracy contributes to evolvability through processes that are not immediately adaptive. As a result of competition for resources, the interaction of degenerate repertoires with selective constraints gives rise to self-organisation (Atamas 1996). Mathematical modelling has revealed that a population of degenerate systems spontaneously manifest self-organisation patterns that do not mirror incoming signals (*Ibid.*) or the distribution of resources (Atamas and Bell 2009). In other words, degeneracy offers an alternative to adaptation in explaining the features of an organism. Not every trait is an adaptation to the environment that it currently inhabits; or put another way, not all traits were necessarily selected for their current function. Incorporating degeneracy into the study of complex systems brings attention to the many ways that variation can arise while maintaining organism function.

Darwin, from as early as his time in the Pacific, pondered how different biological structures could serve the same function (McCalman 2010: 20), but he did not use the word "degeneracy" to describe the structural diversity underlying function. He did, however, recognise that isofunctional structural diversity played a role in selection. He noted, "competition will generally be most severe between those forms which are most nearly related to each other in habits, constitution, and structure" (Darwin 1859:chapter IV). By acknowledging structural diversity in this way Darwin oriented his readers towards environmental pressures and the consequences of competition between functionally similar characters.

Degeneracy arises most freely within ecological spaces where there are no immediate functional consequences. If a trait is favoured by selection, then the threshold for its production is lowered and its frequency in the population is raised. Redundancy reduces the selective pressures on any one redundant copy of a trait. Under these conditions, a redundant element is free to accumulate structural changes without loss of the initial function. Eventually these degenerate copies may accumulate sufficient changes to functionally diverge. Alternatively, functional divergence may be driven by a change in context. If a degenerate element enters into a related interaction relationship with a duplicate counterpart, then selective processes can be re-introduced and act upon deleterious or synergistic interactions (Deacon 2010). When more than one element can respond to environmental conditions, degeneracy of interaction with the environment

leads to competition "not only between exactly similar but also between similar yet diverse elements of the repertoire" (Atamas and Bell 2009:1350).

Degeneracy is a precondition of selection (Edelman and Gally 2001; Tononi, Sporns and Edelman 1999), and has been found to be an essential property of evolutionary systems (Whitacre 2010; Whitacre and Bender 2010). An alteration in the form or structure of a functional component that may allow for the later elimination of that component is a prerequisite for the processes of selection. Selection between elements that are structurally and functionally identical is primarily determined by their location with respect to environmental resources. Selection between structurally different elements in the same location is determined by their ability to perform tasks that enable them to capitalise upon available resources. Processes of selection act to positively or negatively dissipate innovations. Selection infers the preservation of some innovations and the elimination of others. Selective systems have a great number of elements that respond each at varying specifities to incoming signals (Atamas 1996:144). In other words, environmental influences can act upon specific elements as well as populations of "degenerately responding, possibly less specific, elements" (Atamas and Bell 2009:1350). Degeneracy means that natural selection acts not only in evolution but also in ontogenesis by sorting stochastic degenerate interactions at multiple levels of complexity (Kupiec 2010). Mathematical modelling has shown that competition for resources by degenerate repertoires is a mechanism of self-organisation that can also explain evolutionary branching (Génieys, Volpert and Auger 2006). In many ways, the inclusion of degeneracy in biological theory answers the call of West-Eberhard to "change the way biologists think about the origins of organic diversity" (1986:1388).

Evidence suggests that degeneracy fundamentally contributes to robustness, complexity, and evolvability (Whitacre and Bender 2010). In biological systems, the loss of a genetic component can be compensated by redundant elements (the presence of other identical components), or by degenerate elements (structurally different components that perform the same function with respect to context). The presence of degeneracy means that selection is no longer a forced event between functional and non-functional traits, but between two different types of functionally similar traits. In terms of selection, "it is the end result that is selected, not the pathway" (West-Eberhard 2003:497). Permutations of structure that recurrently lead to the same end-point provide a selective repertoire of

flexible mechanisms with variable specificities. With these degenerate mechanisms of organisation, selection is able to act differentially upon two or more structurally distinct traits that can fulfil the same role within specific contexts. In a biological system, degeneracy can be determined by deleting an element and observing if its deletion is accommodated by a net-flux of the system.

The biologically useful definition of degeneracy refers to how systems are coded or mapped (Levine 2004). Degenerate components have a structure-to-function ratio of many-to-one (e.g., Figure 2). Degeneracy is often confused with redundancy, which occurs when the same function is performed by structurally identical elements. Redundant elements are duplicate copies that have a structure-to-function ratio of one-to-one. Unlike redundant elements, degenerate elements can be pluripotential, and produce different outputs under diverse conditions. Degenerate elements may share the same function, but unlike redundant elements, they do not share the same overall structure, so they increase complexity and robustness in a system. The function of degenerate components is not easily deleted from a system because the function is distributed among a population of dissimilar structures (see Table 2.2).

		Context independent	
		redundant	**(unspecified)**
Context dependent	**degenerate**	isofunctional	nonisomorphic
	pluripotential	isomorphic	nonisofunctional

Table 2.2: Degeneracy is observed in a system if there are components that are structurally different (nonisomorphic) and functionally similar (isofunctional) with respect to context. In contrast, redundant elements are isomorphic and isofunctional regardless of the context. Degenerate components can also be pluripotential because they can change their function according to context.

Trait selection requires more than one structure from which to select. The presence of two or more different ways of doing the same thing or encoding the same information is crucial for an evolutionary system. This degeneracy means that an organism can vary without compromising function. It creates the potential for variation and ensures the organism against perturbations. In addition, it installs greater pluripotentiality underlying

functional continuity for future deployment. As the system evolves, it can become less fragile in the face of its own variation. Degeneracy creates a surplus of structures for later exaptations.

Without degeneracy, there can only be selection by competitive elimination. If a function is subserved by identical structures, then this function is either preserved or eliminated by selective pressures. Constantly removing variation from a population through changes in context and selective pressures would inevitably lead to the extinction of redundant variants. The accrual of intraspecific variation through the presence of different isofunctional structures provides robustness and allows a system to be maintained far-from-equilibrium. Thus, degeneracy is necessary for the operations of variation and selection in complex organisms (Tononi et al. 1999; Edelman and Gally 2001). Degeneracy is one of the inescapable mechanisms of natural selection that is essential for the evolutionary process.

Selectional systems would be likely to fail without degeneracy (Edelman 2006a: 33). Formerly, researchers had difficulty explaining how backup properties could be exposed to selection pressures and favored to spread in populations (Frank 2003). Only recently have researchers been able to understand how degeneracy has been selected (Thomas 1993; Brookfield 1997; Nowak et al. 1997; Dall and Cuthill 1999; Woollard 2005). Living systems have no a priori design on how to survive, and selection has no way of assigning responsibility to particular gene loci. Degenerate systems are maintained and favored because, in general, different gene networks contribute to each phenotypic feature (Tononi et al. 1999; Green et al. 2006). In different contexts, a degenerate system has the potential to produce different outputs and thus exhibits adaptability in the face of changing and novel environmental demands.

The revised 21st-century scientific definition of degeneracy has been used most prominently in Edelman's theory of neuronal group selection (Edelman 1987). The brain is a "selectional system in which huge repertoires of variant circuits arise dynamically within the connections provided by neuroanatomy" (Edelman 2006b). The developing brain possesses an initial oversupply of neurons. The combinatorial possibilities, which exist within and between neuronal groups, are a source of variation that allows the processes of selection to operate. Those neuronal groups that can perform the same

function without sharing the same underlying structure are degenerative. The example of a neurological lesion that appears to have little effect within a familiar context reveals the presence of a degenerate backup system (Tononi et al. 1999). Degeneracy contributes to the overall complexity and robustness of a system and requires a certain level of functional redundancy to be operational. The existence of degeneracy has been identified at various levels of complexity; from the cellular and molecular (Edelman and Gally 2001; Cohen et al. 2004), to the genetic (Goodman and Rich 1962; Reichmann et al. 1962; Weisblum et al. 1962; Barnett and Jacobson 1964; Weisblum et al. 1965; Mitchell 1968; Konopka 1985; McClellan 2000; Gu et al. 2003), neural (Edelman and Gally 2001; Noppeney et al. 2004; Leonardo 2005), and cognitive levels (Price and Friston 2002; Friston and Price 2003; Edelman 2004; Noppeney et al. 2004).

Taylor's (2001) extensive analysis of distributed agency within intersecting ecological, social, and scientific processes is a notable example of degenerate dynamics. Taylor (2001) discusses the heterogeneous construction of three different systems and explains them as contingent outcomes of intersecting processes. He takes up developmental systems theory, themes of historical contingency and distributed control in a broad analysis of the heterogeneity of developmental interactants.

Taylor first sketches an explanation of acute depression in working-class women in London from a body of research initiated by Brown and Harris (1978 & 1989). Taylor demonstrates that the underlying factors that explain the onset of acute depression in working-class women take their place along the multistranded life course of each individual (Taylor 2001:314). In a society in which women are expected to be the primary caregivers for children, the different kinds of causes and their interlinkages include but are not limited to: the loss of, or prolonged separation from, the mother when the woman was a child; a severe, adverse event in the year prior to the onset of depression; the lack of a supportive partner; and persistently difficult living conditions. These intersecting processes can contribute to the heterogeneous construction of acute depression at a particular time. Taylor also highlights that the origins of depression are founded upon a variety of different arrangements of biological influences, social structures and cultural expectations over time. For treatment, Taylor promotes a multi-pronged approach where counsellors, social workers, and social policy makers among others can all view their engagement as interlinked, with no particular agent offering a complete solution on their

own. In the construction of depression, there are alternative routes to the same end. Outcomes are not endpoints but snapshots of ongoing engagements between intersecting processes. Elements imbricated in one construction process are implicated in many others. From Taylor's description, the situation of acute depression in working-class women in London can be conceived of as a degenerate system. The net flux of a variety of interacting elements in multifarious arrangements can give rise to the same psychological condition of depression.

The second situation that Taylor describes is soil erosion in a mountainous agricultural region near San Andrés in Oaxaca, Mexico, after the Spanish conquest (1519-1521) and after the Mexican revolution (1910-1920). The soil erosion after the Spanish conquest was traced to the decline of the indigenous population from disease. The indigenous communities moved down from the highlands and abandoned their terraced lands which subsequently eroded. Over time, the populations recovered, the terraces were re-established and the soil dynamics were stabilised. However, the new landscape transformation required continuous maintenance and introduced the potential for severe slope instability. Furthermore, the maintenance of the terraces was performed by collective institutions of Indians who were now reliant upon economic relationships through rich Indians to outside markets. The power of the rich Indians was removed during the Mexican revolution, and the Indian peasant labour dwindled due to migration to industrial areas. Additionally, the peasant communities were no longer insulated from labour saving technologies and erosive activities such as goat herding were taken up. Traditional political authority had been undermined, and the collective institutions collapsed as the communities became more economically permeable. As a consequence of all of these events, the terraces began once again to erode. This time, soil erosion involved elements as diverse as the local climate and geomorphology, social norms, work relations and national political economic policy. Intersecting processes operating at different spatial and temporal scales all contributed. The sequences of multiple causes that gave rise to soil erosion at two different periods evidences the existence of degeneracy in socio-environmental systems.

Using the same analysis applied to understanding depression and soil erosion, the third case that Taylor discusses is his own experience of scientifically modelling projected farming practices in the face of soil salinisation in the Kerang region of Victoria,

Australia. Taylor himself was involved in modelling the mix of farming activities that would produce the best outcomes to local farmers in 1978-1979 (Ferguson, Smith & Taylor 1978, 1979; Taylor 1979). The creation of the model drew upon data on soil quality, expected crop yields, range of farm sizes, but was also influenced by the computer packages available, the technical assumptions used in the linear analysis, the power plays between different agents in the project, the terms of reference set by the ministry of the state government, and so on. Reflecting on the diverse components that went into the model, Taylor believes that the creation of such models should have included multi-objective economic viewpoints; discussions with agricultural policymakers interested in the successful implementation of the data; and sociological studies of how people act, interact and change. Taylor's reflections lead him to propose that the processes of science, just like processes involved in bio-cultural and socio-environmental systems, are heterogeneously constructed. Science, according to Taylor's observations, is an ongoing process of building from diverse components. His proposition supports the idea that science is the cultural extension of the biological processes of natural selection (Blakemore 1977).

Taylor's accounts of intersecting processes at the environmental, biological and cultural level contrast with explanations that focus on an individual factor, a localised cause or a single dynamic process. His approach discounts both exclusively top-down and bottom-up accounts of phenomena in favour of models that include both bottom-up and top-down processes with intermediate complexity. Agency in a heterogeneously constructed system is distributed. The influence of each factor on the overall outcome of the system can vary according to context.

Taylor's framework has importance for a broader theory of evolutionary processes that operate at multiple levels of complexity, from genes, to nervous systems and culture. When Taylor describes the composite of past conditions that contribute to the onset of depression, he is also demonstrating a variety of degenerate pathways that can lead to depression in a specific cultural context. When describing the various interplays of biological, ecological, social, political and economic engagements that can lead to soil erosion in the same place at two different times, Taylor is similarly providing an example of two degenerate assemblies of conditions sufficient to produce the same outcome. What Taylor calls heterogeneous construction in these bio-cultural and socio-ecological

systems can also be labelled degeneracy. Just like scholars of degeneracy, Taylor identifies that the contingent intersection of different processes in a structural network ensures ongoing change and restructuring. Organisms give rise to descendants that differ from them because structure is subject to contingent events leading to differentiation. Taylor not only provides us with a framework to conceptualise the ongoing dynamics of a degenerate system, he also outlines the distributed agency of science-in-the-making that influences our understanding of the intersecting components of a degenerate system. The history of the use of the term degeneracy, for example, is not linear, but followed many trajectories which have collectively contributed to a bad reputation in popular culture and an increasingly overlooked part of scientific knowledge and theory.

Taylor's framework is an operational conceptualization of the ongoing dynamics of a degenerate system. In biological sciences, the amplification and preservation of structural duplication is understood to increase long-term opportunities for the evolution of new gene functions (Force *et al.* 1999). Redundancy creates the opportunity for variation to arise. The function of the original structure is maintained by one copy, while any other copy is free to diverge functionally. A second avenue for degeneracy to emerge is through parcellation, where an initial structure is subdivided into smaller units that can still perform the initial function and can also be functionally redeployed (Budd 2006:617). A third avenue of degeneracy is through synergistic structures that perform a function in combination (Budd 1998). If one structure is able to perform the initial function independently, the other one is open to modification. A fourth form of degeneracy can occur when two independent structures converge upon the same function, eventually allowing a shift in either structure, provided the necessary function is maintained (e.g., Budd 1999). In summary, once essential functions are in place, the least constrained structures can change.

Degeneracy is increasingly recognised to be a distributed property of complex adaptive systems including genetic codes (Frank 2003), immune systems (Cohen, Hershberg and Solomon 2004; Fernandez-Leon, Acosta, and Mayosky 2011), respiratory network regulation of blood-gas homeostasis (Mellen 2010), human movement (Mayer-Kress, Yeou-Teh, and Newell 2006), and cognitive neuroanatomy (Noppeney, Friston and Price 2004; Figdor 2010). However, the term is still not extremely well known in evolutionary biology. For example, structurally different but functionally similar components are often

mislabelled as redundant, a term that actually refers to structurally and functionally identical structures. In many circles of science, degeneracy has been hidden in plain sight (Edelman and Gally 2001), commonly overlooked because of a reductionist bias (Atamas 2005; Whitacre 2010), and ignored because the term itself is misleading (Mason 2010a). Although the concept of degeneracy has offered the solution to the coding problem of DNA (Crick 1955), the importance of the concept outside the biological sciences has yet to be fully appreciated. Anthropologists, for example, recognize that the key to understanding human cultural diversity is the study of how cultural traits persist and change over time (Mulder, Nunn and Towner 2006), but they have neglected to discuss the processes of degeneracy in the transmission and transformation of cultural traits. At the cultural level, degeneracy can be determined by comparing the activities of a community at different times or through a cross-cultural comparison of comparable activities in two different but contemporaneous societies. The presence of degeneracy at the cultural level can be ethically demonstrated using observational data and ethnographic documentation. Degeneracy, once characterized at the cultural level, is a potent analytical tool that assists an understanding of diversity in human cultures.

2.3.4 Incorporating degeneracy into a definition of cultural traits

The technical definition of degeneracy has not hitherto been integrated into models of cultural evolution. Incorporating degeneracy into discussions of culture change may provide conceptual tools to investigate various processes involved in intra- and inter-cultural diversity. Furthermore, the degeneracy concept may assist a better understanding of historical change, genre transformation, and the transmutation of cultural traits. The idea of cultural traits has been used to get a theoretical handle on key questions about humans, societies and cultural systems. Operationalising cultural traits as degenerate allows for a less reductionist and more integrative approach.

Early anthropologists like E. B. Tylor, Franz Boas, Clark Wissler, and A. L. Kroeber among others, referred to cultural traits as the basic analytical units of cultural transmission (Lyman and O'Brien 2003). Julian Steward (1955) and Leslie White (1959) situated traits within a rich theoretical framework where all aspects of culture are understood as integrated and mutually interacting. Later theorists from various disciplines played with ideas like "the selection of ideas" (Monod 1964:208-209), "memes" (Dawkins 1976), "culturgens" (Lumsden and Wilson 1981), and pseudoparticulate

“traits” (Cavalli-Sforza and Feldman 1981; Boyd and Richerson 1982; Chen et al. 1982; Pulliam 1982). Other theorists, like Daly (1982), argued that the population genetic analogy employed by these theorists was weak and ultimately failed because the particles underlying culture are not segregated, traits are not immutable, and cultural transmission is not necessarily replicative. The fact that discussion of cultural traits has not been widely accepted by anthropologists has led scholars like Tim Ingold to be under the impression that “most anthropologists abandoned the language of cultural traits half a century ago” (Ingold 2007:16).

By the end of the twentieth century, no explicit theoretical concept of cultural trait had been articulated by evolutionary theorists (Lyman and O’Brien 2003). Even after the turn of the century, Mesoudi, Whiten & Laland (2006) were criticised for using the term “cultural trait” twenty-seven times without defining it (Fuentes 2006; Ingold 2007). Then in 2008, Mesoudi and Whiten vaguely claimed that cultural traits "vary across and within individuals and groups" and include "beliefs, attitudes, skills, knowledge, etc." (2008:3489). The absence of a clear definition has meant that theorists have lumped together “diverse elements that may not share common structural components or patterns of heritability” (Fuentes 2006:354) and that cultural traits as units of analysis have “varied greatly in scale, generality and inclusiveness among ethnographers” (Lyman and O’Brien 2003:225). If cultural traits are simply defined as a single song, a particular hairstyle, or the QWERTY keyboard, then we risk neglecting the manifold ways these behaviours, aesthetics, and artefacts are produced. As music and dance remind us, methods of production are subject to change as well as the products themselves.

Learning by analogy, Lyman and O’Brien (2003) were the first to unambiguously adopt a biological model where there is no one-to-one correspondence between a gene and a somatic character, and where phenotypes are polygenic and pleiotropic (2003:243). Lyman and O’Brien discuss the concept of “recipe” forwarded by Krause (1985:30-31), Schiffer and Skibo (1987:597), and Neff (1992:160). Krause (1985), Schiffer and Skibo (1987), and Neff (1992) all use the notion of “recipe” to discuss ceramic artefacts. Lyman and O’Brien find the recipe concept useful because it recognizes that what is being transmitted is both a process with malleable instructions and a product with variable results. A recipe requires a time, place and duration for execution. Furthermore, a recipe is contingent upon ingredients, tools and agents. The term “recipe” in its fullest sense captures the heterogeneous construction of activities, events, and artefacts, and recognizes

that cultural traits need not be prescriptive, immutable or segregated. Lyman and O'Brien add that recipes can be dissected into smaller parts or put together with other recipes "to form a metaphorical menu" (2003:245). The recipe concept fits well with an example used by Sperber and Hirschfeld (2007) in a discussion of the causal chains of culture. Sperber and Hirschfeld describe the cultural transmission of preparing mayonnaise. Learning how to cook does not entail the replication of knowledge but the conversion of that knowledge into behaviour. Furthermore, knowledge of cooking comes from having been able to follow several recipes. Any particular recipe is a path to knowledge that can be converted into behaviour only if the instructions are situated within a familiar field of activity. To cook is not to replicate a pre-existing recipe, but to interpret instructions according to available resources and present circumstances.

The recipe notion promoted by Lyman and O'Brien (2003) has been recently adopted by O'Brien, Lyman, Mesoudi and Van Pool (2010). As an encompassing term that can be defined at different scales, recipes are large, nested ideational units "with any given product being a more or less imperfect empirical manifestation of a recipe as a result of variation in raw materials, manufacturing skills, and so on" (2010:3802). The notion of recipe applies equally well to music and dance, which are both cultural activities that are decomposable into perceptually discrete units and potentially additive into entire repertoires. Whether making ceramics, playing with musical instruments, or improvising movement, rules and ingredients can be reconfigured to form novel recipes and innovative products (that may or may not leave a material trace) (O'Brien, Lyman, Mesoudi and Van Pool 2010).

The theoretical issues addressed by the recipe concept are similar to the technical issues addressed by systems theorists in the modelling of degeneracy. Cultural recipes can be understood as degenerate because they are structurally diverse, functionally plastic and context-dependent. If we turn to mathematical modelling of degenerate systems (e.g. Atamas 1996; Atamas and Bell 2009), then degeneracy also factors in the divergence of traits into subpopulations and the spontaneous self-structuring of degenerate repertoires into distributions inconsistent with the available resources in the environment. Turning to the study of human expressive systems, twenty-first century models of degeneracy are useful to conceptualise the diverse recipes of music and movement that constitute diverse genres of combat-dancing. Traits are not homogeneous, change is not necessarily driven

by selective pressure, and transformation is understood as being contingent upon the interaction of elements within the system as well as the system with its environment.

2.4 An Unconventional Mix

The concept of Degeneracy and the field of choreomusicology is an unconventional mix as a source of theoretical inspiration for a thesis about combat-dancing. The hope is that by exploring new theoretical ground, novel ways of dissecting, contextualising and understanding human expressive systems can emerge. From the choreomusical relationships within a performance to the heterogeneous construction of music and movement across diverse genres, the next three chapters will explore the distributed intersecting social and cultural processes that put sound and gesture together in West Sumatran, West Javanese, and Afro-Bahian combat-dancing. In later chapters, I will contrast choreomusically divergent performances of combat-dancing and locate degeneracy at the cultural level. In the penultimate chapter, I will unravel degenerate processes as they appear in the transmission and transformation of diverse combat-dancing traditions in the context of globalisation.

Chapter 3: Silek Minang in West Sumatra, Indonesia

> The kingdom of Menangkabau, says the native legend, arose upon the ruins of the Hindu empire of Adityavarman, and its name "Victory of the Buffalo" symbolised the supremacy of Sumatra and the Malays over Java, which they are supposed for a time to have conquered. Early converted to Islam while preserving their own *Adat* [customary law], the Malays of Menangkabau regard themselves as the best Mohamedeans in the Archipelago.
>
> Guide to Sumatra (1920) Official tourist bureau

3.1 Entertainment for the festivities

Figure 3.1: A Minangkabau man plays the role of a forest spirit *(cimuntu).*

The small hillside village of Andaleh Baruah Bukik lies deep in the highlands of West Sumatra, the area that forms the cultural epicentre of the Minangkabau people. Each year, the villagers hold a celebration, called *Hari Raya Idul Fitri,* to mark the end of the fasting month. The community is not very rich, and hiring musicians, dancers and artists can be quite expensive. To save on costs, *Sunat* ceremonies (circumcision rites for young boys) are held at the same time. Merging the funds for these two events enables a bigger celebration.

The festivities begin with the activities of the *cimuntu* – ghosts from West Sumatra's mystical past that still live in the Minang imagination (figure 3.1). Just before the *Hari Raya* festivities begin, members of the community sneak up into the mountains and disguise themselves in coconut hair or coconut leaves, taking on the guise of the *cimuntu*. They walk down the mountain and through the village collecting money and summoning people to the front of the town mosque to join in the celebrations. No one knows their identities. They play the part of naughty ghosts that scare children, while simultaneously coordinating and controlling the events that make up this special version of *Hari Raya*.

The cimuntu direct a procession of people down the mountain that includes transvestites dressed especially for the occasion, musicians, dignitaries, and young boys who will be circumcised. A crowd follows because the *Hari Raya* festivities promise various arts performances as well as a popular game called *Panjat Pinang* where young men from the

village form two teams, each trying to climb tall wooden poles, made from trunks of the Pinang tree smeared in grease. The climbing of the Pinang adds a comedic element to the festivities. Although Panjat Pinang is ostensibly a competition, onlookers are less interested in the eventual winner than in the entertaining sight of men slipping and falling down the pole. The *cimuntu* have a hard time controlling the crowd as it presses to get nearer the Pinang poles.

These contemporary festivities are a mixture of Minangkabau tradition, Islamic religion and various modern influences, with a history that dates back to at least the 1930s. Nowadays, the celebrations run for many days and involve various artists, who bring the community together through music, dance and performance. These performances offer a window into the changing cultural world of the Minangkabau people, revealing re-creations of tradition juxtaposed with interpretations of the modern.[4]

Silek minang, the traditional martial art of West Sumatra (see also Cordes 1992; Pätzold 2000), is performed for audience entertainment at such rural festivities. [5] Among the Minangkabau, "silek minang" is a generic name for a patchwork of situated, disparate, locally organised repertoires of physical pedagogy that have been constituted through a variety of social, political and kinship processes. The art is performed in pairs to demonstrate open hand combat and weapons expertise. Training sessions do not have musical accompaniment. However, in performance, demonstrations are accompanied by percussion and woodwind ensembles that draw upon the musical expertise and instrumentation available in any one community.

Silek minang has been embedded in many aspects of Minangkabau life, from ceremonial dance to popular theatre. The ubiquitous influence of silek minang in cultural values and aesthetics reflects the magnitude of its importance in West Sumatran society. As Sands (1988:1) suggests, "sports and related behaviour produces a blueprint of those important and valued behaviours that are the foundation of the larger culture in which the sport is embedded." This chapter offers a description of the changing cultural landscape of West Sumatra and the transformations of silek minang.

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[4] Performances of silek minang during the Hari Raya festivities were documented on the 20th of October 2007.

[5] The performances of silek minang during the Hari Raya festivities, together with a selection of other performances, can be viewed on track one of the accompanying DVD. The musical accompaniment is a mixture of talempong paciek, gendang tambuah and sarunai.

3.2 Reinventing performance traditions

The mainstay of almost any traditional Minangkabau musical ensemble is a set of five or six hand-held *talempong paciek* (bronze kettle drums) played generally by three musicians (see figure 3.2). As with much Indonesian music, the patterns played on the kettle drums interlock. The interlocking patterns create a melody that emerges only once all the musicians are playing together. Another popular form of entertainment is the *gendang tambuah* (double-sided barrel drums suspended from the player's shoulder and neck) that are played loudly for the enjoyment of all (see figure 3.3). Gendang tambuah is often led by the sharp and high-pitched sounds of a *tasa* drum—a small drum with a bowl-shaped body suspended from the neck and played against the body with a pair of wooden sticks (see Kartomi 1986:147). The music is used to entertain and also to accompany a number of Minangkabau performances such as silek minang*, tari piriang* plate-dancing, and trance-like displays of the mystical practice of *dabuih*.

Figure 3.2: Members of the arts group *Sari Bunuan Macan Andaleh* play *talempong paciek* kettle-drums in the Hari Raya procession.

Figure 3.3: Members of the arts group *Sari Bunuan Macan Andaleh* play *tasa* and *gendang tambuah* drums during the Hari Raya procession.

In addition to a range of percussion instruments including talempong paciek, gendang tambuah and tasa drums, the Minangkabau also have a selection of aerophones. The simplest of the aerophones is the *pupuik sarunai*, also known as the *pupuik gadang,* which consists of a reed-like rice-stalk with long leaves wound into a cone shape to amplify the sound. In addition to the pupuik sarunai, the Minangkabau have a collection of seven woodwind instruments including the soulful and nostalgic *saluang* (a basic bamboo flute with four finger holes), the melodic *bansi* (a bamboo recorder with one finger hole behind and seven finger holes in front as well as a whistle hole), the crisp and buzzing *sarunai* (a short single reed bamboo clarinet with four finger holes), the deep and brooding *sampelong* (a thick bamboo flute with three finger holes for the top hand and one finger hole for the bottom hand), the recorder-like *saluang pauah* (a medium sized bamboo flute with six finger holes), the long and thin *saluang sirompak* (a skinny bamboo flute with four finger holes capable of two octaves), and the *saluang panjang* (a long bamboo flute with three finger holes). The saluang sirompak and the sampelong come from Payakumbuh, the saluang pauah from Padang Pauah, and the saluang panjang from Solok. The saluang was originally from Singgalang, and the bansi flowered in Pariaman Pesisir. The saluang is the central instrument of a popular Minangkabau

performance genre called *Saluang Jo Dendang*, which features melodies played on the saluang accompanied by sung rhymes containing satire, lamentation, advice, and jokes. Its inclusion in this emotive performance genre has established the saluang as the iconic instrument of the Minangkabau. Émigré West Sumatrans often express a strong sense of nostalgia and homesickness when they hear the soft lulling tones of the saluang.

From this collection of aerophones, only the bansi, saluang, sarunai, or the pupuik sarunai are ever used to accompany performances of silek minang. Accompaniment varies according to the capabilities of the musicians at hand. As a general tendency though, the saluang only accompanies interludes of silek minang during traditional *Randai* dance-theatre performances (see Pauka 1998:21) or at most the opening bows of a silek minang presentation. The bansi and saluang have soft timbres that correspond well with the solemn opening bows. The harsh tones of the sarunai or pupuik sarunai usually accompany the fight sequences. The loud and buzzing sounds of a reed aerophone are a dynamic and logical match between combat displays and audience engagement. The soft sounds of the bansi and saluang are less engaging for large audiences. The bansi and saluang have spread all over West Sumatra, and perhaps their wide distribution has facilitated their inclusion into silek minang presentations.
The other Minangkabau woodwind flutes have soft sounds, more localised distributions, and less iconic relationships to globalised evocations of Minangkabau tradition.

The Minangkabau describe the music of silek minang as ornamental, being added for entertainment purposes and to raise the liveliness of the event. No rhythmic or mimetic relationship exists between the movements of the performers and the rhythm of the music. However, local artists suggest that the interlocking patterns of the percussion instruments are a strong metaphor for the interlocking movements of the silek minang performers. The beauty of the art relies on the synchronous performance of essential footsteps by the two performers, which the percussion instruments symbolically replicate. Furthermore, the circular breathing used to play the woodwind instruments evokes a penetrating sonic representation of the unrelenting attention required by the silek minang practitioners during a fight. The practitioners purposely avoid falling into time with the beat of the music because in a real fight, falling into synchrony with the music could make their movements predictable and thus more vulnerable. Some elements of the practice of silek minang, such as the attention and concentration of the practitioners, remain unchanged

when the art is performed in front of an audience. Many elements, however, are purposely changed to make the art more engaging for an audience and sometimes to disguise its brutality. In some ways, performances of silek minang could be considered "fight choreography" (a term used by Klens-Bigman 2002:1).

Some locals suggest that the visual aesthetics and spatial principles of silek minang do not permit a metered rhythmic sonic texture. The dynamics of combat should not be influenced by predictable rhythms. This philosophy applies equally to the artistic flower movements of the art, called the *bungo* (literally meaning flower). In cases where a rhythmical acoustic counterpart accompanies silek minang, the performers must attempt to insulate their concentration from musical sounds; unlike visual information, however, sound is very hard to block out. In a fight-like performance where the moves may be choreographed but the moment of attack is not defined, pulling attention away from the music is essential to the successful execution of techniques. The importance of this modulation of attention is highlighted by scientific experiments looking at the effect of music loudness and reaction to unexpected events. Experimental work has shown that, depending on the task characteristics, intense sound can affect cognitive processes such as information processing. Music can improve motor response time to centrally located visual signals, but increase motor response latencies to peripheral visual cues (Beh and Hirst 1999; Staum and Brotons 2000). Music presented at intensities of 75dB(A) has also been shown to affect short-term memory (Salame and Baddeley 1989). The amplification of woodwind and percussion instruments through loudspeakers can make the music accompanying silek minang louder than 120dB(A), which not only affects cognitive processes but also has a deep visceral and stimulating effect. Music may heighten awareness of the central visual field but it decreases responsiveness to peripheral stimuli and might influence motor recall. Thus, the presence of loud music potentially introduces vulnerabilities for an unskilled fighter. Remaining calm, steady, and focused while musical rhythms penetrate your body can be especially difficult. Performances of silek minang exemplify a culturally trained skill in which performers must overcome auditory disturbances in the execution of potentially lethal movements.

The lack of rhythmic and mimetic relationships between the music and the movement of silek minang performances, combined with the performers' necessity to ignore the musical accompaniment, means that many audience members do not recognise the

musical accompaniment as part of the performance. Ask a Minangkabau person about music for silek, and most will respond, “There is no music for silek minang.” The quotidian experience of noise in social settings also predisposes the Minangkabau to have this response. Minangkabau people are conditioned by their sensory environment to dissociate loud sounds, especially music, from everyday activity. Over-amplified music blares out of speakers from communal transport vehicles, at street stalls, and in shops. Televisions are left on all day at homes, cafés, and office spaces. Every imaginable public space is occupied by noise. Local people have an incredible capacity to maintain concentration in the midst of noise. At arts institutes, students learning music can even practice individual instruments while in the presence of many other students, each rehearsing their own song at their own pace. Such a learning space would be unimaginable to a student at a European music conservatorium where practice is conducted in noise-proof studios. Noise and music inundate social spaces in West Sumatran villages. Thus, the presence of music during performances of silek minang can go by unremarked. And yet, the music begins with the commencement of silek minang performances, and ends at their termination. Musicians even report that they try and capture the tension of the performance through their music, principally through volumetric changes and speed changes.

During the Hari Raya festivities in Andaleh, two groups, *Jenggot Merah* and *Gajah Badodorong*, offered performances of silek minang. Two performers from each silek group demonstrated, with the performance by Jenggot Merah preceding the performance by Gajah Badodorong. Both performances were accompanied by talempong paciek, the urgent and arousing beats of a tasa drum, the ad hoc rattle of a tambourine, and the loud, rough hum of the sarunai. A piercing melody on the sarunai was played continuously, emphasising the tension between opponents and mimicking their sustained concentration. The performers themselves also produced sounds and noises, such as when one of the performers from Gajah Badodorong scraped his knife along the cement ground to emphasise the metallic texture and the sharp edge. The act of producing that sound evoked the materiality and lethality of the object he was holding.

A performance of silek minang generally begins with an elaborate series of ceremonial bows called *pasambahan.* These bows are performed between the practitioners, to audience members, to God and sometimes to the earth as well. Following the

pasambahan, the practitioners perform cautious poses illustrating the *bungo* of the art. While maintaining a safe distance, the performers demonstrate postures of readiness, power and prowess. The ability to execute these sequences beautifully demonstrates the ability and adeptness of the performer. The fight sequences that follow are initiated by one opponent attacking the other. Open hand combat techniques are followed by knife techniques; a palpable escalation in tension always accompanies the introduction of a knife into a performance. The knife adds a layer of danger to the movement of silek minang that makes the potential consequences of the movements more transparent and conspicuous.

Each village has its own schools and unique practices of silek minang that are symbolically rich with socially-bound meanings. Bows, symbolic attacks and token gestures of protection are all subject to variation between communities. Because the practices arose in tight-knit communities over successive generations, the repertoire of culture-bound gestures have accumulated over time and have been consequently propagated throughout communities. To the outsider, the gestures are often impenetrable and sometimes unnoticed. These symbols can even be obscure to the uninitiated younger generation of any community. The slap of a thigh, the flick of a wrist in mid air, or even the angle formed by the thumb and the hand can all signify latent abilities that practitioners are trained to perform and recognise. Acknowledging these gestures and performing the appropriate response—by raising an elbow and simultaneously covering an ear, for example—demonstrates skill, knowledge and power. Performances exemplify distinctive characteristics of each village's particular style of silek and are filled with internal networks of gestures and external cultural associations.

The practice of silek minang is intended to equip practitioners with the skills to be able to react to the challenge of an unknown adversary. Practitioners search for physical efficiency in their movement as well as complexity in their range of skills. Teachers seek to imbue their students with the confidence to improvise in the face of adversity. In performance, however, the movements of silek minang are often choreographed and performed with the teacher so that the fight does not lose the essential steps (Sedyawati, Kusmastuti, Hutomo and Karnadi, 1991). Choreographing the movements and performing them with a teacher lowers the risks involved, reduces the tension between the performers, and ensures that fights do not break out. Attacks in silek minang are typically

straight penetrating movements that require blocking or evasion. If a performance is improvised and not choreographed, this movement dynamic creates a high risk of injury. Improvised performances of silek minang are rare and only ever involve long-standing training partners of considerable age and experience. The community demonstrates a degree of consensus as to what constitutes an effective attack and what constitutes an appropriate block. A performance of silek minang can only occur between two practitioners who trust each other to be able to see and categorise each other's movements in ways that are relevant to the fluidity of a performance. Without the consensus about the efficacy of attacks and defences that are not performed fully, the interaction would degenerate. Attacks must flow with evasions, and counterattacks must flow with the corresponding blocks. Each performer of silek minang must code the movements of his partner in terms of trajectories and shapes that are consequential for his own movement. An attack has to be accepted as effective by the recipient and then pulled before it causes an injury, and the block must be accepted as successful by the attacker before other movements can proceed. If appropriate gestures of acknowledgment have not been pre-negotiated in training, then disagreement can ensue and accidents or conflict can arise.

The movements of a martial art are situated, distributed, and interactively organised in a community of practice. From the large variety of movements possible in any repertoire, members exercise a high degree of selectivity. Practitioners choose movements they deem useful for potential combat needs. The kinds of kicks, punches, blocks, throws, parries, escapes, locks, and holds that are chosen can be influenced by the physical capabilities of the practitioners, their personal preferences, and the stochastic acquisition and execution of particular techniques. If a community of practitioners mutually agrees upon the effectiveness of a movement, then that technique is dynamically absorbed into their evolving movement repertoire. Favoured movements and techniques are constituted as they are distributed and practiced among peers.

Martial arts are practiced for potential combative advantages over an adversary. In silek training, combative techniques are practiced with a training-partner. Individual movements do not have any tangible combative value in isolation, but require simultaneous attention to the movements of a training partner. In real combat, the effectiveness of a technique is measured by the damage it inflicts or the advantage it provides. During training, the effectiveness of a technique is acknowledged through the

movement response of a training partner. Movements such as punches and kicks are not meant to injure a training partner, but their potential effectiveness has to be discerningly evaluated. A punch, for example, becomes a gesture with latent potential that a training partner must recognise, evaluate, and respond to with a parry, a block, or a counterattack.[6] The perceptual salience of these gestures of attack is contingent upon the socially negotiated meanings attached to each movement. Acknowledging a potentially successful attack involves distinguishing the intention, assessing its timeliness and placement, and reacting correspondingly. In communities who work closely together over long periods of time, and who have inherited the movement repertoires of preceding generations, any number of potentially harmful movements can become inferred by gestures. In this situation, the gesture can be performed at the moment of opportunity to infer the advantage rather than actually harming the partner to demonstrate skill. When taken out of context, these gestures can be misunderstood. But within discrete communities, these gestures are multiplicative and become part of the collective memory of an interacting group of practitioners. The movement repertoires maintained by any particular group are dynamic and are dependent on the life histories, experiences, and physical abilities of the individuals.

In many performances of silek minang, the acute spectator may observe that attacks are often aimed slightly off target. In training, attacks are not always aimed directly at their target. One might suggest that this diversion avoids the pain of an accidental strike. However, on a deeper level, off-target attacks in silek minang are also representative of a cultural discursive ethic to talk 'to the side' of topics. This form of discourse is called *Kato malereng* in the local dialect of *Bahaso Minang*. Talking to the side of topics, aiming where there is no risk of injury, is thought to be preferable and respectful in Minangkabau culture. Direct comments are considered *tajam*—sharp, abrasive, cutting, potentially injurious—and thus impolite. For example, instead of indicating to a guest that he or she is a noisy eater, the host might make a comment about his children's boisterous dinner manners. Silek minang is replete with Minangkabau codes of etiquette that are enacted through movement.

[6] A lack of response can signify an unskilled attack, a fault on behalf of the receiver, or a power-play between two hostile training partners.

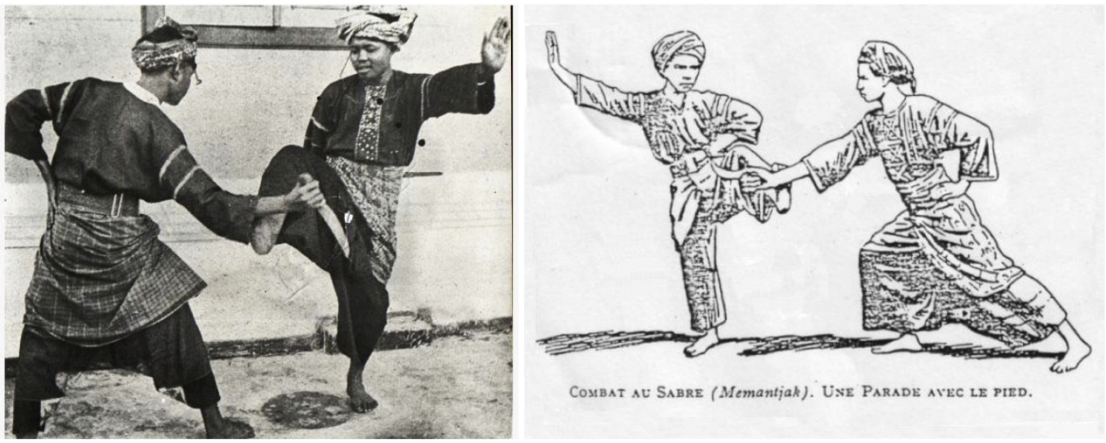

Figure 3.4: The movements of Silek Minang were photographed by a foreign photographer in 1920 (Photo courtesy of the Pusat Data dan Informasi Kebudayaan Minangkabau, Padang Panjang, West Sumatra). The drawing on the right was featured in a French volume entitled *Terres et Peuples de Sumatra* published in Amsterdam by Elsevier in 1925. In the photo, the attacker and defender are distanced well apart (choreographically accessible to an audience) and the trajectory of the attack is not direct or exactly on target. The ethic of always attacking to the side is obviously not new. Of note, the drawing on the right was visibly inspired by the photograph. Notice that in the drawing, the posture of the attacker has been lowered, the attacking arm is still the right arm, and the attack is a thrusting not an arcing movement. Additionally, the defender is standing on the opposite foot with a slightly more straightened leg. The European eye attended to the combative efficacy of the movement, while the performers were engaged in a movement with cultural aesthetics.

Minangkabu traditional performances have origins deeply embedded in village life with subtle influences from Hindu, Malay and Arabic cultures. All West Sumatran performance arts are said to derive from the movements of silek. For example, in the plate dance *(tari piriang,* see figures 3.5 and 3.6), the practitioner swings plates without dropping them or breaking them. In doing so, he or she draws on the same form of *tenaga* (energy) cultivated in the martial art. The plate dance has become the iconic dance of West Sumatra. Dabuih, another performance form related to the martial art of silek, has a heightened mystical content. Practitioners cut themselves with knives, jump on broken glass with bare feet and burn themselves with fire, all without drawing blood or inflicting pain. Dabuih performances are akin to magic shows and the various acts testify to the invulnerability, faith and ascetic achievements of the performers. Randai*,* perhaps the most popular traditional theatre form across West Sumatra, is explicitly related to silek minang with the sequences of dance between each scene derived sometimes exclusively from the silek minang repertoire. In fact most plays end with a fight scene where major conflicts are settled using the movements of silek minang.

Figure 3.5: Tari Piriang performed by an all-male dance troupe during the Hari Raya festivities in Andaleh Baruah Bukik in the late twentieth century (date unknown). Photo courtesy of the Dance Department Archives, Sekolah Tinggi Seni Indonesia, Padang Panjang.

Figure 3.6: Tari Piriang performed during the Hari Raya festivities in Andaleh Baruah Bukik in 2007. Some of the performers are wearing traditional attire and only one of the performers is male. The ground has now been cemented.

In more recent years, these traditional art forms have been complemented by new performances. Hip-hop dances and improvised rap now punctuate the performances of silek, dabuih and tari piriang. The community of Andaleh may live deep in the mountains, but their remoteness has not stopped the spread of global popular culture. While they strongly stress tradition, the musicians of Andaleh have incorporated the African *djembe* into their music; the performers sometimes wear jeans and T-shirts, where once they would have worn traditional attire; and the dancers even occasionally perform to American pop music. Despite strong resistance from some traditionalist groups, silek minang is also changing, as the regional genre is influenced by the standard national form of the art.

3.3 Symptoms of broader change

Figure 3.7: A traditional Minangkabau house with the front door not facing the street so that women were given a certain degree of privacy.

The changing performances of the *Hari Raya* celebrations in Andaleh are indicative of deeper cultural shifts. Minangkabau society boasts a matrilineal heritage, but has now almost completely adopted a nuclear family structure. Women once held authority over the traditional Minangkabau houses (see figure 3.7), with their typical double-peaked roofs and thatched walls. These distinctive homes have been abandoned for modern architectural designs and concrete houses where men play a growing role. But these same changes have not only brought new privileges to men. They have also allowed women to play an active role in festivities and become performers of tradition, roles from which they were previously excluded. For example, women now participate in every aspect of traditional randai dance-drama theatre performances.

Before the shift to the nuclear family, young boys were not allowed to live at home. After the Sunat circumcision rite, they were required to leave home to be raised in a traditional commune called a *surau*, where they resided until marriage. Here they were taught traditional law (*adat*), religion and other life-skills. Adat is Minangkabau customary lore comprising fundamental principles necessary to maintain balance and harmony between the needs of the person and the community (Tanner and Thomas 1985). Adat decrees that men and women of the same lineage live in harmony, especially when dealing with inheritance decisions (Krier 1995). In Minangkabau social formations, adat once underpinned the very fabric of Minangkabau epistemology and ontology (Kahn 1993). Colonialisation and the rise of nationalism have transformed many of the fundamental principles that underpin matrilineal customary law (Acciaioli 1985:152). One clear example of this conflict is the government's insistence on having all households headed by a male, and that his name has to be used on all government forms, with the wife's and children's names placed after his. This practice goes against the codes of matrilineality, where the mother's name is handed down to the children (Kato 1980). In many regions throughout Indonesia, adat is now increasingly used only for its aesthetic value in theatrical plays and performances (Acciaioli 1985:152).

As part of life in the surau, training involved basic lessons in silek minang, after which young boys could develop skills in other performance arts and games. Young men were entrusted with the skills of silek minang so that they could protect their village (Sedyawati 1981). Another motivation to learn silek minang was the practice of *merantau* whereby young men who had come of age would leave their village to make their money before returning home to marry and begin a family (see also Barendregt 1995). Silek minang, an art of combat and defence, was an essential skill for the young traveller. Today, however, the practice of merantau has dwindled and so too the interest in learning silek minang.

Nowadays, young Minangkabau boys are no longer brought up living in the surau, but live at home with their parents. The boys of Andaleh are no exception and continue to live at home after the Sunat ceremonies. Historically, being brought up in the surau was a central feature of a Minangkabau man's education and an integral place of cultural instruction in the indigenous martial art of silek. With the adoption of the nuclear family structure, silek minang is no longer exclusively for boys, and all boys are no longer

obliged to practice. Many schools have become less secretive and training methods have altered. This transformation has led to changes that have spilled over into other arts. For example, tari piriang, along with other popular Minangkabau dances, no longer uses the closed postures and solid stances that once marked its relationship to silek minang. Dances like tari piriang have made the transition from the surau and onto the performance stage where the movements have become larger in order to appeal to audiences. In silek minang, however, the body is compact and practitioners present the narrowest possible surface. Related dances, which were in part used as a sort of cross-training, similarly used compact movements. As Minangkabau society opens itself to global customs, its dances and traditions similarly find themselves moving from traditions dominated by *en dedans* movement to performance arts characterised by *en dehors* movement.

At the threshold of cultural change and the precipice of a liminal present, the contemporary performances of the *Hari Raya* festivities in Andaleh represent a constant negotiation between regional heritage, national influences, and the pull of global trends. A Minangkabau proverb states, '*indak lakang dek paneh, indak lapuak dek hujan*', meaning that some Minangkabau traditions are unchangeable and are 'not worn out by the sunshine, nor eroded by the rain'. But changes in Minangkabau arts reflect broader changes in West Sumatran society. Another Minangkabau proverb is arguably more appropriate: '*alam takembang jadi guru*' – the 'blooming of the world is a teacher'. The social ecologies of the Minangkabau people are expanding as they become more exposed to outside influences. Correspondingly, their arts are evolving as they embrace change and adapt to new cultural environments. The culturally entrained bodies of the silek minang performers, the tari piriang dancers, and the dabuih mystics become a chronicle of the lived present that recreates itself according to the evolving context of a constantly changing world. In many ways, the performance arts of Minangkabau communities are representative of the wider cultural shifts felt throughout West Sumatra. The integration of external influences and internal social changes are no doubt bringing forth re-evaluations and redefinitions among the West Sumatrans of what it is to be Minangkabau.

3.4 Informal and Improvised

Since the almost complete adoption of the nuclear family structure among the Minangkabau, the teaching of silek in suraus has diminished dramatically. Private schools of silek now teach both boys and girls in community halls, sports facilities, university buildings, school grounds, and public parks. Although Minangkabau elders report that traditional training of silek is losing favour among the younger generation, some traditional schools still remain. Many of the enduring schools remain elusive due to secretive traditions.

The elusive and guarded nature of silek schools is an expression of the silek philosophy that one should never show all of one's skill to the public. This philosophy was once quite common and can still be glimpsed today. During a short impromptu fieldwork trip to a community outside of Bukittinggi, I witnessed this elusivity myself. A festivity had drawn a large gathering of people to a small lakeside community. Present were local tourists, artists and some select political figures from the region. I introduced myself to the artists and stated my interests in researching silek for a thesis. As soon as I asked this question one of the older gentlemen wearing traditional attire purposefully slipped out and lost himself among the crowd. I had previously been informed what to look for in the comportment of a silek guru and this gentleman fit the description. The others were not in a position to see him leave but they were hesitant to answer my question anyway. By the time they realised that their colleague had gone, they turned to me and said "Sorry, the person who would be most qualified to speak with you is not here." For ethical reasons I did not seek out this person. His quiet act had let me know that he did not want to be discovered and I did not want to impose my research upon him. Quite possibly, other gurus in other villages I visited had not wished to be discovered too and they also evaded my inquiries.

Training with a silek Guru often involves an initiation ceremony that binds a student to a single teacher. Training with more than one teacher is frowned upon, and even in the best scenarios requires tactful negotiation. For fieldwork studying silek with music, allegiance to a single teacher would have impeded the aim to study instances of fight-dancing that incorporated both music and movement. If I were apprentice to a single teacher, I would not have been allowed to travel around to document performances of silek in other villages. Following a trail of performances in regional villages was necessary because

public performances were the only time that silek was accompanied with music. I had to travel around to find these performances. Mostly, I documented performances but I was permitted to train informally with a few willing teachers without making the devout commitments required of a longterm student.

Throughout my time in West Sumatra, I was fortunate to be invited to watch numerous training sessions and participate in classes with teachers who did not request that I become their sole student. As an uninitiated student, I was not privy to a specific subset of specialised combat techniques. However, I was able to ascertain that these withheld techniques were inconsequential to understanding the relationship between music and movement. The withheld techniques were not the kind of skills performed on stage and were thus largely unrelated to musical accompaniment during public performances. At best, these techniques perhaps equipped practitioners with skills of concentration that allowed them to ignore the music.

Training sessions of silek in the villages of West Sumatra can often give off the air of being a casual social gathering. Physical training is punctuated with socialisation, philosophising and much verbal instruction about silek. The seeming informality is deceiving because developing skills in physical silek is just as important as developing skills of *silek lida,* martial arts of the tongue, or verbal cunningness.

Friday night is the preferred time for most silek training, but other evenings and sometimes even daytime can be customary for any particular group. If a special event is coming up, if the group has been asked to compete in a regional or national festival or perform at a local event, then additional training times are scheduled. The training sessions before a public performance look much like dance rehearsals for stage with various performers running through their duets in their own space and at their own speed. The guru may wander around and give pointers, but a full run-through before the performance might only occur once or twice. Music rarely features at a rehearsal.

The weekly physical training often begins with a series of formal salutations between a teacher and a student. Alternatively, the sequences may begin between two longstanding training partners. These are often the same gestures seen at the beginning of a public performance. For those who have been initiated into the apprenticeship with a respected teacher, the traditional class structure incorporates an overarching ritualised aspect and improvised training tasks. The improvised teaching methods require close guidance by a

single teacher. Training is done in pairs with techniques always learnt and applied with a training partner. Teacher-student interactions are intensive and the class-size is generally small to accommodate the large amount of time devoted by the teacher to each student. Teachers use feeling, intuition and a flexible and improvised pedagogy. Working with combat principles, teachers create scenarios to encourage the problem solving skills of their students and to help them develop their own solutions. The time-demanding apprenticeship methods preclude large class sizes. Few schools use the same teaching methods, but the element of improvisation and seeming informality is a prevalent feature.

3.5 Hari Idul Ad'ha at Lake Maninjau

In December 2007, the Maninjauan lakeside community of Paninjauan in the highlands of West Sumatra entertained foreign guests during *Idul Adha*, an important religious event in the Islamic calendar. The guests were welcomed with the greeting dance, *Silek Gelombang*, a sight they witnessed several more times after nightfall when the six Minangkabau communities attending the celebrations each gave their own performances of the dance. As each group arrived, the dance was performed to greet and accept the newcomers into the Paninjauan community. These performances were followed by performances of silek, tari piriang and trance-like displays of dabuih.

Figure 3.8: One of the many hairpin turns on the road down to Lake Maninjau. Photo courtesy of Alvin Lee, 2008.

There are thirty-five hair-pin turns as you gradually descend the mountain to Lake Maninjau (see figure 3.8). They are a powerful metaphor for the elaborate séances that precede the important moments of Minangkabau life. In Minangkabau tradition, no topic or person should be introduced directly, but approached mindfully through a series of analogies and metaphors that meander towards the subject obliquely. These séances, called "*pasambahan*", are valued by a large majority of the middle-aged and elderly Minangkabau people.

Figure 3.9: The view as you descend the mountain to lake Maninjau.

As you make your winding way down the otherwise steep decline to Lake Maninjau, a magnificent panoramic view opens out (see figure 3.9). The wayward approach allows you to enjoy the scenery from various different angles and perspectives. Tourists and locals often stop halfway down to enjoy the spectacular panorama that includes a traditional Minangkabau house set amidst rice paddies with the lake and forested mountains in the background. As travellers look behind, they might breathe a sigh of relief that the road was winding and not a straight and abrupt descent. Going straight down would have placed an all-too-great reliance on the brakes of an aging transport vehicle. The planning and design of this celebrated road fits with the Minangkabau ethic of approaching matters slowly and with caution.

A circumlocutory approach to matters is an ideal in Minangkabau tradition. This cultural ideal is embodied most visibly in the greeting dance of silek gelombang. The movements of silek gelombang are based upon the practice of silek minang. Composed of deep postures and strong poses, the dance demonstrates strength and readiness, recalls ancestors who arrived on the waves of the sea, and signifies welcoming, invitation and hospitality (Risnawati 1993:12). The dance is most commonly performed to inaugurate events or to greet guests. When welcoming guests, the dancers make a series of sideways approaches to an offering placed in front of the visitors. If the visitors are dancers of Minangkabau origin, they too might join in the dance and respond with corresponding movements.

Each Minangkabau village has its own distinctive style of performing silek gelombang. When two Minangkabau communities perform this dance, both parties of dancers approach one another with slow diagonal steps, their moves precise yet hesitating, their postures defensive and prepared. They eventually meet at the offering plate and find peace in a mutually negotiated space. At the end of the performance, the dancers and the crowd jump around and dance in jubilation. Completing silek gelombang is a sign of consensus, and the offering serves as a meeting point after diversity is expressed through movement.

The silek gelombang dance is often accompanied by one or two small groups of musicians. The music comprises gendang tambuah drumming, sometimes talemong paciek and occasionally the sarunai or a pupuik sarunai. If there are two groups of dancers and two groups of musicians, both groups can commence in dissonant rhythms that only begin to coalesce over the course of several cycles of movement. The competing rhythms of the drums soon find synchrony, and when the dancers meet and shake hands over the offering between them, the drumming becomes louder, and there is an explosion of joy, carefree dancing and merriment. But just like the winding road that descends gently to Lake Maninjau, the coming together takes a series of indirect movements to get to the final destination.

Silek gelombang is traditionally passed down from a maternal uncle to his nephews. The dance is conventionally improvised under the leadership of an older teacher, whose moves are copied by the younger practitioners standing behind him. This improvised

form is possibly less common nowadays than a choreographed version of the dance called *tari gelombang*, which can be danced by girls and boys and is commonly seen at wedding ceremonies and other official occasions.

3.6 Performances of silek minang during Hari Idul Ad'ha ceremonies

Hari Idul Ad'ha is an Islamic celebration usually involving the sacrifice of a bull and the sharing of meat. The celebration is also an occasion for communities to join together and share their traditions. The presence of foreign guests in the village of Paninjauan for this religious holiday in 2008 offered even more excuse to celebrate with a diverse array of performance arts. The visitors were greeted by the silek gelombang dance in the early afternoon.

The Hari Idul Ad'ha celebrations commenced after nightfall. With six Minangkabau communities participating in the celebrations, ritual performances of silek gelombang between the Minangkabau communities were performed five times. After the first Minangkabau group had been received by the local group, they were accepted into the community and would then perform the dance again with a newly arrived group. This reception was performed with each new group until all the groups had been received into the community. The performances of silek gelombang were followed by performances of silek, tari piriang and dabuih. The dances and demonstrations were performed by young and old, but those performances of the older generation really stood out. A clear contrast was apparent between the performances of young and old wherein markers of cultural change could be observed.

Many of the silek minang demonstrations were choreographies performed by the younger generation. They were obviously rehearsed presentations. The performances started off with elaborate bows to the audience and to each other. The fight-sequences commenced with demonstrations of open-hand techniques and were followed by knife combats. The unbroken stream of sound played on a pupuik gadang was a potent metaphor for the unremitting concentration of the performers. The introduction of a knife, a highly dangerous weapon, was systematically accompanied by an increase in rhythm and tempo by the drummers. This raised the tension of the performance. Nonetheless, to the

experienced eye the techniques were visibly repetitions of rehearsals. Defenders occasionally moved out of the line of an attack prior to the oncoming strike being initiated, and certain acrobatic movements required the cooperation of performers who were otherwise supposedly opponents. Even when silek minang is choreographed, performers still have to exercise extreme caution not to injure or be injured.

The especially crowd-pleasing displays were those of a few older practitioners who performed improvised silek minang later in the evening. Their performances engaged the entire crowd. The tension between performers was higher, and they incorporated comedic elements at whim. One of the funnier moments was when an older gentleman, instead of claiming victory with a well-executed gesture of power, stole the hat (*peci*) of his opponent in a comical trick. The narrow and repetitious melody of the pupuik gadang accompaniment rapidly rose in pitch and tempo and started playing a jovial song. The crowd burst out in laughter and applause. These rare improvised performances stand in stark contrast to the choreographed performances of younger generations who demonstrate a limited capacity to instantaneously elaborate from what has otherwise become a crystallised tradition.

The culmination of the evening ended with a frenzied performance of dabuih where men jumped on broken glass with bare feet, rubbed their faces and rolled around in it, all in a demonstration of their inner power. Some men attempted to cut themselves with knives and stab themselves with bamboo spikes. Other men performed the plate dance on the broken glass. The fact that they did not inflict wounds was testament to the tenaga they had gained through ascetic practices and faith. It was an climactic end to the festivities.

3.7 The crystallisation of tradition

Silek minang embodies traditional Minangkabau etiquettes. The art is also central to the Minangkabau performance arts such as silek gelombang. Together with a rich repertoire of philosophies, silek minang was used to propagate Minangkabau ideals and identity. Today boys, like girls, are taught at schools where they learn a standard curriculum, religion and *Pancasila*—the five principles that form the ideological basis for Indonesia's

constitution. This shift in education is affecting the transmission of silek minang. Correspondingly, the shift is also affecting Minangkabau culture more broadly.

Silek minang is still highly regarded in West Sumatra. However, the art is no longer an obligatory part of Minangkabau education. Some teachers, who would have previously been more secretive about their skills, are now publicly training practitioners—both boys and girls. In many cases though, this training is diluted. Training times are shorter and the pedagogy has erred on the side of becoming product-oriented rather than process-oriented. The young generation do not dedicate as much time to the practice as their forefathers. They may have the time to learn certain sequences of movements, but many students do not spend the time exploring the full array of possibilities that these movement sequences can realise. Certain locks and holds, for example, can be administered in a variety of ways. Without guided exploration, however, the application of these skills can be limited. With decreased time spent training and as a consequence of pedagogical changes, students are learning basic choreographed movements with which they demonstrate very little skill in improvising.

Inyiak Aguang, a retired school teacher from Panampuang, recounted that in the 1950s the style of silek minang in each village was very different with no systematisation or general standard. Teachers only had between five and seven students who worked closely with their master: "The training was not systematised but was about developing feeling, improvisational ability and self-sufficient learning. Today, it has become a combat sport which is contested in regional and national arenas" (Syakur 2007). The practice of silek minang is informing the lives of the younger generation in more diffuse ways that preserve, but no longer truly embody, the values of the older Minangkabau generations.

Contemporary silek minang performances are now almost always choreographed with only some very rare improvised performances. The genre was once taught in small groups by guiding students through the underlying feeling of the art, now it is modelled through the repetition of movements. The movements are being preserved through crystallised choreographies, rather than through an intrinsic understanding of the meaning and latency of these movements. Only in the movements of older performers do we see a form of non-verbal cultural knowledge that sits comfortably and vibrantly within their bodies.

Bodily practices can facilitate nonverbal forms of understanding. The movements of dance speak directly to an audience through the primary medium of the body. Physical experience in a dance genre influences the cognitive, kinaesthetic and affective responses to observing performances of that genre (Calvo-Merino et al. 2005; Foster 1976:44; Hanna 1979; Mason 2009a:22). Hidden in the improvised forms of silek minang is a kind of embodied knowledge that cannot be touched adequately with the power of words but can only be felt through the potency of involvement, observation and experience. The elaborate postures of silek minang may evoke a certain kind of embodied response among seasoned performers, but the movements speak a different language to untrained audiences. The common gestures of daily life within a community no doubt influence the way their bodies respond to the rhythmic movement of dancers in motion. Without training, the movements of silek minang evoke a bodily response among local audiences that is related to daily experiences. While observing children at play in a village in the highlands, the children enacted frustration and anger by a rapid torsion of the body, a turn of the head to one side, and a swinging of the arms in the other direction. This highly stylised emotional gesture was accompanied by a stamp of the foot. The resemblance to silek minang was intriguing. In silek minang, one can observe similar movements that are abstracted, accentuated, and extended through elaborate gestures of challenge and confrontation.

Silek minang lives and breathes in the lives of the younger generation in a new way. Within traditional settings, the younger generation are no longer able to instantiate from the set sequences of movement they have learned. Similarly, they do not transfer the practice of an 'indirect approach' from the medium of body knowledge into the social arena of spoken dialogue. They demonstrate either an inability or a lack of desire to bring this richly metaphorical style of discourse into their everyday lives. Kato malereng is a form of communication that is inefficient and, without learning the habit through prolonged silek minang practice, the young generation are unaware of its use by the older generations. The often illogical analogies or irrational logic used to convey messages can be easily overlooked, rapidly ignored and forgotten. The younger generation lives under the influence of a multitude of increasingly global forces that do not act as a catalyst for prolonged silek minang training or the apprehension and practice of an extravagantly rich metaphorical dialogue.

While the silek choreographies practiced by the younger generation preserve the form, they no longer fully express all the values of the older Minangkabau generations. In numerous discussions about the centrality of silek minang in Minangkabau life, Pak Indra Utama, a lecturer in the Dance Department of the Indonesia Performing Arts College (Padang Panjang), insisted that the practice of silek minang involves more than the body. The body practice has an important relationship to the Minangkabau cultural environment and embodies social codes and etiquettes that are revered by middle-aged and elderly Minangkabau. In current formal settings, the dance form has been crystallised and personal creativity restricted. These choreographed movements ensure that regional identity is preserved but do not necessarily enact the Minangkabau gestures and rituals of hospitality.

Understanding the meaning and social morays of silek minang movements requires laborious one-on-one instruction. The bodily movements of the older generation who studied the art this way reveal a comfortable knowledge of Minangkabau culture. But silek has a different presence in the lives of the younger generation. They do not have the skills to improvise on the set sequences of movement they have learned. Furthermore, the cultural ideal of the 'indirect approach', which used to guide both movement and speech, does not have the same value for them.

Life in Minangkabau villages is shaped by a mixture of Islamic influences, ancestral beliefs based on adat, and the unendingly intrusive aspects of modern life (Sanday 2002:62). Minangkabau elders are sometimes didactic, often judgmental, and nostalgic about the crystallisation of silek minang and the loss of the cultural etiquette it embodies. Minangkabau tradition favours a circumlocutory approach. Particularly in matters delicate or official, 'beating around the bush' is considered the epitome of politeness. For example, instead of stating to a colleague over dinner that business is not going well, one might apologise for the poor quality of rice on offer or the lack of side-dishes. As another example, asking a family member directly when they will marry might cause embarassment, so in a general manner a querent may simply express a desire to attend a celebration with lots of people. Weaving unobtrusively around a topic avoids hurting someone's feelings or insulting their dignity. This polite yet savvy conversational skill is valued and was once reportedly a widely practiced part of village-life. By comparison, coastal towns, where cultural life is seen as more permeable and the flow of people more

transient, were once the only abodes where one would expect to find the coarseness of direct speech.

Today, the permeability and transience of cultural life has extended to even the most remote villages of the West Sumatran highlands. While younger people can describe circumlocutory manners, few practice them (Bastide 2005). Bringing this richly metaphorical style into everyday conversation is not easy because it is inefficient and difficult to learn. Indeed, the intention of indirect and obscure comments is often missed or overlooked. Direct comments are more practical in the fast changing world of the younger generation. In the same way, choreographed silek minang movements are much less time-consuming and laborious for both teachers and students, and the choreographies serve as a way of preserving the heritage of the past while adapting to the time pressures of an increasingly globalised world.

Some of the early documentation of *silek* by Europeans revealed how the art captured the colonial imagination. O.J.A. Collet (1925), recognising the increasing rareness of *silek,* was reminded of the Greek and Roman "bas-reliefs" after watching the animated and stylised combat forms of West Sumatra. Claire Holt wrote in her 1938 fieldnotes that the dance of *silek* "created a sequence of excellently composed and expressive attitudes which would have delighted any sculptor" (Holt 1972:76). The minangkabau have a saying that dates back to colonial times: *"Kompeni babenteng besi, Minangkabau babenteng adaik*", which refers to how the Dutch Company was fortified by iron, the Minangkabau by customs. Where European cultures would have used marble, granite, or steel to preserve their history, the longest enduring knowledge in West Sumatera was carved into the impermanent medium of the human body. This, the most ephemeral of cultural records, is also the most malleable and most adaptable. When we watch performances of tradition in West Sumatra, we catch certain glimpses of history, evidences of a complex past. The keen observer needs to know how to think through the body to develop ways to read, interpret, and understand the culturally and historically rich dances of West Sumatra.

3.8 Transmission and Transformation of Silek Minang

Sumpah Main Silek Minangkabau	The oath of Silek Minang
Nan tapek na nyo sipi	Wish for a narrow escape,
Nan sipi na nyo lape	If narrow escape, no hit at all,
Musuah indak dicari-cari	Do not search for enemies,
Basuah indak di ilakkan	Should you encounter one, do not hide,
Berani karano bana	Brave because in truth,
Takuik karano salah	Afraid if in the wrong.

Interview with Amir Syakur (2007), Kampuang: Nuriang, Kabupaten: Agam

West Sumatra, the homeland of silek minang, is situated along a historically important trade route in Southeast Asia. To preserve cultural knowledge as a bounded entity, formal measures are available to the proprietors of intangible cultural heritage. Each community has a guarded pedagogy that is conferred sparingly and often through exhaustingly extensive methods. In the dissemination of silek minang, students are chosen carefully, and the transmission of skills is observed by various cultural codes. For example, before learning the basic principles of silek minang with Inyak Aguang, I had to learn the above *pantun* (a rhyming poem) that teaches students not to go out expressly searching for adverse situations ("*musuah indak dicari-cari"*), but only to face them earnestly if and when they arrive ("*basuoh indak di ilakkan, berani karana bana"*). This entrance to silek minang training was relatively mild compared to older practices. The function of such initiations, however, was to stress upon the neophyte the importance of the relationship between teacher and students as well as the sacredness of the tradition being passed on.

In a book written by the Secretary General of the International Pencak Silat Federation (PERSILAT), silek instructor Edwel Yusri (born 1963-) writes about the gifts that he had to offer in order to be accepted as a student by respected gurus (Anwar 2007: 6-8). To become the student of one guru, Yusri had to offer a knife, four meters of white cloth, three kilograms of rice, a complete betel set (a kind of nut for chewing), and tobacco leaf cigarettes (2007: 6). To become the student of another guru, he had to offer a hen, a knife, a white cloth, the tiger claw fruit (a kind of citrus that only grows in West Sumatra), rice, white incense, silver coins, as well as a betel set containing fennel, gambier and areca nuts for chewing (2007:7). Before undertaking periods of training with these teachers (among a couple of others), Yusri had to perform a ritual bathing in warm coconut oil (2007:8). The offerings and rituals signified Yusri's loyalty and commitment to the guru

and the guru's acceptance of Yusri as a student. The initiation process was a way of formalising the unwritten agreements between teacher and student and of symbolizing the sacred journey they would undertake together.

Cultural authority is taken very seriously. The rituals signify that the student accepts the expectations and cultural guardianship that the guru demands. Not all budding practitioners are able to train with more than one guru according to this initiation system. The agreements between guru and student have to be carefully negotiated and respectfully adhered to. The intimately guarded transmission of silek minang among small groups of practitioners who work closely with their teacher is losing popularity in West Sumatra. As a cultural practice silek minang is challenged by (1) de-emphasis of kinship patterns that once strongly emphasised the role of maternal uncles in teaching responsibilities; (2) the slow acquisition of silek techniques and philosophy through the conventional teaching model; and (3) the emergence of a public school system and a new mode of Islam that has drastically changed regional education. The conventional silek teaching model involves close guidance of the sensibilities, movement repertoire and intuitive capacities of the practitioners who generally train in pairs. The teaching demands can be intense and time-consuming. Furthermore, the method is restricted because teachers cannot teach too many students at one time. In contrast, systematised choreographed sequences that can be repeated simultaneously by any number of people are effective ways of distributing knowledge much more widely with great speed.

Conventional training often does not follow a fixed agenda or a strict timetable, but depends rather on the time that one can spend with a teacher and the mutual inclination to train together. In modern times, social changes have meant that the amount of time required for these teaching methods is disappearing. Conventional training methods arguably place an emphasis upon episodic memory in the transmission of cultural knowledge. Episodic memory is a category of long-term memory that is serial and based on the associations learnt through personal experience. Compared to semantic memory (the learning and recall of facts, rules and information), episodic memory is a less than optimal strategy for rapid cognitive acquisition of techniques. In the conventional training of silek minang, gurus create scenarios and cultivate the problem-solving skills of their students. For example, a particular kind of attack is presented, and the student is asked to respond with an appropriate defensive action. An advantage of this method is that

techniques are adapted to the size and physical abilities of each practitioner. Additionally, gurus discuss the philosophy of techniques with reference to the wider aspects of Minangkabau culture and cosmology. Often, students will not progress to learning new techniques until the various applications of a previously learned technique are mastered. New movements are taught in a very basic attack and response manner until students can string different movements together without prompting. In effect, gurus create the space for the kinds of experiences that are formed and utilised by the episodic memory systems of the brain.

Learning silek minang through traditional pedagogy develops a very special kind of non-verbal choreutic cognition. The kind of cognition that is involved in dance has been labelled "choreographic cognition" (Stevens, McKechnie, Malloch & Petocz 2000). Derived from the study of artistic expression in Australian Contemporary Dance, choreographic cognition is conceived as a dynamical system that involves the exploration, selection and development of movement material in time and space. This terminology is limited, however, because the kind of nonverbal cognition utilised in dance movement and martial arts can be improvisatory or choreographic. Improvised practices, such as those in West Sumatran training, involve movement material that is conceived and executed in-real time as a work-in-progress. Choreographed practices, such as those in West Javanese training, involve preset sequences of movements that are repeated with a high degree of fidelity. Improvisation and choreography demand different capabilities and are representative of two overlapping but different skill sets (Mason 2009b). Choreutic cognition is a more comprehensive term that can be applied cross-culturally to practices of embodied artistic expression and physical activity that are improvised or choreographed. The term "choreutic cognition" can be employed more broadly to refer to the embodied perceptual, cognitive and emotional processes involved in the visual, spatial, temporal and kinaesthetic aspects of physical activity. Choreutic cognition is a form of non-verbal thinking about time, trajectories, spatial configurations, and the ways in which movements, limbs and bodies relate to objects as well as one another. The kind of choreutic cognition learnt through traditional silek minang pedagogy is strongly improvisatory.

Within the changing cultural landscape of West Sumatra, a significant number of Minangkabau gurus have opted for the modern Javanese model of teaching which

involves choreographed sequences of specific movements taught to large numbers of students at scheduled training times. The pedagogy is characterised by the splicing of culturally organised movement material into digestible, perceptually salient units that are systematised and often labelled with mnemonic aids. A dominant characteristic of this training is repetitive conditioning: “Through the constant practice of these short sequences of movements certain habitual responses or specific biomechanical principles are inculcated within the student” (Wilson 2009:96). Labelling choreographies and learning them by rote most likely draws upon semantic memory skills and a different form of interaction between the declarative and procedural systems of the brain. In other words, systematically categorising movement with semantic aids incorporates declarative memory in the imitation and reproduction of motor skills. A greater emphasis on the declarative knowledge of movement sequences most probably assists in the learning, recall, and propagation of choreographed sequences. In this manner, the repetition of choreographed movements facilitates the rapid acquisition and transmission of new movement vocabularies.

Ingold (2001) believes that each generation accumulates and adds to the knowledge of their predecessors through a process of enskilment. Through enskilment, the apprentice generation is not a passive recipient of information, but rather the active pursuant of ways of interacting with the world. Students do not acquire their knowledge ready-made but grow into it through a process of “guided rediscovery” (Ingold 2000:356). In other words, cultural information is rediscovered by students through the guidance of others. As they make their way through a field of related practices, students model their actions on the movements of teachers. The student is not mechanically reproducing the model, but aligning observations of the model with action in a world that is constantly fluctuating. One might ask: if the world fluctuates too much from the context of the original model, will a culture-specific pedagogy of enskilment continue to find relevance?

In the suraus of West Sumatra, silek minang was an instructive intervention that did not impose a choreographic design upon a student's movement, but offered a means of improvisation for the student to move within Minangkabau society and to navigate through a specific world of cultural activity. In the practice of silek minang, young students learnt the prescribed yet unverbalised codes of conduct that permeated Minangkabau life. Since Indonesian independence and the advent of intense globalisation,

changes in the structures of Minangkabau society have been so great that the practice of silek minang struggles to find the utility it once had. The relevance of silek minang is changing. In the context of rural festivities, silek minang is performed for entertainment but also serves as a marker of cultural heritage and regional identity. Talempong paciek, also a cultural heirloom of the Minangkabau, adds to the nostalgic sense of tradition, because it too taps into sentiments of heritage and identity.[7] The multisensory coupling of traditional music and traditional movement may seem arbitrary because it does not have any rhythmic structural relationship. However, silek minang and talempong paciek reinforce each other to an audience who recognise both arts as rich expressions of cultural patrimony.

[7] For a performance of silek minang accompanied by talempong paciek, please see track two on the accompanying DVD. For a performance of silek minang accompanied by talempong and gendang tambuah, please see track three (this presentation was performed on broken glass to add to the spectacle).

4. Pencak Silat Seni in West Java, Indonesia

4.1 Music for the fight

The Sundanese of West Java have developed a form of fight-dancing called *pencak silat seni.* [8] Small orchestras comprising percussionists and a woodwind player accompany exhibitions of pencak silat seni with sounds and motifs that mimic the performer's movement. Musical accompaniment is rare in training but common during rehearsals for an upcoming presentation. Pencak silat seni was developed through aristocratic modes of sponsorship during the colonial period. After independence, the genre became affiliated with nationalist ideologies and today is a regular feature at regional and national events. In his research about Sundanese popular dance, Spiller describes the expectation that movement is animated by musicians as an aesthetic related to the "social relationship between dancer and drummer—an aristocrat and a hired servant, respectively" (2010:73). In the embodied practice of pencak silat seni, the relationship between music and movement is a historical artefact that has become formalised through competitions and reinforced through the economic relationships between movement artists and musicians. While Sundanese dancing is described as "a masculine pursuit in much the way that sports are in the Western world" (Spiller 2010:36), both men and women participate in contemporary pencak silat seni.

Martial arts throughout Southeast Asia have travelled variously through Buddhist, Hindu and Islamic channels (Barendregt 1995; Gartenberg 2000; Pätzold 2000; Wilson 2002). The nationalisation of pencak silat in Indonesia, however, has led to a downplaying of foreign influences (Wilson 2002:35), such as those from China, India, Mongolia, Persia, Turkey, Tibet, Japan, Korea and Europe (Gartenberg 2000:30). "Pencak Silat is a compound word" (Notosoejitno 1997:1) that refers to the authentic martial arts of the Indo-Malayan archipelago. Pencak silat practitioners consider it to be a sport, an art, a form of combat training, and a tool for mental and spiritual development. The artistic form is officially called 'pencak silat seni' and is based on the fighting techniques of pencak silat and often accompanied by music. In conversation, the title 'pencak silat seni' is often abbreviated to 'pencak silat', or sometimes just 'pencak'. 'Silat' is also a generic and widely encountered term for martial or fighting arts in post colonial Indonesia

[8] Performances of pencak silat seni can be viewed on tracks five, six, and seven of the accompanying DVD.

(Gartenberg 2000:18). As with much of the Indonesian language, the context drives the meaning.

Figure 4.1: Pak Haji Uho Holidin performing knife techniques at his home in Bandung. (Photo: Paul H. Mason 2008).

Pencak Silat Panglipur is a Sundanese club that teaches and performs a style of pencak silat seni based on the Sundanese traditions of pencak silat from the West Java regions of Cikalong, Cimande, and Sabandar. The club is prestigious and attracts a large number of local students of all ages, both male and female. A prominent figure in this club is Haji Uho Holidin, a 72-year-old performance artist who lives in Bandung, West Java (see figure 4.1). He is a senior teacher in a branch called Pencak Silat Panglipur Pamager Sari. With an experienced eye, Haji Uho still actively surveys and monitors the progress of students. Training usually takes place after Isha prayer on Tuesday nights at a performance space near his home. Devoted students also schedule their own training sessions in their respective suburbs. At training, Haji Uho teaches movements and explains their functions, urging students to understand the intent of each movement so that their performances are both meaningful and attractive. Younger students model their performances on Haji Uho's moves, which are still graceful and powerful despite his age.

4.2 Military-like Drills and Formalised Sequences

Haji Uho, like other gurus from his club, spent a short period of time in the late 1970s and early 1980s teaching pencak silat to the Indonesian army. From the training methods of Pencak Silat Panglipur, a series of basic sequences of movement were used to create military drills. The use of these drills in army training reinforced the formal physical pedagogy of Pencak Silat Panglipur. The adaptability of this physical pedagogy for large-scale training also made the club popular with the national pencak silat association, the Ikatan Pencak Silat Indonesia (IPSI). A mixture of government support and a well-structured physical pedagogy allowed Pencak Silat Panglipur to reach a large number of students nationally and internationally. The geographic proximity of West Java to the capital, Jakarta, also facilitated the expansion of Pencak Silat Panglipur. In West Java today, Pencak Silat Panglipur is taught in private clubs and schools all around the region. However, Haji Uho, like other gurus of his generation, prefers to focus on the artistic expression of pencak silat rather than the potential violent application.

Though taught as an art, Pencak Silat Panglipur physical training maintains the military-like drills that made the pedagogy effective for army training. When funds and facilities are available, teachers like to use music to accompany physical training. Most students pursue mastery of the movements while some students may end up pursuing the musical side of the art by specialising in one instrument or another. A major feature of pencak silat seni training is the formalised sequences of movement that every student must master upon entry into the club. Based on these sequences, students are then taught more choreographies that are taught en-masse to large groups during weekly training sessions that are held during the day or evening. En-masse training is best complemented by private instruction with a guru. The best students are often the relation of a respected guru and have received one-on-one instruction from a parent or close relative. Other students may be fortunate to receive close attention from a guru in the lead up towards a performance or competition. Sometimes, a student may work closely with a guru outside of the formal training sessions due to aptitude or commitment to the art.

The widespread use of music in training and performances allowed research in West Java to be largely centralised in Bandung. I was also able to become a student of Pencak Silat Panglipur while maintaining the research objective of surveying the various combat-

dancing practices in the region. I travelled with Pencak Silat Panglipur to various events and was able to document festivals where numerous clubs met together to share their art. Though affiliated with one group, I was introduced to teachers from various clubs and was exposed to a variety of schools of pencak silat seni. In fact, unlike in West Sumatra, affiliation with a single group facilitated the aims of my research project in West Java.

4.3 Pencak silat seni as cultural art

While pencak silat is traditionally regarded as a sport for men, the artistic component of pencak silat seni offers both men and women an attractive way to learn fighting skills. The beauty of the music and the choreographed movement allow practitioners to enjoy the art without the pain and struggle of combat practice. Furthermore, the lack of physical contact in the militaristic training style of many schools allows boys and girls to train alongside each other. Dian Nur Dini, a 22-year-old female performer who has toured Korea and Malaysia with Panglipur Pamager Sari, said, 'Women must know how to defend themselves. Inside the beautiful music and movement of pencak silat seni, there are effective combat techniques.'

For dedicated practitioners like Dian, pencak silat seni offers opportunities to travel to other countries. But the art is certainly no way to earn a good living. Even a well-known and respected pencak silat teacher like Haji Uho has to run another business. Haji Uho does not request payment for teaching pencak silat. To make money, instead, he makes clothes for pencak silat performers. As a sign of appreciation and respect, his students and his students' students loyally buy their silat costumes from him. He employs a small number of young tailors to sew the clothes that he sells to schools in Bandung as well as to some affiliated training centres in Europe. At night, if Haji Uho is not training advanced students in the front room of his house, he will often be found in his workroom (which is also his kitchen) cutting material and preparing silat clothes. For Haji Uho, the business is a labour of love. He believes that the art form fulfils a human need for beauty, and he gets great pleasure from creating pencak silat costumes that adorn the performers.

Pencak silat seni can be performed as a solo, duet, or quintet using combative movements as the building blocks of elaborate choreographies. Haji Uho has been a key figure in developing many new choreographies based on the movement material taught to him by

his teacher, Abah Aleh (who is said to have lived from 1856 to 1980). These choreographies are much loved by West Javanese audiences and are a source of cultural pride. Dian Nur Dini states, 'Apart from being a hobby and a great way to keep fit, pencak silat is part of being Indonesian. It is a way for me to preserve my culture.' As Dian Nur Dini suggests, pencak silat is part of Indonesia's rich cultural heritage. In West Java, pencak silat seni is performed at weddings and circumcision ceremonies. Clubs come together at regional contests and festivals to demonstrate and test their skills against one another. Competitions involving clubs from various parts of the archipelago are also held at the national level.

4.4 The art of the competition

Pencak silat seni competitions organised by the regional West Javanese Association, Persatuan Pencak Silat Indonesia (PPSI), are opened by speeches from local pencak silat personalities as well as government figures when representatives are present. One regular feature at the beginning of competitions is a militaristic recitation of the mission and vision of the PPSI, as well as the *Pancasila*. An esteemed representative of the PPSI marches on stage with a steady gait and sharp ninety degree turns. He stands rigidly in front of the microphone, opens the script and reads aloud in sculpted and commanding prose. The five principles of the Pancasila that he reads include: belief in one God, nationalism, humanitarianism, social justice, and democracy.

The Pancasila is a doctrine fundamental to an explicit national ideology that underpins the desire to make Indonesia a prosperous modern state (see Vickers 2005:117). The five principles in their original form were first made public in a speech by President Sukarno on the first of June 1945. Sukarno, during the Japanese occupation, was actually the patron of a silat federation that preceded the PPSI (Maryono 2002:84). This earlier federation allegedly began in 1922 during the Dutch colonial period and was originally called the 'Perhimpunan Pencak Silat Indonesia.' The purpose of the earlier federation was to bond the West Javanese styles of pencak silat that had spread throughout the archipelago (Maryono 2002:83). Due to political upheavals, the federation ceased activities for a few years but was reorganised in 1950 with the purpose to "serve public interest in order to realise the objectives set forth in Pancasila and the Constitution of the

Republic of Indonesia, working in the spheres of social affairs, economics, and culture to improve people's welfare" (Suara Merdeka 1950:2). The Perhimpunan Pencak Silat Indonesia projected a national image, but its membership was local. Today, the Persatuan Pencak Silat Indonesia simultaneously projects a regional and national image, and members can join from almost any West Javanese school of pencak silat located anywhere in the world.

The militaristic opening to regional pencak silat competitions organised by the PPSI is a reflection of the opening ceremonies for the national pencak silat competitions organised by the Ikatan Pencak Silat Indonesia (IPSI). The national organisation, IPSI, was founded in 1948 and was originally called Ikatan Pentjak Soeloeroeh Indonesia. In 1973, some six years after Suharto came to power in 1967, the IPSI board became militarised, and a retired Brigadier General of the Armed Forces was elected as chair. In that year, the hybridised name 'Pencak Silat' became officially accepted as the term to encompass all indigenous styles of Indonesian martial arts. Prior to this time, martial arts around the Indonesian archipelago were either called 'pencak' or 'silat' or some other name (e.g. 'silek' or 'pancak' in West Sumatra). The term 'Pencak Silat', it was deemed, sufficiently represented and incorporated the assortment of Indonesian martial arts. Correspondingly, IPSI formally incorporated 'Pencak Silat' instead of 'Pentjak Soeloeroeh' into their title. The fact that 'pencak silat' sounds similar to the word 'Pancasila' would not have detracted from their decision. The IPSI became linked with the Pancasila by 1978 and started to play a role in national defence and development during the New Order.

The compound name of 'pencak silat' is an artefact of multiple different regional training styles of martial arts throughout Indonesia. In the words of Jonathan Haynes, "Names conceal as well as reveal" (2007: 106). For example, the title of 'Bollywood' covers up the production of Indian films in languages other than Hindi such as Tamil, Bengali, and Punjabi (*ibid*.). Similarly, the name 'Nollywood' covers up the diversity of film productions in Nigeria (*ibid*.). With regard to 'pencak silat,' Indonesian authority figures have sought to promote the ideology of 'unity in diversity', and they have grouped together the multitude of martial arts from around the archipelago under one title. Progressive schools who have eagerly adopted this mission, "have worked enthusiastically to standardize pencak silat movements into packages geared towards specific levels of proficiency" (Maryono 1998:118). The act of standardising movement

repertoires has placed pressure on many of the abstract combative gestures of village-based martial arts groups around Indonesia. Various schools linked to the IPSI have favoured physical efficiency to the detriment of symbolic proficiency in attempting to systematize the art (Bastide 2005). Furthermore, IPSI implicitly ask schools wishing to be part of the organization to abandon their local system of reference and adopt the national ideology. The condition is *sine qua non* for any school wishing to establish satellite academies outside their homeland.

In the late 1960s, pencak silat became a part of a Suharto regime strategy called "Dwifungsi ABRI/TNI". This strategy aimed to tighten the networks amongst military, police, and civil instances. Pencak silat fitted in well with this strategy. As an embodied practice with martial ideology and an emphasis on self discipline, pencak silat became an art predestined to transport the ethic of personal development and national development into the Indonesian youth (Pätzold 2008:106-107). Benefactors frequently came from the civil and military government apparatus. They monetarily supported schools, associations, competitions, and performances of pencak silat. Until recently, the chair of the IPSI, for example, was the retired Major General of the Armed Forces Eddie M. Nalapraya. Another military patron of Pencak silat was Lieutenant General Prabowo Subianto, the son-in-law of President Suharto. Prabowo financed the activities of a school based in Banten called *Satria Muda Indonesia* ('Young Indonesian Knights') (Ryter 1998:71), which by 1997 had grown to encompass numerous pencak silat clubs from 22 provinces throughout the archipelago with an estimated total membership of around 46,000 (Wilson 2002:270). Prabowo also held a position at the head of the IPSI. With this visible connection between the National Pencak Silat Association and Suharto's son-in-law, the art of pencak silat went through an unsettled period after Suharto's fall from power in 1998. The strong presence of the IPSI receded and in some regions the art of pencak silat was recognised as Suharto's art (Pätzold 2008). With time, however, pencak silat has regained its reputation and is once more associated with more general values of national identity and regional pride. The socially remembered past in Indonesia is often subject to short-term recall.

Evidence of Suharto's and Prabowo's influence on the pencak silat world can still be seen in the competitions and events held today. I was reminded of this influence on a trip to a pencak silat event in one of the outer villages of West Java in April of 2008. Gazing

Figure 4.2: A radio station in Majalengka, West Java. The emblem reads: *Sekali Layar Terkembang, Surut Kita Berpantang* (Once the sails catch the wind, Our wake we shall not revisit). (Photo: Paul H. Mason 2009).

absentmindedly into the passing scenery, I was awakened by the sight of a statue of a large falcon sitting atop a Harley-Davidson style emblem beneath the letters N-A-Z (see figure 4.2). The statue was in front of a bland building reminiscent of the architecture of Albert Speer. The building was home to a local radio station coordinated and sponsored by a political party called the *Pemuda Pancasila* (The Pancasila Youth). Suharto and Prabowo had notorious connections to the Pancasila Youth and allegedly used the organisation as a source of pencak silat trained hoodlums who instantiated the power of Suharto's family through aggressive riots, acts of mayhem, and violence up until 1998. They were a non-official pool of youth who could be loosed on political adversaries or simply to stir up the appearance of disorder to justify military crackdown. Indonesian press of the reform era accused the Young Indonesian Knights (SMI) and the Pancasila Youth of involvement in the anti-Chinese riots of May 1998, the massive damage to the city of Solo also in May 1998, the Ketapang incident in Jakarta, as well as acts of provocation and terror in Kupang, the Molluccas, West Kalimantan, Lombok, South Sulawesi, Medan, Irian Jaya, Aceh, and East Timor (Gartenberg 2000:197). Although Prabowo later denied that SMI instigated the riots, "he did not totally dismiss the possibility that 'rogue elements' (Ind: *oknum-oknum)* of SMI may have been involved" (Wilson 2002:278).[9] The shape of the emblem of SMI has sinister resemblances to fascist symbols. The crossed *keris* (traditional ceremonial knives) surrounded by a ring of feet captures the conjunction of nationalism, martial arts, and militarism. The rice stalks are a symbol that as people grow older they should become more humble.

[9] A more complete history of the Young Indonesian Knights (Satria Muda Indonesia, SMI) is offered by Wilson (2002:267-280).

Figure 4.3: Logo of the Young Indonesian Knights (Satria Muda Indonesia, SMI) with the motto: "Self Defense for the defense of the nation". SMI promoted a form of somatic nationalism where "The silat body was politicized in dramatic fashion; to learn to 'defend oneself' (Ind: *bela* diri) was inseparable from learning to 'defend the nation' (Ind: *bela bangsa*)" (Wilson 2002:280).

NAZI propaganda is found throughout Indonesia and is not limited to the Pancasila Youth. The Nazi Swastika (as opposed to the Buddhist Swastika) is found emblazoned upon products at markets, painted on public transport vehicles, and in the merchandise from local pop artists. In bookstores, entire sections are devoted to books about Hitler and Nazism, and *Mein Kampf* has been translated into Bahasa Indonesia. The deep-seated interest in Hitler and the Swastika, it seems, is less associated with anti-Semitism and more closely related to nationalism (Suciu 2008). Nationalist pursuits and the fascination with Hitler may have started in the very early days of the Republic. In the book, *The Spectre of Comparisons*, Benedict Anderson recounts his "strange experience" of listening to President Sukarno talk about Adolf Hitler "not as mass murderer, not even as a fascist and anti-Semite, but as a nationalist" (Anderson 1998b:1). As an offshoot of the nationalist-inspired interest in Hitler, the Pancasila Youth are a strange parallel to the Hitler Youth. Similarly, the efforts to mobilise pencak silat into a national sport are reminiscent of the Nazi Party's mobilisation of gymnastics and community dance to embody nationalist aims.

With Sukarno's interest in the nationalisation of pencak silat, Suharto and Prabowo's interest in the militarisation of pencak silat, and the accompanying standardisation of the art, many proponents envisioned pencak silat to one day embody some sort of 'National

Calisthenics'. As part of Suharto and Prabowo's vision for Pencak silat, a huge training complex called the Padepokan Pencak Silat was constructed on 5.5 hectares of land adjacent to the Taman Mini Indonesia Indah in Jakarta. The enormous complex includes a library, several training rooms, stadium, hotel, restaurant and seminar facilities. The complex was constructed between 1994 and 1996 and inaugurated by Suharto in 1997. The inspiration for this facility was the desire for a space to host large events celebrating the national martial art of pencak silat. Movement sequences were created for practitioners to be performed *en masse* that, as nationalist propaganda, would have deeply resembled the movement choirs that became popular in Germany between the world wars.

Based upon specific principles of organising dance, sound, and word, Rudolf Laban originally created 'movement choirs,' large groups of novice dancers moving as the embodiment of social harmony (Kew 2001). In Germany during the 1920s, movement choirs became political in nature and began to be coordinated by socialists, such as Martin Gleisner (2001:78). The Nazi Party renamed the movement choir a G*emeinschaftstanz* ('community dance'), and the Ministry for Enlightenment and Propaganda staged large-scale community dances (*ibid*.). In a similar vein, the militaristic choreographies of pencak silat, under Suharto and Prabowo's direction, were geared as a national Indonesian body practice and an expression of unity and solidarity. While the *en masse* demonstrations of a nationalised pencak silat have since declined in popularity, training camps, competitions, and arts events have remained popular at the Padepokan Pencak Silat.

Militaristic direction over pencak silat has waned, but Nazi-like tendencies continue on the superficies of pencak silat events. For example, the nationalist speeches at the opening ceremonies of National Pencak Silat competitions at the Padepokan Pencak Silat resemble the speeches of Adolf Hitler in style, prosody and emotional tenor. Such observations may seem disturbing, but Indonesians do not associate Hitler-resembling speeches to oppression, death and torture. Indonesians are not taught about Nazism and the Holocaust at school (Matroji 2006:21). They have little historical knowledge of one of the world's most violent and notorious dictatorships. Where Nazism is discussed, the rise of Hitler is justified and explained by Germany's socio-economic situation after the First World War. The Aryan policies of the Nazis are mentioned, whereas the Holocaust is left

out (Matroji 2006:23). Some view of Nazism is offered at national pencak silat events, because Nazi-like behaviour is being evoked but the association to war crimes are mild. Nazism is accepted for aesthetic reasons more than for acceptance of *Mein Kampf*. Stripped of its associations with genocide, the appeal of Nazism is complex, political, nationalist, militarist and aesthetic. The aesthetic appeal of Nazi propaganda such as eagles, fierce logos, and architecture as expression of nationalist art helps explain the association of Nazism with some forms of pencak silat.

Nationalist voices have promoted pencak silat as an authentically Indonesian martial art. Nationalist fervour has sculpted the choreographies, rules, and regulations of pencak silat, with standardised repertoires of movement a direct result. Schools of pencak silat who wish to participate in national competitions must teach a choreographed sequence of 100 movements that include 50 open-hand moves (*Tangan)*, 25 knife techniques (*Golok*) and 25 staff techniques (*Raton*), collectively called '*Tangan Golok Raton'*. This choreographed set of movements is the basis of one of the IPSI competition categories and is judged upon three criteria: technique, rhythm and expression (*wiraga, wirama*, and *wirasa*). Other IPSI competitions are sport-oriented or art-based. The creation of a national competition standard for sport-oriented and art-based pencak silat ensures that all pencak silat practitioners perform the same art.

4.5 The Development of Music for the Fight

Pencak silat accompanied by music is almost invariably called 'pencak silat seni,' which means 'pencak silat art.' Each region of Indonesia uses a different set of instruments to accompany their particular style of pencak silat seni. The musical accompaniment to pencak silat seni in West Java is generally called *kendang pencak* named after the feature instrument, the *kendang* (see figure 4.4). The kendang are a two-headed leather-laced small barrel drums with a slightly bulging body. A kendang pencak ensemble may include any combination of the following instruments: *kendang ibu* (mother drum set) with two *kulanter* (small double-sided barrel drums), *kendang anak* (child drum) also with two kulanter, *kenong* (suspended gongs), gong (hanging gong), ceng-ceng (small cymbals) and the *tarompét* (double-reed aerophone). The most popular combination of instruments, often featured in PPSI competitions, is composed of two sets of *kendang*

drums (*kendang ibu* and *kendang anak*), a gong and a *tarompét*. The selection of instruments is rarely a random choice with most groups having a mandatory ensemble type, for example *Kendang Pencak, Genjringan, Terbangan, Gendan Patingtun*, among others (Pätzold 2000).

Figure 4.4: A kendang pencak group accompany a night-time performance of pencak silat seni. There are two sets of kendang drums, a gong and a tarompet player (hidden behind the gong). The musicians face the movement artists and are positioned behind them on stage.

The musicians attempt to mimic the punches and kicks of the performances with appropriately placed slaps of the drums and capture the feel of a pencak silat seni performance through tunes on a woodwind *tarompet*. The kendang ibu usually plays an ostinato, and the kendang anak drums are used to complement and illustrate the performers' movements. The gong serves a colotomic function and punctuates the time-cycles at regular intervals. If the gong is played slow, then the performance is correspondingly slow; if the gong is fast, the movement is fast. A variety of different rhythms played on the drums have different origins, like the rhythm known as Paleredan, from the village of Palered, and Tepak Dua, from Cimande. The drummers follow the movements of the performer with their playing, and develop great sensitivity to the choreographed movements of the art form. Sundanese audiences become very involved in the performances. The music is loud, and the audiences love to add to the atmosphere by shouting in time with the music and crying out their support for the performers. The double-reed tarompet player contributes to the festive ambience by playing repetitive melodies that match the tone of the performance and the audience's reaction. Melodies drawn from the Sundanese song repertoire can be performed in the *pelog* seven-note scale or the *salendro* five-note scale. The inclusion of music with pencak silat seni has a history that is only traceable to the early part of the 20th century with no reliable information indicating if music was present earlier.

Throughout the Indo-Malayan archipelago, "the wielding of martial force has historically played a determinant role in the establishment, maintenance and extension of political

authority throughout the archipelago" (Gartenberg 2000:44). Colonial history no doubt altered the trajectory of pencak silat and catalysed the marriage of music and movement in the creation of pencak silat seni. "The Dutch policy of indirect rule turned the kings, regents and other aristocrats into civil servants, albeit ones who retained all the titles and outward signs of ceremonial hierarchy" (Vickers 2005:36). This policy in some part served "to distance the aristocracy from the rest of the population" (*ibid*.). Instead of corvée and products from the land, the regents and their extended families received government salaries (*ibid*:37). The Dutch effectively changed the sultans, kings, and nobles into civil servants. However, their salaries were not enough to live off. In order to maintain themselves, their extended families, and their retinues in style, the regents and monarchs placed pressure on those below them in the social structures.

> Complex manoeuvres by rulers and regents allowed them to keep some notion of the income from their land, even when the land had been formally taken away from them. By convincing village heads and peasants to remain loyal to traditional leaders, not abstract notions like 'the state', the regents were able to continue extracting corvée from their subjects. They backed up their pressure on the peasants by employing spies and thugs to show them what their obligations were. (Vickers 2005:38).

In addition to fear-tactics, the regents also used positive reinforcement through entertainment and the arts. They hired artists, musicians, poets and dancers for entertainment and popularity and justified their status by serving as patrons. From the array of performance artists that patrons could choose, pencak silat artists were especially useful to hire. The graceful movements of the martial art entertained and brought joy to audiences while simultaneously demonstrating a strength and skill that should be feared, an excellent performance metaphor for their new status. When the direct power of pencak silat was superseded by the superior weapons of the Dutch, the indirect power of pencak silat seni was used to legitimate authority within regional social structures.

In West Java, the Regents of Bandung were instrumental in revitalising and inventing classical Sundanese arts and shaping Sundanese identity (Williams 2001). The story of the celebrated pencak silat group Pak Haji Uho Holidin performs with, Pencak Silat Panglipur, is connected to the history of the Regents of West Java. In the second half of the 19th century, the popular Regent of Bandung, Bupati R. Adipati Wiranatakusumah IV (1846-1874), who was affectionately called *Dalem Bintang* (the Royal House of Stars) by

local citizens, commissioned a performance of pencak silat (called *maempo* back then) and a recitation of *Cianjur* poetry. The pencak silat performance included Pak Haji Uho Holidin's teacher, Abah Aleh, accompanied by drum, and poetry recited by Hamim accompanied flute and mandolin. Dalem Bintang was sick at the time, but felt comforted by the entertainment, and attributed his recovery to the performance. In gratitude, he bestowed the name "Panglipur" on the performance troupes (Maryono 2002:178-179). Some people suggest that the word "Panglipur" is related to the word "Penghibur" meaning "to entertain." At the time of the performance before Dalem Bintang, Abah Aleh may still have been a student of pencak silat, but in 1909 Abah Aleh founded his own pencak silat group, which he christened Panglipur. Even if the story is a myth, the tale highlights the appeal of martial genres to authority in the construction of a popular performance style. In September 2009, Panglipur celebrated their 100th anniversary.

Of course, regents were not the only people to hire pencak silat artists. These revered artists were also hired by the villages themselves for a noble form of entertainment at circumcision ceremonies, weddings, cockfights and harvest ceremonies. Highly successful pencak silat artists were able to bring a troupe with them and pay musicians to accompany their performances. The monetary relationship between martial artist and musician often dictated the direction of the relationship between music and movement. The pencak silat performer was paying the musician to accompany his moves, so the music followed the movement.

Music was not always an accepted part of pencak silat performances. Gan Didi (1859-1942), a master of pencak silat from Cikalong, made efforts to meld Cikalong movements with a traditional music genre called *karawitan* (Wilson 2002:75). At the time, solo performances of pencak silat from the Cimande region already existed in the Priangan area, but solo performances did not yet exist in Cikalong. Gan Didi's solo choreographies incorporated offensive and defensive movement patterns that appeared like a fight between the performer and an imaginary opponent. Other Cikalong masters criticised this deviation from established tradition and voiced concerns that someone who had mastered these solo choreographies might feel that they had full knowledge of the Cikalong fighting arts, "when in reality they would only have the 'flower' (Ind: *bunga*) but not the 'fruit' (Ind: *buah*)" (*Ibid*.).

Despite the challenges, music was a regular feature of pencak silat seni performances by at least the second half of the twentieth century. (Earlier records are scarce). In village communities, pencak silat performers were not always hired artists. During festive events, community members could be inspired to enter the performance space and demonstrate their skills in pencak silat seni. Unless other arrangements were in place, the aspiring performer would offer a small amount of money to the musicians and request a certain kind of accompanying rhythm and perhaps even a song. In general, the musicians obliged because goodwill was lucrative for business. If, on the odd occasion, the amount of money offered was deemed too small, or if a musician and a performer were not on good terms, then the musical accompaniment may have suffered. The drum rhythms may have been deliberately played wrong, the song may have poked fun at the performer, or the dynamics may simply have been purposefully mismatched. To ensure the quality of a performance, professional pencak silat artists work to maintain a strong relationship with their musicians and will often work closely with them over many years.

Today, the power asymmetries between movement artist and musician in pencak silat seni groups are not as pronounced as they once were. Pencak silat troupes are often coordinated much like theatre companies. Because the bulk of the movement artists are young amateurs, they typically receive less than the musicians who are trained professionals and much older. The physical and perceptual demands placed on pencak silat musicians means that they must have many years of experience to be proficient accompanists. While the lead movement artist of a pencak silat troupe may receive the greatest portion of the group's fee, the musicians will receive a substantial share of the profits.

4.6 Percussion for pencak silat seni

Pak Oseng is a *Kendang Pencak* musician. He plays drums to accompany Sundanese pencak silat seni and is a regular accompanist for Pencak Silat Panglipur. According to the movement artists, Pak Oseng is one of the best accompanists around. He matches the moves of performers with corresponding rhythm, dynamics and intensity. His mimetic skill at bringing a musical component to punches, kicks, grapples and holds while sustaining an entertaining rhythm would be beyond the skill of most percussionists, but to

Pak Oseng it has become second nature. Strong punches are accompanied by loud hits, suspense is mimicked by stereotyped rhythms, and the qualitative aspects of the movement are matched in timbre and tessitura. He can sustain performances from five minutes to a couple of hours without breaking a sweat—quite a feat in the tropical climate of Indonesia. He can even do it while chain-smoking!

Two sets of drums are used to accompany Sundanese pencak silat performances. The kendang ibu drummer sustains a steady tempo while the kendang anak drummer improvises freely in fitting with the moves of the movement artists. A number of different rhythmic tempos are maintained by the kendang ibu drummer around which the kendang anak drummer can improvise. Each rhythm has a name such as *tepak dua, paleredan, tepak tilu*, and *padungdung,* among others.

Figure 4.5: Pak Oseng plays the kendang at the house of Pak Haji Masri, one of the artistic directors of Pencak Silat Panglipur. (Photo: Paul H. Mason 2008)

Performances will normally commence with either a *tepak dua*, or *paleredan* rhythmic accompaniment. This section is performed at a relaxed pace and allows practitioners to demonstrate the beauty of their art while providing the audience with the time to enjoy the movements. The practitioner performs seven movements between each gong cycle.

These movements are guided by the tempo of the kendang ibu and matched by the rhythmic accents of the kendang anak. The practitioner sustains the seventh movement on the sound of the gong. Tepak dua is regarded as the most traditional rhythm, requiring more poise and control. Paleredan, a rhythm related to tepak dua, has shorter pauses on the sound of the gong and which practitioners considered "the middle rhythm of tepak dua", because it lacks the rhythmic embellishment of tepak dua.

In a typical performance, the tepak tilu section follows from tepak dua or paleredan opening. Tepak tilu is slightly faster and livelier. The rhythm of the kendang ibu is steady, and the timing of movements is correspondingly constant. The practitioners will perform four movements per gong cycle. These movements are executed at a strident and predictable pace, and accompanied by the accents and metric timing of the kendang anak. The obstinate beat and continual movements build excitement and lift the vitality of a performance.

The padungdung section is the final and fastest section that involves an increase in tempo, the most perceptible examples of circular breathing by the wind-player, and the most virtuosic drumming by the percussionists. The kendang ibu plays a steady fast-paced rhythm while the kendang anak responds explicitly to the movements of the performers with corresponding slaps and bangs that imitate the kicks and punches. Musicians and audience can sometimes interject vocally with shouts and shrieks. The padungdung is the climax of a performance and normally only lasts for a very brief time (generally thirty seconds to one minute). The end is often a symbolic victory.

Free improvisation requires the close attention of the drummer to pre-empt moves such as punches that require accompaniment by a loud hit of the drum. But the relationship between sound and movement is not always strictly one movement to one sound. Multiple sounds can accompany a single movement. For example, a movement artist might finish a performance by raising a knife in a large arcing movement that slightly slows down as it moves towards the sky, to which the drummer might play a series of slowing notes that raise in pitch much like the sound of a metal coil being wound tighter and squeakingly tighter. The energy of the performer is then suddenly released as the knife is thrust downwards as if to kill an imaginary adversary, and the movement is explosively accompanied by a loud "Babaam" on the drums. The sound of the tarompet may linger

for a few bars more until the song is finished, and the drums will play a fading rhythm as if enacting a symbolic death. The decaying sounds of the drums and tarompet simulate the calm after a battle and return the sonic atmosphere to a resting state. The coinciding structural temporal aspects of the movement of pencak silat seni with the music of kendang pencak is a prime example of a performance genre where the music and movement are explicitly related through corresponding levels of tension (For a discussions about the perceptual relationship between music and movement through corresponding levels of tension see Krumhansl 1995, 1996, 1997; Krumhansl and Schenck 1997). The correspondence in tension between musical events and movement sequences in pencak silat seni are far more nuanced than entrenched analogies and direct one-to-one mappings.

Drummers like Pak Oseng have to know how to build tension and how to read the body of the performer in order to accompany powerful combative moves while adding beauty to the flower of the movement, the *bunga*. As you would expect, the more familiar Pak Oseng is with the performer's ability, the better he is at accompanying the performance; his ability to read his co-performer is heightened by familiarity. However, the difference in his skill when accompanying familiar and unfamiliar co-performers is unnoticeable to most audiences.

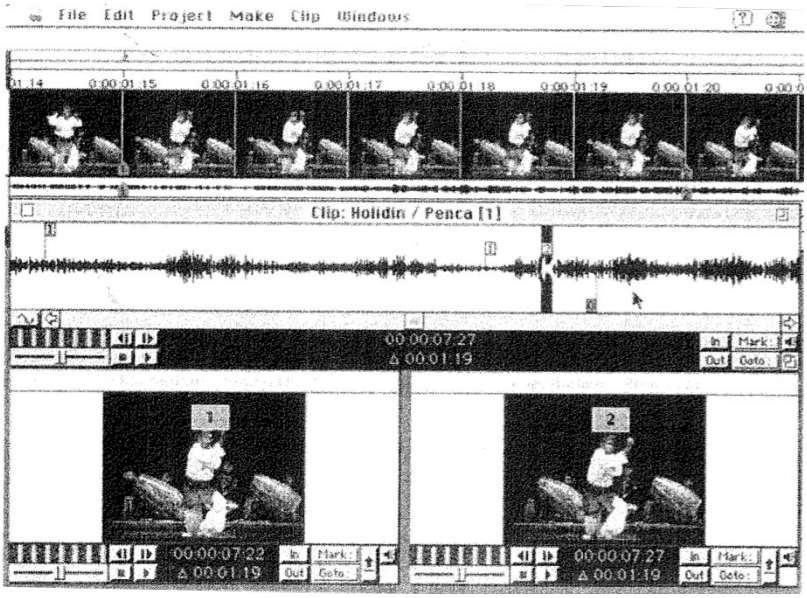

Figure 4.6: Frame shots from a recording of pencak silat performed by Haji Uho and accompanied by a kendang pencak orchestra. Image from Pätzold (1995).

A recording of a 1990 performance of pencak silat seni by Haji Uho and accompanied by

a kendang pencak orchestra with Pak Oseng on kendang anak reveals that Pak Oseng was able to mimic Haji Uho's movements at a latency of less than 200 milliseconds (Pätzold 1995:405). From the frame rate of the camera, we can decipher that the drum slap corresponding to the visual cue was performed at a rate no slower than 200ms after the visual cue (see figure 4.6). This observation is significant because a sensory experience can take anywhere up to 500 milliseconds to become part of conscious awareness (Tononi and Edelman 1998:1848). Without resorting to elaborate hypotheses, one explanation is that Pak Oseng's ability to accompany a performance is enhanced by his ability to predict the performer's movement. Guided by the phrasing of Haji Uho's sequences of movements, Pak Oseng can comfortably predict the termination of one movement and the development of the next. Perceptions can be trained to extraordinary precision, including 'reactions' faster than should be possible because of the ability to see subtle cues that allow actions to be anticipated. In behavioural neuroscience, extensive practice is known to increase the myelination of neuronal pathways involved in undertaking a task, thus making reaction times faster (Miller 1994; Ullen 2005). Whether due to increasing myelination through practice or some other neural mechanism, Pak Oseng's ability is evidence of a cultural practice that shapes his perceptual and physical capabilities.

4.7 Woodwind for pencak silat seni

Figure 4.7: Pak Darman Santikahidayat at his home playing the Kecapi.

Pak Darman Santikahidayat is one of several blind musicians who accompany pencak silat performances and competitions throughout Bandung. He is often asked by the students and teachers of Pencak Silat Panglipur to accompany their performances. Being a musician enables Pak Darman to earn money and avoid the hardships frequently faced by people with disabilities in Indonesia. Welfare from the state is limited.

Pak Darman can play both woodwind and string instruments, so he receives invitations to perform at a variety of local events. When not playing music, Pak Darman works as a masseur, an occupation not uncommon for blind people in Indonesia. Most of Darman's patients arrive in the late afternoon or evening. During the morning to early afternoon, Pak

Darman sometimes gives music lessons. However, music lessons, massage patients, and music performances arrive sporadically, so a steady income is never certain.

Kendang pencak musicians need to attend closely to the movement of a pencak silat performance. This requirement puts Pak Darman in a challenging position. He can't see the performances. Despite this handicap, however, Pak Darman demonstrates great skill as an accompanist. During pencak silat performances, he matches the intensity of a performer through the choice of melody, loudness, and the roughness of sonic tone. He also chooses songs that correspond well with the energy, ambience, and excitement of the audience. Songs on the tarompet are chosen from the traditional and popular Sundanese repertoire. Although Pak Darman cannot communicate through gestures or eye contact, he can nevertheless respond immediately to changes in rhythm, speed and general atmosphere. Pak Darman's skill and knowledge of his craft is so deep that simply by listening to the improvisations played on the kendang anak, he can quite often even tell you who is performing the pencak silat movements.

On one occassion, I met Pak Darman just after filming a pencak silat seni performance in the outer suburbs of Bandung. He asked to listen to the recording that I made. After only a few seconds of listening to the recording, he commented, "Oh, that's Pak Haji Uho." Indeed, to my amazement, Pak Darman had guessed correctly that it was Pak Haji Uho who was performing. When I enquired how he knew, he replied, "It's the rhythm. That's Pak Haji Uho's style alright." Simply by listening to the improvised kendang anak accompaniment that mimicked and gave acoustic life to the pencak silat movements, Pak Darman was able to pick up the bodily accents of a performer. I have not found other artists with this degree of skill. Most people I interviewed took much longer just to identify the rhythm being played on the kendang ibu.

While not necessarily being able to identify the name of the performer, Sundanese kendang pencak musicians and pencak silat movement artists do hear punches, kicks, chops, rolls, parries, elbow strikes, and knuckle hits within kendang pencak recordings. This sensitivity to the musical sounds is visible through the gestures and onomatopoeic verbalisations they perform while listening to recordings. Without prompting, Sundanese people with a familiarity with pencak silat would unselfconsciously enact the occasional movement that they heard in a kendang pencak recording. Their movements were often

timed well with the sounds of the kendang drums. As if marking the movement themselves, they performed gestures (not fully executed movements). Because elements of the music follow the movement, people can hear the movement through the music.

With percussion and woodwind accompaniment in performances of pencak silat seni, strong structurally interdependent interactions and intrinsic relationships exist between the music and movement. The sounds of the music are performed to match the movement both mimetically and metaphorically. The songs and circular-breathing of the tarompet player exhibit deliberate extrinsic relationships with the energy of the performer. As a performance genre, pencak silat seni and kendang pencak have proven an effective combination because of the high levels of functional redundancy in multisensory stimulation. The audience is presented with both an audio and visual signal for punches, kicks, strikes, and hits. Especially for solo performances where attacks are performed in the air, the addition of sounds to the movements makes the performance more theatrical and accessible to audiences. In duets, the music can simulate sounds of actual impact, exaggerated, and stylized. The appeal of pencak silat seni is evidenced by its regular appearance at national and international festivals. Punches mimicked by slaps of the drum and virtuosic displays of movement accompanied by the shrill sound of the double-reed tarompet all contribute to the emotive and engaging visual spectacle.

4.8 Training the movements

According to Pak Haji Uho Holidin, pencak silat has undergone many changes since Indonesian independence in 1945, especially since the establishment of organisations that have systematised and standardised pencak silat. The systematisation has created a trend away from spontaneous improvisation to rehearsed choreography. Correspondingly, the teaching of pencak silat seni has become systematized, and students learn set sequences of movements from a standardized curriculum. Training involves the systematic demonstration and repetition of discrete movement sequences. Teachers perform choreographed sequences of movement (*jurus*) which students imitate. By splicing movement sequences into digestible, perceptually salient units that are systematised and often labelled with mnemonic aids, teachers can ostensibly accelerate the learning process. This teaching model allows for large numbers of students to train with each other

at the same time. The model also allows replication verification by the teacher who inspects the students while they perform the same movements simultaneously. Incorrect replications are corrected. After mastering the jurus, teachers believe that students "will automatically move without thinking" (Shamsuddin 2005:175) and thus be able to create their own movement sets one day.

West Javanese pencak silat seni capitalises upon the efficiency and efficacy of processes that preserve the stability of the form. Choreographed jurus can be repeated simultaneously by large numbers of people and are effective ways of distributing knowledge with great speed. These movement sequences are often named and can be repeated upon demand. Naming sequences draws upon the semantic memory skills of the brain and facilitates the rapid acquisition and transmission of new movement repertoires. Intersubjective processes such as replication verification also facilitate the accurate acquisition of repetitive movement material. The methods of instruction of pencak silat seni capitalize on a special form of interaction between the declarative and procedural systems of the brain. Effective and efficient teaching methods have meant that Sundanese schools of pencak silat seni have become more widespread and uniform globally than schools of silek minang, which often develop idiosyncratic skill sets and do not cater to large populations of practitioners.

Sundanese schools of pencak silat seni can involve informal training between a teacher and any number of students. Formal training involves numerous practitioners who repeat choreographed movements in ordered rows and lines during scheduled training times. The choreographies can be performed as solos, but as the students progress they can learn movements that are performed in pairs or in groups. Most schools have identifiable leaders, maintain a centralised organisation, and a consciously preserved curriculum. The training regimes encompass a physical culture endorsed by various political and economic agencies.

Musicians, though almost always present in performances, are not always in attendance to accompany training sessions. Musicians can be expensive to hire, and movement artists usually reserve rehearsals with music for the final training sessions before a competition, festival, or auspicious performance. Kendang pencak groups in collaboration with schools of pencak silat seni have started releasing cassette tapes with specially designed

soundtracks to accompany an academy's repertoire of preset choreographies. Some schools use these audiocassettes in training as part of the pedagogical method. Training with a cassette rather than live accompaniment is a trend that was first noted in the silat-inspired dance form called *Jaipongan* (Manuel and Baier 1986). Early recordings of kendang pencak music were from live performances where one can hear the laughter of children as well as the shouts of adults, musicians and performers. Using recorded sound for executing dance alters the relationship between music and movement, as Fogelsanger and Afanador (2006) point out:

> Music requires the movement of musicians, but the invention of sound recording broke that intimate connection. Recorded sound limits the interaction of music and dance, for while dancers may still respond to music, without musicians the music cannot respond to dance.

Spiller (2010) finds that the relationship between music and movement in popular Sundanese dance traditions such as *Jaipongan* and *Bajidoran* is contingent upon cultural training. The Sundanese people of West Java are exposed to music and dance from an early age and learn to interpret drum sounds as movement cues "so that the impulse to move in particular ways seems a natural accompaniment to particular drum sounds and patterns" (Spiller 2010:74). Concurrently, Sundanese dancers become skilled at creating movements that can be animated by the drums. In order to lend their movement to musical imitation, the dancers "must have an understanding of the conventions of drumming and the combination of drum patterns into choreographies" (2010:62). Resident spectators who watch Sundanese dance "participate vicariously, imagining their own bodies moving" (2010:142). Spiller contends that processes of cultural learning predispose "individuals to listen and engage with musical stimuli in particular, predictable ways" (2010:178). West Javanese choreomusical arrangements, in the first instance, are dependent upon a cultural disposition to associate certain musical sounds with particular ways of moving and typified dance movements with specific musical accompaniment.

Spiller's brief discussion of the rise of cassette recordings in West Java in the 1980s is a pertinent observation about how technology can influence the relationship between music and movement and subsequently alter the repertoire of a dance tradition. On cassette, kendang drum accompaniment is not able to respond in real time to human activity. Recorded music, thus, cannot create an aural analog to live movement. In Sundanese

popular dance, recorded music fixes the field of corporeal potentiality. The tight relationship between sound and movement in Sundanese dance means that when music was recorded it was destined to create predetermined and fixed choreographies. The drum sounds that once led and animated movement, became prescriptive instructions for a delimited range of movement possibilities:

> Cassette owners could listen to these tapes over and over again to memorize the sequence of drum patterns that made up choreographies and then put moves together to go with the drum patterns. In this manner, the most popular jaipongan tunes, along with their choreographies, became canonized. (Spiller 2010: 67)

Cassette music was instrumental in establishing Jaipongan as a popular genre of West Javanese dance. Through other genres of popular dance, Sundanese listeners were already predisposed to understanding drum sounds as signals and signifiers of movement. In this social and historical setting, recorded music was as good as movement notation to the trained ear. The introduction of recording technology may temporarily bias the direction of the relationship between music and dance, but advancements in audio-visual technology may one day create the space for freer interactions between sound and movement.

On the pre-recorded cassettes of kendang pencak, each track is orchestrated to match a specific pencak silat seni choreography. Individual tracks are divided into three sections and each section has a set number of repeated cycles with accents and other musical events to match the movements of the choreography. The punches and kicks of a choreographed are timed with the recorded accompaniment, so only one choreography can be performed to each track on the cassette. With a recording, the sound will not adapt to the performance. Instead, students have to follow a predetermined series of movements. If students deviate from the preset choreography, then they are likely to be out of step with the track. Pencak silat schools sell the cassettes to students learning the choreographies. When sold as a package by pencak silat schools, these cassettes can be used in the training halls of pencak silat seni schools all over West Java and the world. This training aid has further standardized the choreographies practiced by several schools of the same style of pencak silat seni.

The live music of pencak silat seni is only just beginning to be exported, and international practitioners are attempting to learn the difficulties and subtleties of the kendang pencak.

The introduction of specially designed audiocassettes has facilitated the spread of kendang pencak music around the globe. As a musical aid to recalling the movement, the cassette-tapes also serve to ensure standardisation of the choreographies worldwide. Audio technologies contribute to the preservative and constructive processes that facilitate the cultural propagation of practices of fight-dancing. However, the use of recorded music has also meant that the direction of the relationship between music and movement in pencak silat seni is altered such that practitioners are learning to perform their movement to recordings. Practitioners are not relying on musicians to accompany their movement if they are using a cassette. The cassettes thus dictate the movement, not the other way around. Ironically, using the cassettes in this way would never have been possible if the Sundanese did not have a history of expecting music to follow movement. When Sundanese listeners hear the kendang pencak recordings, they literally hear the movement and thus are able to match their movement to the recording. In selling the cassettes to foreign students, Sundanese teachers have to educate their clientele in how to use the recordings and what to listen for in the music.

While pencak silat seni has spread around the globe since at least the 1970s, kendang pencak has lagged behind and is only recently being incorporated into the performance repertoires of international groups. To international audiences, kendang pencak music highlighted the beauty and power of pencak silat movement, but the music was quickly overlooked by foreign practitioners keen to learn the art. The subtle power of music to accentuate movement is evidenced by the delay in the international spread of kendang pencak music in comparison to the early spread of pencak silat seni movement. The recent spread of recorded music is changing the international curriculum and simultaneously bringing forth a new generation of practitioners with a different sensibility to the music. Sets of kendang pencak instruments are sporadically travelling to satellite pencak silat seni groups in Europe and the Americas along with Sundanese music teachers and adept artists.

4.9 Portability, politics and popularisation

In West Java, pencak silat seni originated in community practices, motivated by artistic desires and patronage from a social elite. The spread and 'massification' of pencak silat seni, including the militarisation, political mobilisation, adoption by the state, nationalisation, and de-regionalisation, have exerted powerful pulls on the musical practice in relation to movement. The shifting 'political social niche' in which pencak silat seni existed has led to practical developments in the instruction of the art and the aesthetic choices of performers. One of the key aesthetic considerations for the pragmatic transmission and political usefulness of the genre is, perhaps surprisingly, the relationship of music to movement. Because music-movement configurations affect how performances are perceived, some of these configurations are more likely to survive given the Indonesian and international environment. Sundanese pencak silat seni exhibits strong mimetic and rhythmic relationships between music and movement. The theatricality of the musical interaction facilitates the audience engagement and comprehension of the movements. Drum patterns mimic punches, hits and kicks, while shrill songs played on a double-reed aerophone match the tension of the movements. The desire to promote the art broadly, to present it to wide audiences and to develop it as a mass popular art has had a tendency, on one level, to eliminate the more mystical, indirect, and abstract sorts of techniques and music-movement relationships; and on another level, to encourage choreomusical forms that have a kind of portability and instant legibility.

Pencak silat seni is unparalleled for multisensory stimulation, audience engagement, and audio-visual grandeur. At national festivals and competitions, the Sundanese sensitivity for musical prowess is emulated by clubs from other regions that feature musical accompaniment that increasingly mimic the mastery of kendang pencak. Among the most elite Sundanese performers, there is a tendency towards refinement, appreciation of difficulty, and even sometimes experimentalism. Popularisers of pencak silat seni have pushed the art towards legibility, and International audiences have been moving progressively towards these more demanding and nuanced performances. Elite Sundanese performers and international students are moving towards common ground but they are getting there from opposite directions; the foreigners by becoming more sophisticated in their appreciation, the Sundanese by becoming more obvious, blatant and appealing to an untrained audience. With the recent controversial election of Lieutenant General Prabowo

Subianto as President of the International Pencak Silat Federation (PERSILAT: *Persekutuan Pencak Silat Antarbangsa*), the future of this international relationship may be in uncertain hands.

Chapter 5: Capoeira in Salvador da Bahia, Brazil

5.1 Moving to the sound

With an orchestra of instruments often led by a respected teacher, music begins and ends ritual performances of the Afro-Brazilian fight-dance called *capoeira*. Music is almost always a key feature of training sessions. Practitioners have to master both the instruments and the movements of this holistic art. They also learn a repertoire of songs that evoke imaginations of capoeira's past and intersect with the physical play of the game in the immediate present. Following Lewis (1992) and Downey (2005), who maintain a healthy suspicion of narratives that claim slaves brought capoeira to Brazil from Angola, this chapter surveys a multitude of influences that have shaped the self-contained repertoires of music and movement that form capoeira practices. This chapter also unpacks claims that capoeira was brought to Brazil by African slaves and that lethal techniques were disguised by dance and music. The argument that music was used to conceal pugilistic training does not hold up to detailed analysis. Music would only serve to draw attention to an art form that contained kicks, sweeps and headbutts.

Figure 5.1: Two capoeira performers crouch in front of an orchestra of percussionists. Capoeira Contemporânea, Grupo Ginga Mundo.
Photo taken in the suburb of Garcia, Salvador. Photo: Paul H. Mason (2009)

Definitions of 'capoeira' in Brazil have shifted over time. In the nineteenth century, capoeira referred to urban thugs and gangsters. The 'capoeiragem' that newspapers and police reports mentioned in the early nineteenth century was not the capoeira of today. Capoeiragem was a much more diverse practice, including not simply dances and challenge games, but also stone-throwing, knife-fighting, skirmishing with police, and a host of other urban ruffian forms of sorting out disputes, resisting authority, and passing time. The domestication of capoeira began with simple repression by authorities in the nineteenth century. In the twentieth century, capoeira became a musical fight-dance associated with folklore performances. A culturally stable musical-movement practice eventually emerged that was so compelling and consistent that, instead of being persecuted, it became an international export.

5.2 The Berimbau

> That afternoon, up on the market ramp, sitting on an empty kerosene barrel, a well-dressed black man wearing a white suit, bowtie, and two-tone shoes that shone with the glow of their polish was playing solos on the *berimbau* for a small audience of fruit vendors, idle urchins, and a pair of lovers. There was no group of *capoeira* foot-fighters to accompany him; the black man was playing for the simple pleasure of playing, the sound coming out of the remote past, from the depths of slave quarters, telling of the horrors of captivity. (Amado 1993:5)

The berimbau is a monochord, musical bow with a gourd resonator affixed to one end. This musical instrument has become, in the Peircean sense, the indexical instrument of capoeira (Lewis 1992:xxv). A member of the chordophone family, the hard-shelled gourd resonator called the *cabaça* is tied to the bow with a bridging cord called the *cavelete* (D'Annunciação 1990). The fundamental pitch of the instrument can be changed by moving the *cavelete* up and down the bow. Despite being over one and a half metres in height, the berimbau is held in one hand by resting the *cavelete* on the crook of the little finger, wrapping the ring and middle fingers around the bow and facing the open side of the *cabaça* towards the belly. A smooth stone or bronze coin is held between the forefinger and thumb. The wire string is struck by a long stick held like a pencil in the free hand. Various tones are created by applying or releasing the pressure of the stone or

coin against the wire. The berimbau resonates each time it is struck, and the resonation is altered by moving the gourd back and forth from the stomach. A *caxixi*—a small wicker rattle filled with seeds—is held by the hand that strikes the wire. Repetitive strikes of the berimbau are accented by the coarse sounds of the caxixi. In this intimate relationship between movement and sound, "The body of the musician completes the mechanical structure of the musical bow" (Downey 2002a:499). One hand produces the sound; the other hand modulates it.

The rhythmic twang of the berimbau calls capoeiristas—capoeira practitioners—to play. The obstinate tones inspire the swaggering movements of their game. All capoeiristas must reverently crouch at the foot of the berimbau before entering into a game of capoeira. Surrounding any two capoeiristas in play is a small orchestra of other instruments called the *bateria* and a chorus of people who all together form a circle known as the *roda*. The *bateria* can consist of any combination of berimbaus, *caxixis*, tambourine-like *pandeiros*, notched bamboo *reco-reco* scrapers, *agogô* double metal bells and *atabaque* upright drums. A lead musician, normally the one who holds the biggest berimbau, sings a call, and a chorus responds, sometimes with clapping, sometimes without, depending upon the style of capoeira being performed. Regardless of the style, all capoeira play is subordinate to the lead berimbau's discretion in controlling, mediating or letting loose a game.

The berimbau is an evocative symbolic, functional, and decorative feature of the training space of a capoeira school. In any academy, the berimbau occupies an important physical and acoustic space. The formal movement exercises of capoeira, however, occupy the larger temporal space of active participation in training. Through physical exertion capoeiristas learn "To live the Capoeira philosophy" (Almeida 1986:7). Personal participation makes capoeira philosophy real (*ibid*.). Practitioners learn that the philosophy of capoeira "…requires sweat, mental discipline, sometimes pain" (Merrel 2004:vii). During physical exercises, music is almost always played in the background. Music is enmeshed in the environment of the training space and is a major feature of the training experience. Because capoeira movement is subordinate to the musical rhythms, musical accompaniment during training can be live or recorded. Practitioners become accustomed to performing the stylised movements of capoeira to the specialised sounds of the bateria. The rhythms, instrumentation and lyrics all convey information to the

perceptually attuned listener. Many capoeiristas go so far as to argue that "bodily movement is immanent in the sound of the berimbau itself" (Downey 2002a: 503).

Capoeira training involves lessons in both movement and music. Capoeiristas are movement artists as well as musicians. Eventually, capoeiristas become knowledgeable in how to make the instruments as well. Depending on the school, individual classes can begin with musical instruction in the instruments of the bateria. This musical instruction can be formally guided by the teacher or occur informally between peers as they gather before a training session. Most students first learn the basic rhythms of capoeira by clapping or playing the reco-reco, agogô or pandeiro, before progressing to the subtle nuances of the atabaque or the more complex production of sound with the berimbau. In the most sophisticated academies, live music accompanies the entire movement training session with a constant changeover of musicians from amongst the students. In younger academies, or in novice classes, movement is regularly taught to the sonic accompaniment of capoeira music CD recordings.

The instruction of capoeira involves innovative learning and teaching methods, such as authentic learning, situated learning and process-directed learning (Candusso 2008; Koopman 2007). The movements of capoeira have been described as taught through an imitative pedagogy that includes a form of scaffoldings whereby, "…instructors often break down complex tasks into simpler stages, parsing complicated sequences into component gestures…" (Downey 2008:209). The music of capoeira is also taught through imitative scaffolding. Learning how to play the berimbau, for example, is normally undertaken in a series of stages, each step within the "zone of proximal development" (Downey 2008:207) of the step before it. Imitation, as Downey (2008) points out, "is interactive rather than unidirectional" (p. 205). The needs and preferences of any particular student can be met by breaking down imitative exercises into easier substituent components and tailoring these to each individual's skill. In practice, the progress may jump across and between stages depending upon the student's capabilities and the teacher's sensitivity to "Interacting with the novice and responding to his or her distinctive developmental needs…" (p.206). Interactive imitative scaffolding includes such interventions as limiting degrees of freedom, reorienting the model in space, parsing an exercise into component parts, performing the task with the student, directing a student's attention during the task, helping a student to perceive through disaggregation,

and alleviating frustration or otherwise helping a student to manage his or her own emotions (pp.210-211).

Movement and musical sound are so closely linked for experienced capoeiristas that music can be imagined as a route to proficiency (Downey 2002a:503). Among practitioners, the musical and physical education of capoeira alters "somatic modes of attention" (Csordas 1993). Over time capoeiristas exhibit a physical habituation instilled and learned through the social practice of a cultural art form. Capoeiristas learn to not only become aware of the immediate challenges of facing an adversary but also to peripheral events happening around the roda. These culturally empowered changes in the perceptual and physical capabilities of practitioners mean that capoeiristas "…feel the philosophy from inside out" (Almeida 1986:7).

The accumulation of instruments, skills and stories that have come to comprise capoeira find their inspiration from many sources. The array of elements taught and practiced through capoeira have been derived from African challenge dances and have been shaped by slavery, urban gangs, maritime culture, and official repression throughout the nineteenth and early twentieth centuries in Brazil (Downey 2008:204). The berimbau is but a recent addition that has come to occupy a prominent position in training and a central position in the roda.

The berimbau carries tempo, formulaic musical codes, rhythms, and it affects activity and experience in the roda (Downey 2002a:494). The instrument "…begins and ends the competition; it speeds the game up it if lags; it pokes fun at a poorly executed move or a spoilsport; it lauds virtuosic or amusing play" (O'Connor 1997:321; and in Fryer 2000:38). Even if a string breaks on the berimbau, play is often respectfully brought to an abrupt halt (Downey 2002a:492). Capoeira movement is subordinate to the music, because the lead musician is responsible for dictating what is permissible in a performance. For the most part, when movements are within allowable boundaries of improvisation, innovation, and confrontation, the relationship between music and movement is dialogical. As physical play changes, the music can change accordingly, and "…if the music changes, the contestants should respond in kind" (Wade 2004:122). The berimbau dictates the type of game played as well as "The emotional tenor of the game and its intent" (Browning 2001:169). Berimbau rhythms moderate the pace of physical

interaction between players, and specific rhythmic cues can regulate the game (Downey 2002a:493). The berimbau is like the chef that blends the ingredients of the roda.

5.3 The roda

"Iê-eeeeee," an authoritative voice resounded across the market-place at the beginning of a memorable street roda on Sunday evening in the suburb of Rio Vermelho. The singer was playing a berimbau, and a familiar character had bent down in front of him. This crouching person had a lean, well-toned body with a sharp face, keen eyes, a shaved head, and three-day stubble. Despite an element of shyness in his face, he displayed no nervousness. He wore a white t-shirt, blue jeans, and scruffy shoes. I had actually played him in a street game once. He was a tough player.

When I had entered the roda with him, I felt the glare of his eyes continually sizing me up. Needless to say, he was all over me at the most unexpected moments. If I was unbalanced for a second, he emphasized it by placing his body in a position that would destabilise me further. If I followed his movements in one direction, his leg would come spinning at me from another. If I escaped from one assault, another followed. He played a penetrating and steady game.

At this particular street roda, the bateria consisted of three berimbaus, a large *gunga* berimbau that kept a steady rhythm, a medium sized *medio* berimbau that maintained a complementary rhythm, and a small *viola* berimbau that featured virtuosic variations and solos. Next to the berimbaus were two pandeiros, one reco-reco, and a djembe in place of an atabaque. The musician holding the gunga berimbau sang a *ladainha*—a litany (see figure 5.2)—after a second capoeirista had assumed a position next to the shifty-looking capoeirista. These two capoeiristas waited patiently at the singer's feet as they listened to the ladainha.

Dona Isabel, que história é essa?	Lady Isabel, what story is this?
Ô Isabel, que história é essa	Oh Isabel, what story is this
De ter feito a abolição?	That you accomplished abolition?
De ser princesa boazinha	That you are the nice princess
Que acabou com a escravidão?	Who finished with slavery?
Estou cansado de conversa	I am tired of that idle chat
Estou cansado de ilusão	I am tired of that illusion
Abolição se fez com sangue	Abolition was made with blood
que inundava esse país	that flooded this country
Que o negro transformou em luta	That the Africans transformed into a fight
Cansado de ser infeliz	Who were tired of being unhappy
Abolição se fez bem antes	Abolition was made well before
Ainda por se fazer agora	And is still being done
Com a verdade das favelas	With the reality of the slums
Não com a mentita da escola	Not with the lies of schooling
Ô Isabel, chegou a hora	Oh Isabel, the time has arrived
de se acabar com essa maldade	to finish with these lies
E de ensinar pro nossos filhos	And to teach our children
O quanto custa a liberdade	How much our freedom cost
Viva Zumbi, nosso guerreiro!	Long Live Zumbi our Warrior
Que fez-se heroi lá em Palmares	Who made a hero of himself there in Palmares
Viva a cultura desse povo!	Long live the culture of those people
A liberdade verdadeira	The true freedom
Que já corria nos quilombos Dona Isabel,	That ruled our Quilombo (communities)
Que já jogava a capoeira	Who already played capoeira
Camaradinha que vai fazer?	Lady, what shall we do?
Iê, que vai fazer, camará?	Iê, what to do my friend?
Iê, com capoeira?	Iê, with capoeira?

Figure 5.2: Example of a ladainha sung at the beginning of a Capoeira Angola roda. Each ladainha has a corresponding melody and multiple ladainhas can use the same melody. When a mestre sings a ladainha, they will sometimes improvise with the lyrics, melody, and tempo. An alternative transcription to the one above was written by Santos and Barbosa (2005:9).

Once the ladainha was over, the musicians, audience, and the two crouching capoeiristas joined in the *chula*—a vocal call and response that changes with each verse (see figure 5.3). The short, overlapping phrases between soloist and choral response evoke an African feel to the performance and reinforce the cultural heritage of capoeira.[10]

[10] Scholars (e.g. Wade 2004:122 among others) often link the call-and-response patterns in capoeira music to African origins without mentioning that call-and-response singing was also an important part of European and Middle Eastern religious services (Tagg 1989:289). The antiphonal call-and-response singing of the *chula* is followed by responsorial singing (called the *corrido*). Tagg (1989) argues that call-and-response techniques are common to many musical traditions and cannot logically be cited as a unique characteristic of African music without some explanation of what sort of call-and-response techniques are employed.

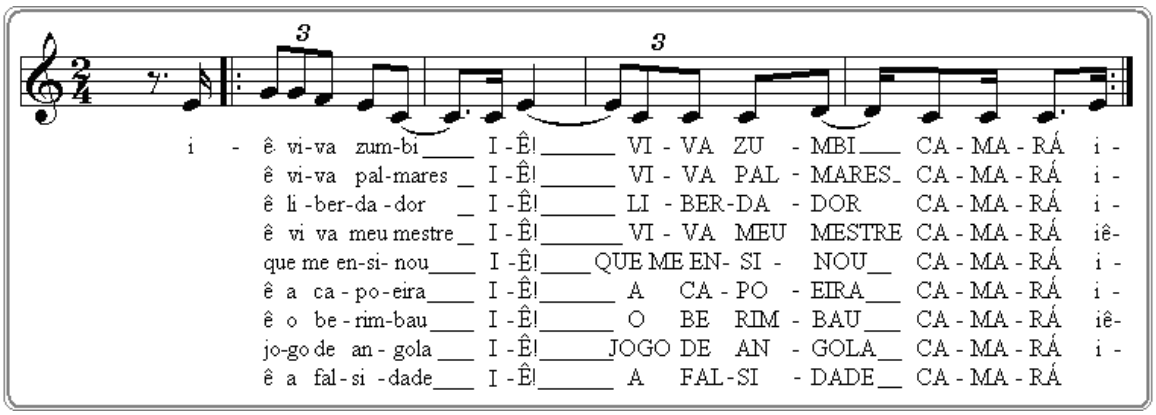

Figure 5.3: Example of a chula. The solo lead is in lower-case and the chorus antiphonal response is in uppercase. The vocal lead is not always strictly in time nor do they always sing melody exactly the same each time. A certain degree of melodic, rhythmic, and phrasing variation is thought to keep the singing interesting. Mestres recount that the chula contains the most well preserved lyrics of the capoeira repertoire. Capoeiristas rarely deviate from a selection of pre-fixed phrases that often have to be sung in a certain order. For example, if the soloist leads with "Galo cantou" (the cock crowed) then the soloist will subsequently lead with "Co-co-ro-co" (onomatopoeic vocables). The above chula would be sung following the ladainha (figure 5.2). Vocal singing in capoeira is homophonic.

After the lyrical acknowledgement of the chula, the two capoeiristas at the foot of the berimbau touched their foreheads to the ground at the feet of the musicians. Not all capoeiristas perform this gesture, but of those that do, some say it comes from the Malês–Islamic slaves who were in Bahia until the Muslim slave revolt in 1835. After this opening gesture a *corrido*—a vocal call-and-response chant sung during physical play (see figure 5.4)—began and the shifty-looking character entered the game with a low spinning kick that glided gently over his opponent's body. His adversary was an experienced capoeirista. The near equal status of the players, using Geertz's logic (1973:441), meant that the outcome of the game would be unpredictable. Accordingly, the game quickly gained in intensity. Low- round kicks were cut short by penetrating sweeps, circular kicks were broken by head-butts, and gestures in one direction were countered with escapes in another. As with many capoeira games, exactly who was dominating who was difficult to discern. The shifty character kept his cool better, but he was subject to gestures of attack as frequently as he was able to trick his opponent in return.

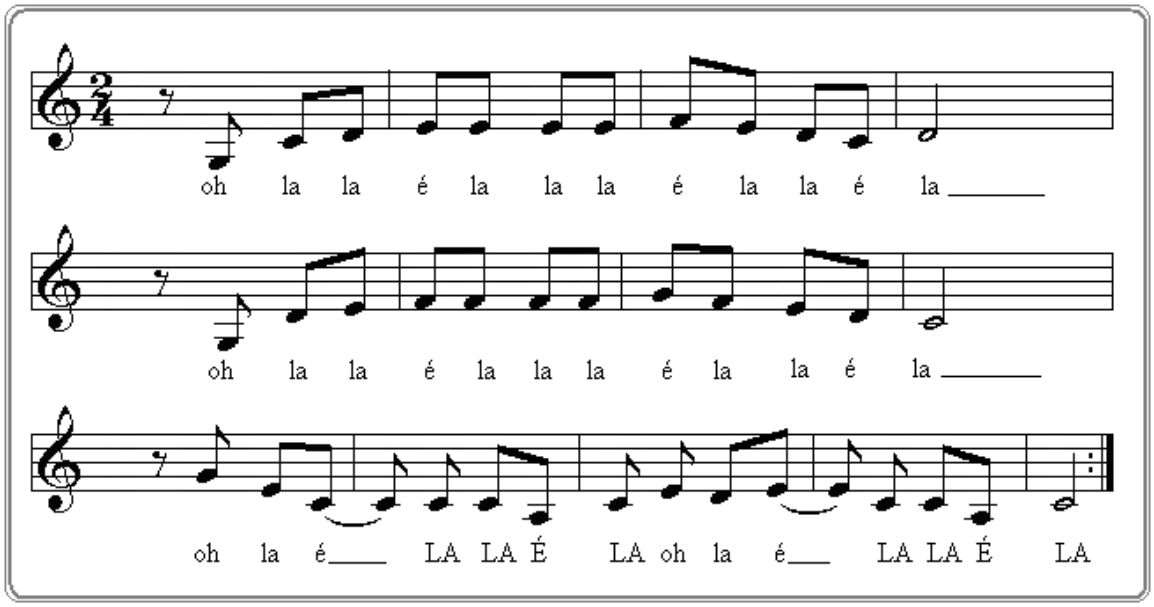

Figure 5.4: Example of a corrido. The solo lead is in lower-case and the chorus response is in uppercase. Rego (1968:245-255) collected 139 capoeira songs which he divided into twelve categories: songs of superstition, songs to insult, songs of women, cradle songs, devotion songs, religious songs, geographic songs, songs of praise, songs of challenge, infantile songs, songs of beggars, and diverse themes. The corrido above is not part of Rego's collection and employs vocables. Capoeiristas believe that this particular corrido was originally a song in praise of Allah originating from African Muslim slaves. Other capoeira songs that involved vocables were said to be derived from Bantu languages.

At first, the capoeiristas performed their movements strictly in accordance with the rhythm of the berimbaus. The *ginga*—the rhythmic swagger from which all other capoeira movements flow (see figure 5.5)—was in time with the beat, and their slow arcing kicks matched the phrasing of the music. As the game climaxed the analogue relationships between music and movement became less apparent. A counterpoint emerged as the capoeiristas stepped in and out of the beat in flurried attacks that escaped the driving pulse of the orchestra. The musicians allowed these divergences. Were the capoeiristas less experienced, the musician on the berimbau gunga might have called them into line.

Instead, in narrative response to this lively game, the lead musician started singing a *corrido* with the lyrics, "Mandingueiro, mandingueiro". The noun 'mandingueiro' refers to the personification of 'mandinga' within a capoeirista . 'Mandinga' is associated with magic and sorcery (Lewis 1992:49-50). Amongst the capoeira practitioners with whom I circulated, many of whom were at this roda, 'mandingueiro' was frequently associated with cleverness, cunning, a relaxed yet alert attitude, the mastery of deception and the ability to interrupt an opponent's game and inner balance.

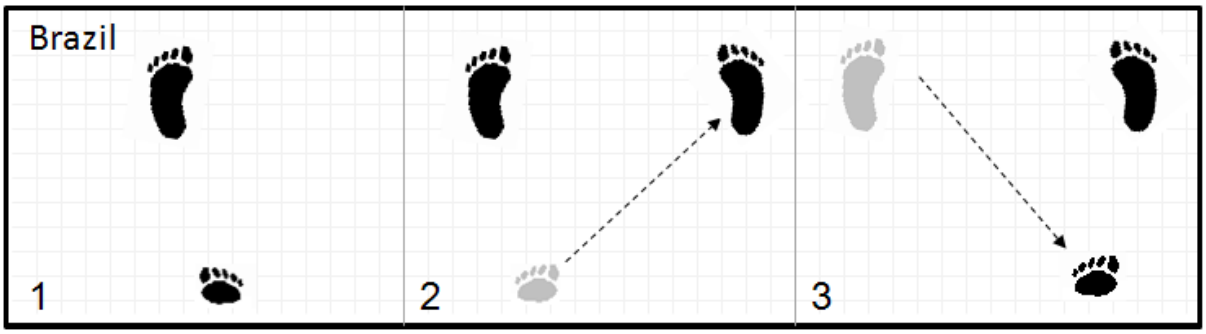

Figure 5.5: Typical foot placement of the Ginga, the basic swaying movement of Capoeira. The weight of the practitioner is maintained on the front foot and the ball of the back foot.

In conversation with the orchestra members later, I asked the leader why he chose to sing "Mandingueiro, mandingueiro". The lead musician informed me that he had really not thought about the choice but commented in retrospect that the song seemed quite fitting and gave a reflective chuckle. Perhaps these lyrics were sung because of the adept capoeira practitioner who demonstrated skill and mandinga in the roda. Capoeira myths are made of such successfully deceptive characters. I saw this particular shifty character at lots of capoeira events around Salvador. As I do not believe he was attached to any particular group, I do not know how he always managed to turn up to the various capoeira events around Salvador. His repeated presence yet social evasion only contributed more to the mysterious impression he created.

5.4 Freedom consciously organized

> Il est difficile de définir la capoeira. Il faut voir des gens jouer pour comprendre de quoi il s'agit pour avoir une première impression, pouvoir en parler librement, sans préjugés.
> (Mansouri and Loez 2005:41)[11]

Without the aid of my field-notes and recordings, many of the capoeira games that I have played sit inside my body as a latent blur that become clearer when situations and events repeat themselves. When a familiar kick is directed towards me, the haze of my memory lifts and my body recites a corresponding response. My attention is on the moment. My consciousness is directed to the immediate concerns of my body. My senses become alive

[11] Translation: "Capoeira is difficult to define. You have to observe capoeira in action to understand what the game is about, to have an initial impression, to speak freely about the art, without preconceptions" (Mansouri and Loez 2005:41).

as I search for a space that is safe, stabilising and free—even if only for a moment. In response to physical constraints, capoeiristas are compelled to find an escape. The dynamic of the game is to trap and to escape being trapped. In capoeira, "It is precisely this interplay between constraint and freedom which drives and renews the continuous improvisations" (Lewis 1992:4).

Lewis describes capoeira as a kind of "*theatre of liberation"* (1992:14) and believes that capoeira "is able to express the ideal of freedom in play so well because it was an outgrowth of slavery" (Lewis 1992:4). Practitioners often claim that capoeira is a product of martial arts being disguised in dance form in order to covertly hide the training methods from oppressive authorities. The idea of music as concealment was promoted by the two most influential teachers of capoeira, Manuel dos Reis Machado who started a Capoeira academy in 1932, and Vicente Ferreira Pastinha who started an academy in 1941 (Talmon-Chvaicer 2008:30). Their position is best summed up by D'Aquino who wrote: "Because it developed and was practiced under the watchful eye of white masters and plantation supervisors, capoeira was disguised as a diversion, as an innocuous dance performed for their own as well as their masters' enjoyment" (1983:24).

The search for spatial freedom in the confining space of the circle that surrounds a capoeira game is perhaps the deepest metaphor connecting capoeira to the story of a martial art disguised by dance. Capoeira practitioners recount many such stories as part of the *história da capoeira* (the Portuguese term *história* can translate to both 'history' and 'story', although other terms also exist for the latter) without separating myth from history (D'Aquino 1983:97). Lewis (1992:19) reconciles issues of falsehood and truth by turning to the perspective of Daniel (1990:227-228) who sees myth as promoting a way of being in the world as opposed to an epistemic way of seeing the world.

The story of disguising martial arts in dance is utilitarian to capoeira teachers who wish to attract students, orient them towards the special kind of play found in the roda, and inspire them to embody a sense of freedom-searching integral to the game. The roda is a constrained environment. Searching for freedom in the roda means continually looking for uninhabited and danger-free spaces that are recurrently being opened and invaded. Stories of concealment also propagate the Afro-Bahian mentality of subversion believed to have spawned from the slavery period. By recounting the virtues of predecessors,

teachers establish the value and values of their discipline (Green 2003:1). Such stories establish continuity with the past and serve the same ends as invented traditions which facilitate social cohesion and socialisation, and legitimise institutions, status, or relations of authority (Hobsbawm 1983:9). As Green points out though, the historical narratives of martial arts should also be viewed "as consciously organised and utilised rather than invented" (2003:9).

Playing capoeira brings to life a past that is both real and imaginary and that is accessed through movement, sound and song (Downey 2005:113-114). "To practice the art bodily brings the student into direct contact with their cultural patrimony and identity in a visceral sense" (Downey 2002b:13). For example, the *mandinga* of present-day capoeiristas recalls the legendary traits of African heroes in Brazil such as Zumbi of Palmares (1655-1694) and Besouro of Santo Amaro (1897-1924) (Lewis 1992:49-50); the sounds of the berimbau echo the remote past (Amado 1993:5); and the songs are a rich repository of folk history where "events from the past reappear in the midst of prayers, taunts, exhortations, and threats" (Downey 2005:81). For example, a famous corrido featuring the word "Paraná" refers to the success of African slaves at the frontline of the Brazilian war with Paraguay in the 1860s. The soloist can also improvise the verses to make reference to activities occurring in the roda. A multivalent sense of tradition is evoked when participating in the commemorative ritual of a capoeira game (Downey 2005:116-117).

The teachers of capoeira—the *mestres*—comprise the cultural elite of the capoeira world. They establish themselves as the exclusive purveyors of the art by asserting their cultural lineage and their artistic authority. Tradition is brought forth through their leadership and lens. The sense of continuity between past and present is enforced by their all-encompassing personalities in the roda. Mestres choose songs and sing ladainhas that promote their version of history. For example, the ladainha in figure 5.2 refers to the abolition of slavery in Brazil by the 'Golden Law' signed by the daughter of King Dom Pedro the Emperor of Brazil, Princess Isabel, on the 13th of May 1888. The event came to be commemorated by an annual celebration on the market square of Santo Amaro (Assunção 2005:105). Princess Isabel was for a long time praised in capoeira circles as the philanthropic emancipator. However, during the 1980s the emergence of Black movements in Brazil led to a fundamental re-assessment of her role (p.3). In the ladainha

in figure 5.2, the slave rebellions are acknowledged for their key contribution to the abolition of slavery. By permitting a game to start, calling play to a stop, and telling performers to speed up or slow down, or even by dominating an opponent in physical play, mestres reinforce their authority. If two performers in the roda stray from a mestres version of tradition, for instance, then the mestre might call a game to a stop. After a roda, mestres often lead a discussion and answer questions about the practice of capoeira. They might reflect on what they liked during the roda, talk about what can be improved, discuss the historical importance of certain songs, debate the changes occurring in contemporary capoeira practice, and share stories about tradition and respect in the roda.

Because tradition is "fabricated as much as it is found, a culture can hardly hope to revive its past in pure form and maintain it intact. Tradition can be no more than an idealised version of an irretrievable past" (Merrel 2004:10). The idea that dance was used to disguise the lethal movements of capoeira enjoys little historical evidence. An assertion of the myth of concealment seems even less convincing when one considers that the practice of martial arts is better hidden by silence and secrecy than by an indexical noise and publicity. In nineteenth century Brazil, officers of the military police even arrested their own soldiers found in the company of musicians (Holloway 1989:667). Clearly police and "…slavemasters were not entirely deceived" (Dossar 1988:39). The kicks and sweeps of capoeira are dance-like, but they are also blatantly combative and no amount of music could mislead a viewer to believe otherwise. One can easily provide counter-arguments to the myth of a disguised art. In the simplest opposition, one could claim that Bahians simply love music and they love to dance, and as a natural tendency, they blend these elements with martial arts. Refuting the logic that music was used to conceal pugilistic training allows us to understand that this narrative promotes the cohesiveness of the art. As an expression of folklore, capoeira pays respect to the history of slavery in Brazil through the integration of musical and physical activities that have come to be associated with Afro-Bahian history and identity. Practically speaking though, the incorporation of music and the development of dance within capoeira would have sorted out the most violent expressions of capoeira as the movement and game increasingly succumbed to the rhythms of the berimbau and the surveillance of mestres.

5.5 The substance that binds

In the cosmopolitan and multiethnic society of Salvador da Bahia, blending elements from a variety of sources has been an inevitable product of forced multiculturalism. *Dendê*, a substance that binds other elements together, is a rich metaphor in Afro-Bahian culture that finds its way into religious activities, capoeira philosophies, and even into local pop music (Packman 2009). In Afro-Bahian cuisine, Dendê palm oil is used as the base element used to fuse ingredients together in dishes such as *Acarajé, Vatapá,* and *Caruru*.[12] In the Candomblé tradition, Dendê is said to contain *axé*—a dynamic force that allows things to happen and makes other processes possible (Béhague 2006:94). In capoeira, the blending energy of dendê is felt in the swaggering ginga from which the fighting techniques and dance movements are executed and to which they return after every phase of play. Capoeiristas also sing that capoeira contains dendê—some kind of binding force that brings diverse elements and flavours together.[13] As a metaphor for the construction of cultural manifestations, the vital force of dendê, a daily commodity in the sustenance of Bahian life, captures the Bahian imagination in profound ways.

Blending things together is not always possible. Japanese Jiu-jitsu, for example, is a martial art that found its way to Brazil and its movements have not been blended with music and dance. Jiu-jitsu is a grappling art, and Brazilians have mobilised the techniques into a fighting art that is streetwise and combat-effective. The sinuous push-pull movements, however, can have no consistent relationship to a rhythmic meter and the tight punches, concealed elbow-jabs, and buried knee-kicks can be difficult for an audience to see and a percussionist to interpret. Intrinsic musical accompaniment to martial arts can only occur when footsteps demarcate a tempo or when offensive and defensive actions can be easily interpreted by an audience. If movements roll around without any clear differentiation, the termination of one movement and the commencement of another becomes indistinguishable and a discriminate beat cannot

[12] *Acarajé* balls are made from a mashed bean paste, mixed with ground shrimp and onion and then fried in *dendê* oil (palm oil). *Caruru*, another Bahian favourite, is prepared by mixing dried prawns and onion in a blender before heating them in a saucepan with okra and dendê oil. *Vatapá*, a more elaborate delicacy, is prepared by mixing coconut milk, cashew nuts, dendê oil, onion, tomato, dried prawns, coriander and hot malagueta chilli peppers in a blender, and then heating it all in a sauce pan. While heating this fusion, milk and bread are mixed in the blender and are later added to the saucepan in order to complete the Vatapá dish. In any well-furnished kitchen in Salvador, you will invariably find a blender and a plentiful supply of dendê oil.

[13] I do not know what the exact link is, but oddly enough, the berimbau has a distant cousin among the Venda people of the Limpopo Province in South Africa, a musical bow called the dende (Blacking 1971:103; Blacking 1973:48).

develop. Wrestling does not provide sufficient room for the possibility of one-to-one rhythmic relationships between music and movement.

“Beat comes from the fact that we are bipeds” (Humphrey 2008:53). The rhythmic swaying steps of capoeira lend themselves to a repetitive percussive accompaniment, while the circular and flowing movements allow for a continuation and interweaving of techniques that maintain the improvised dance. By allowing practitioners to make contact with the ground using only five points of their body (the soles of the feet, the palms of their hands and their head), capoeira movement is punctuated; quavers and crotchets are made out of footsteps; and triplets and semiquavers out of cartwheels. Notably, capoeira practitioners do not block attacks, rather they seek to escape them. Impact between performers is avoided, and the opportunity to mimic movement through sound is limited. Without the physical contact seen in silek minang or inferred in the gestures of pencak silat seni, percussive sounds do not mimetically accompany offensive strikes but guide the intertwining movements of the performers. The way music and movement can be blended together depends on the spatial and temporal attributes realised within each medium.

5.6 Capoeira Music

> The songs illustrate, control and serve a mediating function during the games. The lyrics are crucial for a roda's development since they determine the velocity of the game, dictate the mood of the players, and ease or add tension to the ring. The poetic discourse of the lyrics of capoeira songs—conveyed in part by ironies, inversions, half-hidden meanings, metaphors, poetic tension, and symbolic references—finds a counterpart in the choreographed movements of the capoeiristas' bodies. The multiple connotations of the words and their floating meanings parallel the slippery characteristics of a "ginga" and other elliptical or inverted movements which embody the very nature of capoeira's philosophy and history. (Barbosa 2005:78)

The musical, physical and spiritual aspects of capoeira have been continually contested among capoeiristas. Up until the 1980s, the instrumentation used for rodas was not fixed or consistent. The composition of the band had no specific arrangement in terms of their place or order in the circle (Talmon-Chvaicer 2008:132). The mutability of capoeira orchestras is not surprising considering that the role of music in the lives of Afro-Brazilians became unstable in the nineteenth century when authorities enforced laws to

repress African music. This repression carried over onto any musical accompaniment of capoeira. Possibly as a result of this repression (not to mention the lack of documentation), some scholars have been led to believe that the original form of capoeira only consisted of blows unaccompanied by music (Biancardi 2006:123). If a musical ensemble had existed, it was definitely not preset. Musical accompaniment was probably opportunistic and constrained by available instruments, craftsmanship, and musical expertise. Any unfixed accompaniment would have become further destabilised as a consequence of oppressive authorities. The disruption in the continuation of any transient capoeira musical traditions delayed any stabilisation in the capoeira musical genre.

The conflict between capoeira and Brazilian authorities is portrayed in an 1822 painting called 'Negroes fighting' by Augustus Earle, where a police officer is pictured as if in pursuit, and a single musician is playing a small drum.[14] Drums are often pictured in the paintings of foot-fighting of this period. The use of other instruments is pictured elsewhere, such as a violin-like instrument pictured in a nineteenth century watercolour by P. Harro-Harring (Assunção 2005:41). The berimbau is not found in paintings of foot-fighting from this period. However, the berimbau has been pictured in paintings of social celebration. Scant sources indicate that the berimbau was a late introduction to capoeira (*Ibid.*:110). Today, the berimbau occupies a central place within capoeira. Musical standards have been set by influential teachers as well as the circulation of music recordings by revered artists such as Bimba and Pastinha. Across different schools within particular styles of capoeira there may not be perfect consensus about instrumentation and orchestration, but the degree of convergence is profound.

Prior to the 1930s, the records of capoeira are sparse and incomplete. Bahian periodicals did not give full accounts of the musical or physical facets of capoeira games (Dias 2006:46). In Rio de Janeiro the existing records of capoeira are comparatively better than those in Salvador (Assunção 2005:100) and have been documented extensively (Soares 2001), but the transgenerational heritage of capoeira in Rio was extinguished. The mythical ancestry of capoeira flows from Bahian capoeira players who began to write down their ideas, experiences and teachings starting in the 1960s. Written records of their stories, ideas, and visions of capoeira were left by practitioners and teachers such as Vicente Ferreira Pastinha (1899-1981) in 1966 (Pastinha 1996), Noronha (1909-1977) in

[14] Rex Nan Kivell Collection NK12/103. Naitonal Library of Australia. PIC T1411a.pic-an2822650

1977 (Coutinho 1993), Cobrinha Verde (1908-1982) in 1980 (Dos Santos 1990) and Canjiquinha (1924-1993) in 1989 (Da Silva 1989). Their manuscripts are considered an obligatory reference for historians (Pires 2001; Assunção 2005; Dias 2006) but by no means demonstrate a consensus about what capoeira is.

From the few available sources, the berimbau did not become linked with capoeira until at least the third quarter of the nineteenth century (Talmon-Chvaicer 2008:129). The drum had been the musical instrument associated with capoeira until at least the mid-nineteenth century (2008:31). The drum was pictured in paintings of foot-fighting (e.g. Earle 1822; Rugendas 1824), in the records of capoeira arrests (Talmon-Chvaicer 2008:31) and in tourist writings (Ribeyrolles 1941:38). The drum was thought to be "capable of talking and so able to direct and control the movements of the trainers" (Kubik 1979:28). Rather than being a mere accompaniment, the drum would talk to, instruct and mentor practitioners (Kubik 1979:27-28; Talmon-Chvaicer 2008:31-32). Brazilian authorities eventually put a ban on the capoeira drum in the early and mid-nineteenth century (Talmon-Chvaicer 2008:135). At least for a while, musical accompaniment did not formerly exist (Rego 1968:58). Only in the twentieth century did the berimbau become connected with capoeira (Talmon-Chvaicer 2008:132). Free from the unfavourable connotations attached to the drum in the eyes of the authorities, the berimbau "inherited the spiritual meanings attached to the drum, as well as its status and spiritual significance in the eyes of even contemporary Capoeiras" (Talmon-Chvaicer 2008:135).

The musical ethic of capoeira could have come from a number of sources. For example, the participatory act of music and dance making seen in capoeira where everyone is involved is a well-known feature of Ewé music.[15] The role of music in capoeira may have also been influenced by the Bantu worldview where no distinction is made between sacred and secular ceremonies. "Every activity includes spiritual elements of which music is one" (Talmon-Chvaicer 2008:31). The berimbau has come to suitably embody this picture of the Bantu worldview and the value attached to a principal instrument in its ability "to guide the contestants and infuse them with energy, vigor, and magic" (Talmon-

[15] The Ewé are from the southeastern coast of Ghana and the southern parts of neighbouring Togo and Benin. Their coastal location made them easy-pickings for the slave trade. In their music, non-participants are socially ostracised.

Chvaicer 2008:133). Some believe that the magical core of capoeira, the *mandinga*, has to do with the berimbau (2008:127). The current intimacy between the music and movement of capoeira leads Mansouri and Loez (2005:30) to poetically state that the berimbau is like the soul of capoeira and that the rhythm of the pandeiro evokes the beating of the heart.

Various instruments sifted in and out of capoeira orchestras, including the West African *goge* (similar to a violin), the *ganza* (a metal rattle containing pebbles) and even the guitar. Biancardi believes that prior to the 1930s, instruments were more dominant in capoeira than the vocal singing (2006:123). The caxixi could have been included as early as the nineteenth century, the agogo was a twentieth century addition, the reco-reco and pandeiro were added by at least the 1930s and drums were reintroduced into capoeira by at least the 1960s (Talmon-Chvaicer 2008:132). Africans brought instruments they were familiar with to practices of capoeira (Assunção 2005:41). For example, the berimbau is derived from Central African musical bows, the caxixi that accompanies the berimbau is of West African origin, and the metal bells that entered capoeira under the Yoruban name 'agogô' were found in both West and Central Africa (p.42). Numerous instruments were used across various culture zones in Africa. Hence, instrumentation does not indicate discrete genealogies of affiliation to specific African ethnicities, but rather the instruments of capoeira have come to represent general African features. Overlapping musical traditions from macro-regions in Africa reinforced each other in the manifestations of Afro-Brazilian music (p.43). Even the rhythmic patterns which have a more marked association to regional African identities have blended into the Angolan and Central African qualities that filter throughout capoeira.

Vocal music gained importance in capoeira in the 1930s and 1940s (Biancardi 2006:123). Capoeira singing maintains short, overlapping birhythmic call-and-response phrases often cited as a derivative of African musical genres. If native African languages were once prominent in capoeira songs, today these have been largely superseded by Portuguese in response to the diversification of a multi-ethnic audience. The lyrics of capoeira songs suggests that one of the main attractions of capoeira consisted of the questions or comments thrown to the public by the lead singer.

Outside capoeira's cultural epicentre, the lyrics of capoeira songs do not convey meaning to audiences who don't understand Portuguese. As capoeira has been exported to the world in recent years, the Portuguese songs have travelled with it and the lyrics have resisted translation. Capoeira lyrics have become stabilised as they grow in popularity. Capoeira scholars have observed that international practitioners:

> sing the *ladainhas* and *corridos* in any situation, regardless of what is happening in a particular moment. A better understanding of Capoeira songs would lead practitioners to use the songs in specific settings according to the lyrics. The fact that non-Brazilian Capoeira practitioners do not heed the lyrics of the songs they sing, combined with their general lack of knowledge of Afro-Brazilian culture, demonstrate that these practitioners underestimate the power of Capoeira songs. These songs, when used properly, have great influence on the Capoeira *roda.* (Meneses 2009:1-2)

While physical play and musical rhythms have transported quite well, the verbal play found in the songs of capoeira has taken longer for foreign practitioners to master.

5.7 Capoeira groups today

Figure 5.6: Nineteenth century sketch of Salvador by Augustus Earle compared with present day photograph. The Forte São Marcelo (pictured far left) and Igreja Conceiçao da Praia (pictured centre in Earle's sketch) have survived but the Teatro São João (pictured far right in Earle's sketch) was pulled down in 1922 and later replaced by the Palaçio das Esportes (pictured top right in the photo). The place that Augustus Earle once sat to sketch this city, is now home to a favela where tourists are warned by locals not to walk for fear of armed attack, violence and robbery due to the increased economic pressures of urban poverty.

With the population of Salvador over twenty times larger than it was in 1872, evidently a lot has changed in Bahia since the nineteenth century. Expressions of African culture have been decriminalised, some capoeira masters have become respected cultural authorities, schools of capoeira have established themselves and academies have spread

across Brazil. There have been military and police efforts to turn capoeira into a national sport, and civilian authorities have tried to reinforce the image of capoeira as folklore (dos Santos 1998:128-129). Ultimately, capoeira has been sculpted by those people who have invested the most time into the practice: the capoeiristas themselves.

The rationalising efforts to devise elaborate nationalist pedagogies had little lasting effect on capoeira practice (Downey 2008:206). While some suggest that nationalist projects were unable to co-opt capoeira because of politically-motivated resistance, Downey (2002b: 3-25) finds reason to believe that these sporting projects failed because proposals were met with dissatisfaction, disinterest, and simply did not capture and maintain the interest of participants. In Downey's words, "The indeterminacy of capoeira play and the multiple, conflicting demands placed upon an adept in the game are severe impediments to the development of a regulated, competitive sport based on capoeira" (Downey 2002b: 18).

The marketing of capoeira as a tourist attraction bankrupted some schools and put others on the map (dos Santos 1998). Today, some capoeiristas say that there are as many styles of capoeira as there are different schools, while others say that wherever there is a berimbau all capoeira is the same. Depending on one's point of view, one can sympathise with either camp of thought. The movements of capoeira can be as different between practitioners of a single school as the differences can be between any two schools. In general though, capoeiristas identify two and sometimes three main streams of capoeira, labelled Capoeira Regional, Capoeira Angola, and Capoeira Contemporânea (considered the youngest stream of capoeira).[16]

Capoeira Regional is a style of capoeira that dates back to Mestre Bimba, born Manoel dos Reis Machado (1899-1974), who in 1932 opened the first capoeira academy, called the *Centro De Luta Regional Baiana* (Almeida 1986:32). In 1937 Bimba´s academy received official recognition by the Brazilian Government. Today, in the *rodas* where Bimba´s tradition is followed ardently, only three instruments are used: one *berimbau* with a middle-sized gourd (a *meio*) and two *pandeiros* (see figure 5.10).[17]

[16] For sample film clips, please see Tracks 9, 10 and 11 of the accompanying DVD.
[17] For a sample film clip of Capoeira Regional, please see Track ten of the accompanying DVD.

The first official academy of Capoeira Angola was opened in 1941 by Mestre Pastinha. The name of this style recognized the African roots of capoeira and of the country that gave the most slaves to Brazil (Fonseca 1995: 35). Though the first official school of Capoeira Angola opened later than Bimba's school, proponents of Capoeira Angola promote their style as more traditional. The musical ensemble of Capoeira Angola generally comprises three *berimbaus* of different sizes known as *gunga* (the largest and most deeply pitched), *meio* (the medium), and *viola* (the smallest and highest pitched), two *pandeiros* (samba-like tambourines), one *agogô* (two belled instrument, used in *candomble* and samba as well), one *reco-reco* (wooden friction instrument) and one *atabaque* (the drum used in Candomble rituals).[18]

The most recent development in the capoeira world is Capoeira Contemporânea.[19] In capoeira Contemporânea rodas, at least one *berimbau* and one *pandeiro* are used. These instruments are generally considered the essential instruments in a *roda* regardless of the tradition of the group. Although relatively few schools identify themselves as Contemporânea, this category can be included because there are various academies that do not strictly practice either Capoeira Regional or Capoeira Angola. Instead, many of these people say that they practice Contemporânea. Lewis (1992:103), who performed his fieldwork in the eighties, identified three styles of capoeira: Angola, Regional, and what he called *atual.* During my fieldwork in 2009, I met no one who talked about a style called *atual*, but Lewis may have foreseen the early developments of Capoeira Contemporânea. Downey (2005:172), who performed his fieldwork in the nineties, talks about capoeiristas who assert that they practice "capoeira without a last name" (*capoeira, sem sobrenome*). According to Downey, these capoeiristas practice neither Angola or Regional but are capable of distinguishing the two schools and can use the distinction to describe play. Downey also points out that hybrids are probably more common than forms sticking faithfully to Angola or Regional as they were originally taught. Schools like *Ginga Mundo* (see figure 5.1), with whom I trained in 2009, are explicit hybrids whose rodas progress from Angola-like music and movement to Regional-like music and movement. Teachers and students of Ginga Mundo categorise their practice as Capoeira Contemporânea. Other schools with varying practices would easily fall under the same umbrella term.

[18] Please see Track nine of the accompanying DVD for a sample film clip of Capoeira Angola.
[19] A sample film clip of Capoeira Contemporañea can be seen on Track eleven of the accompanying DVD.

Across all schools of capoeira, one theme is unchanging: the art is autotelic. "The term 'autotelic' derives from two Greek words, auto meaning self, and telos meaning goal. It refers to a self-contained activity, one that is done not with the expectation of some future benefit, but simply because the doing is itself rewarding" (Csikszentmihalyi 1990: 67). Capoeira is self-generating, self-sufficient and self-rewarding. It is a self-substantiated game that is practiced for its own sake, has an internal sense of stability or continuity, and is self-affirming. The internal coherence of capoeira is consistent with the idea that it is the product of multicultural exchange in the wharfs and port-cities of nineteenth and twentieth century Brazil. If the art had been too symbolically intertwined with external cultural referents, then it would have been inaccessible to the variety of people who engaged in it. The art was created by centripetal forces that allowed people of different backgrounds to converge upon a common practice. Even if we look at the very core of the ginga, we see a hypnotic swagger that lulls an opponent into a familiar rhythm. Only when practitioners move in step with each other can they create dance-like dialogues of movement.

Capoeira is engaged in for its own sake and practitioners have to actively create a space for their art. Most groups hold weekly rodas supplemented by rodas during public holidays or regional festivals. Some groups find ways to embed themselves into the wider community to raise the profile of the group and increase the popularity of their art. On the beaches of Bahia, I stumbled across Capoeira groups, such as the *Centro Cultural Ganga Zumba*, performing capoeira to promote litter-free public spaces. This group had set up a project called "*Ginga Limpa*", where they held a roda near the beach and then took their students out onto the sand to collect rubbish.

The musical instruments of capoeira are cheap, mobile, and the rhythms are attractive. The berimbau brings people to play from all social groups, and they are all subject to the same controlling rhythms. Capoeira may have been born as an insurgent art practiced by ruffians, but today that insurgency has been transformed for entertainment, community-building, and raising social awareness. Brazil is a country reputed to have the widest gap between affluence and poverty, where ten percent of the population own two-thirds of all the land, and the poorest twenty percent live in reportedly the most wretched conditions prevailing anywhere on Earth (de Blij 2008). Capoeira groups contribute to community events with their performances and even start their own initiatives to build the strength of

a community. Such initiatives come from motivation within capoeira groups, rather than external sponsorship. The insurgency of capoeira groups offers a vehicle to elevate awareness about public issues and bring people together over social problems.

Grupo Nzinga is one capoeira group who take social action seriously. At various times throughout the year, Grupo Nzinga hold special events to commemorate particular dates, talk about social issues, and as a general excuse to get together as a group to celebrate the music and movement of capoeira. Their academy is located in a shantytown in the Alto da Sereia (Mermaid's Peak). Due to their location, they are involved in land-rights issues, the prevention of domestic violence, and campaigns for feminism and gender equality. Grupo Nzinga offers free classes to local children under sixteen. During March 2009, the group became a dynamic part of a feminist campaign known as "Março Mulher" (The Women's Month of March). During this month, they held a colloquium in the *Congresso Naçional de Negras e Negros do Brazil* with talks about the role of women in Capoeira. At sunset the next day, they held a public Women's Roda in the *Praça da Sé* nearby (see figure 5.9). The songs sung were those that support women, and any traditional Capoeira songs that degrade women were purposefully omitted. For example, the lyrics of a chauvinist Capoeira song "*Sou Homem, Nao sou Mulher*" (I am a woman, not a man) were changed to "*Tem homem, e tem mulher*" (There are men, and there are women). With two of the three principal teachers of the group being University-educated women with lecturing positions at the Universidade Federal da Bahia, Grupo Nzinga is well-positioned to play a role in the emancipation of Bahian women. Their activities reflect their social mission, their songs portray their philosophy, and their classes empower the children of economically challenged families. For Grupo Nzinga, the autotelic art of capoeira is a social forum through which cultural change can be enacted and community development can be achieved.

Figure 5.7: Capoeira Angola roda for Março Mulher held at sunset in the Praça da Sé in the Pelourinho district, hosted by Grupo Nzinga. March 2009.
Photo by Paul H. Mason.

5.8 Regional, Angola and Contemporânea

> In Capoeira Angola, one of the first skills that a beginner learns is the ability to listen carefully and understand the messages of the berimbau. It rules the capoeira circle, and its choice of songs or rhythms determine the pace of the game. It can slow down or accelerate the rhythm and dictate the nature and purpose of the meet as a display of beautifully controlled movements in a show or a competition between two rivals. It authorizes the start and the end of the game. It reproaches and warns if a Capoeirista crosses any red lines. At the start of every event, it is customary for the player of the big berimbau, the *gunga*, to produce sounds that summon the participants to the circle.
>
> (Talmon-Chvaicer 2008:133)

Across each style of capoeira small variations exist in instrumentation, rhythms, songs and physical pedagogy. The distinctive characteristics of any one style are not always evenly distributed among the various schools. For example, the instrumentation of the orchestra may be fairly standard for schools of Capoeira Angola, but the seating arrangement may differ slightly between schools. Some schools place the lead berimbau at the centre of the orchestra, some schools place the lead berimbau to one side. Some schools go so far as to demand that musicians tuck their feet under their seat, some schools demand that musicians place both their feet flat on the ground, some schools don't care, and in some schools the musicians stand upright. The musical and physical

aesthetics of a roda express the identity of a group, affirm their practical interpretation of capoeira philosophy, and demonstrate characteristics about their lineage of masters. Differences between styles of capoeira can be very important for a group's identity and so certain rhythms and songs are played in one style but not in another.

Rego (1968) identifies 25 types of capoeira rhythms of which Mansouri and Loez (2005:41) find it pertinent to describe twelve and cite eleven more. Not all rhythms have been popularised and not all rhythms are used to accompany a roda. The rhythms performed during a roda are the most marked denotation of style. A roda performed by practitioners of Capoeira Angola, for example, always features the Capoeira Angola rhythm. On the other hand, a roda will not feature an Angola rhythm if it is performed by practitioners who adhere strictly to Capoeira Regional as taught by Mestre Bimba. While Capoeira Angola principally uses one rhythm, Capoeira Regional has a selection of nine or so rhythms. From the nine rhythms of Capoeira Regional, four are typically used for rodas. During a Capoeira Regional roda, you may hear a *Banguela* rhythm, a *São Bento Grande* rhythm, an *Idalina* rhythm, and very occasionally an *Amazonas* rhythm. Supposedly, each of these rhythms dictates the pace, intensity, and vibrancy of a game. For example, the Amazonas rhythm is fast but the game is preferably slow and controlled.

While an extensive ladainha may be sung at the beginning of a Capoeira Angola roda, this is replaced by a *quadra* in Capoeira Regional. The quadra can be as short as four lines or as long as ten lines. The corridos in Capoeira Regional use different melodies to Capoeira Angola. Corridos in Capoeira Contemporânea can be borrowed from Regional or Angola, but can also be composed by the mestres within any one group. Sometimes songs and rhythms that are played in one school of a particular style are not played in another school of that same style.

If the Regional orchestra wishes to change between any of their rhythms, they often stop the music and start again with the new rhythm. Progression between different rhythms during the course of a roda is more commonly seen during rodas of Capoeira Contemporânea. Practitioners of Capoeira Contemporânea may start with an Angola rhythm, for instance, and then progress through several other rhythms. The names of the rhythms in any one school of Capoeira Contemporânea may resemble those of Capoeira Angola and Capoeira Regional, but there are often slight differences. For example,

various schools of Capoeira Contemporânea use a rhythm called *Benguela.* This rhythm should not be confused with *Banguela* from Capoeira Regional. The Benguela rhythm of Contemporânea has more notes than the Banguela rhythm of Regional.[20]

Allegiances to style are often expressed through song. Practitioners of Capoeira Angola proudly sing lyrics such as "*Eu sou angoleiro*" –'I am an Angola player'— (see Santos and Barbosa 2005:46), while practitioners of Capoeira Regional affectionately sing, "*Salve o mestre Bimba, Criador da regional*" –'Long live mestre Bimba Creator of Regional'— (see Brigham 2006:26). In Capoeira Contemporânea, songs that explicitly pay allegiance to the Contemporânea style are either rare or nonexistent. Songs in Capoeira Contemporânea can feature lyrics that pay attention to a particular group such as, "Me faça uma visita ao Grupo Senzala" –'I will make a visit to the Senzala Group'— (see Capoeira 2006:136), or they may feature a particular teacher such as, "Falo de Mestre Camisa Do nosso Grupo Abadá" –'I speak of Mestre Camisa of our group Abada'— (see Sergipe 2006:80). Songs dedicated to a group or a mestre are also not uncommon in Capoeira Angola or Capoeira Regional.

Differences between groups can also be expressed through pronunciation, for example one group may sing a song with the word "Paranaê" (e.g. Almeida 1986:88; Barbosa 2005:70) while another group may pronounce the word as "Paranauê" (e.g. Brigham 2006:20; Sergipe 2006:74). Members of one group may assert that their pronunciation is more correct, that their songs are more traditional, or perhaps, on the other hand, more original. Beyond the lyrics, the instrumentation of the bateria can change according to school and style and sometimes even the way that instruments are made is particular to a school.

In the roda, often the first giveaway of a capoeirista's teacher, school, or style are the movements performed and the way in which they are executed. One movement, for example, that is notably different in all three styles of capoeira is the *negativa*—a defensive movement used to evade a kick—typically one of the first defensive techniques

[20] The basic rhythm of *Banguela* from Capoeira Regional is notated as: "+ Dan Din __". The basic rhythm of *Benguela* from Capoeira Contemporañea is notated as: "++ Dan Dan Din". "+" signifies an acute crashing sound on the berimbau created by pressing the stone/dobrão gently against the wire as it is struck; "Dan" signifies a low sound performed by striking the wire without pressure from the stone and with the berimbau drawn away from the belly; "Din" signifies a high note created while the berimbau is drawn away from the belly and with strong pressure from the stone. Underline marks the beat.

students learn in any style of capoeira. The *negativa* avoids the impact of an incoming kick by lowering the body generally in the same direction as that kick, i.e. if a spinning kick is about to hit your right shoulder you will usually lower your body to the left. In Capoeira Angola, the movement is performed by first crouching and then leaning to one side coming to rest very low on the hands with the top leg extended out to the side. The negativa in Capoeira Regional starts off the same as the negativa in Angola. First, the player crouches then leans to one side coming to rest very low on the hands, but then the bottom leg (not the top leg) is extended out towards the opponent. In Capoeira Contemporânea the negativa is very different and not as low as in Angola or Regional. The practitioner crouches with one foot directly under the centre of balance, the other leg slightly extended forwards with the ipsilateral hand placed on the ground for support, the torso lowered over the thighs and the free arm guarding the face. Between schools of Capoeira Contemporânea, the negativa can be executed differently. Some schools teach practitioners to place the outer surface of the extended foot onto the ground, other schools teach that this foot should be flat; some schools teach that the foot directly under the body should be on its toes; and a few rare schools teach the negativa with a flat foot under the body. The negativa is but one example of the vast intracultural diversity within capoeira.

The position of the negativa is related to the other movements commonly used in each respective style of capoeira. The negativa in Capoeira Angola, for example, is low because the kicks of Capoeira Angola such as the rabo de arraia (explained previously) are generally low kicks. The negativa in Capoeira Contemporânea on the other hand is higher because the kicks of Capoeira Contemporânea such as the meia-lua de compasso (explained previously) are generally much higher. In Capoeira Regional the meia-lua de compasso is equally high but the negativa is low like in Angola with the extended bottom leg of the negativa projected towards the opponent in readiness to sweep the foot and trip the player. Such a sweep is possible in Regional because, as a general observation, the players are closer than in Contemporânea. Such a sweep is also possible in the proximal game of Angola where practitioners in the negativa position may swing the laterally extended top leg in towards a foot of an opponent. The negativa has a context-dependent application with respect to the other movements incorporated within any one school of capoeira. Playing a practitioner from a different style is not all that common, but discerning their style can be important for remembering little tricks that will destabilise their game.

Capoeiristas most contentiously dichotomise the differences between Capoeira Angola and Capoeira Regional through the different movement repertoire of each style (this dichotomy often places Capoeira Contemporânea as a sub-style of Capoeira Regional or ignores it altogether). Capoeira Regional is promoted as having many more kicks than Capoeira Angola, but Angola practitioners say that what they lack in movement variety they make up for in theatricality, playfulness and deceit. Capoeira Regional is often regarded as a faster and higher game than Capoeira Angola which is lower, slower and more stealthy. Angola practitioners also emphasise their musicality but often overlook that Regional and Contemporânea incorporate a larger assortment of rhythms. When Angola practitioners highlight their musicality, what they are actually talking about is their ability to musically improvise in the moment, to interject commentary through song, to control a game among inexperienced practitioners, or to match the tempo of experienced players. Dichotomies between Angola and Regional are loathed by some practitioners and capoeira historians, but bandied around by some adepts and authors with little abandon. Alternate styles of capoeira may have distinctive movement repertoires, but the repertoires are not entirely incommensurable.

Learning capoeira, as some mestres will tell you, is like learning a new language. Movements are like words, sequences of movements are like phrases, and attacks are like questions that demand an answer. Games are commonly referred to as a kind of 'bodily conversation' (see for example Downey 2005:2) where one practitioner asks a question through movement and the other responds. To extend this common metaphor, I propose that the main corporeal distinction between the three styles of capoeira (Angola, Regional, and Contemporânea) is the physical accent or prosody with which practitioners perform their movements. The movement repertoire of each style and each capoeirista may vary, but the most striking difference is the way that moving bodies are differently accented. True, alternate styles of capoeira have varying repertoires of movement, but it is not that one style of capoeira does not recognise the kick or sweep of another. Kicks and sweeps are almost always recognisable, but their timely efficacy in the roda can be called into question. Body accents are expressed through where the kick begins during inter-corporeal dialogue, where it is aimed and how subtly or forcefully it is implied, and then in turn how the kick is perceived, acknowledged and responded to. Conflict can escalate when two players have impenetrably opposing dialects. If an implied attack is

misapprehended, or not dutifully acknowledged in a way that is meaningful to the kicker, then it can lead to frustration and growing tension. One player might be thinking, “I’m kicking you, why aren’t you defending?” while the other player might be thinking, “That attack would never work, the timing is all wrong!” In these situations, the lead musician guiding the roda has to step in to ensure that an implied attack does not become a real one.

One experience stands vividly in my mind when I think about the different styles of capoeira. When I began my first classes of Capoeira Regional in Bahia, my Contemporânea-turned-Angola style of movement caused confusion during partner training. During a series of sequences that we were instructed to train in pairs, I was performing movements that were similar to those shown by the instructor but unwittingly I was stopping certain movements at a slightly different point during the action and commencing the next movement pre-emptively. As a result, attacks and defences became awkward and in some instances not possible. My incorrect pronunciation of the movement, to continue with the language metaphor, meant that some techniques were rendered ineffective because I ended up too far away to kick or to be kicked. In some instances, I even found myself positioned too steadily on my feet to be tripped. In other instances, I found my position compromised even before my partner had executed an attack. The timing and position of when and where I initiated and terminated a technique altered my physical proximity with my training partner and subsequently affected our physical discourse.

By listening to comments by capoeiristas about styles of capoeira that they do not practice themselves, I learnt how practitioners think about and value their own style. In some instances, encountering such dialogue made me privy to a particular choreomusical way of thinking. In a class of Capoeira Angola, for example, I was playing the atabaque drum, and the teacher came over to correct me several times. To my ear, I thought that I was imitating her accurately, but her persistence made me think that perhaps I was off the beat. Her repeated instructions made me aware that there was a musical aesthetic I was missing. Eventually, she explained to me, “You are playing too Regional! In Capoeira Regional they play the drum like that, ‘bom BOM bom’. But, in Angola we play it like this, ‘BOM bom BOM’.” In both examples, she struck the rim of the atabaque on the first and third strikes and the middle of the atabaque on the second strike. In her example of

Capoeira Regional, transcribed in figure 5.8, the first and third strikes were softer and the second strike was louder so that the sound went: 'soft, loud, soft'. In her example of Capoeira Angola, also transcribed in figure 5.8, the first and third notes were louder than the second strike: 'loud, soft, loud'. The emphasis on the middle note in the Regional rhythm created a mountain-like volumetric contour in the musical phrase. The volumetric contour of the Angola rhythm, in comparison, created a more steady pulse with two loud notes per cycle instead of just one. This teacher was trying to highlight the steadiness of Angola music in comparison to the rising and stimulating inflections of Regional music.

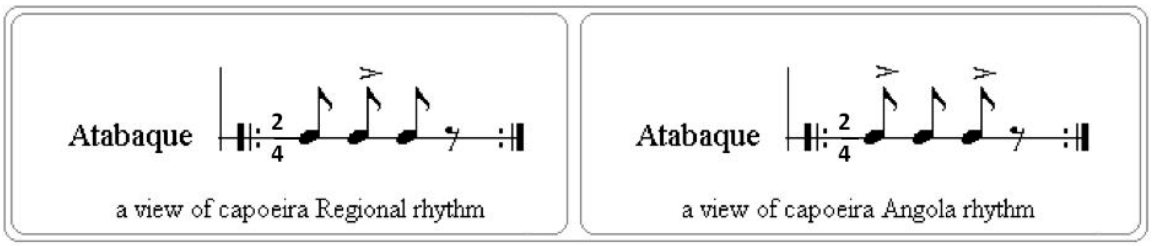

Figure 5.8: Notation of a Capoeira Angola teacher 's rendition of the difference between a rhythm for Capoeira Angola and a rhythm for Capoeira Regional.

The most fascinating part of this instruction was that in Capoeira Regional practiced as it was originally taught does not feature a drum. This teacher had invented a picture of Regional drumming against which to articulate something about her style, Capoeira Angola. The volumetric contour of her Angola rhythm dipped while the volumetric contour of her Regional rhythm peaked. The emphasis in her Capoeira Angola rhythm was weighted, gently stimulating and actively calming. The rhythm almost mimicked a meditative heartbeat and the steady pulse compelled capoeiristas to play lower and deeper. Through a musical example, this teacher was expressing to me a stereotype of Regional that I had heard her articulate in conversation in various ways at other times. She was musically demonstrating a physical difference in the Regional game where she perceived that players are upright and sustain fast-paced games.

Highlighting similarity and difference can be a strategic manoeuvre in the marketing of cultural skills. As a general fieldwork experience, I found that capoeiristas were very selective about their appraisal of other schools and often very opinionated when talking about other styles. Practitioners demonstrated a fierce loyalty to their mestre and their group identity. Capoeiristas still expressed a strong sense of attachment to their original

mestre even if they had been rejected by that mestre and had become teachers themselves. Such attachments and loyalties were maintained in conversations, through guarding specific songs, and in overt ritual gestures during training and in the roda. Anthropologists are familiar with heightened in-group favouritism and out-group derogation commonly found in emerging subcultures. The accentuation of difference solidifies the group consensus and establishes a homogenising culture that is "secure, and thus appealing, to the group members who are high in the need for closure" (Richter and Kruglanski 2004:101). By strategically deploying myths, standardising musical practices, establishing acceptable and unacceptable repertoires of movements, and accentuating the differences between groups and styles, teachers are able to maximise the centripetal forces that impel their students towards a homogeneous practice and minimise the centrifugal forces that may hurtle a group towards incommensurable heteroglossia.

5.9 Tradition, Transformation and Autotelism

Present-day practices of capoeira have been historically constituted by a multifarious array of international influences that coalesced in the ports of Brazil and over time were subject to social and political forces (see for example, Chvaicer 2002; Downey 2002; Assunção 2005). The instrumentation of capoeira was unfixed due to oppression of capoeiragem in the nineteenth century and only became standardized in the twentieth century. Other factors contributed to the unstable nature of early capoeira musical accompaniment. Pre-capoeira genres were diverse and came from a variety of ethnic groups. A relatively consistent creole culture may not have yet formed in Brazil during the nineteenth century. New instruments may have been imported during the formative period, including from other practices. Assunção (2005) describes the distinct relationship between music and movement in capoeira as "entirely different from the way combat games were embedded into wider social and ritual practices in Africa. The close association between musical bow (*berimbau*) and combat game in Bahian capoeira illustrates to what extent capoeira is more than a simple derivation of a single African practice… To place the berimbau at the heart of capoeira was clearly a new World invention" (p. 69). Once a male-dominated activity, capoeira has seen many changes with the transition into academies and the introduction of a larger number of female

participants. These transitions have been accompanied by a formalisation of instrumentation, the development of musical repertoire and a modification in song lyrics.

In Brazil, the subordination of movement to music is understood to be African. In capoeira, the music is not so much adding sound effects to percussive movements, like strikes, but serves as a regulator of movement interaction. This aesthetic relationship between music and movement sorts out performative aspects from the 'music down'. Movements that fit with the musical-aesthetic flow will be adopted and techniques that do not fit will be dropped. When Brazilians say that capoeira is African, they are describing how capoeira works, not necessarily where the movement repertoires comes from. The repertoires of movements that have been integrated into the practice of capoeira have been selected for because of the need to stay with the music.

Capoeira is the product of early globalisation and is prospering in an increasingly globalised world. As the product of multicultural exchange, the art required structures not apart from itself in order to survive, and it finds these structures in the centralised hegemony of the music, the purveyorship of the mestre, and the converging tendencies of the members of any one group. Capoeira was impelled towards being autotelic and this autotelicism has empowered the art for global distribution.

Figure 5.9: Capoeira Regional: Saturday morning roda at Filhos da Bimba, April 2009. Photo by Paul H. Mason.

Chapter 6: Fight-dancing and the Festival:
Tabuik in Pariaman, West Sumatra, and Iemanjá in Salvador da Bahia, Brazil

6.1 Introduction

Religious festivals are important sites of cultural activity. In this chapter, I discuss performances of fight-dancing featured during religious festivals in Indonesia and Brazil.[21] Tabuik[22] is the name of an annual festival in Pariaman, West Sumatra. Iemanjá is the name of an annual festival in Salvador da Bahia, Brazil. During both festivals, people carry objects in procession out to sea. These seaside festivals exhibit almost entirely discrete histories, precipitate from completely different religions, and are found in geographically separate societies. Nonetheless, they exhibit somewhat similar ritual tasks, share topographical resemblances, and incorporate performances for public entertainment. Within the comparable setting of these coastal festivals in two different locations, I draw attention to dissimilar performances of fight-dancing. In the context of the coastal festivals of Tabuik and Iemanjá, fight-dancing performances have been mobilised along with other performance genres to constitute a construal of the past serving variable interests in the present.

The festivals of Tabuik and Iemanjá both arose from minority groups within forcefully expatriated communities. The festival of Hosay in Trinidad, studied by Korom (2003), has similar origins. Korom suggests that community events such as the festival of Hosay flourish through 'cultural creolisation', a process where minority religious communities adopt local customs to allow their rituals to thrive creatively (p. 5). Korom points out that it is in the public arenas of these rituals that cultural encounters take place and gradual transformations of the observances occur (2003: 59). The rituals become contested phenomena that are negotiated and co-constituted by the parties involved. To capture a sense of this hybridity, an account of activities that accompany and surround the main events complements the description of these rituals.

[21] Footage of the Tabuik festival in Indonesia can be viewed on Track four of the accompanying DVD. Footage of the Festival of Iemanjá in Brazil can be viewed on Track twelve.

[22] The festival of Tabuik is named after the tabuik cenotaphs that are the focal point of proceedings. "Tabuik" with a capital 'T' is used for the name of the festival and "tabuik" with a lower-case 't' is used for the name of the cenotaphs. Please note that this word is Indonesian. In this language nouns can be singular or plural depending on the context of the sentence.

Performances of fight-dancing are incorporated into the public entertainment of the festivals of Tabuik and Iemanjá. Choreographed performances of silek minang appear during the official proceedings of the Tabuik festival, and the improvised art of capoeira is almost inevitably found somewhere during the festival of Iemanjá. The way in which fight-dancing is embedded within each festival provides a framework to conceptualise the similarities and differences between silek minang and capoeira. The analogous social setting of the performances provides some common ground to grapple with various internal and contextual processes of Indonesian and Brazilian fight-dancing. This chapter will explore the history, religious themes, and contemporary manifestations of Tabuik and Iemanjá, as well as include a description of the performances of fight-dancing found at each event. Idiosyncrasies and themes relevant to each particular community will be explored along the way.

My introduction to these festivals occurred through my fieldwork pursuits in fight-dancing. I first observed Tabuik in Pariaman, West Sumatra, at the end of January 2008. A year after participating in the Tabuik procession, I found myself immersed in the activities of a capoeira group in Rio Vermelho, Bahia, during the Festival of Iemanjá. The performance of capoeira that I documented was drawn from an academy setting, versus the street games of capoeira at the same festival that are somewhat more anarchic. The festivals of Tabuik and Iemanjá differ in organisation, proceedings and cultural flavour. Consequently, my ability to participate within each festival and my point of observation varied accordingly. During Tabuik, my participation was confined to the observation and documentation of performances and proceedings. Like the other visitors, I was able to follow the procession to the beach, but the events had already been planned and roles already assigned. During the festival of Iemanjá, I was invited to become an active participant and assist the activities of a fight-dancing group in the preparation, coordination, and celebration of the day's events. Noticing the contrast between improvised and choreographed cultural activities inspired me to enquire further into the social, historical, and religious factors that put fight-dancing and these festivals together.

Tabuik and Iemanjá are fascinating festivals with local and foreign elements that ignite the mind with curiosity about origins, influences and historical developments. The underlying formations of the festivities, shaped by distinct processes of cultural creolisation, are useful case studies for the heterogeneous construction of human social

behaviour. The culturally elaborated and historically sculpted idiosyncrasies of each festival offer a vivid setting for the contextualisation of performances of fight-dancing.

6.2 The festival of Tabuik in Pariaman, West Sumatra

People from the hinterland region of West Sumatra say that the coastal region is rich with legends, mystical beliefs and Sufi traditions. These traditions are indigenous creations blended with adaptations of performances from neighbouring regions and abroad. The yearly festival of Tabuik in the coastal city of Padang Pariaman is a popular example of such a blend. Tabuik is a fascinating religious festival with local and foreign elements that reflect the diverse influences brought by the region's history.

Tabuik is the remembrance of the martyrdom of the grandchild of the Prophet Muhammad, Imam Hussein, who died in the battle of Karbala in 680 AD. Around the world, Hussein's ordeal has sometimes been remembered by tragic and distorted acts of martyrdom (Israeli 2002), as well as through theatrical re-enactments, and processions. The public rituals of the commemoration of Hussein are known for their eccentric breast-beating, weeping, wailing, self-flagellation or self-mortification with razors, flails and knives (see Chelkowski 1979:2-3; Hasnain and Husain 1988:145; Pinault 1992:135, 180). In Indonesia, however, Hussein's struggle is recalled through diverse performance and ritual traditions, including dance and body percussion.

In Padang Pariaman, the re-enactment of the suffering of Hussein at Karbala has become an annual cultural event. On the tenth day of Muharram, the first month of the Islamic calendar, the anniversary of Hussein's death is commemorated. The resulting celebration promotes social cohesion and regional identity, as well as tourism and trade. Although the inhabitants of Pariaman and the surrounding areas are mostly Sunni Muslims, they have embraced a convivial interpretation of this Shiite tradition.

6.2.1 A brief history of Islam, Shiites and Sunnis

"Islam—resignation to the will of *Allah*—denotes the religion taught by Muhammed, the Prophet" (Hasnain and Husain 1988:137). The followers of Islam are divided into two main sects, the Sunnis (those of the Path, traditionalists), and the Shiites (followers of Ali) (1988: 137). After the Prophet died in 632 AD traditionalists (who came to be known as the Sunni) succeeded in electing three consecutive religious leaders; Abu Bakr, Umar and Usman (Hasnain and Husain 1988: 137-138). For Shiites, however, it was Ali bin Abitalib, the cousin of the Prophet and husband of his only daughter, Fatima, who they maintain was the first legitimate Imam explicitly nominated by the Prophet (Hasnain and Husain 1988: 137; Thaiss 1994:39; Suharti 2006:iv). Accordingly, the Shiites reject the first three religious leaders recognized by the Sunnis (Hasnain and Husain 1988: 137-138). Ali only became official leader of the Muslims more than two decades following the death of the Prophet and was assassinated after only five years of rule (Thaiss 1994: 39-40). Ali's eldest son, Hasan, temporarily succeeded him but almost immediately abdicated his position to the governor of Syria, Mu'awiya, who had earlier challenged Ali's right to govern (Thaiss 1994:40; Nakash 1994:141). Mu'awiya possibly made a false promise to revert the leadership back to Hasan after his death (Nakash 1994: 141). However, Hasan never assumed this position again as he was poisoned eight years later by his wife at the rumoured instigation of Mu'awiya (*Ibid*.).

During the 60th year of the Islamic lunar calendar (60AH/680 AD), Mu'awiya died and his son, Yazid, took over the leadership of the Muslims. Hasan's younger brother, Hussein, who no longer felt bound to Hasan's agreement with Mu'awiya, undertook to avenge his father's death and to advance his claim to leadership. Accompanied by his family and a small party of about seventy companions, Hussein set out from Mecca to Kufa. At the beginning of the 61st year (61AH/680AD), during the month of Muharram, Hussein and his escorts were intercepted by Yazid's sizeable army in the desert plain at Karbala, near the present-day city of Baghdad. There, they were deprived access to fresh water and Hussein was demanded to renounce his opposition and unconditionally submit to Yazid. Though defeat was certain, Hussein refused to pledge loyalty to Yazid. Hussein and his followers managed to survive the burning desert sun and the shortage of water and supplies until the battle that took place on the tenth day of Muharram, a day which came to be known as *Ashura*. During the battle, Hussein witnessed the murder of his son

and then Hussein himself was killed, his body mutilated, decapitated and spread across the battlefield. (Thais 1994: 39-40; Nakash 1994 :140-141; Hasnain and Husain 1988:137-138; Jafri 1979:174-221; Chelkowski 1979:1-2)

Scholars of Islam contend that "The tragedy of Karbala played the greatest role in the growth of Shiaism" (Hasnain and Husain 1988:143), that "no other single event in Islamic history has played so central a role in shaping Shiite identity as the martyrdom of Husayn and his companions at Karbala" (Nakash 1994:142) and that "the popular Shi'ite Islam annual Muharram pageantry helped greatly in spreading Shi'ite doctrine across the Iranian plateau" (Chelkowski 1979:256). Quite soon after the death of the grandchild of the Prophet Muhammad, Imam Hussein, Karbala became a place of pilgrimage and veneration (Chelkowski 1979:2; Thaiss 1994: 40). Ashura, the tenth day of the month of Muharram, became an anniversary of voluntary self-sacrifice among Shiites known as *Ta'ziyeh* in Iran, *Muharram* in India, *Hosay* in Trinidad (Korom 2003:1), *Tajiyah* in Surinam (de Boer 2001), *Tabot* in Bengkulu, Southwestern Sumatra (Widiastuti 2003) and *Tabuik* in Pariaman, West Sumatra (Suharti 2006).

All Muslims observe the death of Hussein (Korom 2003: 62). The eighth Shiite imam, Alî ar-Ridâ (Halm 2007: 26), provided strict guidelines to observe Ashura with grief and weeping, which would be rewarded with "a blissful eternity in paradise" (Korom 2003: 57). Those who did not follow these guidelines would join Yazid in the "deepest pit of fire" (Ayoub 1978:151). The Sunnis commemorate Ashura as a distinct tragedy in the history of Islam, but they do not condone acts of self-mortification exhibited by some Shiite groups (Korom 2003:75). In Bombay, Muharram-related events have been catalysts for political dissension (Fazel 1988: 50) and sites of conflict between Sunni and Shiite Muslims (Fazel 1988:49) but the processions have allegedly only become violent when Shiites feel provoked by disrupters (Halm 2007:81).

From Persia to the furthest satellites of the Islamic world, the Ashura observances have spread and "assumed many forms, reflecting the diverse cultures and ethnic groups among which they developed" (Nakash 1994:142). In Iran, annual mourning processional ceremonies were well established by the tenth century AD and have been performed with great pageantry and emotion ever since (Chelkowski 1979:2-3). In India, celebrations of Ashura were stimulated by a minority sect of Shi'ite Muslims and today involve Sunnis

and Hindus (Campbell 1988; Cole 1988:115-117). Hindus will often visit Shiite shrines and offer homage to Hussein during the month of Muharram (Pinault 1993:160). From India, Ashura has spread further and become a popular pan-Indian festival in places where Indians went as indentured workers and where Shiites were a minority (Wood 1968:151). In Surinam, for example, the festivities were practiced regularly until the 2nd World War after which time the number of Shiite practitioners fell and the tradition lost popularity, being last seen in 1987 (de Boer 2001). In Trinidad, the festivities became part of the carnival period festivities and assumed the name Hosay, supposedly as a derivation of the name, Hussein (Korom 2003). Tabuik in West Sumatra has formed in a distant outpost of the Shiite world (Kartomi 1986:144) where a predominantly Sunni community continues a unique expression of the Muharram observances.

Present day Muharram ceremonies date back to at least as far as the tenth century Shiites in Iran (Kartomi 1986:144). The mourning processions were later developed in Persia after 1500 AD, and then through Persian contact with India became a recent unique Indo-Muslim culture that cannot claim great age (*Ibid*.). The earliest roots can be traced even further back to pre-Islamic Persian legends. Muharram ceremonies found ready ground in the ritual plays of Sasanian and Parthian tragedies of ancient Persia (Yarshater 1979:89) and the origin and development of the indigenous ritual drama of Hussein can be drawn from Mesopotamian, Anatolian and Egyptian myths (1979:94). Pre-Islamic Persian legends with themes of redemptive sacrifice that venerate deceased heroes, find continuation in Hussein's story (Chelkowski 1979:2-3). Supporters believe that Hussein's suffering and obedience to the will of God gave him the exclusive privilege of making intercession for believers to enter Paradise (Thaiss 1994:40).

Muharram commemorations found throughout the Islamic world all display their local distinctiveness. The destruction of tabuik cenotaphs off the coast of Pariaman, for example, appears to follow the Hindu custom of immersing a deity after a religious festival (Korom 2003:5; de Tassy 1995:33; Pinault 1992:61-62, 153-165). Although observances of Muharram are practiced by Muslims in remembrance of martyrdom, they may have connections to fertility rituals (Horowitz 1964:80) and Hindu observances of Krishna and Ganesha (Forster 1924:314). In some locations, the cenotaphs are not brought out to sea, but are immersed in rivers or tanks of sacred water (Korom 2003: 189, 269). Muharram ceremonies, sometimes called *Tabot* (*e.g.* Permana 1997), could even be

related to celebrations of the Ark of the Covenant, or a form of processional worship from the Old Testament (the Torah) celebrating the Tablets of Law onto which the Ten Commandments were inscribed.[23]

Early Shiite influences in Indonesia possibly opened the space for a later inculcation of the Muharram tradition into the communities of Bengkulu and Pariaman. During the fourteenth century, the Hikayat Muhammad Hanafiyyah, a major Shiite literary work, was translated into Malay (Brakel 1975:60-61, 75, cited by Kartomi 1986:141-142, 144). There are many indications in classical Malay literature that there was a very strong Shiite character to early Indonesian Islam (Wieringa 2000). However, the advance of Sunni Islam has gradually eradicated these stories. Most Sunni considered and still consider Shiites to be unbelievers. The life struggle of Shiite Islamic scholar Ustadz Husein Al-Habsyi from Surabaya (1921-1994) is one account of the difficulty Shiites can experience in Indonesia (Zulkifli 2004). Today in Indonesia, the Shiitic text, Hikayat Muhammad Hanafiyyah, has been thoroughly neutralized so that no Sunni could possibly object to the stories within it (Wieringa 1996).

6.2.2 The Sporadic Growth of Tabuik in Pariaman

English and Dutch colonial powers acted as catalysts in the transplantation of Ashura rites from India to Indonesia. In the late eighteenth and early nineteenth centuries, the British took Indian soldiers and farmers to West Sumatra and Trinidad. Of these indentured workers, only a small minority were Shiite Muslims (Wood 1968:151), but the Muharram ceremonies came to involve Sunnis and Hindus (Campbell 1988) and over time the processional festivities sporadically prospered.

In West Sumatra, Muharram ceremonies were first brought to Bengkulu by Sepoy Indians from Madras and Bengal (Estudantin 2009:180). Of the Sepoy regiments deployed by the British, it is estimated that up to 20% of the soldiers were Muslim, a majority were Hindu, and a minority were Sikh, Christians and Jews (Mead 1858:28-32). Many Indians married with the native citizens, and their children are known as Sipai. In Bengkulu, the celebration, known as *Tabut* in this region, is carried on by Sipai descendents (Widiastuti

[23] According to Edward Ullendorff, the word *Tabot* is derived from the Jewish Palestinian Aramaic word *Tebota*, which in turn is derived from the Hebrew *Tebah* meaning box or ark (Ullendoff 1968: 82, 122).

2003). Though Shiites only composed a minority of the sepoy troops under the command of British colonial powers, the Muharram ceremonies proved to be popular among the expatriate and Sumatran communities.

From Bengkulu, the Muharram ceremonies were subsequently brought to Pariaman, supposedly by a Muslim leader named Kadar Ali (Kartomi 1986:142). In Pariaman, a select group of descendents were also the traditional guardians of the Tabuik ritual. Recently, however, this role and its responsibilities have been diffused throughout two subdistricts of Pariaman city, the Pasar and Subarang communities. The festival has changed from a small religious ritual to a city-wide celebration. Newspapers and TV reports suggest that the festivities have enjoyed greater growth in Pariaman and become more famous in this region.

Figure 6.1: The Muharram festivities in West Sumatra, 1939. The ornamented edifice in the centre of the photography is a cenotaph (model tomb) called a tabuik. This tabuik was constructed especially for a procession on the tenth day of Muharram.
KITLV archives, Leiden (KLV001049773)

When the Western Coastal area of Sumatra was handed over to the Dutch after the Treaty of London was signed in 1824, some Sepoy troops remained in Pariaman. They carried on the Shiite tradition. By 1831 the Tabuik festivities were well established and have continued, though somewhat sporadically, ever since (Bachyul 2006). Some Indonesian

scholars have suggested that following the British colonial government, the Dutch provided funds for the ceremonies in order to create unrest, trigger quarrels between Islamic groups, and weaken the resistance of the West Sumatrans (Ernatip et al. 2001:14-15, cited by Estudantin 2009:180), although evidence for these claims is minimal. Such interpretations are possible, however, because members of Tabuik edifices were pitted against each other and would physically fight. The Dutch may have believed this ceremony would divide the local Minangkabau communities. Whatever the truth may be, the tradition in Pariaman and Bengkulu has been popular enough to outlast Colonial rule and during its existence it has variously managed to attract diverse sponsors. For a brief period, the festival's commercial value attracted sponsorship from local businesses, mostly from Chinese traders. Nowadays the event enjoys sponsorship from the local government and the Department of Tourism, both of which have supported the inclusion of traditional Minangkabau performances in the festival.

Across Southeast Asia, observances of Muharram had economic and other obscure ties to Chinese business (Kartomi 1986:158) and the Triads (Wynne 1941). In the colonies of the British Empire, the British colonial government viewed public Shiite Muharram observances primarily as a security risk harbouring a great potential for violence (Pinault 1992:63) and covert activities (Wynne 1941). With this understanding, the British saw the need to suppress Muharram observances. In Trinidad, for example, the colonial powers in 1884 enacted a ban on processions on public roads, but the Hosay celebrations went ahead and 22 participants were killed in the conflict (Mohapatra 2003:187). While the British may have inadvertently transported the Muharram rites to Pariaman and Bengkulu, it is only because the English subsequently left that the festival prospered. Had the British retained control over the region, they would most likely have attempted to extinguish the Muharram festivities, for they believed the ceremonies were connected to Islamic and Chinese secret societies.

Originally, the Tabuik rituals were the responsibility of a small community of Sepoy descendents. The event was a costly venture involving the construction of large edifices that required generous benefactors. For some time during the 20th century, the event had been sponsored by local businesses, mostly owned by Chinese traders interested in promoting business (Kartomi 1986:158). President Suharto's purge of suspected communists in 1965-1966 saw a rapid decline of Chinese traders. While the number of

benefactors in Pariaman dwindled, the festival nonetheless continued to gain popularity and government officials and national corporations began to assume a larger role in the events. Today the event enjoys sponsorship from the local government and the Department of Tourism. The influence of nationalism and regional pride has meant that the traditional festivities now include performances from the wider genre of Minangkabau arts. Government administration has sedated objectionable public aspects of the procession, sanitised incongruous religious aspects, and introduced entertainment performances from an assortment of local arts.

Figure 6.2: Muharram ceremonies in West Sumatra, 1948. Pictured in the centre of the photography is a tabuik cenotaph constructed especially for the ceremonies.
KITLV archives, Leiden (KLV001009626)

6.2.3 Procession, submersion and destruction

Two of Padang Pariaman's communities actively participate in the Tabuik procession. The Pasar and Subarang communities come from different areas of Pariaman. Through their efforts, the Tabuik tradition has become famous throughout West Sumatra. In contemporary times, the government steps in to carry out much of the organisation of the event.

Tabuik is the name given to the model tombs that are the focal point of the public processions that take place during the Ashura rites. The tabuik are the dominant material feature during the event. Each tabuik is an upright, standing coffin built from bamboo, rattan, cloth, paper, and decorated with eight umbrella-sized adornments covered with handcrafted flowers. This cenotaph is placed above a statue of a borak, a powerful steed with broad wings and the head of a smiling girl. A tabuik edifice has three levels and can exceed 15 metres in height and 500 kilograms in weight (Muhammad 2008). The base level features long wooden poles that enable a group of men to carry it.

According to legend, a borak collected the scattered parts of the bodies of Hussein and his brother Hasan after the battle of Karbala and carried them to the sky. One version of the story says that during Hussein's ascent to heaven, one of his followers asked the borak to carry him off as well (Bachyul 2006). In another version, a sepoy ancestor managed to hang on to the chariot as it began its ascent to heaven (Kartomi 1986:145). In both versions, the borak denied the devotees' wishes to make the journey with Hussein, and ordered them to build a tabuik every year to commemorate Hussein's death.

Figure 6.3: Frame 1: Mounting the umbrella-shaped handcrafted flowers (Photo courtesy of Kaja Dutka); Frame 2: Constructing the cenotaph (Photo courtesy of Kaja Dutka, 2008); Frame 3: The finished Tabuik in the centre of town (Photo: Paul H. Mason)

Assemblage and preparation of the two tabuik cenotaphs begins on the first day of Muharram. Construction begins with the collection of earth from Subarang and Pasar land. This earth is wrapped in white cloth and later put into the tabuik to represent the graves of Hasan and Hussein. Special rites accompany the making of the tabuik. These rituals represent different parts of Hussein's story, and symbolise his courage in fighting the enemy, as well as the courage of his son, Abi Kasim, who avenged his death. The rituals are accompanied by community events, kite races, traditional plays, various prayers, martial arts performances, Sufi dances, and speeches by political and social leaders. While the rituals generally involve select groups, the accompanying entertainment builds excitement among the broader community in anticipation of the procession of the two tabuik. The rituals and performances are all enacted before the final procession and eventual dismantling of the structures in the ocean waves at *Magrib* (sunset prayers).

Figure 6.4: The main street of Pariaman is lined with Market stalls, but space has been kept clear for the Tabuik procession that takes place in the afternoon. (Photo courtesy of Kaja Dutka, 2008).

On the tenth day of Muharram, the day of Ashura, the procession is officially opened with traditional performances including the Gelombang welcome-dance, the Indang seated dance, and a martial arts performance that presents the story of Hasan and Hussein in theatrical form. The procession of the two tabuik follows. Each tabuik is lifted by approximately twenty men. The tabuik are rocked, danced around, and shaken to perform a mock-battle symbolising the battle of Karbala. Onlookers shout "*Angkat Hussein*" ('Lift up Hussein'), or "*Oyak…! Oyak…!"*(Shake! Shake!) (Rahsilawati 2007). The colourful umbrella-shaped decorations that ornament the tabuik evoke a prestigious air, but as they tremble with the shaking tabuik these bobbing ornaments add to the visual spectacle. The

tabuik are turned in circles and then pivoted onto their side so that they can be carried under the electricity wires and out of the city centre. The tabuik proceed from the city centre to the beach accompanied by loud barrel-drums, hand-held kettle-drums, and synthesiser music called organ tunggal.

At the end of the journey, which occurs just before the evening prayer, both tabuik are thrown into the sea. What the waves don't destroy is pulled apart by the bearers and onlookers, for the destruction of the two tabuik symbolises both the end of the battle and the ascent of Hasan and Hussein to heaven. Some people wade into the water in search of souvenirs of the destroyed cenotaphs. "In Pariaman (but not in Bengkulu), the eleventh to thirteenth days of Muharram are days of *kanduri* (ritual feasts), prayers, and the burial of the remaining *tabuik* equipment in the general graveyard" (Kartomi 1986:157). However, for most, it is a return to normal working life with no deeper participation in the events than that which has been crafted for them by the event organizers and government officials.

6.2.4 The day of Ashura in Pariaman

On the day of Ashura, the procession of the tabuik only commences once government officials have arrived—even if that means that the procession is delayed, the mock battle shortened, and the tabuik have to be rushed to the beach to beat sunset.[24] Once the official guests arrive, a silek gelombang welcoming dance is performed to open the ceremonies. From early afternoon on the day of Ashura in January 2008, silek gelombang dancers waited in the middle of the main road of Pariaman for the governor and various government officials including the Head of Tourism. One group of dancers was dressed in red traditional Minang attire, the other group was dressed in black. Traditional Minang attire consists of wide-set pants, a long sleeved shirt with slight decoration around the cuffs and neck, and a *destar* triangular headpiece. For silek minang and silek gelombang performers the destar can be replaced by a more practical decorative cloth wrapped around the head. The silek gelombang dancers stood ready to welcome the dignitaries with their performance.

[24] In December 2008, the festival was attended by the Iranian ambassador. Official speeches by dignitaries, sponsors and politicians went overtime and the mock battle had to be shortened so that the Tabuik could be dragged to the beach before sunset.

Prior to the arrival of the dignitaries, crowds built to enormous numbers. Masses of people waited amidst the market stalls, side attractions and blaring synthesizer music. Police ushered the crowds to the side of the road and kept a path clear leading from the silek gelombang dancers to the main stage set-aside for official guests and dignitaries. The two groups of dancers looked like two sport teams preparing to play a tug-of-war, seemingly eyeing off their opponents from a safe distance. Iranian Shiites might have interpreted the colours of the performers as significant with the red costumes representing *shembra* or *shemr*. Firemen sprayed the crowd with water from their truck as people eagerly awaited the commencement of the opening silek gelombang dance. The high-pressure water kept the crowd back from the road, and it also cooled them from the hot Pariaman sun. The water also cooled the bitumen road for the dancers who were barefoot. Organ tunggal (synthesizer music) blared from over-amplified speakers. Everyone awaited the arrival of the dignitaries who were running on *Jam Karet* (time that is flexible like rubber).

As soon as the first crowd members caught sight of the dignitaries, the organ tunggal music stopped and a single head *tasa* drum signalled the six double-sided *gendang tambuah* barrel drums to commence. The silek gelombang dancers took their positions and commenced their cycles of movement. The *tasa* drum reportedly originates from India and is said to possess a magical power imparted by a mantra that once incited members of each tabuik to fight each other. Today it signals the start of a symbolic fight performed by the silek gelombang dancers that ends with a peaceful handshake.

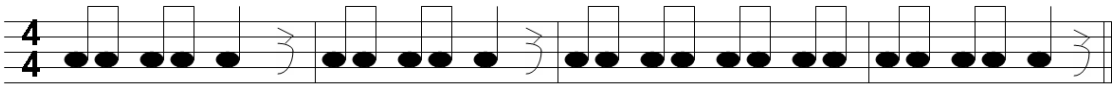

Figure 6.5: Opening sequence played on the *Tasa* drum to initiate the *Gendang Tambuah* rhythms.

The dancers made a series of sideways approaches towards each other, and gradually made their way closer to centre stage where an offering was placed between them. They cautiously approached each other with silek minang postures that, much to the excitement of the crowd, demonstrated power, strength and readiness; the crowd pulled in close, and the dance sent spectators into a flurry. Organisers and police had difficulty holding people back. Both groups of dancers continued to approach each other until they met at the

offering plate placed in front of the stage where dignitaries were seated. Upon arriving at the plate, the lead performers shook hands with each other and music erupted from all over the city and everyone jumped and danced around in jubilation. The tension of the Silek Gelombang dance was high and the offering plate was a site of consensus, a peaceful meeting point where different parties had been welcomed through movement.

Figure 6.6: Silek Gelombang dancers in the foreground with musicians in the background (Tasa player with several Gendang Tambuah percussionists). Photo by Kaja Dutka (2008).

The silek gelombang dance preceded a series of performances and speeches that acted as the forerunner to the much-awaited Tabuik procession. The performances were all carried out in front of the stage of dignitaries with the crowd surrounding the performance space in front of the stage. Of the performances, a choreographed performance of silek minang was featured. Silek minang groups often have a prepared choreographed product that they can hire out for performances.

In a silek minang performance, generally two adult male performers, (possibly a father with his son or nephew), begin an elaborate sequence of stylized bows in various directions to dignitaries, members of the audience, and then to each other. The performers then demonstrate a series of open-hand and knife techniques that have the mark of social heritage, cultural patrimony, and regional identity. To the trained eye, silek minang performances are visibly well rehearsed and pre-set. In much the same way that Yogyakarta-style court dance is regarded as a cultural heirloom of Central Java (Hughes-Freeland 2008), silek minang is a cultural heirloom of the Minangkabau of West Sumatra.

During the performance of silek minang during Tabuik, ceremonial sequences of movement were performed by two performers dressed in black Minang attire. Their bows were accompanied by the sound of a woodwind flute played over loudspeakers. After a sequence of opening movements and two sideways bows, the gendang tambuah drums began to play and a repetitious melody was sounded on a sarunai reed woodwind flute. Female dancers, who had performed the seated Indang dance earlier in the proceedings, moved to surround the fighters. The dancers were dressed in red or blue and clapped their hands and moved to the rhythm of the music. In the background, a small replica tabuik was shaken up and down by three men dressed in yellow traditional Minang attire. The fighters maintained their distance and performed eloquent threatening postures. When the choreographed fight started, the dancers circled the fighters as well as the men rocking the replica tabuik. Gradually, an older fighter moved to replace the younger of the two fighters. The fighter who remained introduced a knife into the choreography with large thrusts to the side of the older fighter. The older fighter eventually overcame his opponent and took his knife away at which point the younger fighter returned to complete the battle. At the end of the battle, the dancers and the fighters encircled the men shaking the replica tabuik and danced around jubilantly.

The combat choreography involved three performers and evoked a notable emotive response from the audience. The interchange between two of the performers alluded to the battle efforts of Hussein and his son. During the performance, stabs with a knife that landed safely to the side of an adversary were still met with gasps and shouts of exhilaration; grappling techniques that were visibly pre-negotiated still caused people to hold their breath; and defensive moves that were initiated before the attack to which they were supposed to respond, still managed to sustain the audience's animated attention. Perhaps it was the protracted tension of the accompanying music that bore a contextual relationship (but not a rhythmic, metric or melodic relationship) to the movements that facilitated the audience's involvement in this choreographed performance. As an observer, I have never been more impressed by the audience's engagement in choreographed fight sequences at any other performance of martial arts during my time in West Sumatra.

After the regional performances finished and the opening speeches concluded, the large tabuik were lifted by approximately twenty men each, turned in circles, and the umbrellas

shook as the constructions were rocked in a mock performance to symbolically represent the battle of Karbala. Both tabuik were taken from the city to the beach located almost half a kilometre away. An interesting obstacle for the tabuik carriers were the electric and telephone wires overhead. Comically, each tabuik was tilted and dragged to avoid these dangers.

The procession of the tabuik, called *Hoyak Tabuik*, was accompanied by a cacophony of music groups located at various places along the road to the beach. There were loud barrel drums, hand-held kettle drums and organ tunggal performers singing barely comprehensible lyrics. The procession was certainly very different from the Shiite processions that include religious chants, wailing, and other forms of ritual drama. When the procession arrived at the beach at sunset, both tabuik were thrown into the sea. This symbolised both the end of the battle and the ascent of Hasan and Hussein to heaven.

Figure 6.7: A tabuik being thrown into the ocean with onlookers crowding the beach.
Photo: Kaja Dutka (2008)

6.2.5 Performances, sponsorship and reworkings of tradition

Tabuik was once a complex ritual process coordinated by a small community of Indians living in Pariaman. It followed the heritage of distinct lineages. Originally, the procession

of the tabuik to the beach was likely accompanied by special Shiite chants, recitations, and other pageantry. As recently as the 1980s, the violent re-enactment of battle was performed between groups of men throwing stones at each other.[25] As the Sepoy lineage became more diffuse, the funds and manpower for the tabuik constructions declined. The accompanying Shiite traditions were also increasingly overlooked or at least maintained outside of public view.

The material and costly aspect of Tabuik explains why external support, control and organisation have been adopted so easily. Constructing a Tabuik costs a lot of money—an amount certainly beyond the savings of average groups of Indonesians. The construction requires significant manpower and a plentiful funding source. The need for benefactors opened up the opportunity to government bodies and national corporations to implement their support and funding in order to promote themselves, facilitate tourism, and enhance trade relations with other parts of the Islamic world. For religious groups tied to these sponsoring organisations, it was also an opportunity to etiolate the Shiite aspects of the ritual and accord them with Sunni practices in Indonesia. The procession has become government funded, controlled and organized. The government-implemented changes have had profound effects on the rituals.

Kartomi points out that since 1974 the Muharram observances in Pariaman have been diverted towards attracting tourists and this has meant a loss of "the essential elements of passion, which is a distinguishing feature of Shi'ism" (Kartomi 1986:159). The Tabuik ceremonies are now accompanied by a plethora of ancillary cultural vignettes that manifest associations in the minds of Indonesians that are deeply emotive, but historically superficial. The idea of acquiring spiritual merit through participation in the construction, parading, and worship of the tabuik has been diverted by a culturally and politically empowered complex of contemporaneous community activity of another nature. The sacred aspects of the commemoration are unknown to many, but the celebratory aspects are complemented by the incorporation of other local customs into the order of events. This collective of supplementary performances creates a fuller expression of identity, culture, and tradition through an integrative, figurative, and reiterative framework. The Tabuik celebration no longer has any explicit connections with its specific Shiite origins, but has been transformed into an ethnic festival expressive of the community identity of

[25] Personal communication with Professor Margaret Kartomi (2008).

the people of Pariaman, distinctive of the people of West Sumatra, and occupying a special place within the Republic of Indonesia.

Despite recent additions to Tabuik, the main processional event remains irreplaceably as the core attraction. The people who carry the Tabuik have t-shirts with the names of their government and business sponsors printed so that onlookers can see. The fact that the Tabuik tradition grew from a minority group in Pariaman has meant that it was easy for economically more powerful entities to exert their control over the event through monetary sponsorship.[26] The Tabuik festivities are thus subordinate to sponsorship and include choreographed performance products found useful to the sponsoring bodies.

The choreographed art of silek minang is a relatively recent introduction into the now predominantly government-organised ceremonies. The ceremonies, which were once opened with religious rites, are now opened with dignitary speeches and performances of regional culture. Like other local customs along the Southwest coast of Sumatra (e.g. Galizia 1989; Feener 1999), the local representatives of the Indonesian state have in the past few decades taken over the organisation of the ritual, and the religious celebration has been melded into a cultural manifestation (Feener 1999:87).

Nationalist flavours have been sprinkled into the events with an increasing impulse of the state to pay tribute to regional identity in their affirmations of power. As such, the various rituals leading up to the procession of the tabuik are accompanied by entertainment events organized by the local government that celebrate regional arts and culture. Not all regional arts are included. Only those that are recognized as being representative of regional identity and deemed to fit with national ideology are incorporated. For example, a choreographed silek minang martial arts performance is featured while the improvised Sufi martial arts performance of *Ulu Ambek* is not. Ulu Ambek is specific to Pariaman and is usually performed at austere local events or village inauguration ceremonies. Silek minang, however, has stronger ties to the nationally recognised standard of pencak silat. In fact, the performance of silek minang during Tabuik was labelled pencak silat in the calendar of events. While locals would recognise the distinctive movements of silek

[26] The construction of two large Tabuik edifices contrasts with the individual gifts of Bahians to Iemanjá where it would be difficult for an external sponsor to exert economic power over prolific gift-giving. It is easier for sponsors to fund the construction of two large objects than to finance festivities where all the locals bring their own individual gifts to the sea.

minang, the national label encourages them to see their indigenous martial art as part of a larger body of martial arts systematised by the government.

The nation building policy to promote *puncak daerah* (local peaks of cultural excellence) favours some performance genres over others. Versions of the indang and gelombang dances featured on the day of Ashura are taught at undergraduate level in Indonesian Arts Institutes. Through this association, the indang and gelombang dances, unlike Ulu Ambek, are recognised by a national pedagogy and are integrated into national events. The integration of silek minang, indang, and gelombang into the festival of Tabuik is an example of, to borrow the words of Hughes-Freeland, how "dance becomes both implicated in, and is also constitutive of, the embodied and imagined community of the nation state" (2008: 17).

Festival participants hold numerous interpretations of the event. Some suggest Tabuik is a re-enactment of the conflict between the brothers Isaac and Ishmael in the Islamic version of the story of Abraham. Others suggest that the two cenotaphs symbolise tensions between the different subdistricts of Pariaman city. In this interpretation, they represent discord between the richer and poorer parts of the city. The social tensions between the two subdistricts are symbolically expressed in the mock battles, and then thrown out to sea. Some locals say this brings peace and cohesion to the Pasar and Subarang communities. An overarching theme that encapsulates the whole event, however, is government recognition, sponsorship and control. The references to a unified Indonesia through local arts performances and dignitary speeches are unambiguous and strongly influence the public construal of Tabuik. By honouring and recognising regional arts and festivities, the government has set up a reward system that acts as positive reinforcement for the development and propagation of nation building.

6.2.6 Regional heritage and national culture from a worldwide tradition

Muharram ceremonies are found in two principal locations across the western coast of Sumatra, Pariaman and Bengkulu. Across West Sumatra, replica tabuik can be seen paraded at other festivities, from Siliwangi and Lake Singkara to Bukittinggi and Lake Maninjau, and people always associate the replica tabuik with a 'tradition from Pariaman' (see figure 6.8). In these separate locations during different festivals, there may be only one tabuik not two. In Pariaman, the two tabuik are still the main material focus of Muharram festivities, and have come to represent more than the sacredness of a procession. The edifices are an affirmation of solidarity, place and community. The procession provides an adequate frame for the expression of community by incorporating other local traditions, creating a space for spectatorship, and grounding the celebration within the topographic coastal location of Pariaman.

All over the world, Muharram ceremonies are observed in locations as disperse as India, Trinidad and Norway. Sometimes the ceremonies attract interest from tourists. Sometimes they gain bad press by being associated with boisterous parades, self-flagellation, and occasional violence. In the city of Pariaman, however, Muharram ceremonies are peaceful and lively celebrations that unite communities. Snouck Hurgronje was one of the first to note that "the processions remind one more of a fair or carnival than of a funeral pageant" (1906:203).

Regardless of its exact origins, the tradition has undergone numerous transformations within the diverse cultures and ethnic groups in which it has been nurtured. The history is so diverse, and the contemporary local element is so strong, that people happily embrace many differing interpretations. Not all the visitors to the Tabuik ceremonies are aware of the legend of Hussein or the ritual's connections to Shiite and pre-Islamic conventions. Many people will more readily recognise the national and regional cultural references that government sponsorship has brought to the event. Visitors enjoy an experience conveying Minangkabau distinction as well as shared Indonesian tradition, validating the celebrations as regional heritage and national culture.

Figure 6.8: A small-scale replica Tabuik on parade in the inland village of Sawahlunto in West Sumatra. Photo: Kaja Dutka (2008)

6.3 The Festival of Iemanjá in Salvador da Bahia, Brazil

> "Yemanjá, the divinity of the sea, was the daughter of Olokum. In Ifé she married the Olofin-Odudúa and had ten children, all of whom became Orishás. She suckled her children so much that her breasts became enormous.
>
> Tired of her life in Ifé, she fled to "the place where the world darkens," as the Yoruba call the West. There, she married King Okerê of Shaki on condition that he would never make fun of her breasts. But one day, drunk with palm wine, Okerê remarked that her breasts were huge and pendulous. That was enough to make Yemanjá take to her heels.
>
> Yemanjá carried a magic bottle that her mother, Odudúa, had said she should break when in danger. As she ran, Yemanjá tripped and fell. The bottle broke and from it sprang a river that, like all rivers, flowed into the sea."
>
> Magalhães, Amado, Carybé, Verger, and Rego 1993: 142

Iemanjá, the Goddess of the sea, is a fecund symbol of fertility worshipped among communities all along the coastline of Brazil. Ceremonies in her honour are observed all year round but particularly near the beginning of the year. Along the south central coast, Iemanjá is a prominent figure in the syncretic religion of Umbanda. In the Northeast, she is an Orixá, a nature Goddess, a divinized African ancestor worshipped by the followers of Candomblé. Iemanjá can be depicted as a seductive mermaid, a buxom African woman, and even the Mother Mary.

Under many different names and forms, Iemanjá receives pilgrims from all across Brazil (Carneiro 1986:67). Along Urca beach in Rio de Janeiro, the south central coast, ceremonies dedicated to Iemanjá are observed at the end of the year or at the turn of the New Year (Nadel 2005). On Ipanema and Copacabana beach, also in Rio de Janeiro, celebrations in honour of Iemanjá coincide with New Year's Eve (Smith 1992). In Salvador da Bahia, in the northeast of Brazil, Iemanjá is honored and celebrated on February 2, and on other dates at Lagoa do Abaeté, Dique and Itapagipe (Ferreira 1958:265).

Iemanjá is venerated as the Queen of the Sea who protects her children at all costs, a powerful female figure and a goddess of fertility. She is the archetypal symbol of motherhood and the patron saint of fishermen. Her followers bring her ritual offerings to win her favour. Her huge following, both inside and outside of Candomblé, may be in part because of the Brazilian obsession with the beach and the sea (Voeks 1997:56).

Ramos and Machado, two Brazilian psychologists, believe that the rapid expansion of the worship of Iemanjá observed along the coast of northeast Brazil is a demonstration of the force that the great mother archetype exerts over the psyche of the people of Bahia (2009: 45). For Ramos and Machado, this ritual is reminiscent of the ancient Greek worship of the Goddess Aphrodite, where offerings of flowers, perfumes and prayers were taken out to sea in small boats (*Ibid*.). Although only around 2–3 percent of the Brazilian population report being involved with Candomblé (Selka 2005:74), the hope of the renewal of life has become a pagan ritual practiced by countless Brazilians regardless of religion and from many different socio-cultural levels (Ramos and Machado 2009: 45).

The improvised art of capoeira is inevitably found somewhere during the festivals of Iemanjá. The appearance of capoeira during Iemanjá is often impulsive, precipitating at the side-fair, not at the ceremony itself (Edison 1940 quoted by Landes 2002:138). Impromptu community performances are common and can be found amongst the crowds who gather to give gifts to Iemanjá. The sound of the berimbau can carry across the throng attracting onlookers to vibrant and eclectic capoeira demonstrations.

Figure 6.9: Gifts being brought to the beach of Rio Vermelho, Bahia, Brazil, 2nd February 2009. (Photo: Paul H. Mason).

The festival of Iemanjá itself is largely fuelled by the local people and mediated by a heavy presence of police. There is no visible organising authority, but business, religious and arts communities devise their own ways of joining in the hype, celebrating the occasion, and making themselves known. The structured chaos of the organisation of

music and movement within capoeira is perhaps a reflection of the structured chaos of the Festival of Iemanjá.

6.3.1 The Social, Religious and Historical context of Candomblé in Bahia

The religion of Candomblé is composed of a complex of competing houses dedicated to divinised African "ancestors" known as the Orixás (Downey 2004:347). The Orixás are nature gods "associated with distinct provinces of the natural world—water, air, forest, and earth—and it is from these primary sources that they gather and impart their…vital energy" (Voeks 1997:56). Any number of Orixás may be worshipped in any one temple with roughly a dozen principal Orixás that find devotees in almost every temple (*Ibid*.). Water is typically associated with female Orixás. Fresh waters are linked to an Orixá called Oshum, soil-penetrating rain that makes mud is linked to Nanã, and the waters of the sea are linked to Iemanjá (Wafer 1991:123). Each Orixá can take on a number of different forms, with each form representing a variation on a central, archetypal theme (Voeks 1997:54). Iemanjá is a well-developed Orixá who is often referred to as 'the milk orishá' (1997:123). She is a fertility figure (p. 123), the archetypal symbol of motherhood (p. 56), the goddess of the sea (p. 56), and the patron saint of fishermen (p. 214).

Candomblé at its roots exhibits intra-African syncretism that continues in the Americas (Daniel 2005). It has strong West African structural components with the term Candomblé coming from the Bantu language group carried to Brazil by people who constituted the first large-scale source of enslaved labour in Bahia that began in the early seventeenth century (Harding 2000:45). The Orixá Iemanjá draws her name from *Yeye oman ejá*, 'The Mother whose children are fish,' the Orixá of the Egbás, a Yoruba nation once established in the Ibadan region, now Nigeria, where the Yemanjá River still flows (Verger 1993:255). The Yoruba Orixás were integrated with the Vodun deities of the Fon people of ancient Dahomey, now Benin, and the saints of the Catholic Church (Voeks 1997:59,214). The Dahomeans and Yoruba composed the majority of the last wave of African immigrants from the late eighteenth century to the final slave shipment in 1851 AD (Voeks 1997:52). Intra-African syncretism began in Benin and Nigeria even before the South Atlantic Slave trade and continued in Brazil where European and African syncretism also occurred and continues to occur (Daniel 2005).

During the nineteenth century, capoeira and Candomblé underwent similar modes of oppression. Between 1910 and 1940, there was a mobilization and commercialization of festive aspects of Afro-Brazilian urban popular culture that undermined the formal and informal discriminatory practices of the first Republic of Brazil. "By making Afro-Brazilian practices more visible, less clandestine, it abated some of their connotations of polluting menace" (Borges 1995:70-71 quoted by Shaw 1999:10). Afro-Brazilian practices that were once considered a potential threat to authority were converted into something 'clean', 'safe' and 'domesticated' (Fry 1982:52-53 quoted by Shaw 1999:11). In turn, Candomblé and capoeira became "chic" and respectable. They lost the power they once had by being sifted into the mainstream of popular culture.

Between Candomblé houses, there is a "thin coherence" of relative cultural stability (Johnson 2002b: 35). No overarching structure unifies all Candomblé houses (Downey 2004:347) but intra-African syncretism accounts for some of the threads of commonality in the codes and symbols that they all contain (Daniel 2005:140). Many stories of Iemanjá represent her "as a matron with enormous breasts, the symbol of fecund and nourishing maternity" (Verger 1993:256). In some stories, she is pictured as having only one breast (see Beier 1980:45-46; Matory 2005:17-18), but either way, in almost all stories, more than a cursory mention of her chest is made. In the worship of Iemanjá, her followers and admirers offer presents that include flowers (fresh or artificial), perfumes, coins, small mirrors, combs, cosmetic tools (Ferreira 1958:265), dishes of carefully prepared foods, soap wrapped in cellophane, letters of supplication, dolls, pieces of fabric, necklaces, bracelets, and other presents that would "please a beautiful and alluring woman" (Verger 1993:256).

6.3.2 The Festa de Iemanjá

> "…the Peji de Yemanjá located in the Casa do Peso. There the people left their presents for Yemanjá, the queen of the sea, and it was from there that the sloops, departed on February 2, a day dedicated to Dona Janaína: Janaína, Inaê, the Siren Mukunã, Dadalunda, Kaiala, Dona Maria, the Princess of Aioka—many and varied are the names and nations of Yemanjá, fiancée and wife of fisherman."
> Extract from *The War of the Saints* by Jorge Armado 1993, p176

Every year on the 2nd of February in Rio Vermelho, presents are gathered together in baskets in the Casa do Peso under the supervision of the ordained mothers and fathers (*Mae- e Pai-de-santo*). They conduct the events with ritual song accompaniment, oversee the filling of the baskets, the embarkation and the launching of gifts out to sea. If the gifts submerge, it signifies that Iemanjá, the Queen of the Sea, has accepted the gift and gives her protection to her devotees. If the waves wash the gift back to the shore, it is a sign of bad tidings.

Figure 6.10: 2nd February 1990, Boats laden with gifts for Iemanjá head out from the beach of Rio Vermelho. Photo Courtesy of the Fundaçao Gregorio Mattos, Salvador da Bahia.

In 1950, the Festival of the Mother of the Water (*Festa da Mae d'Agua*) in the suburb of Rio Vermelho was described in a local newspaper as one of the most beautiful festivals of

Bahia.[27] It was publicised that from the very earliest morning hours of the second of February, the initiated and the devoted would arrive to pass offerings to the colony of fishermen who would take these gifts out to sea. Countless other people were expected to come "simply out of curiosity". Capoeira and roda da samba were described as having their space at this festival. This space, however, was auxiliary. The festival continues to this day and capoeira games continue to be played alongside the festival of Iemanjá as a side-attraction that culminates at various locations with the capoeira practitioners who congregate in the crowds.

Figure 6.11: 2nd February 1977, Worshippers bringing baskets of flowers to the fishermen who will present the offerings to Iemanjá. Photo Courtesy of the Fundaçao Gregori Mattos, Salvador da Bahia.

When Ruth Landes did research into Candomblé in the 1940s, she was told by her principal informant, Edison Carneiro, that "*Os Capoeiras não se importam com o Candomblé*" (capoeiristas do not care about Candomblé) (Landes 2002: 147). Indeed, during a Festival of Iemanjá she had to walk some distance into the fair and far from the ritual events to see capoeira. When she saw the crowds forming for a capoeira game, she noted that there was not a woman or ordained Candomblé priest among them (2002: 149). Landes came to the understanding that Candomblé practitioners did not hold a high

[27] *Diario de Noticias*, 29 January 1950, p. 3.

opinion of the violent and drunken games of the capoeira of this period, and that the trouble-seeking men of capoeira did not find diversion in Candomblé.

The connections and distinctions between capoeira and Candomblé are not always clear. They share a similar history of oppression, an overlapping repertoire of instruments and an ambience of Africanism. "Capoeiristas were drawn from among the same milieu as the Candomblé worshippers and the influences of one on the other are often marked" (Taylor 2005:333). Despite Landes' observation that Candomblé and capoeira are discrete, capoeira has numerous Candomblé-inspired songs and today, many capoeira practitioners have an admiration, respect, and high regard for Candomblé and its rituals. Many capoeira practitioners turn to Candomblé for protection rituals that 'close the body' during capoeira play (see Downey 2005:146-147), wear beaded necklaces that have been blessed (*patua*), and claim to be devotees to one Orixá or another. Quite possibly by banding together, capoeira practitioners and Candomblé devotees have found a fuller expression of their culture, a more robust identity, and a greater sense of place in Brazilian society.

The once-secret religion of Candomblé is now widely disseminated in public (Johnson 2002a:315) and has become institutionalized into popular Brazilian society (Voeks 1997:56). It has been observed that today the cult of Iemanjá practice more in public spaces than inside houses of Candomblé (Carneiro 1986:67). Perhaps this publicity pleases Iemanjá who is said to be given to vanity.

For Brazilians, the festivals in Iemanjá's honour have become spaces where some of the secrets of Candomblé are taken to the streets, put on public display, and made accessible (Johnson 2002b:131). The secrets revealed have their allure and suggest the presence of other secrets. It builds the reputation of a Candomblé house. "The circulation of meanings…in mass media and popular culture has led to the participation of new practicing bodies; it has brought a new ethnic constituency" (Johnson 2002a: 303). Progressively the local Festival of Iemanjá has transcended religious ritual and become cultural tradition and is "at times implicated in Brazil's national representations" (Johnson 2002a:315). The publicity of the events filters into the lives of Bahians and it has also allowed various aspects of the rituals to become contested. The capoeira practitioners, who once played their games at the sidelines of the fair, now deliver their

own gifts on the beach of Rio Vermelho, insert their own expressions of tradition into the celebrations, and announce their own opinions about the practice of events.

6.3.3 Capoeira and the Festa de Iemanjá, 2009

Figure 6.12: Late-night preparations for the Festa de Iemanjá near the beach of Rio Vermelho. Merchants struggle to find a place where they can sell flowers for worshippers wishing to make offerings to Iemanjá. Photo: Paul H. Mason

Flower petals washed up against the shoreline along the Avenida Oceanica. An unpredictable swell was brewing in the ocean but the skies were clear. The sound of a distant crowd carried across the quiet streets of Salvador da Bahia. The Festival of Iemanjá was well under way.

Assemblies of samba schools, marching bands, local DJs, hundreds of street-sellers, performance art groups, and Candomblé followers all squeezed themselves into the streets near the beach of Rio Vermelho. The festivities did not exhibit an obvious centralized organizing body. There was no stage for politicians to capitalize on a captive audience. Everyone was finding their own space to be a part of the activities. Artists, merchants, and religious practitioners were the driving force of the celebrations and celebratory ambiance.

Figure 6.13: Street Roda near the beach of Rio Vermelho.
(Photo: Paul H. Mason, 2009)

Capoeira practitioners were found in abundance within the crowd. Throughout the day, at various locations near the beach of Rio Vermelho, they created a space for their art. One liberating aspect of capoeira is that it does not necessarily take a lot of administrative preparation to put a performance together. Once a network of practitioners have decided upon a location and a time, the only thing remaining is to bring the instruments and hope that rain does not affect plans.

Grupo Nzinga is a capoeira group located near the beach of Rio Vermelho in the Alto da Sereia (Mermaid's peak). Since 2005, Grupo Nzinga members have participated in the Festival of Iemanjá. They perform capoeira, samba dancing, and have their own procession of offerings. Each year they carry a basket of gifts from their academy to the beach of Rio Vermelho. During the performances and procession, they sing songs dedicated to Iemanjá and celebrate her as a symbol of feminism. Here is a sample excerpt from one such song:

Verse

Não deixe meu barco afundar,	Don't let my boat sink
Não deixe, rainha do mar	Don't let it happen, Queen of the Sea.

Chorus

Minha Sereia Rainha do mar,	My mermaid, Queen of the Sea,
Não deixe meu barco virar,	Don't let my boat capsize.

The teachers of Grupo Nzinga have an affiliation with their own Candomblé temple located well into the outskirts of Salvador.[28] For several years, they have held African dancing lessons for children and adults on Tuesday and Thursday nights. During these classes, students learn the music and dances of the Orixás. For children aged sixteen and under, capoeira classes at Grupo Nzinga are free. Like many capoeira schools, the teachers take etiquette, education, and community action very seriously. Due to the academy's shanty-town location, the teachers of Grupo Nzinga have found themselves variously involved in land-rights issues, occupied with the prevention of domestic violence, and concerned about the advocacy of feminism and gender equality. Being located at the Mermaid's Peak, they often sing songs to Iemanjá during the weekly rodas or during class. These songs are an expression of location, affiliation, and cultural education.

Preparations for the festival of Iemanjá commenced less than a week beforehand. The proximity of their academy to the beach meant that they did not need to look for a space on the streets to hold their performance. From this advantage, their community-based and community-centred group exhibited probably the most planned of all capoeira performances that day. The way they celebrated the festival of Iemanjá had evolved from their experiences over previous years.

After a weekly capoeira event held in their academy on Friday 30 January 2009, the group leaders announced their plans for the festival of Iemanjá and discussed what needed to be done. They had two days to meet and prepare their academy for the proposed capoeira performance, samba de roda, lunch, and short pilgrimage to Rio Vermelho beach. They could not be sure how many people would turn up, but they had plans to distribute information flyers to advertise their performance, make t-shirts, and decorate the academy. They agreed to meet on Saturday afternoon to commence cleaning

[28] There are many capoeira groups in Bahia and Grupo Nzinga was just one group among several with whom I performed ethnographic fieldwork.

and decorating the academy, preparing the instruments, and painting shirts for their campaign. Then, on Sunday, they continued decorating, preparing instruments, and painting shirts. Everyone was invited to bring some food and they subsequently enjoyed a lunch of *pititinga* fried fish, *carne de sol* with *farofa*, and fresh fruit. The group made a modest profit by selling their shirts, as well as cans of beer, soda and guarana. By the end of the day, the room was nicely decorated. Small blue and white flags in commemoration of Iemanjá lined the ceiling and a basket had been decorated ready to receive biodegradable gifts for the Queen of the sea.

Figure 6.14: Sunday 1st of February, 2009. Student members of Grupo Nzinga meet together to decorate the academy, make t-shirts and prepare the instruments.

Environmentalist concerns drove Grupo Nzinga to develop a slogan: "*Iemanjá protege a quem protege o mar: escolha bem seu presente*" (Iemanjá protects those who protect the sea: Choose your present well). This slogan was part of an incentive campaign to promote biodegradable gifts to Iemanjá instead of items that pollute the sea. The anti-pollution campaign met with some disagreement among various traditionalist communities that celebrate Iemanjá. Opponents claimed that it would be wrong to stray from tradition, that it was not possible to replace the gifts that Iemanjá enjoys, and that the ceremonies should remain as they have always been observed (Oliveira 2009a). Traditionalists believed that replacing the gifts that Iemanjá enjoys was out of the question, tradition had to be maintained, and religion should be respected.

Some argued that Candomblé exists to protect nature and that people could offer fried fish, fruits of the season, remove plastic from gifts and replace non-biodegradable objects with paper replicas. For those people, what was important for Iemanjá was "the symbol

and not the object" (Oliveira 2009a). The pedagogical coordinator for Grupo Nzinga, Lígia Vilas Boas, explained that "the academy's objectives were to introduce a preoccupation with marine pollution but that they could not predict the impact that their campaign would have on more than 100 years of tradition" (Oliveira 2009b). As a potent site of Afro-Bahian heritage, Grupo Nzinga seized upon the opportunity to use the veneration of Iemanjá as a way to educate people about the respect for nature.

By ten o'clock in the morning on the day of the festival, many people had arrived at the academy of Grupo Nzinga. There were visitors from other capoeira schools and many children from the surrounding favela had come to join in the fun. Only a limited number of flyers had been distributed, but news had evidently passed around by word-of-mouth that Grupo Nzinga were celebrating the day. With such a crowd, one of the leaders, Mestre Poloca, was personally attending to the tuning of the berimbaus—a job normally reserved for one of his senior students.

The academy was filled with people and bursting with the noise of conversation, but slowly the sound of the single-string berimbau being struck by a thin stick drew the capoeira practitioners to one end of the room. The practitioners formed a circle, some of them seated on a bench with instruments and others seated on the floor forming the circular performance space of capoeria, the *roda*. Mestre Paulinha, one of the leaders of Nzinga, begun the orchestra with a steady rhythm on the berimbau gunga—the largest of the berimbaus. Another two berimbaus followed suit. The rhythmic drone from the orchestra of three berimbaus carried across the room and the visitors grew quieter in anticipation of the performance.

Many of the capoeira practitioners of Grupo Nzinga were hesitant to sit near the orchestra. The closer to the orchestra they sat, the faster they would have to enter the roda. As a researcher, I also did not want to sit too close to the orchestra. I had never been to a capoeira roda at the Festa de Iemanjá before. I wanted to observe before I participated. Other people more adeptly found excuses to position themselves at a comfortable distance from the front of the queue. As a consequence, I was in the second pair called to play and my opponent was a student of the respected Mestre João Pequeno. I would have thought that long-standing members of Nzinga would have been the first to

play, but instead it was João Pequeno's formidable student and me, a foreigner with only five weeks experience in Brazil.

João Pequeno's student had a comforting smile and a respectful attitude. After Mestre Paulinha sung the opening *ladainha*, a chorus began in response to her lead, which meant we could commence a game. João Pequeno's student and I shook hands and commenced our game slowly. We began with very low crouching moves that were positioned within a cautious distance of each other's kinesphere. But slowly we began to trust the other's movements and we became bolder and more daring, taking care not to irreparably raise the tension of our interaction.

Figure 6.15: Capoeira play: one of the Grupo Nzinga students took these photos of capoeira roda held at the Nzinga academy on the day of the Festa de Iemanjá.

The game we played remains fondly in my memory, as it was both friendly and yet gently testing and playful. Perhaps it was because João Pequeno's student was a guest and I was a relative newcomer to Nzinga that we both showed our restraint and only light-hearted mischievousness in the roda of this academy. It was also likely that my partner was a skilled practitioner who knew how hard to push an opponent who was visibly less experienced and skilled than he was.

Winning in capoeira does not always mean triumph over an opponent. It can often mean the success of exploiting opportunity and chance. Possibly the most crowd-pleasing part of the game I played during the Festa de Iemanjá was when my partner unexpectedly changed pace and performed a stylised movement called a *chamada*. He raised his hands gesturing that he wanted me to come close and make contact. I cart-wheeled without taking my eyes off him and slowly made my way towards his open hands. I stood up and placed the palm of my right hand on his and my left hand on his elbow so that I could stop a potential strike. We walked back and forth checking each other's balance and looking for a moment's weakness where we could make a surprise attack. And then, my

partner stopped, crouched and invited me to resume play (Figure 6.15, frame 3). He had opened the space and was waiting for me to make the first move. Sometimes, practitioners in my position will joke and pretend that they are preparing for an elaborate gymnastic flip but then revert to a very simple but guarded dance movement. I performed the exaggerated movements that typify people pretending to prepare for an elaborate flip. My movements suggested that I was only pretending. Then, to everyone's surprise, including my opponent's, I actually performed a front handspring and returned to the game. My showmanship had become a challenge that he was impelled to test.

Soon after, he called me for another *chamada,* and again we danced back and forth, and again he crouched and offered floor-space for me to perform my acrobatics. However, I noticed that he was not crouching as deeply as he had before. He was obviously preparing for something. So, again, I performed the exaggerated movements that looked as though I was preparing for a front flip; I motioned forwards, took a large step and then back-flipped back into the game. My opponent was adequately deceived, he balked and the crowd laughed. However, it was a reserved laugh, a laugh that suggested that today my acrobatics were funny but tomorrow I had better be careful because now they all knew my trick.

Not long after my backflip, and after several more cycles of movement, a berimbau was lowered and repetitive quavers were sounded. João Pequeno's student and I moved over to the berimbaus, shook hands and left the roda. Everyone's attention was directed to the next two capoeiristas who moved to the feet of the berimbaus and waited for the appropriate cue to start playing. They warily shook hands and improvised their own hesitating yet precise moves as they danced into the centre of the circle, testing each other for balance, concentration and agility. The moves were spontaneous and consciously impulsive with each practitioner trying to lure his opponent into trust through dance and then surprise with a skilled attack. They listened to the beat of the berimbaus and the messages of the songs, but the space created by the guiding rhythms was theirs to sculpt with their respective abilities, interactions and instinctive creativity.

After each pair of capoeiristas had exhausted their game, new practitioners from either side of the roda would enter the circle, crouch at the berimbaus and commence a new game. Each game was unpredictable and enjoyable because of its capriciousness,

instantaneous dexterity, and occasional humour. Although the moves were improvised, there were certain arrangements that had been set in place that allowed these unrehearsed movement dialogues to evolve. The musical rhythms had been rehearsed and songs had been memorized, but the tempo, occasion and choice of each new song was left to the musician leading the orchestra. The roda had been given a time and place, but the capoeiristas who entered did so at their own impulse and desire.

After the roda a small party of capoeira students carried a basket of offerings and made the pilgrimage from the training room to the beach of Rio Vermelho. They were accompanied by a small berimbau orchestra who played Candomblé-related *ijéxa* rhythms and sung songs to Iemanjá. They tried to stay together as a group, but were frequently separated by the obstructing crowds of people, the haphazard street stalls, and the ever-present control of police blockades. Those that reached the beach delivered the basket to the flotilla of fishermen and sung more songs before returning to the academy for more drinks, dancing and merriment.

Figure 6.16: Mestre Poloca plays the Berimbau at the Beach of Rio Vermelho during the Festival of Iemanjá. Photo: Paul H. Mason.

6.3.4 Reflections on capoeira and Candomblé

Issues of publicity and secrecy throughout the practice of Candomblé find parallels in the recent developments of capoeira. In Candomblé, "Tourists' eyes and prying scholars have

made secrecy increasingly untenable" (Downey 2004:348). The revelation of secrets to the public is accommodated in Candomblé in order to bring economic sustainability. Revealing secrets appears to be a permutation of long-standing tendencies in Candomblé. Over time, secrets about membership, structure, location, mythology, and even practice have been divulged, forcing the boundary of secrecy to retreat. The secret is "…no longer in information about the practice of the religion, but rather in the knowledge behind and below the obvious manifestations" (Johnson 2002b:181). Although disclosure of secrets may enlarge the power of Candomblé authorities, it has given rise to a new type of devotee who is bound to no house (Downey 2004:359). "These practitioners piece together their own idiosyncratic sets of devotions and theologies from diverse sources and consume their favourite rituals by circulating among houses" (2004:349).

Just like the patronage of Candomblé, Capoeira teachers must also fund their practice by finding a reliable student base. However, with an abundance of books, audio and visual materials on capoeira, and the growth of an international economic-bound traineeship, Brazilians observe the same kind of master-less students in capoeira. They wander from group to group, training and playing in the academies of Bahia and the gymnasiums of the world. However, without a strong Mestre-student relationship practitioners are often un-initiated into the subtleties of musical messages, sometimes unsolicited by the favour of the berimbau, and forever caught between different schools of movement aesthetics. Here, Bahians have found a monopoly on capoeira and Candomblé. Initiates of Candomblé and practitioners of capoeira retain and circulate information periodically as if to suggest that it is the content that is of value. The true meaning of form is disguised by the sale of content. The pedagogical transfer of information distracts the tourist from understanding that by the simple act of moving in harmony with the other then they too become the secret. Without an understanding of the complicity of distributed embodiment, the capoeira tourist remains a customer and the teacher retains clientele.

The musical processes and movement organisation of capoeira are also a reflection of the activities of the festival of Iemanjá. The festival activities are generated by large numbers of separate but interconnected Candomblé groups who each participate at their own pace and leisure, but who inevitably respond to specific spiritual leaders within their group. Just like a capoeira roda, specific elements have to be organized around which other circumstances can take place under the guidance of respected teachers. Certain

arrangements are made by the fishermen of the Rio Vermelho beach and the Candomblé practitioners of the temples, but the rest is an improvised ensemble of tourists, opportunistic businesses, and inspired artists.

6.4 Conclusion

Tabuik and Iemanjá are prime examples of "the invention of tradition" (Hobsbawm & Ranger 1983) assuming the status of a religious ritual and cultural event. In Pariaman, Tabuik reinforces developing types of authority. In Brazil, Iemanjá reaffirms historical modes of resistance. These festivals exhibit a range of socio-historical, religious, and organisational differences. The choreographed movements of silek minang performed during the government organized events of Tabuik are strikingly different from the improvised rhythms of capoeira extemporized during the largely improvised events of the festival of Iemanjá. Ricklefs (1974), whose work on the relationship between authenticity and tradition predates the concept of "invented tradition (Hobsbawn and Ranger 1983), showed that tradition is a politically contingent and strategically constructed process, not a thing (see Hughes-Freeland 2008:14). Through their improvised and choreographed structure, the arts of silek minang and capoeira capture the processes through which traditions have been negotiated, invented and propagated within Pariaman and Bahian communities.

During the regional festivals of Tabuik and Iemanjá, the choreographed or improvised structure of fight-dancing performances somehow mirrors the social organisation of each event. The internal dynamics of capoeira and silek minang are a reflection of the organisation of the coastal rituals in which they are respectively embedded. Political and corporate sponsors formally coordinate the official proceedings of Tabuik. Local groups in Bahia take the initiative to contribute in their own way to Iemanjá. Performances of the choreographed art of silek minang are strategically integrated into Tabuik to fit the agenda of political sponsors. Performances of the improvised art of capoeira are put together in an improvisatory manner by participants of the festival of Iemanjá. Capoeira and Iemanjá in Brazil are largely improvised and the hierarchies of organisation are more obscure than in silek minang and Tabuik from Indonesia where the hierarchies are explicit and the public components mostly choreographed. Nonetheless, Tabuik does

exhibit some improvised elements and a few aspects of Iemanjá do require set structures. On the whole though, it seems that community events have attracted community ventures and ordered events have attracted systematized performances.

In an observation of trends in performance theory, Lewis has noted "that practices and events don't merely reflect, but also influence or enact social changes through a performative process" (2001:410). More than just being a reflection of the improvised or choreographed nature of the ceremonies, the physical presence of fight-dancing during Tabuik and Iemanjá significantly sculpts the impression of events. Watching crafted bodily movement can evoke imaginations of that movement's historic origins (Anderson 1998a). Giving crafted bodily movement a public space during a commemorative event allows the imagined origins of a bodily practice to become infused with the imagined origins of the festival. When commemorative ceremonies and bodily practices overlap, the collective memory of a community becomes constituted by both narrative accounts and corporeal acts of embodied remembering.

West Sumatran and Afro-Brazilian fight-dancing have their own narratives of origin, evoke a sensation of the past for the performers, and elicit an abstruse notion of tradition for the witnesses. Viewing presentational performances is not necessarily a passive process. During the choreographed silek gelombang opening to Tabuik, for example, some local audience members were spurred to execute the postures of silek themselves in an emotive response to the performance. This physical response evidenced "a common repertoire of somatic states" (Blacking 1977:10) that have been "sedimented in the body" (Connerton 1989:36, 72, 102) through familiarity and possible physical experience with the movements being viewed. Such responses offer a concrete example of the "shared somatic states", as Blacking (1977) called them, which form the basis of "bodily empathy" (p. 10). This somatic viewing among locals verifies a corporeal engagement with the presentational activity that taps into their own training, experience and personal narratives.

Performances of bodily practices invigorate the imagined history of the current moment. Further than a direct visceral connection, embodied practices, as Hughes-Freeland notes, "are brought into cultural memory and then into history by the ways they are interpreted and rendered meaningful in what people say about them" (2008:42). The presence of

fight-dancing at the festivals of Tabuik and Iemanjá enforces a particular vision of contemporary traditions and influences subjective imaginations of the past. In this way, the festivals, by their association with adjunct embodied traditions, became imbued with complementary narratives of origin. In Pariaman, the choreographed performance of silek minang was a presentational activity sponsored by the state and viewed by the public. In Brazil, the participatory performance of capoeira was assembled by members of the public to create an "experiential space" for the "various narratives of capoeira, imagined origins and epic histories" (Downey 2005: 115). Acts of embodied remembering and narrative accounts reinforce one another. Silek minang consolidates Tabuik as part of regional heritage and capoeira strengthens the connection of Iemanjá to an African past.

The festivals of Tabuik and Iemanjá have become important parts of regional cultural pride, localised social cohesion, and opportunities for the growth of tourism. The public and private spaces of these festivals as well as the space for the inclusion of auxiliary entertainment have become redefined over time. Ashura rites that were once at the forefront of the Muharram observances in Pariaman are now elided for the expression of regional culture endorsed by the government. The festival of Iemanjá, now a public event, explicitly places ritual elements of Candomblé on show for the public. To a large extent, the changes to the organisation of these events have been constrained by the material features of the festivals. The large cenotaphs of Tabuik lend themselves to administrative control. The prolific gift-giving to Iemanjá promotes initiatives from individuals and local communities. Political control of Tabuik has done the same to expressions of Shiite culture in Pariaman that political leniency towards the festival of Iemanjá has done to Candomble in Bahia. In both cases, the power of a religious minority over their own traditions has been reduced and exposed to external forces.

The revellers of Iemanja and Tabuik are willing observers who in cooperative gesture follow the activities of the rituals they observe. Simultaneously, they are interfering participants. The ways in which they interact with the ritual creates new understandings of the events, not only because of their individual gaze, but also because of their individual participation. The propagation of idiosyncratic interpretations reshapes, distorts, and redefines events. Cultural theorists may ask how growing popularity and increasing media attention will revitalize and renegotiate ideas about tradition, religious heritage, and tourism in years to come. With a multitude of vested interests from political

groups, commercial businesses, arts and religious communities, the festivals are open to change and restructuring. A longitudinal study would allow cultural theorists to track these changes and to enquire to what extent the emotional force of these events is carried by the natural symbols inherent in the topographical location, the physical action of taking objects out to sea, and the sense of community built by social manifestation.

In Pariaman, many people did not know that Tabuik was a re-enactment of the martyrdom of Hussein. The lack of informed participants during Tabuik leads to the same question that Johnson (2002b) asks about the festival of Iemanjá: can the interpretation of a ritual as a re-enactment of myth proceed when many participants do not know the myth or recognize its connection to the ritual? As privileged observers, Jackson (1989: 126) reminds researchers, "It is probably the separateness of the observer from the ritual acts which makes him think that the acts refer to or require justification in a domain beyond their actual compass."

Even without understanding the symbology, Tabuik and Iemanjá are exciting and enjoyable events. During Tabuik, the participation of most attendees is probably sufficiently explained by the simple pleasure of watching the umbrellas on each tabuik fall as they are pulled by gravity and lifted again as the bearers shake the structure. Another drawcard for attendance is the hype of the procession to the beach and watching the destruction of the tabuik in the waves. During Iemanjá, the crowds on the beach of Rio Vermelho, the flotilla of fishermen taking offerings out to sea, and the excitement of impromptu arts performances draws the involvement of people from neighbouring Bahian communities. However, do explanations reliant purely on entertainment value abrogate a responsibility to a diegetic understanding that grounds human activity in history and symbols? One remark is sure, public rituals expose themselves to a variety of interpretations and multifarious influences. The interpretation of events is shaped the most by those who invest the greatest amount of time and skill in the symbolic capital of the events. The organisers, the performers, the gift givers and the cenotaph makers are thus the main players in the construction of tradition. The process of inventing tradition is co-constituted by an assortment of overlapping intersubjectively experienced construals assembled in time and space by socially embedded, environmentally situated, embodied actors.

The differences between the lament of Hussein and the reverence of Iemanjá are pronounced. The differences between silek minang and capoeira are equally discernible. Performances of fight-dancing in West Sumatra are choreographed. Similarly, the Tabuik festivities are choreographed. Conversely, fight-dancing in Brazil is an improvised activity. The festival of Iemanjá is also a largely improvised event. These culturally elaborated systems of movement and festivity evidence some of the ways in which creativity and culture can interact within different political environments. The festivals and embodied practices are examples of invented traditions but also evidence the heterogeneous construction of human expressive systems arising from unique social, geographical, and historical forces.

Chapter 7: Degeneracy at the Cultural Level

7.1 A diachronic analysis of fight-dancing and the festival

Combat-dancing has a competitive element and an ornamental character. As a cultural activity, combat-dancing is buffered from direct selective pressures. Performances do not have an immediate adaptive value and participation is not crucial to survival. Performing combat-dancing is not essential to reproductive success, participants do not practice under life-or-death circumstances, and games are rarely played at the risk of fatal injury. According to twenty-first century models of degeneracy from systems theory, those components of a system without selective pressure acting upon them are free to structurally and functionally diverge. The absence of selective pressures is a valuable space for unrestricted differentiation as a source of degeneracy as well as exaptation, the redeployment of old structures for new purposes. Certain kinds of cultural activity may have originated through unrestricted play and later exapted during times of environmental stress (De Block and Dewitte 2007; Fagan 2004). De Block and Dewitte (2007) hypothesise that activities as varied as hunting, farming, the domestication of dogs, and certain architectural strategies were exaptations of play behaviour. Buffered from immediate selective pressures, the theory of degeneracy predicts that practices of combat-dancing are structurally diverse and functionally plastic.

In schools of martial arts or combat-dancing, practitioners commonly learn their skills in private training halls without real life survival pressures. However, the skills practitioners learn transfer to everyday situations in subtle and useful ways. Downey (2005:36-37) describes that learning cartwheels in capoeira affects a bodily change that "appears humble, even inconsequential". However, such skills help practitioners to avoid falling incorrectly and hurting themselves badly when they trip over unseen obstacles in everyday settings. From such examples it becomes clear that describing the precise function of combat-dancing in humans can be as elusive as the explanation of play-fighting in other species. Combat-dancing, like play-fighting (see Pellis and Pellis 2009), is involved in more than just the refinement combat skills. At the level of the individual, play is involved in the calibration of emotional responses to unexpected events in the world, and it both indirectly and concurrently improves motor, cognitive, and social skills (Pellis and Pellis 2009:162). At the social level, formalised practices of play such as

combat-dancing can have a discernable and immediate social function in specific contexts. Combat-dancing can be taught as a form of livelihood, can be used to create a structured play environment for students, and can be performed as a theatrical form of folklore. Referring to combat-dancing performances during coastal festivals, this chapter explores degenerate processes at the cultural level and then positions these processes within a framework being developed by evolutionary theorists such as Richerson and Boyd (2005) and Sperber and Claidière (2006). Drawing upon case-studies from the performing arts allows us to look at cultural activities loosely constrained by the physical environment and distantly related to the forces of natural selection.

7.2 Determining degeneracy at the cultural level

Degeneracy can be determined at the cultural level by comparing the different structures a single community manifests at different times or through a cross-cultural comparison of two different but contemporaneous societies that manifest structurally different, functionally similar social activity with respect to context. Comparing two different but contemporaneous communities is a method logically equivalent to comparing the different structures a community manifests at different times (Lewis 1989). Given particular conditions, certain kinds of processes are observable. Without drawing directly upon the structuralism, functionalism, or structural functionalism of Levi-Strauss, Malinowski or Radcliffe-Brown, structure in music and dance are taken to be humanly organised sound and bodily movement, function is understood as the social significance of performing these movements and sounds, and the context is the events within which these humanly organised sounds and movements are performed.[29] Situating the structures of music and movement within a cultural context is important because aspects of the social and cultural situation must be considered in order to interpret or understand specific phenomena.

[29] Functionalism still permeates anthropology as an explanatory framework. Although not the topic of this chapter, some theorists might find that degeneracy speaks directly to the functionalist perspective and the organic analogy in operational ways heretofore unexplored. For example, degeneracy (1) allows for self-organisation without requiring teleology, (2) can account for functional stability by operational plasticity without subscribing to progressive and unilinear explanations, and (3) provides mechanisms for differentiation that can account for culture change.

As an exploration of degeneracy at the cultural level, practices of fight-dancing that integrate music, martial arts, and dance are useful for comparison because they have recordable musical structures, movements with salient functional qualities and in certain contexts, a social function that is discernable. We can consider performances of fight-dancing during annual coastal festivities in Brazil and Indonesia as exemplars. Little horizontal transmission has occurred between Brazilian and Indonesian fight-dancing because these arts originate from two geographically, socially and historically discrete communities. These forms of fight-dancing exhibit structurally different musical patterns. They incorporate heteromorphic movement repertoires that share similar attack, escape and block objectives. And, performances of these arts can fulfil similar social roles within specific contexts. Degeneracy can be demonstrated by the different genres.

The music and movement of Brazilian and Indonesian fight-dancing within the context of religious festivities will be compared for a structure-function-context analysis of cultural activity. Ethnographic studies of fight-dancing in Brazil (Downey 2005; Lewis 1992) and Indonesia (Cordes 1992; Pätzold 2000) offer descriptions that demonstrate that both traditions comprise different musical repertoires, diverse martial techniques, and alternate dance aesthetics. Brazilian fight-dancing has circular movements, is an improvised performance art, and always has musical accompaniment. Indonesian fight-dancing in West Sumatra has linear movements, is learned without music and is performed as a choreographed art with musical accompaniment. The diverse musical and movement structures and similar social functions during festival performances evidence a structure-to-function ratio of many-to-one within comparable social contexts.

7.3.1 Combat-dancing in Context

The setting for the present comparison is the Candomblé-inspired festival of Iemanjá, at the beginning of the Gregorian calendar in Salvador da Bahia, Brazil, and the Muharram festivities at the beginning of the Islamic Lunar calendar in Pariaman, West Sumatra. During these religious festivals, ritual objects are brought out to sea and submerged in the ocean. In Brazil the objects are small offerings in reverence to Iemanjá, the Goddess of the Sea. In Indonesia the objects are large cenotaphs in accordance to the demands of a Bouraq, the creature on which Muhammad made his ascension and night-journey. The festivals have developed independently of each other through parallel histories of

"cultural creolization" whereby minority religious communities have adopted local customs that allow their rituals to thrive creatively (Korom 2003). The festivals of Iemanjá in Bahia and Muharram in Pariaman share similarities in topographical location, a similar ritual task of bringing objects to the sea, and serve as attractions for tourists as well as being important sites for the affirmation of each country's cultural patrimony and national identity. Interestingly, the ritual part of the festival of Iemanjá is at sunrise over an East-facing beach, and the ritual part of the Muharram ceremonies is at sunset over a West-facing beach. During the day of the festivals of Iemanjá and Muharram, fight-dancing is performed. In Pariaman, a fight-dancing performance is featured because of government sponsorship. In Bahia, fight-dancing is performed because of local community efforts. In both cases, these performances contribute to tourist entertainment, demonstrate physical education, and represent aspects of cultural heritage.

7.3.2 Capoeira during the festival of Iemanjá

The festival of Iemanjá has become commercialized since 1910 and was originally an outgrowth of various West African beliefs and customs that were brought to Brazil by forcefully expatriated slaves from the early seventeenth century to 1851. Performances of indigenous fight-dancing, known as Capoeira, have provided auxiliary entertainment to the festival of Iemanjá since at least the 1940s (Landes 1947:92-112). During a performance of capoeira at the festival of Iemanjá in 2009 (Mason 2011a; Mason 2011b), the musical accompaniment consisted of three musical bows, two tambourines, one single-sided barrel drum, a pair of cowbells and a rasp. The performance began with a sung litany against a rhythmic backdrop of cyclical patterns. Following the litany the soloist commenced a call-and-response singing pattern, which included the other members of the group and some of the audience. The songs featured lyrics about the deity Iemanjá as well as lyrics from the usual capoeira repertoire. Practitioners performed movement in pairs with interweaving gymnastic movements, arching kicks, low-to-the-ground dodges and sneaky headbutts. Direct strikes were rare and contact was minimal. For balance, practitioners only placed the palms of their hands, the soles of their feet, and their head upon the ground. Placing any other part of their body on the ground was an indication that they had fallen. After the performance, the practitioners and the audience joined in samba together before forming a procession to carry their offerings down to the beach.

7.3.3 Silek Minang during Muharram

Indentured Sepoy Indians under British colonial rule brought the Muharram ceremonies to Pariaman, West Sumatra, in the early nineteenth century. Performances of fight-dancing, known as silek minang, are a relatively recent inclusion to the Muharram celebrations. These performances were introduced well after the celebrations were commercialized in 1974 (Kartomi 1986). During a performance of Silek Minang at the Muharram festivities in 2008 (Mason 2010b), there was a bamboo flute that accompanied the opening ritual bows between two performers. Following the ceremonial bows, double-sided barrel drums signified the beginning of the fight and the buzzing sounds of a reed aerophone took over from the flute. The performance included direct strikes, grappling and knife techniques. While normally all parts of the body except for the head can be placed on the ground in Silek Minang, during this particular performance the practitioners remained on their feet the whole time. There was some effort to adapt the choreography to represent of the story of Imam Hussein during the battle of Karbala to which the Muharram ceremonies are devoted. After completing their performance, the Silek Minang performers joined in the dancing and festivities and then followed the procession of the cenotaphs over to the beach.

7.3.4 Comparison of Brazilian and Indonesian fight-dancing during regional festivals

Brazilian and Indonesian fight-dancing exhibit different musical and movement structures, and serve analogous cultural functions within certain performance contexts (see table 7.1). Capoeira from Salvador da Bahia features voice and an array of percussion instruments, while Silek Minang from West Sumatra uses wind instruments and drums. The movements of Capoeira are largely circular, evasive and inverted, while Silek Minang techniques include grappling, hard blocks, and strikes that follow straight trajectories. The performances also included narrative elements tied to their respective ceremonies. In the capoeira performance, stories of Iemanjá were featured in the songs; in the Silak Minang performance, the story of Imam Hussein was portrayed through the choreography. Capoeira and Silek Minang represent two different practices of fight-dancing that, within the context of the religious festivals described, contribute to community entertainment, the propagation of cultural patrimony, the expression of regional folklore and national identity, as well as being an opportunity to demonstrate physical skill and dexterity. From observations of fight-dancing in both these festivals, we

can conclude that fight-dancing can assume many different forms to serve analogous functions. These performances had a structure-to-function ratio of many-to-one and provide evidence for the presence of degeneracy at the cultural level.

		Structure			Function
		Music	Movement	Music and Movement	
Context: Religious Festival off the coast of Bahia, Brazil	Capoeira	vocal and percussive	Improvised circular movements with kicks and sweeps.	Movement is subordinate to the music	Both arts are a means to demonstrate physical ability, a performance for entertainment, a tool to propagate cultural patrimony, and an as an expression of regional folklore and national identity.
Context: Religious Festival off the coast of West Sumatra, Indonesia	Silek	woodwind and percussive	Choreographed movements with swift strikes & grappling	Music has a symbolic relationship to the movements	
	Similar/Different	DIFFERENT			SIMILAR
	Ratio	MANY			ONE

Table 7.1: A comparison of Capoeira from Salvador da Bahia, Brazil, and Silek from West Sumatra, Indonesia. Brazilian and Indonesian fight-dancing incorporate different musical structures, diverse movement structures, and differing interactions between music and movement. Movements can be objective-driven attacks, blocks and escapes, or aesthetic movements—labeled as 'the flower' of the art in both Brazilian Portuguese (*Floreios*) and Bahasa Indonesia (*Bunga*). Capoeira and Silek, in the context of regional festivals, have overlapping functions and exhibit a structure-to-function ratio of many to one.

Cross-cultural observations of fight-dancing lead to the conclusion that cultures are degenerate systems heterogeneously constructed by the ongoing engagements between socially interacting individuals. Intersecting variables, such as resources, sponsorship, and individual abilities, are contingently organized by the changing relationships within the system. The snapshot of fight-dancing during these two festivals in two different societies demonstrates that cultures can exhibit non-isomorphic activity with overlapping function. One pre-requisite for the processes of the selection at the cultural level—degeneracy—exists in culturally organized activities. Recognising degeneracy means that we can notice the variation underlying similar performance, or the multitude of variable factors that can lead to the same outcome. The study of degeneracy at the cultural level can contribute to explanatory models of culture and compensate for oversights that have accumulated within the field of anthropology.

7.4 Towards a model of cultural evolution

Models of evolution from biological theory have not transferred over easily to accounts of cultural development. For over a century, attempts to use biological evolution metaphorically have been met with a number of obstacles: cultures do not speciate; cultural creativity is not an analogue of biological variation; cultures have not been shown to be adaptive in the sense that natural selection does not always appear to act on cultures; cultural traits are not always synonymous with environmental demands; and there is no clear analogue of the gene in cultural transmission. The meme concept (Semon 1911; Dawkins 1976), for example, "ignores development as a cause of cultural variation" (Jablonka and Lamb 2007:361) and has been criticized as being too simplified, context-deprived and a reductionist account of cultural activity (Eriksen 2006; Sperber 2000). As Atran eloquently states, "Even a superficial examination of studies and experiments in human cognition and reasoning demonstrates unequivocally that ideas do not "invade" and occupy minds, or spread from mind to mind like self-replicating viruses or genes" (2010: 326). Sperber (2000) notes that cultural transmission is by transformation not memetic reproduction. Jablonka and Lamb argue "it is impossible to think about the transmission of memes in isolation from their development and function" (2005:209). In cultural evolution, "there are no discrete unchanging units with unchanging boundaries that can be followed from one generation to the next" (Jablonka and Lamb 2005:211-212).

Bold critics might ask if the hesitancy to adopt biological evolution as a model for cultural evolution says something about our models of biological evolution. If "...human culture changes according to the same fundamental underlying principles...that govern biological change" (Mesoudi 2008:243), then perhaps theories of cultural evolution have failed to become more popular because of shortcomings in our biological theories. Indeed, the concept of degeneracy was still not fully incorporated into biological thinking in the twentieth century (Edelman and Gally 2001:13763). Anthropologists might have asked how studies of cultural evolution can inform our models of biological evolution, especially considering that the mechanisms of cultural inheritance are accessible to everyday observation (Sperber and Claidière 2006), while the mechanisms of biological evolution in their finer details are only accessible to those with sufficient access to training, equipment and funding.

Among select anthropologists, a revival of research into cultural evolution followed the centennial anniversary of the publication of the *Origin of Species*. These anthropologists recognized that, "Culture continues the evolutionary process by new means. Since these cultural means are unique, cultural evolution takes on distinctive characteristics" (Harding, Kaplan, Sahlins and Service 1973:23). Keesing (1974) labeled some of the scholars working in this tradition as "cultural adaptationists" (e.g. Binford 1968; Harris 1968; Harris 1969; Meggers 1971; Rappaport 1971; Service 1968; Vayda and Rappaport 1968) to separate them from the contentious earlier work of "cultural evolutionists". An explicit theory of cultural transmission, however, only became available in the 1980s (Lyman and O'Brien 2003).

Culture is not equatable directly to the environment or econiche (Richerson and Boyd 2005). Culture is sensitive to changes in environmental conditions and responsive to its own history. Cavalli-Sforza and Feldman (1981) distinguish between natural selection—environmental tests on survival and fertility—and cultural selection—the acquisition and sorting of cultural traits. They note that "It may often be most difficult to decide experimentally where on the continuum between completely preprogrammed and completely learned a cultural trait lies, and which of natural or cultural selection is more important in determining the state of this trait in a population" (Cavalli-Sforza and Feldman 1981:16).

Recent research suggests that human culture may be subject to the processes of natural selection. In a comparative study of rates of change in the design traits of Polynesian oceanic canoes, Rogers and Ehrlich (2008a) hypothesised that those aspects of culture that affect outcomes of survival and reproduction evolve at a rate different from those aspects that do not affect survival and reproduction. Rogers and Ehrlich argue that the presence or absence of a trait signified selection. Their study showed that functional canoe design traits evolve more slowly than aesthetic design traits. The results support an interpretation of cultural change from an evolutionary perspective and infer that natural selection operates at the cultural level. The research, however, does not prove that natural selection acts upon culture (Rogers and Ehrlich 2008b), nor does it demonstrate that the processes of selection can operate within culture. Their study does demonstrate that human choice is a deciding factor in culture change and development.

Without degeneracy, selective processes would not be possible because, as Edelman and Gally (2001) have established, a population of structurally dissimilar traits is a necessary prerequisite for, an essential accompaniment to, and an inevitable product of the processes of selection. Illustrating salient examples of degeneracy at the cultural level supports the suggestion that selective processes can act within cultures and upon cultures. Different performances of fight-dancing in Indonesia and Brazil during resembling occasions suggests that degeneracy exists at the cultural level, and supports the proposal that cultural traits may be subject to cultural selection and possibly natural selection too. Without degeneracy, there would only be selection by elimination. Degeneracy counterbalances coalescence and allows differential sorting. At the cultural level, degeneracy means that different cultures can react to the same internal changes or environmental stimuli in a variety of ways that can lead eventually to a similar output. Culture exhibits degeneracy. Culture can also be described as pluripotential, such that the "allocative function" of various components can change according to the environmental conditions (Burns and Dietz 1992). In a bowtie configuration, degeneracy enables cultures to react to a wide range of internal or environmental changes with a vast repertoire of socially executable responses.

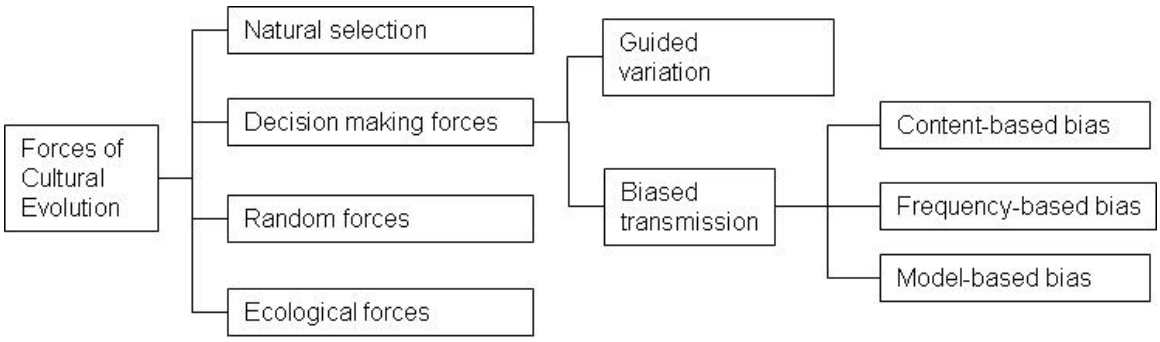

Figure 7.2: The forces of cultural evolution, adapted from Richerson and Boyd (2005) and Sperber and Claidière (2006). There are four major forces of cultural evolution: natural selection, random forces, decision-making forces, and ecological forces.

Cultural systems are subject to various forces. In addition to natural selection, theorists like Sperber, Richerson, and Boyd identify three other major forces of cultural evolution (see figure 7.2): random forces, decision-making forces (Richerson and Boyd 2005), and ecological forces (Sperber and Claidière 2006). Random forces, Richerson and Boyd (2005) posit, are the cultural analog of mutation and include accidental variation, errors in social learning and recall, as well as arbitrary environmental effects on behaviour.

Decision-making forces—also labelled psychological forces—include the memorization, modification, elimination and preferential transmission of representations through learning processes, personal biases and conformist influences. Ecological forces act on the behaviours and artefacts involved in the causal chains of culture.

Richerson and Boyd (2005:5) define culture as information capable of affecting the behaviour of individuals and acquired from other members of their species through teaching, imitation, and other forms of social transmission. Information in this definition refers to conscious and non-conscious mental states that affect behaviour and are acquired or modified by social learning. Sperber and Claidière (2006) add that behaviour and artefacts through which cultural information is transmitted are cultural too. Cultural artefacts, just like cultural traits, also exhibit degeneracy. Pens and pencils, for example, are two different material structures that can perform the same function with respect to context. The common anecdote that NASA spent a fortune to develop a pen that could write in space is a simple demonstration of the significance of context in the function of cultural artefacts. Until NASA invented this pen, astronauts could only use pencils in space. Cultural information and cultural artefacts fall under the category of cultural traits, which can be material objects or nonmaterial practices definable at various scales. Demonstrating that cultural traits are degenerate indicates that culture manifests necessary preconditions required for the four forces of cultural evolution to act upon information and artefacts. Without the presence of degeneracy the forces of cultural evolution would have no evolutionary backup system and no set of variant cultural traits to select from.

7.5 Degenerate mental representations

The notion that cultural traits are degenerate moves distinctly away from the idea that patterns of human thought and behaviour are fixed. Degeneracy means that structures change according to the dynamic confluence of actions, materials and events. In this way, degeneracy is a powerful reformulation of structuralist models of culture. The structuralist approach has been critiqued for not recognising the agency of human beings, for being ahistorical, and for not incorporating the trajectories of cultural change (Giddens 1982:75; Spiller 2010:177). While some theorists have tried to explain human agency as the outcome of social causes, the structuration concept employed by Giddens (1979)

expresses the mutual dependency of human agency and social structures. In building upon the concept of structuration, we can locate degeneracy at both the level of the individual and the level of culture. Degeneracy, as the bowtie formation testifies, is not a one-sided phenomenon. Degeneracy at the cultural level finds its necessary complement in the biology of human beings. Incorporating degeneracy into an understanding of human beings and culture enables a discussion of the intersecting variable factors that heterogeneously construct the changing developmental outcomes of social and biological life.

The brain is the biological substrate of society and the biological vector of culture. Having characterised degeneracy at the cultural level, we now turn to studies that have revealed the processes of degeneracy at the neurological and psychological level. Cultural phenomena are ecological patterns of psychological phenomena (Sperber 1985:76). Psychology—though not sufficient on its own—is necessary for the characterisation and explanation of cultural phenomena (*Ibid*.). With respect to transmission, the production of cultural information is social, and the cognitive processes of interpretation are individual (Marchand 2010). Research has shown how cultural information is constrained by cognitive systems, such as how the various systems of kinship are constrained by the limitations of short-term memory (D'Andrade 1995b:19-57). Simultaneously, research has also shown that cultural information and cultural practices can have significant effects on the brain, for example how specific cultural conditions can influence perception, memory, and reasoning (D'Andrade 1995b: 182-217; Doidge 2007:287-312). In this manner, cognitive processes and cultural traits are in a relationship of reiterative causality. If the four forces of cultural evolution (see figure 2) exert selective pressure on cultural traits then both psychological and cultural phenomena should exhibit degeneracy.

Cultural Information, for Sperber and Hirschfeld, includes "the content of people's knowledge... beliefs, assumptions, fictions, rules, norms, skills, maps, images, and so on" (2007:149). Information is realised in mental representations and transmitted from individual to individual through public productions involving verbal and nonverbal movements. For Sperber (1996a), culture primarily refers to widely distributed, long lasting representations (see figure 7.3) that inhabit whole groups over several generations (see also, Cavalli-Sforza and Feldman 1981; Campbell 1974; Dawkins 1982; Boyd and Richerson 1985; Norenzayan and Atran 2004). While some representations are

entertained by only one individual for but a few seconds, others are made public and can become cultural. Any human population is subject to a large number of mental representations specific to individuals. Certain representations are communicated from one individual to another, transformed into a public representation by the communicator, and retransformed into a mental representation by the receiver (Sperber 1996a: 8-9). The public production of mental representations—through bodily movements and the outcomes of such movements—furnishes and modifies the common physical environment of a population (Sperber 1996b: 99). Mental representations are both causes and effects of public productions (1996b: 104). Sperber believes that mental representations do not become cultural representations directly through formal properties, but rather through "the construction of millions of mental representations causally linked by millions of public representations" (Sperber 1985:78). The formal properties of mental representations contribute to the stability or instability of cultural representations.

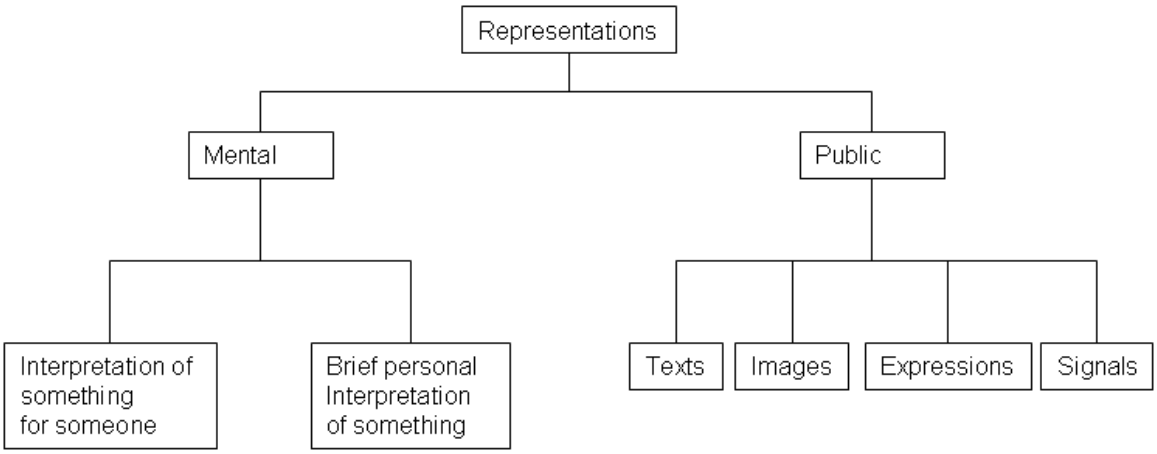

Figure 7.3: A schematic diagram of the types of mental and public representations, adapted from Sperber (1996a :8-9).

The biological vector of culture is not limited to representations or cognitive information. In practices of fight-dancing, cultural traits are embodied and involve somatic changes in musculature and the development of perceptual capacities. Downey (2010: 33) observes that different practitioners acquire the perceptual-motor skills of capoeira in different ways. Highlighting that each person acquires skills in their own unique way, Blacking claimed that "…there is no such thing as '*the* human body': there are many kinds of body" (1985: 67). If different forms of embodied knowledge lead to similar behaviour, then different motoric substructures are producing similar practices. Simultaneously, if various practitioners have distinctive ways of learning and performing the same task, then

the practice itself can change and functionally diverge over time. Intracultural diversity demonstrates one method through which cultural evolution is possible. In the transmission of mental representations, consecutive generations of human groups shape and remodify their practices, thus modifying the affordances, informational structures, and opportunities presented to each generation (Sterelny 2003). As Sterelny argues more generally, among a group of practitioners, "the same initial set of developmental resources can differentiate into quite different final cognitive products" (2003: 166).

Richerson and Boyd (2005), in their model of cultural evolution, recognize that an important degree of individual variation likely exists in the mental representations of cultural information. In discussing the example of a bowline knot, they note "If we could look inside people's heads, we might find out that different individuals have different mental representations of a bowline, even when they tie it exactly the same way" (2005: 64). In a complementary discussion of collaborative knowledge formation, Marchand (2010) refers to research indicating that practitioners do not need to possess the same mental representation of a task, they must simply be able to engage in the task in congruent ways (Lave and Wenger 1991). Cultural transmission is not simply a matter of replication between interlocutors but an act of re-creation which entails an integration of the original stimulus "into a different mental universe" (Bloch 2005:87-101). Similarly, Sperber recognises that cultural representations do not in general replicate in the process of transmission, they transform as a result of a constructive cognitive process (Sperber 1996b:101). Memory, imitation, and communication contribute to the relative stability of cultural representations, but high fidelity in cultural transmission "is the exception rather than the rule" (Sperber and Claidière 2006:21).

Within the brain there is a high degree of degeneracy. Each anatomical site in the brain subserves multiple behaviours, and each behaviour is subserved by multiple anatomical sites, leading to a distributed, interactive and degenerate mapping of neural substrates onto behaviour (Mesulam 1990:601-602). Over the course of an individual's life, different populations of neurons can fire in response to the same stimuli, or in performing repetitions of the same task (Edelman and Tononi 2000). Evidence for this neural degeneracy has been mounting in neuroscience (Anderson 2010; Edelman 2006b; Noppeney, Friston and Price 2003; Leonardo 2005; Levine 2004; Price and Friston 2002). Brain lesion and functional neuroimaging studies are showing that a particular function

can be sustained by degeneracy within one brain and in degeneracy over subjects, i.e. cognitive performance can be produced by multiple systems within one subject and by different systems in different subjects (Noppeney, Friston and Price 2004). In Richerson and Boyd's theory of cultural transmission, the presence of replicators in brains is not assumed, only the presence of similar outputs of mental processing (2005: 155-156). Richerson and Boyd consider that the triggering of different patterns of cognitive processing can produce similar outputs. Inadvertently, Richerson and Boyd's theory of cultural transmission is built upon the presence of degeneracy in the neurological substrate of culture. Highlighting the presence of degeneracy effaces the assumption that similar practices or behaviour indicate similar cognitive substructure (e.g. Carruthers 2006; Tooby & Cosmides 1992).

At the neuroanatomical level, degeneracy may indeed be the morphophysiological property of the brain that makes culture possible. Cultural representations cannot be grounded in just one property or area of the brain. Only a degenerate mechanism distributed across populations of neurons within the brain is adequate to support the complexity of culture. The propagation of culture is mediated by a duplication of the relationships between representations, not just the representations as single units. Transmission is dependent on a system that can draw high-level analogies between the relations of component representations. The sense of each representation is derived from the context-driven relationship it has to other representations. If the pattern of relationships between representations can be reconstructed, then identity is preserved. When a representation is transmitted from one individual to another, a certain level of redundancy is required to protect the representation against errors. Degeneracy occurs when these representations depart from a state of perfect independence from one another. Degeneracy is a developmental deviation of the original representation.

If a system is to be robust against perturbations, then it requires the ability to react to the same environmental stimulus in a variety of ways. Degeneracy, the presence of diverse structures to perform the same function, buffers a system from perturbations and intensive selective pressures. Incorporating degeneracy into our models of evolutionary systems may help to understand the extent to which maladaptive traits (that impose a fitness cost) can piggyback on traits essential to survival (a question raised by Mesoudi and O'Brien 2008:23). Indeed, the potential evolutionary mechanisms that gave rise to innovative

social behavioural traits have recently been reconfigured with a focus on relaxed selection (Deacon 2010). Deacon hypothesises that traits like human language evolved from the space for innovation afforded by the relaxation of selective pressures through the recruitment of processes including redundancy, degeneracy, epigenetic accommodation, and synergy-correlated preservation (redistribution and complexification). Deacon's model does not assume the traditional adaptationist approach that positive natural selection was a driving force behind the development of innovative traits. His model suggests that novel traits can arise from the space afforded for variation by shielding a system from intense selection.

The sharing of concepts and mutual systems of socially agreed upon cultural representations in different brains does not require preserved morphology; it is sufficient that the response to sensory input can be processed similarly. Prost (1994) believes that if he could find a universal morphophysiological base for human thinking then he could make a case for socially shared concepts and meanings. At the neurological level, degeneracy may be the "universal morphophysiology" that supports socially distributed cognition. Cultures are imperfectly integrated wholes where both mental and cultural representations, to use Sperber's vocabulary, exhibit degeneracy.

7.6 Conclusion

Many of the terms of common language, as D'Andrade (1995a) observes, blend something about the world with our reaction to it. Outside the confines of the biological sciences, the term "degenerate" is no exception to D'Andrade's observation. The prevalent historical usage of the word "degenerate" in racial discourse, health disorders, and mental disease highlights normative assumptions of the common "type" and simultaneously demonstrates how difference and diversity have been misrepresented. Hacking (2001:146) distinguishes between degeneracy associated with inherited deviant traits where "alcoholics beget alcoholics, male criminals beget male criminals, child abusers beget child abusers", and allotropic degeneracy meaning "any two or more forms in which a chemical element may exist; carbon, for example, may exist as coal, diamond, or the bucky balls named after Buckminster Fuller". For some 19th century behavioural theorists, degeneracy was not strictly uniform and could appear in any form across

generations—as alcoholism in one generation for instance, epilepsy in the next, and crime in the third. While Hacking describes allotropic degeneracy as the inheritance of a disorder with differing symptoms in each generation, allotropic degeneracy in the physical sciences is a neutral description. The many different lattice configurations that an element can form are simply alternative arrangements that exhibit divergent properties.

Degeneracy, in its popular usage, is often defined in relation to normalcy. The idea that some attributes constitute a "normal type" is a nineteenth-century concept that "became conflated with historical notions of the ideal body" (Vertinsky 2002:96). Scientists, doctors, and writers associated normality with the absence of pathological symptoms in the organs, variation could only be detrimental, and abnormality became entangled with the concept of degeneracy (Rajchman 1988:101). In the official statistics of the nineteenth century, statistics of deviance began to proliferate around 1820 (Hacking 1986:222). Deviations from the mean or norm "constituted ugliness in body as well as vice in morals and a state of sickness with regard to the constitution" (Vertinsky 2002:101). "Degeneracy" became more than a word to describe an alteration in characteristics, it gained moral implications and was used to portray defect or decline (Hacking 2001:144). Degenerates were people who were mad, criminals, prostitutes, vagrants, and those who committed suicide (*Ibid*.). The problem of seeing and classifying degenerates involved reasoning what should be done about them (see Rajchman 1988:102). The growth of statistics of deviance coincided with the abundance of laws about crime and suicide (Hacking 2001:143). An inflected theory of degeneracy that provided biological explanations for crime and mental illness was eventually swept up in eugenic theories (Brown 2010). By the second half of the 19th century, "degeneration" became a pervasive term throughout European culture that grew to be as widespread and encompassing a term as evolution (Chamberlin and Gilman 1985).

The popular usage of the word "degenerate" shows how poorly variation is understood. Using the word "degeneration" often implies that there is a more perfect state, and the term "degenerate" still conjures images of racism reminiscent of a time when difference was despised and misapprehended. The history of racism is a sensitive topic for anthropologists because anthropology both founded scientific racism and pioneered the antiracist movement (Hill 1998). In the 19th century, the evolution of human societies was conceived as a hierarchical progression from primitive to technologically complex

(e.g. Tylor 1871; Morgan 1877). The blending of this form of evolutionism with the then-accepted ranking of racial groups (see Gould 1981) together with a theory of degeneracy that associated behavioural phenotypes with biogenetic factors (see Pick 1989) fuelled the growth of movements such as eugenics. When eugenicists and racial theorists adopted the concept of degeneracy, phenotypic variations became ranked according to cultural prejudice. Flanking these movements were advocate anthropologists such as Franz Boas and his students who found the need to separate the idea of race and culture, and "argue against the unilineal progression of evolutionary stages" (Gonzalez 2004:19). To counter racism, racial classifications were distanced from biogenetic aetiology by arguing that human behaviour was conditioned by social and historical circumstances. Boas promoted cultural determinism, the view that social stimuli are infinitely more potent than biological mechanisms (Freeman 2001:3, 22). His contemporary, Emile Durkheim, viewed social facts as entirely unrelated to biological facts (Freeman 2001:3). Evolutionism was pushed to the periphery of cultural anthropology and with it the concept of degeneracy became inadvertently ignored. Culture became a way to describe human diversity without recourse to biogenetic differences.

The engagement with and acceptance of a scientific theory is a socially situated process inflected by a range of historically constituted discursive practices. Anthropology is a discipline highly responsive to external political trends (D'Andrade 2000) and, in light of the politically skewed usage of the word "degeneracy," the technical definition of the term may have escaped the attention of cultural theorists. The word "degeneracy" has been attached to a legacy of moral issues, and for this reason cultural theorists have not been sensitive to recent developments in the biological theory of degeneracy. Efforts to transform anthropology "from a discipline based upon an objective model of the world to a discipline based upon a moral model of the world" (D'Andrade 1995a) have been accompanied by a corresponding shift among certain anthropologists away from evolutionary models.

The study of degeneracy may have fallen by the wayside but normative assumptions about the cultural type have remained. Sperber (1985: 83) points out that, "Many anthropologists, from Durkheim to Clifford Geertz, have explicitly or implicitly assumed that all the beliefs of a culture, whether trivial or mysterious, are mentally represented in the same mode and therefore achieve rationality in the same way." This normative

thinking has led to an implicit assumption that culture is a uniform entity and facilitated a disregard for the array of variable characteristics within cultural systems. The idea that culture is equally shared and distributed among members of a group has ironically led to reductionist accounts of human behaviour (see González 2004) at odds with the initial aims of antiracist anthropologists to study human diversity. By suggesting that culture is shared and distributed it creates the illusion that there is a consensus about what culture is. Sperber, for example, prefers to employ the word "cultural" rather than "culture" with the preference echoed in the cultural models developed by other scholars (e.g. Casson 1983; D'Andrade 1995b; D'Andrade and Strauss 1992; Quinn and Holland 1987; Strauss and Quinn 1994). Recognising degeneracy at the cultural level may contribute to a reformulation of the culture concept that addresses the problems of both static and adaptationist models of culture.

Evolutionary thinking has come a long way since the 19th century. Yet, despite claims of a resurgence of evolutionary thinking in anthropology and the social sciences (Burns and Dietz 1992), studies of cultural evolution in the cognitive sciences still fall within a field labelled "The Missing Discipline" (Boden 2006). Explanations of human behaviour in evolutionary terms have, along with some illumination, also been subject to "bad press" (Dunbar 2004:104) and criticism (Hass et al. 2000). Social theorists, wary of including a form of evolutionary theory that might infer genetic determinism, have preferred to maintain the view that social facts are explainable by social laws. But are such intra-level explanations sufficient to account for the influence of individual mental processes on cultural transmission and transformation? And reciprocally, how does cultural phenomena contribute to individual development? Degeneracy is an intra- and inter-level process that affords the horizontal transmission of adaptive behaviour, the physiological adaptation to environmental demands, and the integration of extrasomatic information into predictive coding. Acknowledging degenerate processes at multiple levels of complexity may prove integral to modelling the reiterative causality between brains and culture.

Viewing culture as an "extrasomatic adaptation" (e.g. White 1959) overlooks an integral connection between body and culture and stresses the notion of adaptation too strongly. Cultural practices, as embodied arts such as fight-dancing remind us, entail somatic changes among the practitioners. As an alternative description, we could propose that culture is a somatic and extrasomatic exaptation. Cultural traits do not necessarily arise

because natural selection tunes functional adaptations. The reiterations of a social system are developmentally constructed and come into being through internal interactions within individuals, interactions between individuals, and interactions between individuals and their surroundings. Novelty and variation arise from these interactions. The functional redistribution of cognitive performance onto a group of socially interacting agents effectively offloads a degree of genetic control onto neuroepigenetic processes (Deacon 2010). Degeneracy in the brain introduces a susceptibility to developmental influences and enables epigenetic adaptation to the environment. In other words, degeneracy opens a developing organism out to experiential influences, social control, and behavioural modification. The availability and recruitment of functional extrasomatic resources can create the opportunity for developmental adaptation to the environment without severely compromising the integrity of the system (West-Eberhard 2003). In this situation, developmental information is distributed throughout an array of internal and external components that each fractionally influence the ongoing dynamics of the system. Subsequently, individuals adapt not only to environmental demands but cultural demands as well. Framing cultural processes as a degenerate component of human development highlights the intimate relationship between individuals, society, and culture.

Research in the brain sciences has revealed degeneracy at the neuronal and cognitive level, and ethnographic documentation of fight-dancing in coastal festivals in Brazil and Indonesia offers an example of degeneracy at the cultural level. The ongoing heterogeneous construction of cultural activity can be understood as the historically contingent outcome of intersecting degenerate processes. Categorizing degeneracy at the cultural level is arguably an integral contribution to explanatory models of culture, an important step in understanding culture change, and an imperative shift towards a deeper union between cultural anthropology and evolutionary biology. The next challenge is to integrate degeneracy into mathematical models of culture. A theory of culture based on the processes of degeneracy will enable a better understanding of the development and selection of mental and cultural representations within lifetimes, throughout social networks and over successive generations. A move towards accounts of intersecting degenerate processes at the neurological, cultural, and environmental level contrasts with explanations that focus on an individual factor, a localized cause, or a single dynamic process. Degeneracy is not a reductionist account of dynamical systems. By understanding that mental and cultural representations are degenerate, we can develop a

framework aimed at modelling the coevolutionary and codevelopmental relationship between brains and culture. Bringing together a study of degenerate mental and cultural representations may be a step towards what Shore has called "…both an ethnographic theory of mind and a cognitive theory of culture" (Shore 1996:13). For anthropologists modelling diversity, variation, and cultural evolution, the concept of degeneracy may prove to be an indispensable analytical tool.

7.7 Reflections on the Past

The history of the use of the term "degeneracy" is not linear, but followed many trajectories that have collectively associated it with degradation, implied a disdain for heterogeneity, and reinforced uniform-type notions. Correspondingly, degeneracy as intraorganismic variation became an increasingly overlooked part of scientific investigation and theory. Natural selection as a prime cause of evolution did not become widely accepted until about 1940, after it had been successfully integrated with genetics (Quammen 2009). By this time, mainstream scientific circles avoided the concept of degeneracy because it fell into disrepute, especially with the discrediting of eugenics. A history of the popularization of the term "degeneracy" is more than just a biography of a word. A historical account highlights how underlying mechanisms of living systems have gone unexplored because normative thinking blinded our intellectual predecessors to variation, and because a key concept to discuss variation suffered guilt by association.

Anthropologists have often assumed culture to be a uniform entity without considering the array of variable characteristics within cultural systems. Sociologists have also found themselves guilty of viewing culture as "unitary and internally coherent across groups and situations" (Dimaggio 1997:264). Static notions of the "cultural type" lead to uniform models of cultural transmission without variation. Wallace (1970), in contrast, advocated emphasizing diversity and found it more interesting to consider the actual diversity of habits, motives, personalities, and customs that coexist within the boundaries of any culturally organized society. However, he noted the following:

> In many investigations, the anthropologist tacitly, and sometimes even explicitly, is primarily interested in the extent to which members of a social group, by virtue of their common group identification, behave in the same way under the same

> circumstances. For the sake of convenience in discourse, they may even be considered to have learned the "same things" in the "same cultural environment." Under such circumstances, the society may be regarded as culturally homogeneous and the individuals will be expected to share a uniform nuclear character. If a near-perfect correspondence between culture and individual nuclear character is assumed, the structural relation between the two becomes nonproblematical, and the interest of processual research lies rather in the mechanisms of socialization by which each generation becomes, culturally and characterologically, a replica of its predecessors. (Wallace 1970: 22)

Since the 1980s, anthropologists have been critical of culture concepts. They have critiqued culture (Marcus and Fischer 1986), written "against" culture (Abu-Lughod 1991), and "beyond" culture (Gupta and Ferguson 1992). They have also foretold the "breakdown" of culture (Fox 1995) and the "demise" of the culture concept (Yengoyan 1986). Clifford (1988) and Goody (1994) have even proposed abandoning the notion of culture altogether, in part because observable variation, change, and internal conflict is inconsistent with a model of unchanging norms. Anthropologists have recently found the necessity to counter understandings of culture that designate a distinctive way of life of a discrete and clearly bounded social group. This usage of the culture concept has been criticized as retaining "some of the tendencies to freeze difference possessed by concepts like race" (Abu-Lughod 1991:144) and for being deployed in a colonialist or discriminatory way by "Western" subjects onto "non-Western" others "in ways so rigid that they might as well be considered innate" (Abu- Lughod 1991:144). Brightman (1995) and Brumann (1999), among others, have demonstrated that this view of culture has not been as endemic to anthropology as some, like Abu-Lughod (1991), have suggested, but when deployed at any strata of society, the culture concept can have extensive repercussions. A tendency to essentialize the constructs of culture "has been appropriated by people other than anthropologists in the wider community and it has been deployed in ways reminiscent of the race concept" (Dominguez 2007:216). While anthropologists have not abandoned the notion of culture, they "find themselves in the process of reappraising, correcting and enriching their comprehension of culture and society thanks to the lessons learned . . ." (Dominguez 2007:215 fn3). Rather than discarding the notion of culture, we may need to refine it (Shore 1996). As Buffon (1749) contradicted Linnaeus' definition of species because it was artificial, arbitrary, and made broad

classifications of type based on individual traits, so too must we reframe our understanding of culture with a more fluid, mutable, and holistic model based on degenerate representations.

Our internal representation of culture is formed from a collection of disparate bits of information that we experience nonetheless as a unitary phenomenon. Sperber (1996b:118) suggests that despite the large amount of variation in cultural representations, we still persistently discern stable cultural types for the following two reasons:

> First, because, through interpretive mechanisms the mastery of which is part of our social competence, we tend to exaggerate the similarity of cultural tokens and the distinctiveness of types; and second, because, in forming mental representations and public productions, to some extent all humans, and to a greater extent all members of the same population at any one time, are attracted in the same directions.

Anthropologists such as Wallace (1956) have long suspected that we experience culture as a gestalt. Wallace noted that periods of extreme stress upon individual members of a society could lead to further routinization and stabilization of cultural activity. Drawing upon growing ethnographic data from five continents, and with a particular attention to a 19th-century Native American religious movement, Wallace observed that "deliberate, organized, conscious effort by members of a society to construct a more satisfying culture" is dependent upon persons who "perceive their culture . . . as a system" (p. 265). The persons involved take action to preserve the constancy and integrity of the matrix of their perceived system, ". . . by maintaining a minimally fluctuating, life-supporting matrix for its individual members" (p. 265). When such actions, behaviors, and ways of thinking become historically propagated, it reinforces and strengthens fixed cultural behaviours and notions of culture as a closed system.

Wallace's ideas map onto the colonial experience almost seamlessly, but colonialists were not the only people to have rigid ideas of species, race, and cultural type. "Cross-cultural evidence," that Atran (1990) points out, "indicates that people everywhere spontaneously organize living kinds into rigidly ranked taxonomic types despite wide morphological variation among those exemplars presumed to have the nature of their type" (p. 71).More

wide-ranging research about the psychological origins of the normative assumption of cultural types can be found in the work of Richter and Kruglanski (2004). These researchers have highlighted how the psychological need for closure is a key factor in the formation of stable cultural representations (Richter and Kruglanski 2004:104). The need for closure is a response to stressful conditions and uncertainty. It is a motivational impulse that can elicit premature and unmoving adherence to the most highly visible constructs centered around pervasively accessible cultural norms and ideals. In a discussion about the relationship between the need for closure and cultural patterns, Richter and Kruglanski (2004) describe that when a group judges outgroup members predominantly on the basis of stereotypes, it creates a perceived homogenization of the out-group and simultaneously a homogenization of the in-group (Richter and Kruglanski 2004:108). In such a scenario, diversity in cultural traits is reduced. In-group favoritism and out-group derogation asserts common values among members, builds shared realities, and reinforces consensus. At the extreme, a group whose members are under a heightened need for closure are more likely to centralize their decision-making structures (Richter and Kruglanski 2004:112). They evidence the tendency toward authoritarianism in German society in the earlier part of the 20th century and the rise to power of Hitler as a case where an autocratic leadership structure emerged among members of a cultural group who were in high need of closure (Richter and Kruglanski 2004:113). Swept up by such forces, degeneration is a concept that became heavily value-laden, simplified, and a clear marker of the normative thinking of society.

In its most disastrous application and gross misuse, the degeneracy concept was politicized by the Nazis, who in their delusions of eugenics, desire to eliminate "inferior races," and efforts to "sanitize culture," used the concept of degeneracy to justify their genocide. For the Nazis, degeneracy was contemptuously equated with waste, nonconformity, and vagrant social classes. Their inability to accept and recognize the importance of variation was the very antithesis of what we now understand degeneracy to be. The sentiments of Hitler and the Third Reich, according to Greenslade (1994:263), could have come straight out of Nordau's Degeneration ([1892] 1968). The Minister of Justice under the Third Reich, Hans Frank,
defined degeneracy as:

> an immensely important source of criminal activity . . . in an individual, degeneracy signifies exclusion from the normal "genus" of the decent nation. This

> state of being…, this different or alien quality, tends to be rooted in miscegenation between a decent representative of his race and an individual of inferior racial stock. (Frank 1938, cited by Pick 1989:28)

Degeneracy as a scientific hypothesis arose during a period when cultural diversity was shunned and conventionality was promoted. At the pen of popularists like Nordau, degeneracy moved from being a scientific hypothesis to a cultural metaphor that reflected the values, anxieties, and world-views of imperialist societies. Nordau's theory of degeneration flourished during a period when the capitalist system was still growing and progress was the order of the day. Any deviation from the standard—a degeneration—was seen as an impediment to productivity and achievement.

Since World War II, the word "degeneracy" has largely disappeared from evolutionary discourse because of the association with discredited ideas. Ironically, regardless of the best-intended attempts to correct and erase the dangerously conformist behavior that arose from a flawed misappropriation of degeneracy, our productivist and consumerist lifestyle has still nonetheless managed to replace diversity with standardization. The negative controls of Nazi murder and mutilation have been substituted by the positive controls of materialism and consumerism as the drivers of homogeny. Propelled by the apparatuses of capitalism, for example, nationalist calisthenic activities such as *Gemeinschaftstanz* have been replaced by fitness practice products such as Thai Bo, Zumba and Pilates (or even pencak silat in Indonesia). Fitness enthusiasts may not be followers of the early colonialists, Nordau, or Nazi propagandists, but persistent efforts to obtain the perfect weight, to reach the ideal body type, and to embody specific cultural aesthetics are historically grounded in philosophical currents that run deep in industrial, consumerist, and urbanized societies. Patterns of urban consumerism, schemes of bodily health practices, and modes of mental health disciplines make explicit normative values and are strikingly reminiscent of a philosophy captured by Nordau. Though categorizations of normalcy and degeneracy may be dismissed in theory and are often pilloried for their reactionary, racist, and eugenicist subtexts, the notion of the standard type maintains a strong, subliminal, and enduring influence in prescriptive modes of education, medicine, and popular culture. Old words may be shunned, but normative practices persist nonetheless.

Biological degeneracy, in the Gamowian sense, is observable at multiple levels of complexity: from genetic codes to neural systems. In a recent paper on antigen-receptor degeneracy, where single antigens are understood to bind and respond to many different ligands, the authors reflect that degeneracy seems like a strangely derogatory term for such virtuosic multi-functionality (Cohen et al. 2004). These authors open their paper by referring to a definition of degeneracy provided in the Oxford English Dictionary (Second edition, 1989)—which associates degeneracy with decline, debasement, and degradation—and ask: "Is the slur apt? Is nature herself debased, or is it only that our expectations of her have been disappointed?" Their perceptive questions are partly answered by history but also partly allude to deeper philosophical dilemmas.

At the scientific level, these authors understand that degeneracy is not an ignominious dilapidation from a higher to a lower form. Yet, despite determining that degeneracy at the molecular and cellular levels is an indispensable part of complexity and evolution, these authors conclude their paper by stating, "Degeneracy is blameworthy when it comes to human behavior." Evidently, the idea of behavioral and cultural degeneracy still reignites old preconceptions. The terminology we use to describe the natural world can prove to be fateful. The term "degeneracy" is an evidence of how scientific terminology can bleed inappropriately into common usage, and how popularization of certain ways of using a word can rebound back upon scientific understandings.

The revised 21st-century scientific definition of degeneracy based upon Gamow's description is free of the preconception that degeneracy is necessarily "dreadful," "morbid," or "an apostasy." Researchers have recognized the necessity to develop a better understanding of degeneracy at the molecular and cellular levels (Cohen et al. 2004), as well as at the neuronal level (Price and Crinion 2005). Perhaps we can also extend this obligation to the behavioral and cultural levels. The most recent modeling of complex adaptive systems (Whitacre 2010; Whitacre and Bender 2010) suggests that the role of degeneracy in distributed robustness, evolvability, and multiscaled complexity could be much greater than earlier predictions (Edelman and Gally 2001). Once we eliminate the eighteenth- and nineteenth-century contamination and biases that have plagued our understanding of deviations, divergence, and change, we can remove the baggage of parochialism that has confined science, limited the scope of investigations, and restricted the import of research in this area.

Chapter 8: Fight-dancing in the context of globalisation

> In a humorous guide to revision for chemistry examinations, school students were told 'When in doubt say it's "osmosis".' If osmosis is the default explanation of chemical processes, then it has a lot in common with much of the use of the concept of globalisation. Whether the focus of discussion is the spread of Olympic sports, or changes in eating habits, intergenerational relationships, welfare policy or manufacturing work practices, the default explanation is a reference to the often poorly specified concept of globalisation.
>
> Barrie Houlihan, 2003, p. 345

8.1 Introduction

Hughes-Freeland observes that "dance became a legitimate object of study when globally it was being removed from its socially embedded conditions of practice" (2008:12). In the context of globalisation, dance anthropology has had to situate its subject within permeable and shifting locales. With respect to the anthropology of martial arts, Cordes (1992) and Pätzold (2000) situated their ethnography of Indonesian martial arts within interpenetrating regional communities but both authors had a background of training in satellite training groups in Germany; Lewis (1992) and Downey (2005) performed ethnographic fieldwork with internationally exposed groups of capoeira practitioners in Brazil; and Zarilli's (1998) analysis of the South Indian martial art and healing practice of Kalarippayattu briefly considers how a few Keralan instructors have exported and 're-elaborated' their art abroad. In a multilocal ethnography of the transnational practice of Aikido, Kohn discusses how body practices travel and how "social communities form around practices rather than locales" (2011:66). Wynn, studying transnational and transcultural Belly dancers who converged upon Cairo, demonstrated that anthropologists can no longer portray themselves as travellers in juxtaposition to fixed, stable, and localised communities (2007:18-19). Furthermore, Wynn's study of foreign and Egyptian singers and dancers demonstrated that a cultural form has to be understood within the historical context of its performance and transnational circulation (2007:225). In the "lived and representational" (Hughes-Freeland 2008:22) world of translocal embodied arts, observations of the interaction between teachers and students should be captured and contextualised in the social environments where training takes place, within the demands of the cultural locale, and the framing of the historical moment.

Concealment and confidentiality reveal an awareness of the potential global influence on an art. During fieldwork in Indonesia and Brazil, there were a few local artists who requested that the information and skills they were imparting were to remain for my personal use only.[30] This request constituted turning off any recording equipment and putting my notebook away. Artists, even in the most remote rural areas, were aware that technology can facilitate a wide distribution of cultural material. In some situations, teachers were happy to show me skills on the proviso that these skills would not be shown outside their community or, conversely, would not be shown to other locals. Whether in eagerness or caution, teachers expressed a definite sensitivity to the ability of modern technology to rapidly spread what people say, teach and display. Artist-teachers demonstrated unique perspectives and responses to the processes of globalisation. While they were aware that they may not be able to wholly control what happens to their art once it has been passed on, they attempted to deliberately manipulate and sustain the social worlds that lend prestige to their art. In negotiating the transmission of an embodied art form, artists sometimes struggled to maintain authority and to control the shape and form of the art they practiced. From person to person, and school to school, embodied art forms can be represented differently according to the skills of individuals, the influences of key practitioners and the tendencies of a group. A constant interplay exists between the changes in individual representations and socially shared representations. This chapter will discuss the various aspects of social transmission of cultural representations with respect to the processes of globalisation.

In numerous disciplines of the humanities, concerns and lively discourse on the topic of globalisation are extensive (Appadurai 2004; Friedman 1994; Inda and Rosaldo 2002; Jameson and Miyoshi 1998; Tomlinson 1999; to name just a few). Although discourses on the subject appear to relate to something 'happening out there' (Harriss 2001), the term 'globalisation' resists a narrow definition (Tarabout 2005:185). If globalisation is broadly understood as "the intensification of global interconnectedness, suggesting a world full of movement and mixture, contact and linkages, and persistent cultural interaction and exchange" (Inda and Rosaldo 2008:4), then it is important to remember that:

> "Everyone still continues to live a local life, and the constraints of the body ensure that all individuals, at every moment, are contextually situated in time and space.

[30] Any information or skills that were shared with me under the understanding that they were for my personal use only were not recorded and have not been written about in this thesis.

> Yet the transformations of place, and the intrusion of distance into local activities, combined with the centrality of mediated experience, radically change what 'the world' actually is" (Giddens 1991:187).

Globalisation involves a twofold, dialectical process of interpenetration between individual and collective actors that has been described as the "universalisation of particularism and the particularization of universalism" (Robertson 1997:73). In other words, the penetration of the global into local practices and the preservation of local practices as they are dispersed around the world. On one level is the "dramatic penetration of global forces" (Cvetkovich and Kellner 1997:3) into everyday life, where the global is understood as "that matrix of transnational economic, political, and cultural forces that are circulating throughout the globe and producing universal, global conditions, often transversing and even erasing previously formed national and regional boundaries" (p. 14). On another level are "those constellations of conditions that are particular and specific according to country, region, tradition, and other determinants, such as the creation and preservation of local subcultures" (p. 15).

As explained in chapters seven and eight, the normative assumption that cultural 'types' are static should be replaced with an understanding of culture as 'degenerate' in the way Gamow defined the word. Neuroanthropologist Juan Dominguez (2007) points out that sociocultural systems are no longer regarded as comprising "a harmonious and homogenous interarticulation of elements" (p. 213). For Dominguez, sociocultural systems are seen as being dislocated fragmentary, and constituted by a variety of forms that do not collectively form a bounded entity with global coherence. The boundaries of sociocultural systems are fuzzy and fade into a lattice where they are interconnected with other systems. Dominguez finds this particularly true in the context of increasing globalisation:

> "As human groups have got larger, more complex and technologically more advanced to the point that societies and individuals are increasingly mobile (spatially and socially) and self conscious, information flows more freely and more quickly, and identity is less a matter of being-born-as than growing-into (or becoming)." (Dominguez, 2007:214).

At the level of the individual, the ideas of Dominguez find a compatible partner in the neuroanthropological perspective of Downey (2010) as applied to skill acquisition,

mimesis and the cultural tuning of imitative learning. Downey's neuroanthropological account stresses a description of how embodied knowledge comes to be, not simply what it *does* (2010:24). This approach integrates the unique accrual of experience among individuals with the social history of their culture.

In a discussion of evolution and culture, Sahlins and Service employ arguments at a level where they find it appropriate that cultures are frequently named after the territory where they are found (1973:99). In the context of globalisation, the historical association between the idea of culture and "a stable, territorialised existence" (Clifford 1988:338) is called into question by anthropologists who talk about a flawed inclination "to assume an isomorphism between place and culture" (Inda and Rosaldo 2008:13). Theorists of globalisation have come to recognise that culture transcends specific territorial boundaries (Appadurai 1991; 1999; Hannerz 1996; Razak 2007). Appadurai (1991; 1999) notes that culture areas can no longer be conceived as tightly territorialised, spatially bounded or culturally homogenous spaces because communities are constantly appropriating activities, beliefs, values and customs from elsewhere and domesticating them into local practices.

Appadurai (1991) refers to landscapes of group identity, what he calls *ethnoscapes*, in an attempt to account for "the changing social, territorial, and cultural reproduction of group identity" (p. 191). An ethnoscape is a landscape of persons—tourists, immigrants, refugees, guest workers, and other moving groups and individuals—who make up shifting cultural worlds (*Ibid.*). In the context of increasing globalisation, Appadurai finds the concept of ethnoscape useful to describe what "no longer are familiar anthropological objects, insofar as groups are no longer tightly territorialized, spatially bounded, historically unselfconscious, or culturally homogenous" (*Ibid.*). Appadurai sees the transnational movement of people and entities as a process of 'deterritorialization'. Locality has been divorced from cultural identity with the added intrusion of global media in the construction of imagined realities. As time passes, homeland becomes partly reinvented, existing largely in the imagination of deterritorialised groups (p.192-193).

In addition to the concept of deterritorialisation, anthropologists have also come to conceptualise displaced communities as 'reterritorialised' such that "Cultural flows do not just float ethereally across the globe but are always reinscribed (however partially or

fleetingly) in specific cultural environments" (Inda and Rosaldo 2008:13). The "partly imagined lives" of deterritorialised, reterritorialised groups are "tied up with images, ideas, and opportunities that come from elsewhere…cultures, therefore, are more dynamic; they borrow and reconstruct themselves over time" (Appadurai 1991:198). Eriksen (2007:167) believes that it has long been recognised that cultures diffuse, recontextualise and reintegrate "borrowed items" into preexisting cultural repertoires. Hannerz (1987:551) has used the phrase "a world in creolisation" to describe the pervasive interplay between indigenous and imported cultural elements in a world of movement and mixture. Such deterritorialisation, diffusion, reterritorialisation, recontextualisation, reintegration and creolisation was explored in the religious festivals, Tabuik and Iemanjá, described in chapter six.

Dominguez (2007) extends Appadurai's figure of the landscape to talk about the landscapes of cultural forms and practices, what Dominguez calls *culturescapes*. A culturescape describes, "the shifting, less than coherent, variegated, fragmentary, fuzzily bounded, relatively amorphous and asymmetrical matrix of sociocultural phenomena for which before there was no other term to refer to but system" (p. 214). As Dominguez conceives it, the notion of culturescape designates "the network formed by populations of individuals, their behaviour and relationships, their social structure and their artefacts" (*Ibid.*). This notion retains the interactive view of the relation between individual and system, or as Dominguez puts it, "between agency and structure" (*Ibid.*). Culturescapes are to be found at "the interface of social relationships between individuals and in the concrete enactment of particular cultural forms" (p. 215). With reference to embodied practices such as fight-dancing, perhaps we could introduce the term *kinescape* to encompass body practices in a fashion similar to Dominguez's use of culturescapes and Appadurai's notion of ethnoscapes.

Human experience and cultural expression is imbricated within many settings across overlapping social groups. Innovations within the kinescape are projected from the experience of individuals as members of social groups. When there is significant overlap between the experiences of interacting individuals, then innovations can make sense at the level of the kinescape. As Marchand notes in a discussion about shared productions of knowledge, channels of communication are established in cultural transmission, and in order for interlocutors to communicate they must achieve parity in the representations

they individually construct (2010:11-12). The representations of the producer-cum-parser and the parser-cum-producer often diverge, and as a result of the dynamic nature of communication and interaction, "The state of 'knowing' is one of constant flux, update, and transformation" (2010:12). Incorporating Marchand's observations into a discussion of the kinescape we can understand that kinescapes are not closed systems that are fixed and unchanging. Kinescapes are open dynamical systems maintained far-from-equilibrium. Careful study of stochastic acquisition, transmission, and reconstruction, reveals the underlying processes of social and cultural change within a kinescape.

Globalisation offers an interesting context for the study of kinescapes.[31] By looking at the spread and persistence of specific manifestations of social activity we can begin to understand the neural, embodied and material constraints upon kinescapes. Whitehouse argues that all domains of human culture are constrained as much by the limitations of working memory as they are by the patterns of mental activity rooted in the biology of brain functions and their developmental contexts (2004:16). Whitehouse has collated research that demonstrates that various cultural activities are "firmly constrained by what we can encode, process and recall" (Lawson and McCauley 1990; Guthrie 1993; Boyer 1994; 2001a; Hinde 1999; Barrett 2000; Pyysiänen 2001; Atran 2002; cited by Whitehouse 2004:16). Adding to the strength of his argument, Whitehouse refers to cognitive ethnographic research on the short-term memory constraints on the variety of kinship systems (D'Andrade 1995b:19-57) as well as scientific data that shows that patterns of economic and political activity are constrained by the structure of mental processing (Sperber 1975; 1996; Hirschfeld, 1996; Bloch, 1998; Astuti, 2001; Whitehouse, 2001; cited by Whitehouse, 2004:16). Whitehouse himself discusses how religions are created, reproduced and transformed. He suggests that those modes of religiosity that can capitalise upon optimal cognitive processes spread faster than those that rely upon cognitively demanding mechanisms. When social activity, socio-cultural practices and cultural content are all viewed in this way, globalisation becomes a useful laboratory in which to test research hypotheses concerning the shifting properties of kinescapes.

Concurrent to research about the human constraints upon the forms of cultural content and practices, Downey has shown that the acquisition of embodied cultural practices

[31] Simultaneously, globalisation also facilitates the accessibility of diverse social practices.

involves corresponding physiological, perceptual and neurological changes in the body (2005; 2010). The capoeira practitioners with whom he studied, "repeatedly asserted that learning capoeira movements affected a person's kinaesthetic style, social interactions, and perceptions outside of the game" (Downey 2005b; Downey 2010:S23). From his own practice-informed observations, Downey notes that "training in capoeira shifts the sensory channels that a person draws upon to balance, develops top-down techniques for relaxing muscles and diffusing tension, and fashions behavioural patterns that bring previously unnoticed sensory information to awareness" (2010:S36). Rather than there being a 'capoeira habitus', there is the appearance of a pattern that can be understood in Whitehouse's words as an "attractor position" around which the actions, behaviours and abilities of practitioners "cumulatively tend to congregate" (2005:213). In capoeira, the appearance of a habitus actually arises from "a concrete set of perceptual-motor skills and modifications to the organic body" (Downey, 2010:S33). Downey rejects the concept of 'habitus' recognising that capoeira is not a completely unified, homogenous and concrete set of skills (2010:S32-34). He reports that proficiency among practitioners is not uniform, expertise is inconsistent and learning progresses in "fits and starts" (2010:S32). Transmission and enskilment involves a wide range of techniques on behalf of the teacher (2010:S28) and the patient transformation of the novice (2010:S36). As Downey states, "We observe cultural diversity in development, affecting different biological systems in a range of ways" (2010:S34). While Whitehouse (2005) talks about human behaviour expressed in enormously complex cognitive systems that handle explicit knowledge, Downey (2010) is studying an equally complex system but one that handles implicit embodied knowledge. Whitehouse focuses mainly on the biological constraints upon cultural behaviour and Downey stresses the biological changes that subserve cultural behaviour. The positions of both Whitehouse and Downey are complementary and remind us that kinescapes are dynamically shaped by human abilities and that in turn human abilities are developed within shifting kinescapes. The spread of embodied arts in the context of globalisation reveals aspects of the codevelopmental relationship between humans and culture.

Practices of fight-dancing can be conceived as kinescapes in the general sense and ethnoscapes within the context of globalisation. With the increasing use of electronic media and transport, the cultural worlds of silek minang, pencak silat seni and capoeira have been able to develop and maintain integration throughout the embodied practices of

dispersed schools. The maintenance of some semblance of purity in the cultural repertoires of music and movement is important to those who trade in the export of their culturally-orchestrated skills. The homelands of silek minang, pencak silat seni and capoeira are opening up to ever wider international influences. Correspondingly, silek minang, pencak silat seni and capoeira find themselves in contact with a plethora of potential influences within their homeland. Concurrently, these practices have also been travelling abroad where they initially find themselves unanchored to the different social contexts of their new localities. The different training pedagogies utilised by various schools of fight-dancing shows a differential spread and may offer insights into an understanding of kinescapes as well as current theories of globalisation.

8.2 Kinescape dynamics

In discussing the dynamics and micro-processes of kinescapes, we can turn to Sperber's *Epidemiology of Representations* (1985). Sperber talks of a "psychological *susceptibility* to culture" and states that "The human mind is susceptible to cultural representations, in the way the human organism is susceptible to diseases" (Sperber, 1985:74).[32] In embodied arts, we might say that the human body is susceptible to cultural training.

Cultural transmission is any process that brings about a similarity of public productions between "the mental representation of one individual and its causal descendent in another individual" (Sperer 1985:100). A public production communicates content through verbal and nonverbal movement and the material trace of this movement in artefacts (Sperber and Hirschfeld 2007). Over time, public productions of mental representations are likely to become more economical so that the intended effect can be achieved at minimal cost (Sperber 1996b:114). Sperber identifies two classes of processes involved in cultural transmission: intrasubjective processes and intersubjective processes (see figure 8.1). The intrasubjective processes of thought and memory are the biological vector of the transmission of representations. The intersubjective processes of communication and imitation are the social vector and are partly psychological and partly ecological. Intersubjective processes exist at the interface of brain and the environment.

[32] Sperber (1985) draws a distinction between 'dispositions' and 'susceptibilities' such that dispositions are traits that have been positively selected through the processes of biological evolution and susceptibilities are the side-effects of dispositions (p.80).

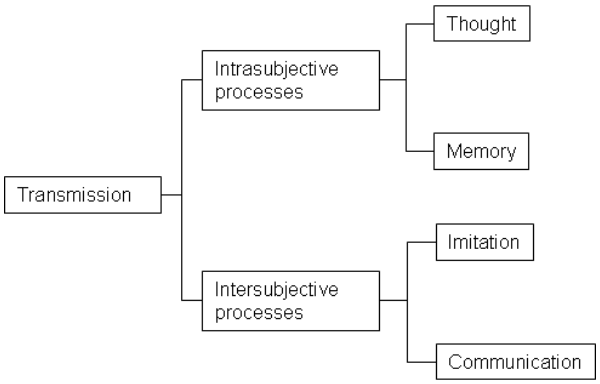

Figure 8.1: The two classes of processes involved in cultural transmission.
(Adapted from Sperber, 1985:77; 1996; 2006).

Transmission involves cognitive and social mechanisms that combine preservative and constructive functions in different degrees (Sperber and Claidière 2006:20-21).[33] Preservative processes refer to those elements of cultural transmission that contribute to the relative stability of cultural representations. The constructive functions of cultural propagation are based on the input information and contextual information of the practices and artefacts to be remembered or transmitted. "Constructive cognitive processes are involved both in representing cultural inputs and in producing public outputs. All outputs of individual mental processes are influenced by past inputs" (Sperber 1996b:118). In the transmission of representations, constructive processes recurrently intrude on preservative processes (Sperber 2006:22). If we recognise that mental representations are not just carried by the brain but also in the body, and that public productions are embodied expressions of enskilment, then Sperber's study of the transmission of representations can be adapted to the study of kinescapes in the context of globalisation. In particular, his notion of constructive and preservative processes is instructive for understanding the stability of cultural representations within increasingly globalised embodied arts.

8.3 In the context of globalisation

The compression of time and space brought about by globalisation catalyses an intense intrusion of constructive processes upon the preservative processes of transmission. A flux of external forces magnifies the potential for disruptive constructive processes to interfere with cultural preservation. In this situation, uncertainty and cultural instability

[33] Sperber (2006) talks of 'preservative' rather than 'reproductive' or 'replicative' function to differentiate cultural material from the biological concept of self-reproducing genes.

can lead members of a group to search for order, certainty and closure. Acting individually and together, they may take steps to secure existing cultural practices. Members of insecure groups may collectively adhere to the most readily available constructs of their kinescape and establish a standard set of social practices. Richter and Kruglanski (2004) suggest that the desire for a sense of closure can promote the homogenization of culture around pervasively accessible cultural norms and ideals, magnify cross-cultural differences, suppress creativity and innovation, foster an over-identification with one's in-group and foster the derogation of alternative cultural groups. The need for closure induces a bias toward permanent representations that are used persistently across situations and for consensual representations that are applied consistently across persons. When the constructive processes of culture are intensively magnified, the preservative processes can be equally as extreme.

As globalisation changes the context of cultural activity, there is often a reformulation (or repackaging) of what is to be transmitted. When culture becomes a commodity for global markets, the production and consumption of culture—as Christen (2006) describes in an ethnography of the commercialization of Warumungu women's traditional music—contributes to anxieties and raises issues surrounding cultural integrity, cultural openness, tradition and indigeneity. These issues have to be carefully negotiated and innovations have to be monitored. Within a kinescape, cultural representations are mobilised by a persistent transnational movement of people and the technological interconnection of disparate places. Subsequently, the transference of ideas among different peoples and different groups is augmented. When 'culture' is for sale the vendors have a vested interest to bias the direction of that transference. Claims of authenticity, the development of exclusivity, and the accrual of prestige are all methods to maintain the vendor's position.

Schools of fight-dancing, in response to globalisation and the constant flow of foreign practitioners, exhibit behaviours indicative of groups in need of closure. Teachers who trade in their cultural skills find a need to systematically define the boundaries of their art in order to establish control over their cultural material. An unbounded and overly open system of music and movement would bring too much uncertainty into the trade of cultural skills and could potentially undermine indigenous authority. A strict demarcation of accepted practices constitutes a dimension along which various styles of fight-dancing

may differ in a manner that affects both their inner workings and their relations to other styles. Among elite practitioners of fight-dancing and their novice followers, there is an atavistic deployment of preservative tendencies that 'seize' upon the most highly accessible cognitive constructs and subsequently 'freeze' on these constructs. The tendency to 'seize' and 'freeze', Richter and Kruglanski (2004) say, helps "cease the unsettling and often effortful attempts to process novel information in the face of uncertainty" (p. 108). Globalisation, and in particular "glocalisation" where locality becomes implicated in the time-space compression of the world as a whole (Robertson 1995), is a place where we see constructive processes intensively intruding upon preservative processes of cultural propagation.

8.4 Attractors within the kinescape

With reference to the most accessible cultural representations to which a group may acquiesce, Sperber (1996, ch.5) has introduced the idea of cultural attraction. This idea accounts for two observations: (1) transmission of information among humans is generally transformative, not reproductive and (2) cultural information is relatively stable within whole populations and often across generations. The idea of attraction aims to explain the relative prevalence and stability of cultural contents as a function of the properties of the contents themselves. Transformations are biased by attractors. The presence of attractors can be explained by psychological and ecological factors, and any historical changes can be explained in terms of the interactions between these factors (Sperber 1996:112-115). For example, the public production of a skill by a teacher in front of students is likely to beget transformations that differ from the original in a given direction. An increase in the density of public productions in the vicinity of the attractor increases the visibility of these productions and will thus reinforce the attractor (Sperber 1996:116). Attractors can and do change over time but they change slowly enough to uphold the relative perceptible stability of a kinescape.

Henrich and Boyd (2002) have put forward a complementary model that explains how transmission is biased by distribution-based mechanisms. In their model, transmission can be "conformist-biased" where cultural traits are favoured because of their wide distribution in the population, or "prestige-biased" where representations are favoured

because of their adoption by the most prestigious and influential individuals. Prestige-biased transmission combines with conformist transmission to spread adaptive representations, and together these processes create the conditions for cultural inertia or change (p. 109). Henrich and Boyd find that strong attractors can increase the likelihood of discrete cultural traits. Henrich and Boyd also demonstrate that low fidelity in the replication of representations at the individual level does not preclude the high fidelity of replication at the population level. Finally, they show that prestige-biased transmission can lead to cumulative adaptation even when cultural transmission is inaccurate and representations are not discrete.

If we regard the kinescapes of fight-dancing as constituted by cultural representations, and simultaneously consider that (1) cultural representations can be constrained by the embodied brain and (2) the embodied brain can adapt to and transform cultural representations, then we can informatively and constructively ask the same questions as Sperber (1985:74-75): Why are some representations more successful than others in spreading throughout a human population? How do some representations remain relatively stable and become properly cultural? What formal properties make representations more easily comprehended and remembered and therefore more likely to become cultural?

Styles of fight-dancing from Indonesia and Brazil have developed in socially, historically and geographically unconnected groups. For the purposes of the current discussion, Indonesian and Brazilian fight-dancing can be considered discrete because their repertoires of music and movement are incommensurable. The straight kicks and punches of pencak silat seni, for example, would undermine the flow and game of capoeira. Similarly, the circular kicks and sweeps of capoeira would be quickly countered by the direct strikes of silek minang. The music of each style does not translate onto the other practices, and other philosophical views differ as well. Each style of fight-dancing exhibits a high degree of intracultural variation. The propagation of each style is primarily based upon prestige-biased transmission and transformations can accumulate in directions influenced by the teachers and the teaching methods. Ideally, teachers surround themselves with as many similar public productions of their art as possible to enhance conformist transmission and reduce the number of mental representations that take their art in unwanted directions. A density of diverse mental representations in the vicinity of

an attractor without the coalescence of public production may weaken the attractor (Sperber 1996:116).

Sperber (1985) has put forward a "Law of the Epidemiology of Representations" that applies to the cultural activity of non-literate societies:

> In an oral tradition, all cultural representations are easily remembered ones; hard to remember representations are forgotten, or transformed into more easily remembered ones, before reaching a cultural level of distribution. (1985:86; 1996:74)

If we were to test this law upon practices of fight-dancing, we could hypothesise that the repertoires of techniques and the pedagogies used to teach them are easily remembered ones; difficult techniques are transformed into more easily remembered techniques or forgotten before reaching a cultural level of distribution.

Practitioners of martial arts repeatedly assert that they intuitively seek the simplest techniques to employ because these are the most efficient and effective to put to use. To utilise Sperber's law as a hypothesis for musical and movement arts, however, does not cover the possibility that some difficult techniques and skills are acquired and maintained by certain practitioners who often form (or go on to form) the cultural elite of the art form. Downey, for example, observes that "many skills take a long time to acquire because they actually necessitate physiological change: stronger muscles, greater flexibility, more acute perceptual-motor ability, and slowly developed, incrementally learned patterns of behaviour" (2010:S33). Taking into account that elite artists exhibit skills far superior than novices and have developed an acute ability to identify and learn difficult techniques, our hypothesis must expand and we can propose that for elite artists there is a biological change (in order to acquire difficult techniques), and for novices there is a pedagogical shift (whereby difficult techniques are transformed or omitted).

One method to survey the hypothesis is to look at the average amount of time most practitioners learn a style of fight-dancing. If the majority of practitioners have only trained for a short period then a significant gulf likely exists between the skills of short-term practitioners and long-term practitioners. Skilled experts must undergo laborious and intensive years of training before acquiring the difficult and sometimes subtle abilities of their teachers. Long-term training not only fine-tunes reaction speed, strength and agility,

but in general it also incorporates the acquisition of more elaborate and complicated maneuvers. Difficult techniques, that Sperber's Law indicates would be forgotten or transformed, are often seen displayed by long-term practitioners who comprise the cultural elite. However, these highly-tuned skills are so idiosyncratic to each elite practitioner that they could hardly be considered widely distributed cultural representations. A continuum of cases exists between individual mental representations and widely distributed cultural representations. To what degree elite artists of the same style of fight-dancing exhibit the same shared mental representations is debatable and difficult to substantiate, but undeniably the public productions of the cultural elite elicit a prestige bias and serve as cultural attractors for novices to model their skills upon.

Although I did not collect quantitative data from novices during fieldwork, all fieldsites visibly contained a greater proportion of practitioners who had learnt fight-dancing for only a year or two than experts who had committed greater than eight to ten years perfecting their art. In West Sumatra, for example, almost all males over twenty years of age told me that they had learnt silek minang at one time or another, but infrequently was this for any substantial and continuous period over a year or two. In West Java, most Sundanese will be exposed to some kind of basic training in pencak silat when they are in primary school or high school. In Brazil, there was a constant flow of capoeira tourists who had trained little longer than a few months to a year before undertaking a brief sojourn of capoeira training in Salvador da Bahia.

With respect to the repertoire of skills and body accents, a high degree of variation was observable among elite practitioners within each style of fight-dancing. This variation was evident at shows, demonstrations and classroom teaching. Variation existed across styles, across schools of one style and across students of one school. The variation of expertise among elite practitioners was as varied as the awkwardness of beginners. Not only was the variation between experts observable, it could also be heard in the commentary of on-looking practitioners. The commentary from collaborative practitioners was often congratulatory, and the commentary from competitive practitioners was sometimes derogatory. In all styles of fight-dancing, the abilities of expert practitioners acted as attractors for novice practitioners with some movement styles easier for students to imitate than others.

Asking why some representations of fight-dancing were more successful than others in spreading throughout a human population is difficult to answer when there is so much variation between students in a single school. The distribution of representations across different groups offers much more accessible data. When comparing the distribution of silek minang and pencak silat seni, for example, the labour-intensive largely improvised-based teaching methods of silek minang were far less widespread than the repetitively indoctrinated solo choreographies taught by any one school of pencak silat seni. Silek minang schools generally extended no further than a village locality, while schools of pencak silat seni of any one particular group could be found throughout West Java and the archipelago. West Java had better infrastructure than West Sumatra and the proximity of pencak silat seni schools to the nation's capital meant that they were better positioned to participate in national festivals and profit from government funding. The growth and distribution of pencak silat seni schools, however, would not have been possible without the development of a standardised pedagogy, rigid training practices and a systematised routine. The choreographed formal properties of pencak silat seni ensured that the cultural representations being taught were easily comprehended, remembered and recited, and therefore more likely to become part of the shared cultural repertoires of participant.

Teachers of fight-dancing employed various techniques to ensure that the representations of their art remain relatively stable. Choreographing an art into stable cultural representations is the technique employed in pencak silat seni and to a limited extent in silek minang. Choreographing movements is by far the most efficient method of spreading stable public representations throughout a population. Telling stories and propagating myths that serve to assert personal authority is another technique that reinforces prestige-biased transmission. Festivals that bring together students in workshops guided by expert teachers are also a powerful way to motivate students to imitate the similar forms. In the improvisatory art of capoeira—which has spread more rapidly in Europe and the Americas than silek minang or pencak silat seni—teachers rely heavily upon authority-building stories, impressive displays of virtuosity and guided workshops by authoritative proponents. Competitions that emphasise a common set of parameters and judging techniques—such as the pencak silat seni contests in West Java—are yet another technique that brings proponents together in consensus-making events. Rejecting students whose abilities and skills went against the habitus that teachers were trying to establish or maintain was the most drastic and rarely used technique. The

creativity, charisma and skill of teachers, as well as their aptitude and commitment to scaffold the ability of their students (see Downey 2008; Downey 2010:S28), was possibly the biggest driver for representations to become stable and properly cultural.

8.5 Audio-visual technology and cultural transmission

Even before the advent of the internet, Sperber recognised that telephones, computers and information technology can affect the distribution of representations in human populations (Sperber 1985:76). In pencak silat seni, audio-visual technology commonly used to record performances poses a threat to the cultural authorities who risk having their choreographies (i.e. their intellectual property and intangible cultural heritage) copied by people who are not their students. Nonetheless, this risk does not seem to hold them back from allowing people to record their private training and their public performances. Knee-jerk reactions, however, are common when pencak silat seni practitioners see recordings of other people performing sequences they claim to have choreographed themselves. In one memorable instance, an elite Indonesian pencak silat seni artist had been paid by a foreigner to teach his skills on DVD. When other more senior members of his academy found out, they were upset that not only had this pedagogical material been sold privately without profits going to the club, the material had also been sold to a foreigner who had affiliations to a different Indonesian pencak silat seni club. The ownership of cultural material is heavily guarded and great emphasis is made by respectful and humble practitioners to pay tribute to their teachers.

Rather than being a static representation of the art, audio-visual media was sometimes used by pencak silat seni practitioners to improve their art. While recording in the field, I was frequently interrupted by practitioners wanting to see their own performances. When viewing the performances with them, they would sometimes remark on their routines and talk about what they did wrong or got right. On a rare occasion, a young practitioner dared to ask me if he could view a routine performed by one of the gurus. Later I was made aware that this student had wanted to learn the knife techniques of this guru but was denied the privilege. A much more interesting use of the camera, however, was during serious rehearsals generally in the lead up to a national championship. Practitioners who had the motivation and the means—more frequently those in West Java than those in

West Sumatra—would record their routines and then view their footage in groups to see what they could do better. Sometimes comments would be passed around about positioning on stage or the timing of musical sounds. In addition to this rehearsal-based use of the camera, professional recordings of performances were a marker of prestige. The distribution of recordings across the archipelago meant that choreographies could be copied. A choreographic reproduction was both a source of pride for the original choreographer and performers, but also a point of annoyance because of a frequent lack of recognition. However, I found it more common to encounter small sequences of movement that had been learnt from film than entire choreographies. Audio-visual recordings have a preservative value, but also play a constructive role in shaping cultural representations.

A slightly different use and response to audio-visual media was observed in Salvador da Bahia, Brazil. On one occasion during fieldwork, I was invited to watch a film recording of some famous capoeira mestres. The viewers, all capoeira practitioners themselves, engaged strongly with the footage. Among the few people present, comments were shared about style, strategy and skills, as well as remarks about the context of the recording and the history of capoeira. Other than this particular occasion, audio-visual footage did not appear to be an excessively popular medium in the living practice of capoeira. Some enthusiasts accumulated video material for some kind of private library, but again, this collecting was not part of the living practice of the art. Capoeira teachers mocked people who had learnt capoeira primarily through audio-visual material (although I was never actually introduced to any such purely video-taught practitioners myself).[34] Teachers insist that these copycat capoeiristas have no knowledge of the art, no understanding of the movements and no sense of the music. Additionally, I never saw capoeira practitioners use video-cameras as a training aid. In fact, using an audio-visual camera during training was strictly forbidden in every school I visited. Teachers were quite clear that they didn't want people copying their training methods. In the same way that pencak silat seni and silek minang practitioners may claim their choreographies as intellectual property, capoeira teachers claim their pedagogy as intellectual property. When I was permitted to film public capoeira events (quite regularly), I often encountered practitioners who asked to see their performances. In general, these were younger practitioners who wanted to indulge in viewing their acrobatics, or young children who

[34] I have met practitioners who began learning from video footage but eventually started training with a series of teachers.

simply wanted to engage with a novel piece of technology. Rarely was the engagement with the footage of the same intensity as that which I saw in Indonesia. Older practitioners preferred watching live performance and were very selective about any recorded performances they considered noteworthy. At capoeira events, however, DVDs of international festivals or noteworthy performances were sometimes for sale, but these DVDs were almost always outnumbered by the amount of CDs for sale. Audio-visual technology in capoeira could supplement prestige-biased transmission, but it did not replace the social experience of weekly training.

While audio-visual cameras commonly film public performances of capoeira, photographic cameras seem to have a much more comfortable artistic blend with the performance genre. These photographers openly and creatively shared their opinions about the difficulties and joys of shooting capoeira. The excitement of seizing the opportune moment in photography resonated with the principles of the art of capoeira. In contrast, silek minang and pencak silat seni practitioners more happily posed for photographs outside of performance to avoid the difficulties and errors of capturing a fleeting moment. Pencak silat seni and silek minang practitioners are interested in capturing the perfect image rather than the ephemerality of a unique moment. The difference in the desired use of photography in Brazilian and Indonesian fight-dancing is a reflection of the fact that capoeira is an improvised art while pencak silat seni and silek minang are choreographed performance arts.

As an interaction between technology and fight-dancing, the way audio-recordings were used was connected to the choreomusical relationships of each art. In West Sumatra, for example, silek minang only ever came together with music in performances for entertainment but the music and movement had no intrinsic relationship. Accordingly, no commercial recordings of music especially catered for silek minang were available. When I asked locals where I could buy a CD of silek minang music, I was met with some strange and confused looks. Music was a secondary consideration and had not been incorporated into the pedagogy of the martial art. In the mobilization of silek minang for global audiences, audio-recordings of appropriate music to accompany performances had been overlooked.

In West Java, recordings of kendang pencak groups could be found at market stalls. I am led to believe that these recordings were more common during the 1980s and 1990s and often included a mix of pencak silat seni music and popular dance music such as jaipongan. To my knowledge, many of these recordings were not designed specifically to accompany pencak silat seni training sessions or performances. In a strategic new use of music recordings that revealed itself during fieldwork, kendang pencak groups in collaboration with pencak silat seni schools have started releasing cassette tapes with specially designed soundtracks to accompany an academy's repertoire of preset choreographies. These cassettes were designed to aid standardization. If students deviate from the preset choreography, then their movements are out of time with the recorded musical track. An added benefit of these specially designed cassettes has been the popularisation of Kendang Pencak music to pencak silat seni schools around the globe. As a musical aid to recalling the movement, the cassette-tapes serve to standardise the choreographies worldwide and export another facet of Sundanese culture.

Recordings of capoeira music have been around for a long time. Walking through the Pelourinho district one day, I was surprised to meet a street-seller with an LP recording of Mestre Pastinha's music for capoeira.[35] Mestre Bimba also made recordings and these have been reformatted on CD and sold as an educational tool in the Escola da Capoeira Filhos da Bimba. These recordings are said to contain mistakes that Mestre Bimba purposefully inserted so that students still had to attend his classes to learn his art. Capoeira CDs are not intended to replace live musicians, but internationally the CDs are often used as a pedagogical aid and a last-resort for the accompaniment of public performances. The CDs can feature tracks with a range of different rhythms even though only one or a few of these rhythms are typically used in training and performance. Often artistic tracks will feature additional instruments and popular tracks with interpretations of Samba Reggae, Samba de Roda, Samba Funk and Maculêlê (all popular genres not appropriate for capoeira practice). More than just another source of revenue for capoeira teachers, the CDs are also an effective medium to advertise a group and build a reputation. Recordings are a valuable commodity for travelling teachers and a desirable possession for enthusiastic students.

[35] The seller evidently guessed correctly that I was a foreigner because the price of the recording went up to $R100 from the usual $R10, and then only went as low as $R50, so I didn't buy it.

As the movement art of capoeira has spread across the globe, capoeira music has travelled easily with it. This facility is evidenced by groups outside Brazil who produce their own CDs (e.g. Samara Capoeira, Amsterdam; Axe Capoeira! by Marcos Barrao, Canada, etc.), some of whom have even experimented with writing lyrics in their own native language (e.g. Capoeira: Seed of Freedom ~ Liberdade, by Mestre Jeronimo, Australia). Capoeira music has been exported easily because of its close union with the movements, the accessible rhythms and possibly by the fact that novices rarely have to recognize anything more than just the chorus of the songs and the speed of the tempo. By the time a foreign practitioner is asked to learn how to play the berimbau or sing the lyrics of the solo vocal-lead, they recognize the prestige of the skill and so they are driven by fresh challenges and new motivations. Capoeira is a popular art because of its participatory appeal. The music beckons people to move and over time, the music has an entrained hypnotic effect on the body.

In comparison to capoeira music, the music of Indonesian fight-dancing has not been exported as efficiently. Music for silek minang is almost non-existent internationally, and foreign pracititioners of pencak silat seni have still not mastered the complicated rhythms of kendang pencak. Music is secondary to movement in Indonesian fight-dancing, and practitioners are afforded no special status if they are adept musicians as well as movement artists. As a performance genre, however, pencak silat seni and kendang pencak have proven an effective combination because of the high levels of functional redundancy in multisensory stimulation. The addition of music to pencak silat seni makes the performance more theatrical and accessible to audiences. Testament to this appeal is pencak silat seni's frequent appearance as a performance art accompanied by music at national and international festivals. Punches accompanied by slaps of the drum and virtuosic displays of movement accompanied by the shrill double-reed tarompet all contribute to the emotional and visual spectacle of pencak silat seni.

Audio, visual and audio-visual technologies all contribute to the constructive and preservative processes that facilitate the cultural propagation of practices of fight-dancing. The use of these technologies can assist the spread of cultural arts, but they can also bring anxieties and potentially open an art out to an infiltration of representations that are at odds with the intellectual property of native artists. Elite practitioners are still negotiating what technologies they feel comfortable with and how they can make most

use of them. The internet has been a particularly useful resource with blogs, YouTube videos, social networking sites, photo albums, online shops and private websites for academies all being harnessed to spread practices of fight-dancing around the world. The internet has become a site of active exchange between international devotees and travelling teachers. All of these resources tap into a global tourist industry that affords local artists opportunities to put their culture on display (Tilley 1997:73) and to put it up for sale (Christen 2006:435). Today, practices of Indonesian and Brazilian fight-dancing have been featured in movies (e.g. *Merentau Warrior, Only the Strong, Meet the Fockers, Ocean's Twelve, The Rundown, The Quest and Batman*), television commercials and video games (e.g. *Pencak Silat, Pencak Silat 1.2, Tempur, Pendekar, Eternal Champions, Dark Resurrection, Street Fighter III, Fatal Fury, Rage of the Dragons, World of Warcraft, Bust a Groove, Pokemon Hitmontop, The Matrix, WWE Smackdown, Here Comes the Pain, Tekken 3, 4* and *5*). As practices of fight-dancing intersect with new forms of media, the kinescapes expand and become more porous in irregular and mutable ways.

8.6 From Indonesia and Brazil to Around the World

> The complex and dynamic nature of capoeira reveals itself in its accelerating process of globalisation. It is expanding horizontally, down the pathways and folkways of capoeiras throughout the world, and vertically, through its demonstrated capacity to permeate different social strata. Although we still hear it repeated that this is something of 'our own,' which, if true, would make Brazilians the exclusive purveyors of its 'mandinga,' the experience we've documented… shows that this line of reasoning is most easily couched in terms of conflict and ambiguity. Capoeira may very well be 'our own' Brazilian thing, but to the extent that it can also be taught, practiced, transmitted, constructed, shared, imparted and multiplied, it also belongs to the world. (Fàlcão 2006:132)

In recent decades, capoeira, pencak silat seni and silek minang have enjoyed international growth. Fàlcão (2006:127), Delamont and Stephens (2008) and Downey (2010:24) recount that the spread of capoeira training in Europe and the Americas gained considerable momentum in the 1970s. "The spread of capoeira out of Brazil since 1975 could be characterized as a form of globalization, and the use of capoeira by multinational companies in video games and advertising reinforces that" (Delamont and Stephens 2008:60). Coincidentally, the national expansion of Indonesian fight-dancing also continued internationally since 1975 (Maryono 1998:103; Maryono 2002:99). A

systematised style called Silat Perisai Diri, for example, was already “practiced by almost 75,000 exponents throughout Indonesia and [had] international devotees in The Netherlands, France, Italy, Canada, the United States of America, and Australia” (Quintin and Draeger 1978:12). Incontrovertibly, practices of fight-dancing have been conspicuously "swept up by globalisation" (Meneses 2009:1). However, globalisation is nothing new to practices like capoeira that evolved through dynamic intercultural exchange in port-cities of Brazil in the nineteenth and twentieth century (see for example: Assunção 2005; Talmon-Chvaicer 2008); nor is it new to the practices of silek minang and pencak silat seni which developed in the culturally-porous islands of the Indo-Malayan archipelago that have long been joined by significant sea-trade (see for example: Draeger 1992:32; Maryono 1998).

The term ‘diaspora’ is commonly employed to speak of forcefully dispersed migrant populations who maintain ties with their countries of origin (Inda and Rosaldo 2008:40fn27). Delamont and Stephens (2008) use the term diasporic to designate the experience of self-exiled Brazilians who have spread capoeira to the rest of the world. At present “capoeira classes across the world are taught by expatriate, self-exiled Brazilians to students who are enrolled into ‘schools’ of capoeira that are still based in Brazil” (2008:60). In Delamont and Stephens’ interpretation of diaspora, silek minang and pencak Silat are just like capoeira which they say is “globalized, has glocal forms and is also diasporic” (Delamont and Stephens 2008:61). International workshops, competitions and performances are popular gatherings that ground shared culture in embodied experience. Participation in these events facilitates practitioners of any one art form and from any locality to recognise themselves “as members of a community, of a common body” (Jackson 1983: 338 quoted in Wilson 2009:12).

In the simultaneously occurring diasporas of fight-dancing, some self-exiled teachers never return to their homeland while others sojourn to their sending community either sporadically or regularly. Those self-exiled teachers who maintain ties with their homelands can be conceived as ‘transmigrants’ who are concomitantly incorporated within more than one society (Brettell 2003:54; Schiller, Basch and Blanc, 1995:48). Their livelihood can be enhanced by or come to depend upon multiple and frequent interconnections across international borders. Sometimes, self-exiled teachers, concerned about maintaining continuity in the training schedule of their students and the income of

their school, choose to invite guest teachers from their homeland rather than return themselves. If a teacher takes a leave of absence away from his or her school, then that teacher has to either leave another person in charge (often a trusted student) or leave the training hall empty for a period of time. Student numbers can dwindle and income is potentially compromised. Teachers often expressed the difficulty of revitalising their school if they had not sufficiently prepared their students prior to a leave of absence. Often it can take a lot of time and effort before a teacher feels comfortable leaving his or her school for a period of time. Diasporic schools of fight-dancing are hard to maintain if teachers want to retain a strong connection to their homeland.

Native teachers are not the only people involved in the social, cultural and economic exchange between the sending community and the host society. Nor are they the only people responsible for the international spread of fight-dancing. Foreign practitioners who repeatedly participate in international festivals or move back and forth from the homelands of silek minang, pencak silat seni or capoeira, can find themselves simultaneously embedded in multiple communities. In fact, some foreign practitioners have even become recognised teachers among their native peers. However, in general, the native viewpoint is revered among fight-dancing communities. Native practitioners assert their cultural dominance and superiority in attempts to bias the cultural flow of their arts. The impression they leave on practitioners and the general public would suggest that their efforts are generally successful. Nonetheless, homeland as the site of cultural heritage has been transformed from a place dominated by local practitioners to an epicentre of transnational flow where what is recognised as constituting the 'common body' is potentially open to negotiation.

In the context of globalisation, travelling practitioners become tied to cultural spaces that are no longer clearly defined or bounded (cf. Clifford 1992). In practices of fight-dancing, transnational networks of exchange and participation are grounded upon perceptions of shared identity that are made possible through common repertoires of movement. In this context, individual practitioners and groups of practitioners, as Vertovec points out (2001:573), simultaneously negotiate their own identities within social worlds that span more than one place. As Liu (1997) states, "Travelling not only raises questions about integration of and conflict between different social, cultural, and economic spaces but also arranges and rearranges these spaces in certain ways through which social power and

cultural knowledge are produced" (p.94). The social inversions of capoeira (see Browning 2001), for example, pan out across the globe, and mestres contend with new institutional structures (insurance laws, business laws and economic practices) and face the challenge of training foreigners who may eventually become experts themselves. The identities of mestres and students are reshaped by travel and transnational movement, and the capoeira training hall can be a site of tension for representations of capoeira and affirmations of Brazilian-ness.

Teachers and performers across and within styles of fight-dancing compete for students and audiences, both locally and internationally. An increasing number of people participate in the 'imagined realities' (Indo and Rosaldo 2008:13) and 'institutional habitus' (Wainwright, Williams and Turner 2006) of fight-dancing groups and the activities are regulated by formal and informal codes of control. The 'constructed fidelity' of each group's cultural authenticity is vital to the economic and cultural trade of skills. If the representation of cultural heritage and identity is static, then purveyors of this heritage have to seek robust ways to maintain the representation they promote. In Indonesian fight-dancing, representations are maintained by choreographies that have been created out of once improvised forms, or by students who have through an initiation pledge "submitted themselves absolutely to the authority of their teacher" (Wilson 2009:97). In Brazilian fight-dancing the representations are constantly negotiated, but those who participate in the process of negotiation are carefully (but not always courteously) monitored by the cultural elite of the capoeira kinescape.

French anthropologist De Grave (2001), writing about Javanese pencak silat, observes that there has been a delocalisation of pencak silat practices from the houses of the masters to the practice-halls and gymnasiums of trainers. This model has been adopted by "progressive schools" as pencak silat historian and expert O'ong Maryono calls them (1998: 118). The consequence, as De Grave sees it, is that young trainers are deprived the opportunity for true apprenticeship, lack a density of experience and are psychologically unprepared within the framework of the task of transmission. In the systematised teaching model adopted by progressive schools, practitioners typically rehearse movements in groups. Most schools have an identifiable hierarchy, maintaining a centralised organisation and a deliberately preserved curriculum. The highly systematised movement curriculum means that training methods are uniform across teachers, techniques are

accessible to beginners, and a stabilised cultural representation is sustained. In this system, sequences of movement are compartmentalised and retransmitted in digestible but decontextualised portions. The nationally approved teaching model spreads movement material and dilutes the accompanying regional philosophies. However, the choreographies are stable cultural representations which aspiring students can replicate and in turn teach to others. The disadvantages of this training model are counterbalanced by the fidelity of techniques, an amplification of the socialisation process and the rapid acquisition of movement material. Choreography provides a robust package of movements skills primed for cultural trade and optimal cognitive acquisition. This physical culture is endorsed by political and economic agencies. In the mobilisation of Indonesian fight-dancing for globalisation, systematised choreographic sequences that exploit semantic memory processing in the brain are proving more effective in distributing culturally orchestrated movement repertoires than conventional teaching methods which were collaborative, labour-intensive and apprenticeship-based.

Indonesian practices of fight-dancing have tended towards choreographed arts prepared for the performance stage. The direct punches, lethal kicks and dangerous locks and holds impede improvised performances, especially among novices. The risks of injury, deflated egos, and inflamed disputes are too high. Brazilian capoeira, on the other hand, is an improvised art form prepared for the roda. The circular movements mean that practitioners can enjoy the thrill of participating in an unplanned performance without too much fear of serious injury. Nonetheless, capoeiristas do put their prestige and reputation into play every time they participate in a roda. The personal and embodied investment on behalf of capoeiristas is an important factor in understanding the comportment of mestres who teach an improvised art. Their art is "a creature of freedom" (Lewis 1992:8) and resists boundedness, and yet a capoeirista's status grows the more he or she can enclose others in the boundaries he or she imposes.

Capoeira lacks the initiation pledges and systematised teaching methods of traditional silek minang. Moreover, the anxiety that surrounds cultural authenticity and efforts to maintain stable cultural representations in practices of capoeira is expressed in manners and means different to those seen in both silek minang and pencak silat seni. For example, when Downey (2005) started training capoeira in several different academies in Salvador da Bahia, he had been warned by several mestres that "this was unsustainable:

conflicting instructions would lead me to develop an incoherent style" (Downey 2005:51). Undiscouraged, but exhausted by the physically grueling training schedule he had set himself, Downey eventually settled upon training in two academies but, as he writes, "...my overlapping loyalties were discovered, and the rival mestre noisily expelled me" (p.53).

Little uniformity exists between schools of capoeira and individual Mestres struggle to assert their own interpretation of the art. Students who are seen to be reproducing divergent styles of capoeira are discouraged, sometimes in subtle unspoken ways, and other times using aggressive or humiliating means. The positive controls of initiation are replaced by the negative controls of refutation.

Capoeira, as an improvised art form, faces different challenges to choreographed art forms in maintaining a coherent expression of itself. There are no clear-set choreographies upon which students can model their movements. Although a teacher may regularly employ certain sequences of movement in lessons, there will generally be an exploration of the movement possibilities that flow from these sequences. "Variation is inevitable", Downey writes, "The more fully a student embraces the art and pours his or her own creativity into the game, the more likely capoeira is to take new forms, albeit unintentionally" (p. 51). In the struggle for livelihood, income and status, mestres assert their authority as cultural purveyors and control variations. Mestres find it important that students emulate the same role models so that the implications of movements are socially sanctioned and that adepts have a tight understanding of how to play together. Charisma and physical ability combine to set the standards.

Mestres preferably work with their students over a long period of time so that styles can coalesce and the performative aspects of capoeira are more fluid. The high prices imposed upon capoeira tourists (visiting students) compared to the lower fees that long-term students pay evidence more than profiteering. Visiting an academy for a short period of time is unfavourable to the development of a group's art. Capoeira tourists demand more of a teacher's time and are more likely to make transgressions that may be allowable in some groups, but are shunned in others. In the maintenance of a coherent cultural representation, noncompliant practitioners can be coerced to comply or excluded from

capoeira academies. Mestres seek students who can commit their time, will seek their approval and who can be trusted to showcase their work.

Practitioners of silek minang, pencak silat seni and capoeira, have all found their solutions to negotiating the tensions that arise between global and local elements, and they have also found ways to capitalise on increasing globalisation. Gurus and mestres juggle with the comfort of remaining folk culture "produced and consumed by the people" and the general attraction of becoming 'popular culture' "something which is not really 'of the people'" but "consumed by large numbers of people" (Hollows and Jancovich 1995:2). With the introduction of foreign alternatives to artistic and leisure past-times, teachers find themselves competing for students who are offered a greater amount of choice. Gurus and mestres, thus, begin to start thinking about the sustainability of their livelihood and the ongoing propagation of their art.

8.7 Glocalisation and diaspora

Friedman (2006) redefines "glocalization" to mean "how outward (a) culture is: to what degree is it open to foreign influence and ideas," and argues that "the more you have a culture that naturally glocalizes—that is, the more your culture easily absorbs foreign ideas and global best practices and melds those with its own traditions—the greater advantage you will have…" (Friedman 2006 quoted by de Blij 2008:198). While this may be true from an economic perspective, it may not hold true for those who trade in their intangible cultural heritage. Gurus and mestres absorb some 'foreign ideas' and 'global best practices', but to a more notable degree they exert their own ideas and practices unto the world. Sure, some global practices have been melded with local practices of fight-dancing such as imposing membership fees, incorporating grading systems, issuing a standard uniform, and regulating class timetables (for activities once practiced at leisure). However, Downey has observed in capoeira that these introductions are little more than "cosmetic changes" (Downey 2008:206), and such an observation is true of silek minang and pencak silat seni as well.

In the extreme picture of globalisation, some scholars are concerned that potentially cultures become homogenised as they "step by step assimilate more and more of the

imported meanings and forms, becoming gradually indistinguishable from the center" (Hannerz 1991:122). Counter to this prospective scenario, gurus and mestres are not allowing their arts to become homogenised into overarching foreign practices. They have found it profitable and empowering to assert the 'boundedness' of their cultural arts amidst intensifying globalisation. By defining the localities of fight-dancing, academies in Brazil and Indonesia have become places of pilgrimage for foreign practitioners and as such, concepts of centre and periphery are reversed. Downey, for example, calls Salvador the 'Symbolic cradle of capoeira' (2010:24).

Attempts to glocalise and accommodate foreigners in the pencak silat world are evidenced by Pätzold who in 2005 noted that the music of Pencak Silat was abolished from an official international tournament in an attempt to give foreign contestants more of a chance at winning their category. Judges noticed that foreign practitioners had good technique, but their ability to synchronise with the music was lacking. They attempted to level the playing field by omitting the part that gave indigenous performers an advantage. The music of pencak silat has long been a substantial part of public performances in traditional and modern settings, and so the decision was "highly contentious" (Wilson 2009:110). Regional competitions, such as those coordinated by the PPSI (*Persatuan Pencak Silat Indonesia*) in West Java, still continue to feature music as part of the competition. The decision to exclude music from an international competition exemplifies the Indonesian spirit to include foreigners and acknowledge everyone's achievements. Interestingly, the decision did not make foreigners apathetic to the role of music. In 2009, I was thrilled to discover that pencak silat groups in Amsterdam and Groningen in Holland have acquired Sundanese instruments and are learning the various *tepak* rhythms of pencak silat seni.

The social orchestration of cultural reproduction in capoeira contrasts with the systems used in silek minang and pencak silat seni. In the capoeira schools of Salvador da Bahia, as a general observation though not always an immediately obvious one, there is a shaded acceptance of foreign students who come and go with frequency. Schools of capoeira often raise their prices for foreigners and do not always include foreigners in the post-class discussions. Nonetheless, foreign students are still expected to take part in cleaning an academy before class and preparing the space by moving furniture etc. The sentiments of more than just the occasional foreign student indicate that they often feel placed at the

peripheries of the art—permitted to perform the dirty work, treated "like a bank",[36] but whose etiquette and efforts were rarely socially acknowledged. The apathy towards foreigners, subtle mockery aimed at them, and their exclusion from intimate dialogues about group activities and philosophies, are all protective strategies on behalf of Brazilian locals. This screening process weeds out the weak-willed and is often interpreted as a test by foreigners—one of many in the journey of a capoeira player.

As much as Brazilians appear to want capoeira to be a one-way export, the participation of foreign students in training sessions and performances is a two-way exchange. Brazilians try to bias this exchange, but as soon as someone becomes adept and confident in capoeira, their skills are physically incorporated in the process of art-in-the-making. Before becoming adept though, foreign students in capoeira schools face a difficult task of trying to understand how to display the style and aesthetics of an improvised game that meets the approval of their teacher and their peers. Their acceptance by local practitioners is largely contingent on being able to master these cultural nuances, but even then acceptance is not guaranteed.

Even if a practitioner can play a convincing game, the practitioner's behaviour and mannerisms outside of class are important to gain acceptance. These difficulties, to some degree, are little more than a cultural barrier for foreign students to understand. Local students enjoy little better treatment. Any student can spend years climbing the social ranks and proving themselves physically and musically before a mestre accepts them as a serious practitioner. The screening process means that students who eventually gain respect usually endure many years of arduous entrainment. By the time a foreign student passes through this process of enculturation, their movement sensibilities and perceptions significantly overlap with those of their native colleagues. The duration of this screening process is different for each practitioner, and not all practitioners accept it and stick around. While the distance that foreign students have to travel to Brazil may be compressed due to developments in transport technologies, the limited duration they can stay in the country can add difficulty that compounds the screening process.

The general response of indigenous practitioners to increased international student flow has been different in Indonesia and Brazil. In Indonesia, foreign practitioners of pencak

[36] A foreign practitioner expressed to me her frustration by saying that she sometimes felt that Bahian capoeira teachers saw her as a "Bank" from which to make monetary withdrawals rather than as a person.

silat seni and silek minang are either accepted or they are not. The secretive groups of silek minang in West Sumatra, for example, elude foreign intrusion. Progressive schools, on the other hand, greet foreign interest with a fierce willingness to share their choreographies and export their cultural product. By way of contrast, teachers in Brazil generally accept foreign students, but are more wary about how they embrace them. The choreographed movements of silek minang and pencak silat seni are taught accompanied by supportive behaviour, while the improvised movements of capoeira are transmitted with apprehension and a guarded demeanour. As an extreme example, a foreign student performing pencak silat seni before a crowd in Indonesia might make mistakes but will still be greeted by encouraging smiles and applause, whereas foreign students of capoeira are rarely offered the equivalent encouragement in Brazil. One overarching element of globalised practices of fight-dancing in Indonesia and Brazil is common though: foreign students are asked to submit and subscribe to the cultural authority of locals.

Gurus and mestres act as examples and reference points for the physical education of their students. In any school of fight-dancing, if stochastic acquisition is unacceptable, or if a practitioner makes a mistake, or if a foreign influence is detected, then the teacher will correct the deviation. In my experience, correcting students was more polite and less abrupt in Indonesian classes than Brazilian classes. In choreographed pencak silat seni, the corrections are also more easily accepted by the student because there is a clear mapped-out form to which the students aspire. The improvised movements of capoeira, however, leave themselves more open to debate and there can be less of a consensus of accepted models. Choreographing the movements of Indonesian fight-dancing has been, as it turns out, a relatively stress-free solution to maintain stable cultural representations and avoid arguments. Choreographies are not open to negotiation. They are products to be acquired. Additionally, choreographies are prepared for the performance stage and rarely face the challenge of an improvised game with an unknown partner.

In West Sumatra, some Gurus cling to their ideas of tradition and criticise progressive teachers who they see as selling cultural secrets to foreigners—a practice advised against in some silek minang teachings for example. Alternatively, the conservative teachers see the progressive teachers as teaching an incomplete and imperfect set of skills. Gurus who believe that their tradition should only be taught within their community, and truly adhere to their ideals, evade discovery by tourists. Some Gurus use the story of secretive

traditions to advertise the specialness of their classes. Outside these debates, the progressive Gurus who embrace modernity are generally pleased to make connections, share their choreographies and gain notoriety or monetary reward. Students who are welcomed into these schools are normally surrounded by a warm atmosphere of acceptance.

Compared to the remote highlands of West Sumatra, the local infrastructure of West Java makes places like Bandung more accessible to travellers. Foreign practitioners of pencak silat seni are frequently welcomed in the homes of local pencak silat seni students and teachers. The Sundanese are proud to share their art. The possibility of winning over a new patron is also an undeniable incentive. In a social sense, the presence of a foreign student under the apprenticeship of a Guru indicates that there is external recognition of the Guru's skill. If that foreign student publicly performs choreographies taught by the Guru, then it brings further prestige to the Guru and the school. The Sundanese show little fear that pencak silat seni will suffer as a consequence of foreign influence. The material is taught as choreographed movement and thus resists improvised changes by novices. The export of progressive forms of pencak silat is seen as a one-way process, from Indonesia out to the rest of the world.

The attitudes, behaviours and concerns surrounding a choreographed art are different to those involved in the transmission of an improvised art. An improvised art is susceptible to change. "Coaching and individual discovery can cause capoeira to develop in different directions, even into different styles" (Downey 2005:51). Teaching an improvised art, while trying to stabilise the character of its reproduction, is accompanied by a number of hassles. Students are taught to improvise, but are pressured to limit innovation. "Creativity—or what some might call 'rule bending'—requires that a player have acknowledged expertise… Also necessary is the sensitivity to gauge how novel a variation can be before it jeopardizes the game's dynamics" (Downey 2005:108). To ensure the fidelity of cultural reproduction, capoeira mestres exert a social and psychological control over their students in ways found unnecessary for gurus of choreographed forms of pencak silat.

Every time a practitioner performs capoeira in public, the art-in-the-making is being contested. The boundaries of the art are potentially open to question at any moment.

Social codes control what un-choreographed movements cannot. During performances, mestres keep a constant watch on the game and habitually lead the orchestra so that they can control the practitioners who may play on the boundaries (intentionally or unintentionally). Practitioners need to have developed an acute sensitivity to the situation of any performance so that they understand the constraints of improvisation. Indeed, most practitioners are conditioned by social and psychological treatment during training. Mestres exert a strong control on the practices they will accept in their academy and the practices they will not accept. During a performance, if a practitioner is unaware of the demands and liberties of any situation, then the mestre will pull them into line. In the process of art-in-the-making, "…if the mestre guiding the roda doesn't want impressionable novices to see too much variety, a player has less latitude to improvise" (Downey 2005:108). Whether it is through controlling players with words in the training hall, with music during a performance, or with mockery during physical engagement, mestres assert their authority as a means to ensure a fluid cultural reproduction of their art.

Indonesia and Brazil are the centres of pencak silat and capoeira respectively. Other countries form the periphery. Different styles of fight-dancing and martial arts have been resistant to potential homogenisation into one overarching 'fight-dance' practice. Indeed, the presence of martial arts dictionaries and encyclopaedias with distinct categories and genres attests to the fact that these arts have maintained their bounded identity. Globalisation has not meant homogenisation, but rather greater exposure to heterogeneity. Gurus and mestres acting as cultural authorities, craft their exports and monitor any imports. They constantly and painstakingly drive, dominate and oversee the content of their training classes. Glocalisation is consciously monitored and is much more complex than Friedman (2006) frames it.

The practitioners of any embodied practice in even the smallest communities will exhibit a variety of skills. The spread of an embodied practice through globalisation further diversifies the skills that may fit under the umbrella of that practice. Any two practitioners who wish to engage in the same practice must agree on a common set of skills. Maintaining any semblance of a stable cultural expression is an increasingly difficult demand as practices spread around the globe. Teachers may accommodate for these difficulties through modifications in their personality, in their behaviour, or by

changing the formal properties of the musical and movement material they teach. Globalisation brings opportunities, but it also brings anxieties, insecurities and ambiguities.

Transnational flow makes distinct cultures harder to identify. In genres that constitute part of the intangible cultural heritage of transnational communities, transnational flow can pose a problem for representing identities, for controlling these representations, and for developing bounded ideas of cultural heritage. In particular, transnational flow can create challenges for artists who promote static cultural representations tied to place because "Place becomes thoroughly penetrated by disembedding mechanisms, which recombine the local activities into time-space relations of ever-widening scope" (Giddens 1991:146). Cultural activity that self-promotes and relies upon its ostensible integrity and relative stability depends upon actors who find ways to circumscribe the fuzzy boundaries of their own activity.

8.8 Special Forms of Body Modification

The cultural epicentres of silek minang, pencak silat seni and capoeira are opening up to ever wider international influences. These practices find themselves in contact with a plethora of potential influences within their homelands. Concurrently, these practices have also been travelling abroad where they initially find themselves unanchored to the different social contexts of their new localities. The dynamics of this spread with respect to different styles of fight-dancing may be related to their improvised or choreographed basis, the participatory or passive appreciation of the performances, and the formal properties of the signature pedagogies of each school.

If fight-dance training is considered as a very special form of body modification—though one that requires regular immersion, disciplined practice and systematic maintenance—then we can turn to studies of body modification for one final insight. In a study of body marks, Turner (1999) posits that "Globalisation has produced a mélange of tattoos which are ironically self-referential and repetitive" (p. 40). Although not specifically a body mark, training in fight-dancing does modify the body (see Downey 2005). If being repetitive and self-referential is connected to the production and reproduction of body

marks in globalised societies, then we may ask: is being repetitive and self-referential involved with the construction and transmission of an embodied practice? Repetitive body practices would certainly include training methods such as those used in pencak silat seni to learn choreographies almost as if by rote-learning. Repetitious movement training is also used in capoeira to learn specific techniques. Repetition is connected to the facile distribution of an art. Being self-referential may also play a part in the way an embodied movement art is distributed.

Hughes-Freeland claims that dancing "produces persons who themselves are active producers" (2008:237). Consider if you will, that training silek minang will over time produce a silek body and that training capoeira will in due course produce a capoeira body. In West Sumatra, the silek body is weakly associated with changes in physique but with changes in manner and comportment. These personality changes have strong cultural significations. The silek body affords social status and indicates a certain kind of culturally valued sensibility. In Brazil, the capoeira body refers strongly to physical attributes and less strongly to social attributes such as the cultural stereotype of a cunning personality. The capoeira body is generally fit, lithe and athletic. The silek body makes references to cultural codes; the capoeira body makes reference to a body practice.

The various traditions of silek minang make reference to and are integrated with local aspects of cultural activity. In Indonesia, the silek body is not necessarily slim or athletic. The signs of silek minang training are inward, involve symbolic actions, and require a culturally sensitive audience in order to be perceived. Silek minang practitioners do not need to be physically fit but simply capable of producing the gestures laden with cultural meaning. The vast interconnectedness between silek minang and cultural points of reference means that elaborate movement sequences have the strongest import within their original context. The products of silek minang training are not expressed in the body but through culture-specific actions and gestures. Symbolic gestures that have a strong cultural value but little self-referential value are not easily understood or transmitted outside their original context. Techniques that are self-referential and understood in and of themselves are more easily transmitted.

Pencak silat seni practitioners, like silek minang practitioners, do not always require a high level of fitness and practicing the art is imbricated in social processes, cultural

signification and community events. Through national forces and following global trends, however, teachers have been adapting pencak silat seni to become a distributable embodied practice. During fieldwork in West Java, I participated in a discussion with two old masters of pencak silat seni who were lamenting the loss of a movement called *jalak pengkor.* This movement involved someone walking properly on one foot but only on the heel of the other foot. The movement is a stylised interpretation of someone feigning an injury to their foot. According to the old masters, the movement also signified an extinct fighting style where a knife was concealed between the toes. The two old masters recognised this technique as highly lethal and were disheartened that young pencak silat seni practitioners no longer performed this technique. The decreasing popularity of this movement is perhaps an example of a shift towards an increasingly self-referential practice of fight-dancing. Jalak pengkor is entangled with cultural signification that would go over the heads of most audience members and many students. Where the movement of jalak pengkor has not been crystallised in choreography, it has been forgotten. Movements with more inherent meaning within the practice are favoured over movements reliant upon social justification.

Evidence of the push towards an increasingly self-referential practice of pencak silat seni can be seen in the loss of referential body gestures within the art and also in the rise of competitive events specifically designed for the art. Pencak silat seni competitions are popular in West Java and create a space for performance that is not reliant upon external social occasions. Competitions reinforce themselves rather than contributing to an external event. Additionally, competitions create internal systems of reward among social networks of practitioners. By creating internal reward systems, the art becomes more autonomous and self-affirming.

Compared to silek minang and pencak silat seni, capoeira is largely self-referential. The self-referential physical signs of capoeira are better disposed for international distribution than the socially-embedded signs of silek minang. The self-referential character of capoeira is both a product of capoeira's eclectic origins and a catalyst for capoeira's subsequent international spread. The physical signs of protracted capoeira training are visible: developed biceps, upper body flexibility and a robust physique. The techniques of capoeira are understood within the movement system itself and do not require any cultural point of reference for meaning. The movements are acrobatic, artistic and

visually entertaining. Beyond entertainment value, the point of reference for understanding capoeira movement comes from training capoeira itself. The art of capoeira is, to repeat Csikszentmihalyi's term (1990), autotelic.

Capoeira was born from decontextualised practices to begin with and was freed of cultural constraint when a musical and movement system acquiesced from the amalgamation of other disparate practices. When the music and movement of capoeira became formalised, the sounds and actions had to be self-referential in order for people from diverse cultural backgrounds to create a commensurable bodily dialogue. The sounds and actions of capoeira did not indicate or define elements of the social cycle and so the practice was free to become optional, playful and ironic. To suggest that capoeira went global after mestre Pastinha took his students overseas for a presentation in Angola during the 1960s overlooks the fact that capoeira was global in its origins. In globalised practices, the linkages between bodily actions and social processes are broken because the practices are disembedded from their original context.

In locations abroad, training in fight-dancing offers physical skills but has little social signification other than as a sign of free time and wealth through the conspicuous consumption of a commodified practice. Internationally, athletic bodily practices are associated with fitness and physique. Body practices that produce muscle growth, tone and suppleness are more readily recognized for their attributes than body practices whose products are hidden and entangled in cultural signification.

In the transient space of a globalised world, body practices and social roles are not necessarily linked. A university student practicing pencak silat in Holland is not required to perform any social tasks as a result of training in a martial art. In a localized context, however, a young Minangkabau student training with a revered master of silek minang may be expected to take part in a performance at a local circumcision ceremony, a religious festival or an inauguration event. In West Java, where pencak silat seni has more successfully spread across the archipelago and overseas than silek minang, we see evidence of how embodied practices have moved towards becoming self-referential through the development of self-serving competitions and in the construction of performance arts. Globalised embodied practices typically become narcissistic and

playful signs to an interior biography, a biography that is usually only comprehensible to others who actively co-construct a self-referential and repetitive kinescape.

Capoeira, pencak silat seni and silek minang offer interesting case studies of intangible cultural heritage in the context of globalisation. They provide examples of very specific types of mixing that occur between local and global elements. But, as Eriksen states, "It is not sufficient to point out that mixing does take place; it is necessary to distinguish between different forms of mixing" (2007:167). The processes of globalisation cannot be considered as strictly unidirectional or uniform in their penetration. As embodied practices spread to include more participants in dispersed locations, some elements travel, some are changed, new elements are introduced, and others are overlooked. With the increasing use of transport and electronic media, the cultural worlds of various fight-dancing traditions have been able to develop and maintain coherency throughout dispersed schools. Preservative mechanisms are important to those who trade in the export of their culturally-orchestrated skills, and asserting authority within the kinescape can introduce centripetal forces to socially organised repertoires of skill. Globalisation is a fascinating laboratory for the transmission of embodied skill and we are only beginning to comprehend the dynamics of kinescapes around the world.

Chapter 9: Conclusion

Danced martial arts are not common to every culture. They have arisen within only a small number of communities, through particular kinds of interaction, under heterogeneous conditions. Indonesian and Brazilian practices of fight-dancing offer but a few examples of the kinds of formations that are possible. The movement repertoires and musical arrangements in each case are distinct. Additionally, the esteem and acceptance of these activities within each society is notably diverse. While fight-dancing in Indonesia is strongly associated with social customs and deeply entwined with regional cultures, fight-dancing in Brazil is a more autotelic and self-perpetuating activity.

As illustrated, fight-dancing in Indonesia has an established place in local festivals. Practitioners of fight-dancing in Brazil, on the other hand, create their own space for performances regardless of whether these contribute to public events or exist independently. As pencak silat becomes nationalised and spreads across the globe, it too is becoming more autotelic through the creation of national and international competitions. Autotelism distances a practice from various social constraints and frees it from cultural parameters of significance and control. When embodied practices have meanings in and of themselves, without the need for an external cultural reference point, then they establish autonomy and are able to spread more easily. Self-contained and self-sufficient forms of fight-dancing are more transportable to new audiences—an observation that broadly explains capoeira's relatively wide distribution in comparison to the spread of Indonesian styles of fight-dancing.

Looking at the history of Indonesia and Brazil, both countries have a colonial past. They have been situated, to borrow the words of Lewis (1995:230), "somewhere between the West and the rest." In Indonesia, Dutch traders were reluctant colonial masters to whom indigenous populations became subordinate. Indigenous populations in Brazil were subordinate to the Portuguese who in addition brought African slaves to work in the colony. Colonialism may not have been a direct catalyst for combining music, dance and martial arts, but colonial cities may have been a vibrant meeting ground for cross-cultural interactions and intercultural exchange. Indonesian fight-dancing is derived from indigenous practices in the midst of global influences and political trends; Brazilian fight-

dancing, in contrast, is a confluence of African, European and native Brazilian elements that amalgamated from community-driven practices.

In multicultural settings, music certainly tempers otherwise confrontational displays of fighting skills. Simultaneously, music can excite an audience to give fight-dancing a place. When combat gestures are tempered and the audience excited, performers and spectators can find complicity. Through this dynamic, music in some communities may have become a convention by which fight-dancing was permitted to occupy a public space. Indonesian percussion orchestras and woodwind accompaniment successfully turn exhibitions of combat skills into public entertainment. Of course, in Brazil, expressions of African music went through a phase of constabulary oppression in the nineteenth century. Challenge dances like batuque and early forms of capoeira were correspondingly targeted. However, berimbau musical accompaniment to twentieth-century capoeira no doubt established for audiences the difference between fight-dancing and all-out brawling. Beyond large-scale generalisations, however, any practice of fight-dancing has to be discussed with respect to the social and political dynamics of each locality.

In West Sumatra, silek minang arose through a pedagogy tied to matrilineality that is now combined with traditional music on stage to preserve cultural heritage, promote Minangkabau identity, and reinforce regional status within Indonesia. According to the martial arts philosophy of silek minang, a practitioner must be free from distraction and focused on the attacks of his or her adversary. Performers must ignore any musical accompaniment. However, elements of the music, like the droning buzz of a reed aerophone, are also said to have a potential meditative effect for the performers. This contradictory use of music in performances hints at a very special kind of attention employed by adept silek minang practitioners. Whether accompanied by the energising rhythms of double-barrel drums or the loud clanging of interlocking kettle-drums, silek minang practitioners have to be mindful not to fall into step with the rhythm lest their movements become predictable and their bodies vulnerable to attack. The relationship between music and movement in silek minang performances has eluded documentation until now; as Erlmann (2005:135) notes, “The study of the performing arts in Minanagkabau society in West Sumatra—much like that of Sumatran performing arts in general—is still in its infancy.”

In West Java, pencak silat seni originated in community practices, motivated by artistic desires and patronage from a social elite. The spread and 'massification' of pencak silat seni, including the militarisation, political mobilisation, adoption by the state, nationalisation, and de-regionalisation, have exerted powerful pulls on the musical practice in relation to movement. The shifting 'political social niche' in which pencak silat seni existed has led to practical developments in the instruction of the art and the aesthetic choices of performers. One of the key aesthetic considerations for the pragmatic transmission and political usefulness of the genre is, perhaps surprisingly, the relationship of music to movement. Because music-movement configurations affect how performances are perceived, some of these configurations are more likely to survive given the Indonesian and international environment. Sundanese pencak silat seni exhibits strong mimetic and rhythmic relationships between music and movement. The theatricality of the musical interaction facilitates the audience engagement and comprehension of the movements. Drum patterns mimic punches, hits and kicks, while shrill songs played on a double-reed aerophone match the tension of the movements. The desire to promote the art broadly, to present it to wide audiences and to develop it as a mass popular art has had a tendency, on one level, to eliminate the more mystical, indirect, and abstract sorts of techniques and music-movement relationships; and on another level, to encourage choreomusical forms that have a kind of portability and instant legibility.

Unlike performances of silek minang and pencak silat seni, capoeira from Brazil is an improvised art that has developed in opposition to political forces and despite governmental intervention. Vocal and percussive music guides performances of capoeira techniques, but expert performers can also inspire songs with their interaction, impel tempo changes, and beckon the attention of the crowd. Music and movements from numerous sources have been adopted in the historical evolution of capoeira. A lot of the elements once associated with capoeira have also disappeared because they were no longer commensurable with the musical and movement repertoire. Knife-fighting is no longer prevalent, certain grabbing attacks are less common, and even headbutts are falling out of the art. Some movements and techniques are hard to integrate given the dominant role of the musical rhythms in defining capoeira movement. Music and musical aesthetic dominate the kinesthetic logic of capoeira on a number of levels: practical, in the immediate game play; social, in the sense of who in the whole event is the final arbiter; and historical-evolutionary, in the sense of how the art has changed over time.

While music for silek minang performances is simultaneously meditative and distracting for the performers, music for capoeira is hypnotic and rousing. Music and movement do not necessarily share a morphological relationship. The function of one medium can sometimes be found in the production of the other. That is, music does not automatically act directly on movement. Music can act indirectly on the emotional condition of the performers. This responsiveness to music is physically conditioned and hints at different underlying modes of embodiment. The rhythmic relationship between music and movement in capoeira makes the embodiment of the art explicit and understandable to neophytes. The symbolic and extrinsic relationship in silek minang performances makes the embodied skill-set more obscure.

Understanding the choreomusical relationships in the different styles of fight-dancing is integral to understanding how the arts have spread outside their countries of origin. Silek minang has no place for music in training and has few intrinsic choreomusical interactions in performance. Correspondingly, silek minang has been exported as a martial art with no accompanying music and little focus on the performative element of fight-dancing. Pencak silat seni has a limited space for music in training, but in performance musicians closely follow the movements of the performers like an orchestra watching a conductor (except, unlike a conductor, the performer rarely looks at the musicians in return). As pencak silat seni has spread internationally, it has been taught as a martial art on the East Asian model. Only recently have pencak silat seni enthusiasts from international schools begun to learn the art's musical accompaniment. In capoeira music is integral to training and plays a lead role in performance. Correspondingly, music has accompanied capoeira wherever it has been transplanted and teachers will almost inevitably lead a performance with a berimbau (or at the very least rely upon recorded music).

As these three cultural practices have travelled abroad, music has accompanied the arts when there are strong intrinsic choreomusical interactions but not when the intrinsic choreomusical relationships are weak. Furthermore, when the choreomusical relationships are strong, if the music follows the movement, the international distribution of music has lagged. In contrast, where the music leads the movement, music has accompanied the travel of the art almost wherever it has gone.

The improvised or choreographed nature of a practice of fight-dancing also plays a role in distribution. If a practice is choreographed, for example, then the closed system of movements alleviates the stress that the art will not be preserved correctly. Choreographed practices, such as pencak silat seni, are rigidly systematised, highly standardised, and frequently routinised. The periodic repetition of choreographed movement makes perceiving errors and deviations in a student's execution of the art easier. The repetitive learning also means that classes can be quite large. Choreographed practices lend themselves to rapid distribution but not necessarily to popularity.

Compared to choreographed arts, improvised practices generally demand more time to learn and develop a specialised range of skills among practitioners. In improvised practices, teachers have the challenge of making sure that their students are practicing movements that are part of a commensurable repertoire of bodily dialogue without being specifically prescribed. Improvisation means that students have more room for innovation, but these innovations have to be carefully monitored. Compared to choreographed practices, improvised practices are generally more time-demanding and energy-consuming for both teacher and student. Demonstrating improvisation skills in challenging performance settings can often win admiration and promote hard-won abilities to aspiring students. Furthermore, improvisatory arts are a moving target for practitioners who are always pressed to learn something new.

In future studies of fight-dancing, researchers may wish to more closely investigate gender dynamics. In the current study, gender issues only receive cursory mention. As a general observation, however, fight-dancing was once male-dominated, but today more and more women are becoming involved. In West Sumatra, the breakdown of the matrilineal system has opened silek minang out to female students. In West Java, militaristic training has created a hazard-free space for girls to participate in training alongside boys. In Brazil, female mestres are successfully negotiating their place alongside male mestres. The globalisation of embodied arts may have also played a role in the greater number of female practitioners in recent years. In the transnational and transcultural communities that form around embodied practices, foreign women, unrestrained by social conventions that do not explicitly pertain to them, can encourage and legitimate a space for the involvement of local women. Elsewhere, I have suggested

that research into gender issues within embodied practices should be a collaborative effort by both male and female researchers (Mason, 2011c; Mason, In Press). A collaborative approach by a man and woman can reveal dynamics that might otherwise escape the attention of a single researcher. Ideally, the more mixed a team of researchers, the better.

My experience in the cultural epicentres of silek minang, pencak silat seni, and capoeira helped guide me to the salient features of already published accounts. With short periods of fieldwork spread across multiple field sites, my ethnographic research into each practice of fight-dancing could be described as a phase of perceptual attunement to the existing literature. My personal experience in each culture and in the training methods of each art allowed me to navigate the literature with an informed body and a trained eye. In some ways, I feel that personal experience helped my understanding of the literature to a greater degree than my preliminary literature review equipped me for experiences in the field. My personal learning style possibly influenced this process. Sometimes engaging with a text where the reader has limited familiarity with the subject in context can be difficult. I found that the moments of insight would occur often when I revisited a text after having lived the experience. Bringing "dynamically embodied knowledge" (Farnell 1999:344) to life on the page can be difficult, but I have endeavoured to find a pathway between experience, text and analysis.

Beyond surveying practices of fight-dancing, the two main theoretical contributions of this thesis are firstly the development of the field of choreomusicology and secondly the study of the processes of degeneracy. More than just being a method of studying the relationship between music and movement, choreomusicology is also a method for studying music and movement in tandem. The choice to study practices of fight-dancing as a focus of a choreomusicological investigation was inspired in part by the supposition that the utility of combative movements might make choreomusical relationships more explicit. Studying the relationship between a pirouette and a musical event, for example, can be much more abstract than interpreting the connection between a punch and a purposeful percussive thwack (as observed in pencak silat seni). To a significant degree, gathering and developing theory and methods in choreomusicology continued alongside fieldwork. Although my literature review of choreomusicology was at the beginning of the thesis, experience in the field actually provided new questions with which to probe the relevant literature and construct a theoretical base. Western high art traditions offered an

abundance of material, but the various sources had not been systematically collated. Theory and methodology on the relationships between music and dance were summated with the aim of building a coherent field of choreomusicology that can be adapted for ethnographic fieldwork. Having assembled foundations in this area, future studies might incorporate context-driven analyses using music and dance notation.

The concept of degeneracy can be borrowed from biology as a potent reminder that choreomusical practices are constructed through processes of historical contingency and distributed control, and from a heterogeneous array of variable intersecting causal factors. The point is not simply that there is degeneracy in biology and there is degeneracy in culture. Rather, the presence of degeneracy in biological systems alerts us to the idea that degeneracy can exist at the cultural level as well. The inclusion of degeneracy into cultural theory provides a better understanding of diversity underlying common practice. Furthermore, characterising degeneracy at the cultural level is important if we want to discuss the reiterative causality between brains and culture. Degeneracy accounts for structural diversity and functional plasticity at multiple interconnecting levels of complexity. Conceptualising both neuro-cognitive and cultural processes within a compatible theoretical framework is key to understanding the co-developmental and co-evolutionary relationship between brains and culture.

Gamow's conceptual operationalisation of degeneracy has proven insightful for genetics, immunology, and neuroimaging (Goodman and Rich 1962; Reichmann et al. 1962; Weisblum et al. 1962; Barnett and Jacobson 1964; Weisblum et al. 1965; Mitchell 1968; Konopka 1985; McClellan 2000; Gu et al. 2003; Cohen, Hershberg and Solomon 2004; Noppeney, Friston and Price 2004). Degeneracy has recently proved fruitful in evolutionary systems modelling as well (Atamas and Bell 2009; Kupiec 2010; Whitacre 2010; Whitacre and Bender 2010). The incorporation of degeneracy into models of cultural evolution adds precision to our thinking but demands an adjustment of existing terminology. The need for innovative vocabulary to talk about the processes of complex systems is not new. In the nineteenth century, for example, the biological process of fermentation was at first not understood to be decomposable into a chemical explanation. Then, in 1897 the German organic chemist Eduard Buchner isolated the enzyme zymase in a cell-free extract of yeast and posited a direct localisation of biological fermentation. This explanation soon proved limited and inadequate. By the 1930s, researchers

recognised that fermentation was a multi-step process involving a number of enzymes and coenzymes, each responsible for different parts of the biochemical process. In the same way that researchers were able to move beyond a direct localisation of fermentation in the late 1890s to a complex localisation in the 1930s (Bechtel and Richardson 1992; Bechtel 1996), researchers will have to find alternative vocabularies to describe the complexity of cultural transmission, change and diversity. The realisation of the importance of degeneracy in biological evolution causes us to ask how we might also see, through a comparative approach, diversity underlying manifest similarity. One avenue that is open to more exploration is how Charles Sanders Peirce used a mathematical definition of degeneracy in his theory of signs.

For anthropologists, the term 'degeneracy' comes with significant historical baggage and, as is customary in our discipline, perhaps we can introduce a hyphen to distinguish the notion of 'degeneracy' associated with eugenics (Brown 2010) from the concept of 'de-generacy' attributable to George Gamow (Crick 1955; Harper 2001; Woese 2001). Adler (2011), for example, has used a hyphen to make the distinction between 'nightmares' associated with bad dreams and 'night-mares' referring to episodes of sleep paralysis. Scheper-Hughes and Lock (1987), in the seminal work 'The Mindful Body', discuss how anthropologists "are left suspended in hyphens" trying to reconnect "fragmented concepts" (1987:10). Indeed, in my own fieldwork I resorted to neologisms like 'choreomusicology' and struggled to find a verb that captured the act of both watching and listening at the same time. 'De-generacy' with a hyphen might satisfy the need for a more precise vocabulary while distancing the word from its historical baggage.

From combat-dancing through choreomusicology to cultural evolution, this research is empirically based on fieldwork conducted in Indonesia and Brazil, methodologically inspired by developments in the study of the relationship between music and movement, and theoretically driven by a desire to contribute to models of cultural change. Setting the movements of a martial art to music is not intuitive. Rather, music, dance and martial arts have converged under certain conditions within specific intercultural locales. The processes of globalisation and the advent of new audio-recording technologies have pushed the properties of the various arts of fight-dancing in new directions. The interaction of music and movement is mutable, the gender composition of groups of practitioners is shifting, and the improvisatory or choreographed elements of the practices

are frequently negotiated. Through a comparative approach, I have illustrated how improvised and choreographed practices predispose an art for global distribution and how music-movement relationships come into play. In these shifting cultural formations, where differences are traversed through movement, commensurability is a moving target, the pursuit of which leads us to understand what lies at the boundaries of human culture and individual creativity.

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