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Enviromateriality: Exploring the Links Between Political Ecology and Material Culture Studies

Jose E. Martinez-Reyes

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Environmental anthropology studies historic and present human-environment interactions. This volume illustrates the ways in which today's environmental anthropologists are constructing new paradigms for understanding the multiplicity of players, pressures, and ecologies in every environment, and the value of cultural knowledge of landscapes.

This Handbook provides a comprehensive survey of contemporary topics in environmental anthropology and thorough discussions on the current state and prospective future of the field in seven key sections. As the contributions to this volume demonstrate, the sub-field of environmental anthropology is responding to cultural adaptations and responses to environmental changes in multiple and complex ways. Operating in a discipline concerned primarily with human-environment interaction, environmental anthropologists recognize that they are now working within a pressure cooker of rapid environmental damage that is forcing behavioural and often cultural changes around the world. As we see in the breadth of topics presented in this volume, these environmental challenges have inspired both renewed foci on traditional topics such as food procurement, ethnobiology, and spiritual ecology; and a broad new range of subjects, such as resilience, non-human rights, architectural anthropology, industrialism, and education. This volume offers scholars and students quick access to both established and trending environmental anthropological explorations into theory, methodology, and practice.

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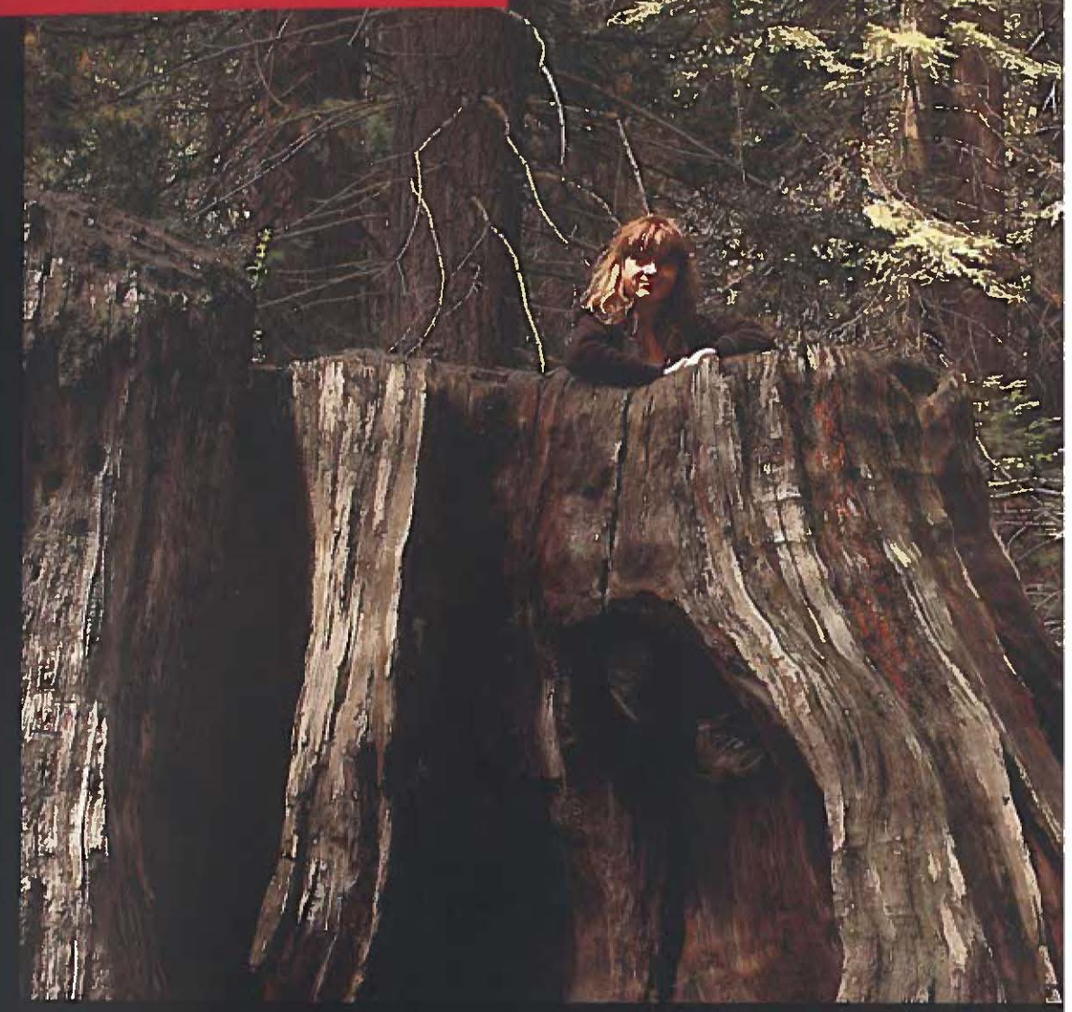

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CONTENTS

6

ENVIROMATERIALITY

Exploring the links between political ecology and material culture studies

José E. Martínez-Reyes

Introduction

In a review article comparing ecological anthropology and material culture studies, Tim Ingold wonders why both fields have always dealt with materials and material culture, yet their practitioners 'are speaking past one another in largely incommensurate theoretical languages' (Ingold 2012: 427). While the field of material culture studies focuses upon how 'persons and things are bound in relational networks', ecological anthropology emphasizes how 'human beings and other organisms are bound in webs of life' (Ingold 2012: 428). His solution for solving the impasse between both is that they should 'focus on the active materials that compose the lifeworld' (Ingold 2012: 429). While I agree with some of the main arguments that Ingold espouses above, I am left wondering – what about political ecology? Here I refer to political ecology as a part of environmental anthropology with a particular focus on power and conflicts over access to and use of resources. As I discuss below, the field of material culture studies has effectively incorporated a critical political *economy* of consumption and materiality, but has neglected environmental resource conflicts. On the other hand, political ecology (with few exceptions) has neglected materiality as an important dimension of human–environmental relations.

Using the linkage between a tree species, Honduran mahogany (*Swietenia macrophylla*) and its transformation into an artefact (a Gibson Les Paul guitar), and based on fieldwork in a Mayan agro-forest community in Quintana Roo, Mexico, I propose and illustrate a framework for analysing material culture with political ecology. I call it 'enviromateriality'. I argue that this perspective enhances environmental anthropology by shedding light on the complex chain of production and transformations of mahogany into guitars and how the perceived properties of the material are used to market them. This examination also sheds light on how forest communities, guitar builders, and players are entangled in a meshwork of power relations, mediated by the making and the playing of the electric guitar.

Materials, materiality, enviromateriality

Although there is a wide and sophisticated literature on material culture studies, I was drawn into a debate between Ingold (2007) and Daniel Miller (2007) over the role of materials,

their properties, and their consumption. This debate was initiated by Ingold, who challenged the field of material culture studies to pay more attention to the properties of 'materials' (Ingold 2012). This re-focus on materials by Ingold was a provocative response to materiality studies which, on his account, 'have hardly anything to say about *materials*' (2007: 1, his emphasis) because of their overwhelming focus on the consumption of objects that are finished products; for example, food, clothing, electronic devices, etc. For Ingold, materials are not fixed, but relational, because of how they are caught up in what he calls lifeworlds (i.e. people's everyday engagement with their environment).

In addition to the re-focus on the properties of materials, he also suggests that anthropologists should look at the process of making and transforming those materials (i.e. artisan labour) as an important and intimate aspect of human–environmental relations and materiality (Ingold 2013). In a chapter titled 'The Textility of Making', Ingold, following Deleuze and Guattari (1987), states that his aim is to overthrow the Aristotelian model of creation between form and matter by replacing it with 'an ontology that assigns primacy to the process of formation as against their final products' and to the 'flows and transformations of materials as against states of matter' (2011: 210). Ingold gives primacy to the interaction between the individual and the environment and the processes of transforming materials into things. In other words, he emphasizes the production process instead of consumption, as in his example of basket making and the plant material used. However, in many cases, these materials and processes are separated. For example, the mahogany agro-foresters and the guitar makers are not the same people. While Ingold importantly began the debate by suggesting a turn to the essence and properties of the 'material' (2007), I contend that this perspective offers too narrow an explanation and fails to account for larger, global processes and the material consequences for the use of a particular matter.

Responding in the same (2007) issue of *Archaeological Dialogues*, Miller contends that Ingold is wrong in his approach because today people deal with fully-produced commercial artefacts. For this reason, he argues, material culture studies focus on artefacts that are

> far removed from any claim to be natural substances. So the material processes we have to understand and whose qualities and consequences we document involve the life histories of not wood and stone but mobile phones, washing machines, tractors and sushi.
>
> *(Miller 2007: 26)*

To Miller, it is about the consumption of materials as objects and its ethnography, not phenomenological contemplations about the materials, as Ingold seems to suggest. Miller says in the same response that materials are what Ingold, or anyone, 'wants them to be' (2007: 26). For instance, he states, 'I write books about the sari, not the silkworm', because if he had to write about the silkworm, 'it would have to include the impact of the life cycle of this worm on the political economy of silk production' (2007: 26). Miller negates the latter as not important because he thinks that the reason people are interested in silk is because of its vast consumption and dismisses both pre-product labour and the relations and knowledge of humans with their environs. In essence, commodity fetishism trumps the material. For Miller, it seems that the only meaning-making or relations of power of importance are from the consumption of the finished commodity.

So what about an object such as the Gibson Les Paul guitar? This instrument is an obvious commodity which is made with materials that do matter to builders and players and it helps exemplify what is missing in the Ingold–Miller debate. The material, mahogany, is important

because it is entangled in the commodity that has been created and marketed by the guitar industry for its consumption. While I agree with Miller about the enormous significance that the political economy of consumption plays, I believe it comes up short. At the same time, bringing the argument back to the material, as Ingold does, is imperative as well, but also limited. There is an element of truth in both arguments.

At this juncture, Christopher Tilley (2007) tries to bridge this gap. He agrees with some aspects of Ingold's position, mainly the materiality of affordances that 'things' provide, as well as the phenomenological perspective in relation to materiality, finding 'that the sensuous world of material things has effects on the way people think and behave' (2007: 19). Nevertheless, he is not ready to take the extreme position that materials are more influential than materiality as Ingold suggests. Tilley's perspective on materials and materiality is based on the principle that '[a]ll materials have their properties which may be described but only *some* of these materials and their properties are significant to people' (Tilley 2007: 17, my emphasis). This raises questions for Tilley as to 'why some properties of things rather than others come to have significance' (2007: 20); 'what do these properties mean in different social and historical contexts', 'how they are experienced' (2007: 18); and finally, 'how they affect human conduct, both enabling and empowering people's lives and constraining them' (2007: 19). According to Tilley, *some* materials and their properties are more significant than others. This middle ground is not as extreme as Ingold on one side, and Miller on the other.

However, I believe there is still something missing in the analysis. I suggest that the missing piece is the ecology of the materials, and the extent to which the process of production and its consumption as a finished commodity are contributing to environmental degradation. I understand that this may not apply to all materials, as not all threaten local and global environments. However, in this case, and surely other cases can be found, the political ecology of the main material, Honduran mahogany, plays an important role. In my study, I ask if the use of mahogany is solely about its properties and its tonal qualities? Does it matter where it is grown, or who grows it, or what the labour relations are for the producers? Or what the environmental consequences are for mahogany and for forest communities that depend on it?

From production to consumption there are several moments of transformations, processes of becoming, from material to materiality that constitute in practice the expressions of a global political ecology and power relations that are not properly treated in the Ingold–Miller debate. It is in order to explain these moments that I developed the concept of 'enviro-materiality', a perspective that articulates the phenomenological perspective of Ingold, the insights of material culture and materiality studies (Miller 2005; Tilley 2007) and global political ecology (Peet *et al.* 2011) to overcome the overemphasis on either the material or materiality and provide a richer analysis that takes into account the political ecology of materials.

Enviromateriality perspective

One of the ways to transcend this stalemate between Ingold and Miller is to be specific about what material or to what kind of artefact we are referring. As we know, not all artefacts share the same characteristics, or uses, and this plays a key role in how humans relate to them. Miller is thinking of cell phones while Ingold is talking about stones and artefacts made of wood. However, neither all trees nor all wood are the same or have the same meanings to people despite the fact that they are all trees and, if cut, wood. For example, some trees take 50 years or more to mature while others take much less time. Additionally, processed

materials are not immaterial. While for some commodities, the material becomes part of the materiality – that is, it becomes an essential component – this is not to say that processed materials are immaterial. In the case of musical instruments, and more specifically, the electric guitar, mahogany becomes one of the 'some' to which Tilley refers whose material properties are important to people. Certainly, one can follow the plastic or other materials that make up a cell phone. This should not deter us from including a political ecology of plastics when conducting a study about them as the chemical industry contributes to health risks and environmental pollution.

A central component of the enviromateriality model is the perspective of political ecology. Political ecology is an established framework that incorporates the concerns of political economy, exploitation, and underdevelopment as a way to explain environmental degradation as a consequence of capitalism and conflicts over access to resources (e.g. Escobar 1999; Martínez-Alier 2002; Peet *et al.* 2011) and its cultural manifestations (Biersack 2006) in diverse biological and cultural regions of the world. Political ecology ethnographies have shown that forests, which are rich in biodiversity, are highly contested areas (e.g. Tsing 2005; Escobar 2008). Political ecology has documented and highlighted the sophisticated and diverse traditional ecological knowledge as well as the symbolic meanings of trees for forest dwellers. It has also countered the nature/culture ontological divide in modern theories (Ingold 2000; Descola 2006), and illuminated the importance of attachment to place for environmental social movements (Escobar 2008; Blaser 2010). As sustainable development and modern conservation strategies such as biosphere reserves began to have an impact on forest-dependent communities, political ecology scholars problematized biodiversity conservation (Brockington *et al.* 2008) and wood certification (Klooster 2010) as well as the role of corporations in forest conservation (Hardin 2011). In essence, political ecology provides a foundation to understand global wood and forest politics.

One limitation of political ecology is that it has never adequately tackled the question of materiality. There have been some efforts in the analysis of global natural resources or food crops, like coffee for instance, that raise questions about consumption and materiality (Dove 2011; West 2012), but they often do not explicitly take up material culture theory. Jane Bennett, a political theorist, has taken a first step. In her (2010) book, *Vibrant Matter: A Political Ecology of Things*, she engages philosophers' understanding of the concept of assemblages – particularly Spinoza, Deleuze, and Guattari – and, finally, Latour's (2006) actor–network theory (ANT). Her objective is to create 'a more horizontal representation of the relation between human and nonhuman actants' (2010: 98). She argues that materials are not inert, but rather 'act as quasi agents or forces with trajectories, propensities, or tendencies of their own' (2010: viii). In this case, political ecology is used more to engage environmentalism in the West and her plea is for changing environmentalism's rhetoric to 'vital materiality' by acknowledging that the vital materiality of animals and things, as part of horizontal assemblages, will challenge human hierarchies and human dominance of non-humans, and the resulting awareness will shift public opinion towards conservation. There are aspects that seem incongruous, as when she argues that '[v]arious materialities do not exercise exactly the same kind of agency, but neither is it easy to arrange them into a hierarchy' (2010: 98). I disagree with this statement, especially the latter part on hierarchy because as with other assemblages, it depends on the situation. For example, a Mayan farmer, who labours cutting mahogany, getting paid very little, and entering quasi debt-peonage relations with the mahogany exporters can be placed into a hierarchy.

Another problem with Bennett's 'political ecology of things' (and with Latour's ANT for that matter) is the overemphasis on the question of agency. I agree with Ingold who, like

Bennett, shares the idea that 'materials are inherently lively' (Ingold 2013: 96), but obsessing whether non-humans possess X or Y form of agency seems unproductive. Humans and non-humans are entangled in complex and dynamic relations because of such vitality of materials. Therefore, Ingold argues that 'we need a theory not of agency but of life' (2013: 97) . . . 'that allows matter its due as an active participant of the world's becoming' (Barad 2003, cited in Ingold 2013: 97). I would add that such a theory needs to pay attention and be sensitive to power relations between humans, as well as human–non-human relations, because they are at the heart of environmental problems such as deforestation.

Here I integrate political ecology and the importance of materiality through three phases. It goes from the materials and materiality and back again, in which materials turn into objects that produce a certain materiality. These phases are not mutually exclusive and are conceptual in nature. The first phase considers the material in question. This prompts several questions that are not exhaustive, but give an idea of the kind of power relations that are involved. What are its properties? What is its historical geography? In other words, in what ways has the material (mahogany) been entangled with people and how have they mutually influenced each other? What kind of division of labour is enacted? Who has access to the resources? Do the people own or have legal entitlements to the land, or are the people landless and engaging in illegal activities in order to maintain their livelihoods? What is the system of land tenure and how does it impact access to resources? What roles do gender, race, or ethnicity play? In addition to the political economy inquiry, materiality entanglements come to the surface. A particular materiality develops between people and resources in this phase and this needs exploration.

The second phase is the building and making. This phase acts as a sort of liminality in which the raw material is transformed into something else. This process of transition is a process of becoming. In the case of instrument making, instruments relied heavily on the process of enskillment (Ingold 2000). Today, it is an in-between transition that relies heavily on technologies and factories for mass production. However, this does not mean that luthier skills are not needed. In the case of guitars, machines can nowadays rough cut the basic shapes of the guitar as well as other hardware, but nevertheless, there is still a large amount of human skill involved in the fine details from sanding and finishing to adjusting all the hardware to make it playable. The division of labour is also present in the case of wage earners. Another important aspect is to understand the market forces that are behind the production of the commodity. There is a wide range of production of guitars from small independent luthiers to employees of large factories such as Gibson. Here, too, there is an experience of materiality between the wood in transformation and the builders comparable to the relation of the work of art and the artist (Dudley 2014).

The third phase is the consumption of the finished commodity. This is one of the main areas of the field of materiality studies, which has tackled issues of consumption in modern society, the materiality of body senses (including smells, taste, touch, vision, sounds), commodity exchange, and identity (Tilley 2007). The early work of Miller was influential in consumption studies because his work countered the anti-materialist assumption that all consumption is the expression of capitalism. His later work contributed to the materiality of everyday life (Miller 2005, 2010). Therefore, the experience of the fetishism of commodities is important as materiality studies have shown. In the case of the guitar, the aesthetics and feel of the instrument as material are important, but as a sounded instrument, it is the tonalities that emanate from the coupling of the player and the instrument that create its materiality. In the following section, I will elaborate on the three phases of the enviromateriality model as it pertains to mahogany and the artefact, the Gibson Les Paul guitar.

The material: Honduran mahogany

As a stringed instrument maker, Gibson has relied on what is commonly known in the guitar world as 'tonewoods'. These woods are selected to be used in instruments based on their characteristics of being a wood that is easy to work with using hand tools, has good resonance in the finished products, and in some cases, has a desired aesthetic appeal (colour consistency and grain patterns). Based on these elements, mahogany became an important source for the construction of mandolins and early acoustic guitars at the turn of the twentieth century. In the 1950s, when companies like Fender and Gibson, both pioneers of the electric guitar, came up with their designs, one of the defining features was that it had to have a solid body construction to prevent feedback when amplified. Mahogany became the main wood for the body and neck of Gibson Les Pauls in 1952.

Prior to its use in guitars, the global and material life of mahogany begins in the Americas. Honduran mahogany (*Swietenia macrophylla*) is considered to be the wood from trees of the botanical genus *Swietenia*, which is native to the Americas. Honduran mahogany grows naturally from the lowlands of the Yucatán peninsula, across Central America, to the north-western Amazon rainforest in South America. As a tree native to Mesoamerica, mahogany has had important use for its native inhabitants. It was used for building houses and other structures, for the construction of a musical instrument called the *tunkul*, a hollowed-out trunk used as a drum, and also for canoes. The 'natural' stands that exist today, while native, are not without human relations. The Maya helped to reproduce the species in the forest because mahogany benefits from the 'disturbance' caused by swidden agriculture (Atran 1993; Gomez-Pompa 1987; Steinberg 2005), as well as natural disturbances such as hurricanes (Snook 2003).

Trade and exploitation of Honduran mahogany began in Honduras and Belize by the British in the 1800s when Cuban mahogany (*Swietenia mahogani*), grown in the West Indies in the 1700s, declined (Bowett 1996). The main reason for its decline was its massive use for furniture and cabinetmaking in early Colonial America (Anderson 2012). This exploitation extended south to the north coast of Honduras and to the north of British Honduras to the Mayan territory of the eastern Yucatán (the area where I conducted my research), where the Maya were rebelling against Mexican elites in the Caste War of the Yucatán from 1847 to 1901.

Over the years, new challenges emerged to test Maya resilience and management of their environment amid capitalism-based development projects sponsored by the Mexican Government. The Government granted itself a 25-year concession from 1957 to 1982 in which it held exclusive rights to mahogany and other timber products. After the concession ended, and with the dire situation in which mahogany found itself, the Plan Piloto Forestal was implemented in order to guarantee the sustainability and regeneration of mahogany. The plan was seen as a success early on, and by the early 1990s, the Rainforest Alliance began their 'SmartWood' certification (predecessor to the Forest Stewardship Council), the programme through which Gibson sources its wood for guitars and which continues to the present day. In the next section, I briefly cover some of the dynamics of mahogany harvest in Southern Mexico in the Maya Forest, as well as Gibson's entry into the 'sustainable' mahogany trade.

One important facet of mahogany production is the labour and knowledge that go into growing and harvesting in order to supply the timber to the market. The amount of physical labour and the risk of serious injuries became evident to me while I was doing fieldwork. The community where I conducted research has been supplying mahogany to corporate

concessions since its founding in the early 1900s, after the Mexican Government took control of the region. One elder of the community whose father worked harvesting mahogany told me, 'Imagine when my father worked in the *ka'ax* [forest in Maya], there were no electric saws like today . . . all work by hand and with donkeys to pull the *kanak che'* [mahogany]'. And he continued, 'You had to stay several days in there [forest], sawing, sleeping in hammocks, then bring it little by little to the main road. No trucks like today!' Although it does seem that it was intense labour in those days, that doesn't mean it doesn't continue to be. Working in the dense tropical bug-filled forest is still no easy feat.

Since the launch of the SmartWood series, Gibson has been employing 'green' rhetoric by arguing that countries should have a certification system so that the market can pay premium prices for the wood and thus combat the causes of deforestation. According to my source, Gibson pays mahogany growers in Central America $7 per neck blank (which makes two necks) and $5 for a body blank. The body and the neck are the foundation of the guitar. These will end up in guitars that will retail between $1,000 on the lower end to $7,500 for Custom Shop on the higher end, with some limited production artist replicas costing over $10,000. That is a vast amount of profit. The notion that communities that grow mahogany should get paid better is something that I heard them say repeatedly. In Mexico, mahogany can be harvested at a minimum of 25 years, although experts agree that proper quality mahogany should be over 50 years old to reach the optimum size.

Once the wood is exported out of Mexico, it reaches the factory to continue its process of becoming and transforming. Unlike traditional luthiery, in which the instrument maker works on every aspect of the production of the instrument from beginning to end, the Gibson Les Paul is mass-produced in a factory facilitated by special machinery and a division of labour between the different stages of production in an assembly line. The cutting of the bodies and necks, glueing, applying binding and inlays, installing and levelling frets, sanding, applying colour and finish, installing electronics, stringing the instrument, and setting up for optimum playability by adjusting neck and intonation are all done by different work groups.

What is the materiality of 'mahogany guitar' for people that work in the factories? For builders it is a livelihood, but working with the materials that end up in the guitar has its own materiality. If we go back to Ingold (above), we remember that his project is to assign primacy to the *process of formation* over final products. That means that in this case, he would have given primacy to each individual worker as they engage with their specific tasks with the material. He argues that when the carpenter works, there is more than meets the eye in terms of the dynamic between the wood and her (or him): 'no two strokes of the saw are quite alike' (Ingold 2011: 216). While I agree this is true, there is more to the story, but Ingold doesn't continue. Factory employees who spend all day sanding necks, which is a task that needs a particular skill and feel for the wood and shape, are there as wage earners. Giving primacy of production to an independent luthier is different than giving it to a wage earner who produces one or two tasks in a factory.

Although Ingold is inspired by the work of Deleuze and Guattari because of their insistence on the vital material assemblages of people and materials, there is one aspect that he neglects. This is the 'apparatus of capture', which refers to appropriation of land and labour by capitalists and the unequal exchange that develops from unequal relations, which forms *another kind of assemblage*. This assemblage gives rise to flows of money, labour, and property (Deleuze and Guattari 1987: 449), which are correlate to the apparatus of capture, socially and geographically extending not only to Europe and North America, but also parts of the so-called Third World. The enviromateriality perspective incorporates the capital–labour dynamic as an essential component of the material–materiality assemblage.

In this case, the Gibson company is the one that controls this aspect of the flow of capital in the mahogany–Les Paul vital constellation. The flow of the Gibson production produces 400 guitars per day. The Les Paul model is by far its most popular. It also represents all other elements of contemporary capitalist practices including wage-labour and fetishism of commodities. In the end, whatever object-commodity they produce on a daily basis has its own hidden histories and has become without question one of the most powerful symbols in popular culture and popular music in the last six decades, the Gibson Les Paul.

The Les Paul: material and materiality

The electric guitar has been truly revolutionary in Western popular music since its creation. It took the guitar from the background of musical groups into the forefront, not only as a symbol, but as the new amplified sounds took over emerging sounds (Attali 1985), particularly for rock'n'roll. The influence that particular instruments give to forms of music is unquestionable. As Jacques Attali reminds us:

> Music should be a reminder to others that if *Incontri* was not written for a symphony orchestra, or the *Lamentations* for the electric guitar, it is because each instrument, each tool, theoretical or concrete, implies a sound field, a field of knowledge, an imaginable and explorable universe.
>
> *(Attali 1985: 133)*

In effect, the electric guitar created a new, distinct element in the music world. An element that turned this object into an instrument of desire that influenced several domains of society: youth, gender, race, and class (Waksman 1999).

Of the solid body guitars, the Gibson Les Paul is one of the most iconic. Paradoxically, Gibson phased out the Les Paul in 1960 – until a new wave of British and American musicians rediscovered the Les Paul, influencing with their music a new generation of guitar players (Bacon 2008). It sparked interest in the discontinued guitar and, little by little, it became one of the most sought-after instruments. There were approximately 1,700 made between 1958 and 1960. Today they are valued between $100,000 and $250,000 depending on the condition and history.

Apart from the availability, what is it about these mass-produced guitars that makes them so popular? Dan Erlewine, a renowned luthier and author of many books on building and repairing guitars, wrote an article (1998), 'Majesty in Mahogany: What Makes a Vintage Les Paul Tick' in *Guitar Player* magazine discussing what it is about the Les Paul that makes many players desire to own one. As the title suggests, one of the keys to the sound is the material foundation.

> Tonewood selection is part of Gibson's heritage, and they have always offered guitars built, at least in part, from select Honduras mahogany. Honduras [sic] is stable, good-looking, great sounding, and reasonably lightweight. It produces the warm, sweet, midrangy tone for which many Gibson guitars—both electric and acoustic—are famous.
>
> *(Erlewine 1998: 113)*

The guitar is the result of the combination of several materials: wood, metals, electronics, and plastic. Each contributes to the artefact's totality and with the help of a talented player

can produce a wide range of sounds. But not all materials are the same or project the same sound. This is why Ingold's argument about going back to the material is well founded.

Additionally, the commoditization and fetishism associated with it matter. Gibson restarted mass production of the Les Paul in the early 1970s. By then, there was new management and the new Les Pauls were not quite the same as the 1950s models. In the 1980s, Les Pauls fell temporarily out of fashion, only to have an economic revival among younger players but also with 'amateur boomer guitarists' (Ryan and Peterson 2001) who grew up listening to the guitar heroes of their youth and who had more money to spend on guitars. Some became performers, others gave up, still others were content with being 'bedroom' players. Other players collect vintage Les Pauls that again go for over $100,000, or the reproductions that Gibson began to produce in the early 1990s. One trend that began to develop is the practice of 'relic-ing'; that is, of building and selling new guitars with signs of use and wear, as if they were relics or vintage instruments. This is somewhat similar to what Miller observes in his denim project about jeans being stonewashed to make them feel already aged and worn (2012: 94). Replicas are artificially aged, their steel hardware is distressed, nicks and dings are added to make the guitar look like a vintage instrument of 30+ years. This supports Miller's claim of the importance of materiality, and yet the wood materials continue to matter to the consumer.

Conclusion

The primary purpose of this chapter was to put forward the perspective of enviromateriality as a framework of analysis that links material culture studies with political ecology. The material–materiality debate sparked by Ingold and Miller has provided a good platform to rethink the strengths and limitations of each perspective. In this case, their debate has allowed me to illustrate enviromateriality and provide an overview of the material–materiality nexus using the Gibson Les Paul guitar and its main material, mahogany, historically as well as in different stages of production and consumption. I argued that enviromateriality enables us to break the impasse between material and materiality. The idea of objects having their histories in relation to others underscores the fact that they are not static. Such conditions reinforce the fact that guitar playing, and music in general, are important in shaping identities and imagined communities of guitar players and consumers of music. However, we must not forget what lies within global commodities. Marx initiated the critique with the discussion of commodity fetishism and capitalism's power to transform materials into commodities while hiding their real value, but as Carrier (2010) reminds us, it goes beyond that. It is also about abstracting people, processes, places, whether material or not.

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7

HISTORICAL ECOLOGY

Agency in human–environment interaction

Lauren Dodaro and Dustin Reuther

Introduction: what is historical ecology?

In anthropology, *historical ecology* focuses on human–environment interactions throughout time as well as the outcomes that those interactions have had and may have both locally and globally (Balée 2006; Crumley 1994; Szabó 2014). Historical ecology is a *research program*, meaning it is composed of proposed interdependent and fundamental principles with which some, but not necessarily all, members of the scientific community agree (Balée 2006; Lakatos 1980). Like much of anthropology, historical ecology is interdisciplinary, relying on a wide variety of data from archival sources to the natural sciences (Szabó 2014). The four fundamental principles (Balée 2006) of historical ecology are:

1. nearly all of Earth's environments have been affected by humans;
2. humans are not inherently harmful or helpful to the environment;
3. different societies impact landscapes to varying degrees and in different ways depending on socioeconomic, political, and cultural factors;
4. a wide variety of human–environment interactions differing in both historical and ecological contexts may be studied as a total phenomenon.

Historical ecology differs from the concept of *cultural ecology* in environmental anthropological theory in that historical ecology is not deterministic. Cultural ecologists, such as Julian Steward (1948, 1949) view the environment as a determining factor in the culture of the people dwelling therein. Unlike cultural ecology, historical ecology holds instead that while the environment plays a role in shaping human culture, it does not determine human culture. Thus, historical ecology considers the *agency* of people. Agency is one's ability to make decisions that make an impact; it is one's power, influence, and instrumentality. Historical ecology acknowledges people's agency to make choices that are not predetermined by the environment; instead, the environment is a factor that both impacts and is impacted by people.

Historical ecologists utilize a number of terms to talk about the reciprocal impact between humans and the environment. These interactions between humans, other biological agents, and the physical environment coalesce to create a *landscape*. Historical ecologists are especially