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Women in a Malagasy Sapphire Mining Community: A Case of Interactive Learning

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WOMEN IN A MALAGASY SAPPHIRE MINING COMMUNITY: A CASE OF INTERACTIVE LEARNING

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ABSTRACT This thesis presents original ethnographic data on women in Ambondromifehy and reflects the need for new ways to incorporate discussions of conceptual issues such as the use of comparison in anthropology, methodology, and the application of theoretical conceptualizations, into discussions of the ethnographic data collected in the field. The ethnographic data on women in a small-scale mining community in northern Madagascar is the first study in this region on women living in this community. This original ethnographic data includes Interactive Ethnographies and a website, which both feature videos as well as photographs obtained using two different photographic methods (researcher photographs and the Camera Project). The incorporation of visual material and interactive learning into the anthropology classroom is an example of one way in which conceptual ideas and practical applications can be taught together, emphasizing the relevance of conceptual issues to the practice of Anthropology and increasing the confidence of students going into the field.

KEYWORDS: women, sapphire mining, Madagascar, Ambondromifehy, Photovoice, visual anthropology, teaching anthropology, Interactive Ethnography

This thesis is dedicated to my grandfather,

WOLODYMYR Y. STELMACH (1926-2005)

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TABLE OF CONTENTS

Preliminary Pages

Certificate of Examination.....ii
Abstract.....iii
Dedication.....iv
Acknowledgements.....v
Table of Contents.....vi
List of Appendices.....viii
List of Abbreviations.....ix

Part I – Introduction

Background to the Study.....2
Objectives.....4
Outline.....5

Part II – The Use of Visual Materials in Anthropology

Teaching Theory with Method.....8
Interactive Learning Portfolios: "Interactive Ethnography".....12
Visual Anthropology: Background.....13
Use of Photovoice in Ethnographic Research.....15
Teaching with Visual Material, Particularly Film.....22
Summary.....28

PART III – MINING, WOMEN'S LIVES AND COMMUNITY

Artisanal Mining

Introduction.....31
Introduction to Artisanal Mining.....31
Women in Artisanal Mining.....46
Summary.....58

Women's Lives in ASM Communities: Case Study, Ambondromifehy

Introduction.....59
Methodology.....60
Case Studies.....67
Women's Lives in ASM Communities.....69
Summary.....94

PART IV – CONCLUSION

Conclusion

Contributions.....99
Future Directions for Research.....101
Conclusion.....105

Works Cited.....107

LIST OF APPENDICES

Appendix 1 – Interview Question Guide.....113
Appendix 2 – Interactive Ethnographies: Facilitator's Guide.....117
Appendix 3 – Ethics Approval Notice.....128

VITA.....129

List of Abbreviations

Ar – Ariary, the currency in Madagascar

ASM – Artisanal and Small-scale Mining

AZWM – Association of Zambian Women Miners

CASM – Communities and Small-scale Mining

CDN – Canadian Dollars

DART – Digital Anthropology Resources for Teaching

DRC – Democratic Republic of the Congo

NGO – Non-governmental Organization

PNG – Papua New Guinea

SADC – South African Development Community

UNICEF – United Nations Children's Fund

WHO – World Health Organization

PART I – INTRODUCTION

--CHAPTER ONE--

Background & Context

Background to the Study

The small town of Ambondromifehy is located about two hours drive by bush-taxi south of Antsiranana (Diego-Suarez) on the northern tip of Madagascar. Madagascar is a large island off the southeast coast of the African continent. Until December of 2007, I had never thought I would visit either. The idea for this thesis developed over the late fall of 2007 when one of my graduate professors, Dr. Kim Clark, suggested that I speak with Dr. Andrew Walsh about possibly doing my fieldwork in Madagascar. I had previously wanted to do some sort of work on a health-related topic, perhaps conducting fieldwork around London, Ontario. After several conversations, I agreed to head to Madagascar and do some sort of fieldwork focusing on women's health in the small sapphire mining town of Ambondromifehy. That idea broadened as I started working through ethics applications and thesis proposals. Just in case a specific focus on a particular health issue didn't work out I needed to be able to take something else back, a general overview of women's lives in this small town.

Throughout the academic year before my fieldwork season (May-August 2008), my fellow students and I were repeatedly cautioned about what to expect in the field, not to expect that anything will pan out as we planned, and that inevitably, we would have to improvise and make do with what ethnographic material we did get. Sure enough, that was the case for me, and although I expected many things like that to happen, there were some things I didn't expect. I have traveled extensively around the world so the infamous "culture shock" was not particularly problematic. And I brought enough of the

right pens and I found suitable notebooks there. I was definitely prepared for all the things we were told to expect. I was not prepared for others, such as bed bugs, limited access to soap, almost constant harassment from men in the city (Diego) where I was based for part of my time in Madagascar, and the problems inherent in working with an interpreter (these will be discussed in chapter three of this thesis).

So after the field season ended and I returned from a month of visiting my sister in Alberta, I was faced with figuring out what to do with all my data, some of which I thought was compromised due to a lack of understanding between myself and my interpreter (that I was unaware of at the time of the fieldwork). This is similar to the situation faced by many other graduate students after their first (or second, or third...) field season: now what? I had all this data, only some of it related to health, and no specific direction to take it in. I spent about three to four months just thinking about it, doing some more reading, and focusing on my teaching assistant duties. In February, I decided to actually start writing on a train journey to visit my cousin in Ottawa. The writing about mining and women's lives was relatively straight forward, but I still did not have anything more than a basic ethnographic account and a review of some literature. I also wanted to incorporate all the visual material I had gathered: photographs (my own and those from the disposable camera project, discussed in Part III) and video interviews and clips. My original intention was to produce a short documentary style film but with the language barrier, it would have been extremely difficult and time-consuming to find the right parts of the video, put in the subtitles, and make the whole thing coherent. So I moved to work on a website and came up with the idea to focus on how to show that theory and method can be combined in anthropology.

Anthropological methods and anthropological theory are often taught as though they are disconnected subjects, and yet, as Cerwonka and Malkki (2007) among others have noted, anthropologists in the field are always faced with questions of what can be done with the field data and where and how theory can be used to help make sense of and draw insights from the data, much like I was after finishing my own fieldwork. By keeping the relationship between theory and method alive and functional in the classroom, students in the discipline can more clearly see and appreciate the relevance of theory to the practice of anthropology and have a stronger interest and appreciation in the theoretical material that plays such an important role in the interpretation of anthropological data. As I was trying to figure out what to do with my own research data, I couldn't help but feel unprepared to do anything other than write a literature review and add in a summary of my own data. With the shift in the focus of my thesis, I wanted to not only suggest that conceptual issues in anthropology (such as comparison, methodology, and theoretical concepts) and the material collected in anthropological research (i.e. people's words, photographs and videos) should be taught together but also show a way in which this could be done.

Objectives

This thesis provides original ethnographic data on women living in the artisanal mining community of Ambondromifehy in northern Madagascar. Chapter 4 focuses on these women's experiences by using their own words, as well as my own, to talk about their lives. Through the combination of various conceptual issues and anthropological data in Part III of this thesis as well as the Interactive Ethnographies that accompany this thesis, I hope to show how these ways of presenting ethnographic material can be

combined to provide a more relevant learning experience for anthropology students. One way in which this can be accomplished is through Interactive Ethnographies. Interactive Ethnographies combine both written and visual material and allow the student to work through this material at their own pace and also have the opportunity to direct their own learning. I hope that this set-up allows the reader/student to take a front seat and in a sense, use the ethnographer (myself) as the observer, and begin to think about the ethnographic material and how it relates to the theory.

Outline

The ethnographic material presented in this thesis includes not only text, but also photographs and videos. There are also three Interactive Ethnographies that accompany this thesis, each including visual and written material presented in a way that students can engage with and use to direct their own learning. These are combined with discussion of how this ethnographic data fits into the existing literature and how the women of Ambondromifehy are similar to or different from women in other artisanal mining contexts. Throughout, as appropriate, issues relating to the application of conceptual issues in anthropology to the field data are discussed. The visual material in the ethnography, consisting of photographs taken by myself as well as by the women interviewed (as part of a disposable camera project discussed below), helps to situate the women of Ambondromifehy: there are pictures of their town, their market, their families and their homes.

This thesis is presented in a way that combines the theoretical and ethnographic material with discussions of various ways to use visual material or different teaching tools in the anthropology classroom. Part II of this thesis focuses on the use of visual

material in anthropology classrooms, addressing the need to combine conceptual issues and practical applications in the classroom, and the use of visual material in anthropology, including video and Photovoice. In Part III, I present: 1) a discussion of Artisanal and Small-scale Mining (ASM) in which I demonstrate the value of comparison in establishing the parameters of the ethnographic investigation, and; 2) a look at women's lives in the ASM town of Ambondromifehy with an emphasis on how anthropological methods can be used to investigate this topic. Part III (consisting of Chapters 3 and 4) is written with the student reader in mind. An Interactive Ethnography (in PDF format) also accompanies each chapter in Part III, and these are available on the CD included with this thesis. One portfolio example is also available online at www.field2student.ca. The use of these Interactive Ethnographies requires the latest version of Adobe Acrobat Reader, available to download from www.adobe.com. There are instructions on both the CD and the website (www.field2student.ca) for how to use the Interactive Ethnography portfolios and help is available by using the contact information on the website. These Interactive Activities are discussed in Part II of this thesis.

PART II – THE USE OF VISUAL MATERIALS IN ANTHROPOLOGY

--CHAPTER TWO--

Teaching Theory with Method & Visual Materials

Teaching Theory with Method

Background

As Carol Ember (2003:9) suggests, ethnography has not been exploited to its fullest potential and anthropological fieldwork is often regarded as an intensely personal experience for which a person needs to find his/her own way. As Berreman (2007:137) put it in his prologue to his 1972 book on ethnography and impression management,

> The potential fieldworker in any given area often has to rely for advance information about many of the practical problems of his craft upon the occasional verbal anecdotes of his predecessors or the equally random remarks included in ethnographic prefaces. To the person facing fieldwork for the first time, the dearth of such information may appear to be the result of a conviction, among those who know, that experience can be the only teacher. Alternatively, he may suspect ethnographers of having established a conspiracy of silence on these matters.

With this attitude towards fieldwork, methods classes tend to be extremely general, with the common response of many students being that the most important things they learned were what paper to bring or which pencils work best. Having gone through a total of one three-month course in methodology in my own academic career, with no other courses delving into the actual practice of anthropology, I did manage to get through my fieldwork. However, there is no doubt in my mind that by taking methodology more seriously, rather than dismissing it as a "personal experience", students will have a better understanding of the relationship between conceptual issues in anthropology and the data collected in the field, they will gain a better sense of the relevance of concepts such as theory or methodology to their own work, and consequently will gain more efficient critical thinking skills earlier in their studies. However, this can be quite complicated as

field experiences do vary greatly and, given the unique topics, locations and objectives with which students are likely to concern themselves, it is undoubtedly difficult to come up with a way to teach the two together. Through the discussion of the text *Improvising Theory: Process and Temporality in Ethnographic Fieldwork* by Cerwonka and Malkki (2007) and the subsequent discussion of the role of visual materials in the classroom and in anthropology itself, I hope to demonstrate that while an exact roadmap to successful fieldwork certainly cannot be drawn, there are ways to better incorporate the theoretical and the practical aspects of anthropological research when preparing students for the field.

Improvising Theory

When conducting ethnographic fieldwork, it can be difficult to situate what one is experiencing in the field with one's theoretical background. It can be even more difficult to predict the direction the research will take; and this direction is often not the same one the researcher set off in. Here, I will discuss an example of a text, *Improvising Theory: Process and Temporality*, which illustrates one researcher's journey through her ethnographic fieldwork, the setbacks, and the advice of her mentor.

The book *Improvising Theory: Process and Temporality in Ethnographic Fieldwork* by Allaine Cerwonka and Liisa Malkki (2007) complements a recent trend in anthropological texts (see, for example, Goulet and Miller 2007; Robben and Sluka 2007) that strive to show the more personal experience of conducting fieldwork itself. This book documents the interaction (via email) between a graduate student (Cerwonka) and her advisor (Malkki). Cerwonka, at the time, was a graduate student in political science and new to the idea of ethnographic fieldwork and the discipline of anthropology itself.

Malkki herself had only recently completed her own doctorate and had attained an assistant professorship at the University of California, Irvine. In this book, the authors argue that anthropological research is largely improvisatory in nature, particularly during one's fieldwork experience. Cerwonka (2007:2) suggests that this collection of correspondence captures the process of ethnographic research as it unfolds and also illustrates the interpretive approach to knowledge production.

This work is unique from others with similar objectives (discussing methodology in fieldwork), in that the only formal written pieces (i.e. written with the intent that they would be published) are the introductory chapter (written by Cerwonka) and the conclusion (written by Malkki); the rest of the book, as mentioned above, is an edited version of a series of email conversations that took place between the two authors over Cerwonka's ethnographic fieldwork in 1994 and 1995 in Melbourne, Australia. These conversations support the authors' argument that ethnographic fieldwork is largely improvisatory in nature through the documentation of Cerwonka's fieldwork experiences, questions and dilemmas, and Malkki's responding suggestions and comments. In addition, several "afterthoughts" have been added in to expand on the theoretical significance or to clarify the meaning of a particular comment or email. Malkki often explains aspects of fieldwork that "usually go without saying" in anthropology (Cerwonka and Malkki 2007:3).

The structure of the book itself does not lend to a 'formal argument followed by supporting evidence' format. The various emails do support the evidence by alluding to theories (many of which are clarified throughout the book in the 'afterthoughts' segments) and revisiting similar dilemmas throughout the book as they arise in the

fieldwork. It is also supported by the way in which the reader can see Cerwonka's project unfolding as it almost seems to mold itself through her experiences, from a shape-shifting creature into a cohesive research project and dissertation. While the anthropological (ethnographical) methodology is contained within the correspondence, this succession of emails does not clearly outline a methodology that students can follow as other texts attempt to do (see, for example, Barrett 1996 or Bernard 2006). Many 'traditional' methodology texts can be quite dry to read or simply contain so many 'do's' and 'don'ts' that they almost become more useless than useful. In these more traditional texts, the reader not only has difficulty getting through the vast array of material, but also remembering every minute detail and instruction. Texts that go into great detail about the use of qualitative and quantitative data and collection methods often include far more information than is relevant to any individual student researcher. Cerwonka and Malkki's book is somewhat more general in nature and likely more widely applicable to individual fieldwork experiences.

The use of a text such as Cerwonka and Malkki's for teaching anthropological methods (and how they can be applied to theoretical concepts) can enhance the student's understanding of methodology in ethnography. However, despite the readability of a book such as this one there is still a gap in the material. As mentioned above, the fact that this book is specific in topic but general in instructions, continues to propagate the notion in anthropology that fieldwork is such an individual experience that each student must simply be thrown into the deep end, where they will either sink or swim. I'm quite sure that this thinking is rather counterproductive to the purpose and goals of anthropological research. It is not sufficient to say that anthropology is a personal

experience with the research reflecting that. Anthropology, if it is to be a relevant discipline outside of itself, ought to be thought of as less individualistic and more holistic. Anthropology students who continue on in graduate studies in the discipline seem to have few choices: become a professor and teach anthropology, change disciplines, or work for an NGO (not an economically viable option in many cases). Anthropology that is done during graduate studies leaves students with a limited sense of how their skills and knowledge might be applied. By changing the way that anthropology is taught, through the use of innovative materials such as the Cerwonka and Malkki text or interactive materials such as the website and Interactive Ethnographies that accompany this thesis, students will be better prepared for work both in the field of anthropology as well as outside of it.[1]

Interactive Learning Portfolios – "Interactive Ethnography"

As a key part of this thesis, I have developed three interactive learning portfolios, called Interactive Ethnographies. These portfolios were designed with several key objectives in mind: 1) To make ethnographic material available in an interactive format that combines written and visual material; 2) To provide a university-level learning activity that generates interest and demonstrates the relevance of the theory that is being taught; and; 3) To ensure that the quality and effectiveness of the learning experience matches or exceeds that of traditional reading material alone. These materials are intended to supplement existing course material and can easily be incorporated into a variety of courses and used for a variety of purposes, i.e. teaching about a particular topic, demonstrating the combined relevance of theory and method, or using the

[1] For an interesting discussion related to the job market for anthropologists, see *Anthropology Put to Work* (2007) Edited by Les W. Field and Richard G. Fox.

complementary activities (or others developed by the course instructor) as part of the course assignments (see Appendix 2 for the "Interactive Ethnographies: Facilitator's Guide").

The "Interactive Ethnography" portfolios are available on CD in PDF format and require the use of the most current version of Adobe Acrobat Reader (available through Adobe's website www.adobe.com). The portfolios are also available through the website www.field2student.ca and can be downloaded from there. The website and CD both include instructions for how to use the portfolios and additional help can be accessed by contacting me using the contact information provided in those documents. One advantage that these Interactive Ethnographies have is that they can make better use of the visual materials that anthropologists commonly collect during fieldwork. By way of introducing my use of visual material in these exercises, in the next two sections I discuss the role of visual anthropology in teaching and the use of Photovoice in anthropological research.

Visual Anthropology

Background

Ever since the portability of the photographic camera, people have been taking pictures of the exotic. Photography has been used in anthropology since the 19th-century as a scientific tool, rather than travel diaries, or to provide visual information for the classification of races and support theories of social evolution (Harper 2000, 2001, as cited in Gotschi *et al.* 2008:215). Today, many anthropologists collect visual material during their ethnographic fieldwork; however, it is not always used in publications or shared along with the rest of the data. Despite the increase in the use of photography and

participatory research in anthropological fieldwork, "[t]he standard practise [sic] is for outsiders to come in and do their research on people, after which they take away their data for analysis elsewhere" (Pottier 1997:204, as quoted in Gotschi *et al.* 2008:219). This data includes visual material that the participants do not always have access to, such as photographs or videos.

In her discussion of the relationship between teaching practice and academic writing, visual anthropology and television documentary, Anna Grimshaw (2001) cites Faye Ginsburg (1998) who observes that one of the functions of visual anthropology is that it extends anthropological work beyond the narrow confines of academia. However, Ginsburg (as cited in Grimshaw 2001:238) suggests that the liminality of visual anthropology, one of its central features, also leads to the neglect of its distinctive contribution to debates within the mainstream discipline. Grimshaw's perspective emerges from her work teaching at the Granada Centre for Visual Anthropology at the University of Manchester, United Kingdom. The Centre was founded in 1989 and its origins lie in both television and the university. This relationship between Granada Television and academic anthropology, particularly with anthropologist David Turton, was forged over two decades through collaboration on the *Disappearing World* television series (Grimshaw 2001:240-1). Initially, Grimshaw (2001:238) notes, anthropology provided a conceptual framework for the making of documentary films for television. In cases such as the one in which Grimshaw works, the Granada Centre for Visual Anthropology, the contradiction between the concerns of both academic anthropology and the wider context of media production is seen at many levels from student expectations to teaching practice itself (Grimshaw 2001:242). In effect, the media is

primarily concerned with television ratings, while academic anthropology is (theoretically) more concerned with the integrity of the material and the academic validity of what is presented. These concerns cannot always be allied and one of the goals of Grimshaw's work with the Granada centre appears to be merging these concerns, making anthropological research available to a broader audience in an accessible way, through the video projects, while still maintaining academic integrity. This is similar to the way that I have approached the Interactive Ethnographies. I hope to make the ethnographic material and the theoretical concepts behind it accessible in a way that is more interactive and intuitive for university students today. In the following sections, I will discuss the use of photographic material in anthropology and the use of video, particularly in teaching.

Use of Photovoice in Ethnographic Research

In my own fieldwork, I used a short Camera Project that was intended as a Photovoice project (see, for example, Wang *et al.* 2004:911) to allow women to share aspects of their lives that were important to them and that I may not have asked about. Photovoice is a photography method that puts the cameras in the hands of the researched, allowing them to take the pictures (Gotschi *et al.* 2008:219). My use of the Camera Project will be discussed more fully in Chapter 4. Here, I would like to present three case studies to introduce some ways in which others have used the Photovoice method, which is an excellent example of a photographic research technique. In these projects, disposable cameras were given out to research participants and once the films were developed, participants were asked to explain their photo choices. The use of Photovoice allows researchers to give some degree of power back to the subjects (Gotschi *et al.*

2008:216). The first case I will look at is a study on childhood obesity and physical activity in Australia. The second case is a project looking at Latino children's health in Denver, Colorado. The third case to be discussed looks at farmer groups in rural Mozambique.

"Case Study #1"

Darbyshire *et al.* (2005) explore the research implications of using a multi-method approach by drawing on two childhood obesity-focused qualitative studies of Australian children's perceptions and experiences of place, space and physical activity. They attempt to address the gap in the research where there are few studies in which children have expressed the meanings of physical activity for them and contextualize their understandings within their everyday physical and social worlds (Darbysire *et al.* 2005:418). The standard approach to researching children's experience is grounded in 'research on' rather than 'research with' or 'research for' children, which "[ignores] the views of children as active agents and 'key informants' in matters pertaining to their health and well-being" (Darbyshire *et al.* 2005:419).

Photovoice as well as other visual information (mapping and drawing) were used because of their potential to enable children to depict people and places that were important to them within their home, school and community (Darbyshire *et al.* 2005:423). In an article based on this research, Darbyshire *et al.* (2005) address the issue of whether or not the use of this multi-method approach provides better or simply more data and they found that the multiple methods used – including focus group interviews, mapping, and Photovoice – complemented rather than duplicated one another and enabled the expression of different aspects of the children's experience (i.e. trampolines

were often photographed but never found in maps or discussed in focus groups) (Darbyshire *et al.* 2005:424, 430). One of the problems encountered by Darbyshire *et al.* (2005:429) was that the children added comments to some of their photos but the researchers missed the opportunity to ensure that the children had ample time to talk about all their photos, with the result that the researchers were left with "Photovoice without the voice".

"Case Study #2"

The second case is that of the photographic component of a study on Latino children's health in Colorado. This study, conducted by Clark and Zimmer (2001), consisted of three different photographic methods: 1) mother-generated photos (mothers photographs of their children); 2) photos taken by the authors and a research assistant during home visits; and, 3) the 'Day in the Life' project photos (a full day where the researchers systematically captured the events that occurred during a child's typical day). For the mother-generated photographs, the researchers handed out disposable cameras during three-month intervals between visits. After the three-month intervals, the researchers collected the cameras and ordered two sets of prints, one for the researchers and one set for the mothers. They noted several unforeseen complicating factors with this method (mother-generated photographs) (Clark and Zimmer 2001:307). These included:

1. The workings of a disposable camera posed a barrier to their photographic impulses. For example, they noted one woman who thought her camera was broken, when she had simply failed to advance the film; however, she did not take any photos during two of the three-month intervals because of a "broken camera".

2. The women needed to use the camera for other purposes. One woman used her research camera to document damage to her vehicle, as she owned no other camera and the photos could record information critical to her insurance claim. There were several other cases where research cameras were used to meet the participants' personal needs at various times.
3. The mothers were the predominant photographers. This was problematic because the mothers were rarely in the photographs and so there was no photographic record of interactions between mothers and children. Also, some reported they were too busy to take photos and so had no photographs to give to the researchers or had taken the entire roll the day before.
4. Some mothers developed the film on their own, as they did not want to wait three months for the researchers to return. In this case, the mothers did not make a copy of the photos for the researchers.

These problems contributed to a photographic database that was interesting, but partial and inconsistent (Clark and Zimmer 2001:308).

The photos taken by the researchers tended to be very formal (the family posing on the couch for a family photograph) and thus did not really record any child's home or family environment. Clark and Zimmer (2001:308) point out that more productive photographic data could have been gathered if they had spent more time with each family and had overcome that sense of formality in the photos.[2] Their final photographic method was the Day in the Life of a Toddler project. This project was the most intensive

[2] This may pose less of a problem in much anthropological research, as spending an extended period of time with the research participants is a key element of most field work experiences.

in terms of the cost, time, and photographic output. The researchers, in two person teams, went to each of the three selected households and spent a full day photographing the child. One of the researchers took the photos while the other kept notes of the events that were occurring, the approximate time the photos were taken, and kept an order of the sequence of the photos (as these were done with a film camera, not a digital camera) (Clark and Zimmer 2001:310).

All of the photos collected through these three methods were then entered into a database and qualitative and quantitative analyses were conducted to compare the different data collected from the three photographic methods, with those then being compared to data collected from interviews alone. Clark and Zimmer (2001:315) found that they learned more information about three child health-related categories (family relationships, feeding patterns, and the safety and stimulation of the home environment) through the Day in the Life project than they did through interviews alone or the other photographic methods. They concluded that adding a photographic component to their research methods was one more way to triangulate methods and strengthen findings (Clark and Zimmer 2001:326).

"Case Study #3"

The third and final case study involving the use of disposable cameras and photography as a field method is that of the investigation of farmer groups in rural Mozambique. This study was conducted by Gotschi *et al.* (2008) with the purpose of critically and collectively analyzing the farmers' group membership, required investments, problems faced, coping strategies and the benefits/incentives from being in the group. They surmised that putting cameras into the hands of people changes power

relations between the researcher, the researched and between the researched themselves (Gotschi *et al.* 2008:213). Harper (2000:141, as quoted by Gotschi *et al.* 2008:214) suggests that researchers have to be careful not to misrepresent the realities of participants and often need time to "learn to see through the lenses of the cultural Other". However, it is also important to remember that most pictures still require verbal interpretation. Gotschi *et al.* (2008:216-7) suggest three contextual aspects that need to be considered when interpreting photographs:

1. Socio-historic context. For different social groups or in different situations, the same photograph can have considerably different meanings.
2. Socio-biographic background of the photographer. The specific context, the roles s/he fulfills, the socio-biographic background can determine the framing and interpretation of the picture.
3. Context of interpretation and analysis. Different interpretations are made depending on who analyses the photos: the researcher, the researched, the two together, or another viewer). Photos interpreted by those for whom the photo represents something close to them will attribute meanings and emotions to them that would be lacking in an analysis by a researcher or a viewer of a magazine or article.

The objective of the farmer group project in Mozambique was to "assess and compare social capital, group formation processes and power distribution, in groups of smallholder farmers during fieldwork between 2004 and 2006" (Gotschi *et al.* 2008:221). In this case, eighteen cameras were given to eight farmer groups. Meetings were held to explain the project and how the cameras work; the full project consisted of an introduction, three

cycles of photography, and a final workshop. Leaving farmers with the photos was considered an incentive for them to engage in the process and allocate their time and effort (Gotschi *et al.* 2008:222). At the final workshop, the groups could exchange ideas and they asked the NGO to organize further meetings so they could learn from other groups. The authors concluded that, by handing over the research tool, the farmers were empowered to decide how to put the research question into practice by choosing themselves which pictures to take, and who, on behalf of the group, takes the pictures; in survey studies it is the researcher who fully determines all these aspects (Gotschi *et al.* 2008:229). In this sense, "instead of the interviewee being subjected to the interview, they became the expert and guide, leading the interviewer through the history, the places and the processes, the people involved and the environment of the time (Parker n.d.:8, as cited in Gotschi *et al.* 2008:226).

While many of the points raised in the above case studies are familiar to me from my experience, I intend to push the use of Photovoice in another direction. I am not just considering the Photovoice project I conducted as a method for collecting different or better data but as a means for communicating information directly to the reader through the chapters in Part III and the Interactive Ethnographies. Unfortunately, my Photovoice project reflected one of the problems encountered by Darbyshire *et al.* (2005:429) in that with very vague and incomplete explanations of the photos, I ended up with "Photovoice without the voice", which was not my intention.[3] The case studies presented above do not specifically discuss how the images collected have been used or exhibited. By presenting the photos from this project in the thesis chapters as well as the Interactive

[3] I will refer to my project as a Camera Project, rather than a Photovoice project as it lacks the "voice" aspect and is therefore not truly a Photovoice example.

Ethnographies, I am using the images produced in the project to convey ideas about women's lives in Ambondromifehy to the viewer/reader. I will be including images from both the Camera Project as well as photos that I took myself throughout the following chapters; these will be identified throughout.

Teaching with Visual Material, Particularly Film

In the university classroom, particularly where most students will not be continuing on as specialists in the course subject, it is important to establish the relevance of what is being taught. It can often be quite difficult to relate conceptual issues in the classroom to practice in the field. Film is a tool that can help bridge this gap along with ethnographic material in Anthropology courses. Ruby (2005:165, as quoted in Hurdley 2007:362) suggests that, "audiovisual technologies can record visual culture, based on epistemology that 'culture is manifested through visual symbols embedded in gestures, ceremonies, rituals and artefacts [sic] situated in constructed and natural environments". Ethnography, both written and visual, provides real life examples and case studies that can be used to illustrate the theory that is being taught. In Anthropology, visual material is a way to 'bring the field into the classroom' and provide an experience of doing fieldwork to those who may never go out into the field. This gives relevance to what is being taught and shows students the potential of the material they are learning in textbooks and in the classroom. As with most other disciplines, there is a time in a student's anthropological career where they will eventually practice what has been preached to them. There is a common failure to integrate conceptual issues and the practical aspects of anthropology, such as how to make sense of the data collected in the field, before the student is practicing their discipline. Thus, when conducting their own

fieldwork, students often find themselves unprepared and unsure of what to expect or how to react to changing circumstances.

Mallinger and Rossy (2003:609)[4] suggest that film is a "uniquely rich medium for the purposes of studying culture" in that it communicates on several levels: 1) films tell stories about people, their hopes, their dreams, challenges, and fears, how they relate to others, and what behaviours are socially acceptable; 2) film gives students a window to many cultural variables that they may not have personally experienced; and, 3) films address two difficult issues in education: motivation and retention of information, as students today are accustomed to learning through multimedia and are easily bored with traditional pedagogies.

With the often didactic teaching methods employed in universities, there is little opportunity for students to interact with the material and thus, professors can easily, and quite often, lose the interest of their students. As mentioned above, visual material can help to capture the student's attention and spark interest in a topic that, like much theory, is often difficult to get into. That said, the nature of anthropology, unlike business (see, for example, Mallinger and Rossy 2003), makes it quite difficult to bring the field to the student. However, despite that obstacle, there are various professors and educators working toward developing interactive material and visual material into the classroom. I think that one of the most important things that Grimshaw (2001) highlights in her article is a point made by British television documentarist, Paul Watson, during an annual

[4] Mallinger and Rossy (2003) are discussing the use of film in teaching business students of management theory and practice about different cultural issues that could arise in a workplace setting. While this is not specifically an anthropological case, they do point out that this cultural education is important for business students who may not have a background in cultural studies or anthropology, and that film may be extremely effective as a teaching tool (Mallinger and Rossy 2003:611).

screening of Granada Centre graduation films. He reminded students that their strength as filmmakers lay in their anthropology, which has offered them an unusual perspective on the world. Grimshaw (2001:247) says that this has been the most difficult task for her as a teacher: convincing students that "anthropology might continue to serve as a creative source for their work rather than something to be discarded on the way to becoming a filmmaker". She goes on to say that the program, and the focus on visual media as a way to express ethnographic work, is about recognizing anthropology as "a coherent space for the thinking through of ideas and practices about the world in which we live" (Grimshaw 2001:247). I agree that this goal is exceptionally valuable and, while extremely difficult to accomplish, should undoubtedly be at the forefront of teaching mandates. Most undergraduate students of anthropology do not continue in the discipline and even graduate students who do not go on to become professors are often left wondering where their degrees will take them. Through the incorporation of visual materials, interactive exercises and experiential learning possible with the expansion of the classroom beyond literature reviews and didactic lectures, students will be able to see the practical application of their skills and the value inherent in their educational background, anthropology.

While it may sound rather straightforward to simply incorporate visual material into ethnography and subsequently into the classroom, Grimshaw (2001:238) discusses how this does not involve the transposition of a text-based approach into a different form; it requires a complete re-orientation of one's ethnographic perspective. It is also an opportunity to rethink how we explore, know and represent 'the real' (Grimshaw 2001:242). Here I think it is important to address the necessity of having structured steps

to facilitate the learning process, particularly where films or website activities, in addition to the classroom material, are used. In the case of business schools, Mallinger and Rossy (2003:614) quote Osland and Bird (2000:68) who said, "For understandable, systemic reasons, business schools tend to teach culture in simple-minded terms, glossing over nuances and ignoring complexities". They go on to suggest that in the absence of well-defined problems and clear solutions in management, film may provide a way to facilitate student understanding of paradox, complexity, and ambiguity. Mallinger and Rossy (2003:612-3) suggest four steps to accomplish this, which easily apply to the use of film in anthropological classes:

1. *Pre-class preparation.* This may include reading a text on the subject or on the use of film in anthropology, watching the film, or even completing a pre-class assignment. This will allow the instructor to use class time more effectively.
2. *Class session.* Mallinger and Rossy (2003:613) suggest that students discuss what they have learned in the pre-class preparation and come up with a group analysis at the start of the class.
3. *Faculty-led debrief.* Here the groups can discuss their analysis with the class. The instructor can then check for clarity of understanding, address issues raised in the discussion, and work through questions or confusions (Mallinger and Rossy 2003:613).
4. *Follow-up assignment (optional).* To reinforce what has been learned in class, follow-up assignments may be required. These may be either film or non-film related, but relating to the issues raised during the class.

Mallinger and Rossy (2003:613) do point out that films can often use clichés when it

comes to representing culture(s). In their particular case, this can be helpful to simplify the issue initially and the instructor can then move students from the simple to the complex; "first you learn the concepts, then you learn the exceptions" (Mallinger and Rossy 2003:616).

Digital Anthropology Resources for Teaching (DART)[5], a partner program between the London School of Economics and Columbia University in New York, is an example of how to incorporate visual and interactive material into the classroom. DART's goals include: promoting the widespread acceptance and use of digital resources in undergraduate education; meeting the particular challenges in anthropology (i.e. the heavy reliance on fieldwork but the lack of opportunity for undergraduates to develop practical knowledge); and, to develop a range of digital library technologies. Undergraduates seldom have a chance to engage in fieldwork themselves and DART aims to bring students closer to the process of developing anthropological knowledge through digital tools such as digital libraries, video-interpretation exercises, and ethnography exercises (Bond and Freeman 2005). If it is true, as Grimshaw (2001:253) suggests, that students often see different forms of public media as important alternative sites for the expression of anthropological perspectives on the contemporary world, then it makes sense for anthropologists to establish a presence in these public media. Another example of a slightly different online project is Maximilion Forte's Open Anthropology[6] site that includes photographs, videos, blogs, essays, poetry, as well as several other mediums for making anthropology more accessible to a wider audience.

The videos in the Interactive Ethnographies and on the website accompanying this

[5] http://www.lse.ac.uk/collections/anthropology/dart.htm
[6] http://www.openanthropology.org

thesis were made with similar goals in mind: to demonstrate an alternative method of teaching the practical aspects of field research, such as the application of field data, combined with conceptual issues in anthropology through a case study of women in a northern Malagasy sapphire mining town. The way that I have employed videos in the Interactive Ethnographies is different from the traditional ways that videos have been used in teaching anthropology. The primary way that video has been and is used in the classroom is in the form of (usually) one-hour length documentary style films, and many of these were made more than ten or twenty years ago. The videos used in the Interactive Ethnographies are short 30 second to 2 minute clips that do not include an explanation of what the student is seeing, i.e. no narrator telling them what to think about what is being shown in the video. However, these videos are positioned within the context of other information in the portfolio. In this way, students are able to look critically at what they are seeing and to situate it for themselves within what they have read or learned in class. This also gives them a front seat, as the ethnographer would have had, seeing different aspects of daily life without necessarily knowing what they means at the time. As with real ethnography, some things become clearer as we learn more and others will always remain intangible to those outside of the culture.

The written ethnography, photographs, videos and website are designed to be used together to illustrate the process of fieldwork, my response to changing circumstances and complications during the fieldwork, and finally, ways to apply conceptual issues in anthropology to the field data that was collected. The website also includes various activities that could be conducted as part of an anthropology course discussing methods, theory, or both together; some of these are unrelated to the ethnographic study presented

here and can be modified by the instructor to fit with the course objectives and the level of the learners.

Summary

As mentioned above, a significant part of the thesis project I set out to do involves the use of visual material supplemental to the written ethnography. This was accomplished through the formation of Interactive Ethnographies that include written material (traditional ethnography format), photographs, and video clips. The visual material is meant to give the student a perspective more closely representative of that of the researcher, as in the video clips of daily activities that do not include narrative explanation or photos that are left up to interpretation. Students are encouraged to make sense of what they see in light of what they have read (assigned readings or the written part of the ethnography). With this in mind, there are some aspects of the Interactive Ethnographies, as well as the written chapters that follow, that were intentionally left open-ended or seemingly randomly put together. This was done intentionally with the above goals in mind. Particularly at the university level, students should be encouraged to engage in critical thinking and it is not always necessary for a written work to tell the student what to think or how to think about a certain phenomenon; and in truth, the author of the work, while they may be authoritative, may not know themselves the truth behind what they saw or are explaining in their text.

In my work, which is presented here, there were many things I photographed or videotaped or asked participants about that I never did have explained or fully explained to me. The Camera Project is a prime example of this. In the short interviews about the photos, many of the answers were incomplete, vague, or perhaps too direct to provide any

substantial explanation (this will be discussed more fully in Chapter 4). While, as a student, I can reflect on the significance of the photos and those with more experience working in the area, my supervisor for example, can provide a much more informed speculation, my own interpretations will remain just that: informed speculation. I think it is important for students to understand that the decision-making process that goes along with interpretation of ethnographic material, for in the end decisions must be made (what to write about in an essay, what to look into further, what's ultimately important about the data set, etc.), can still be accomplished and thorough despite a perceived lack of information or jumbled presentation of the data (as will likely occur in the field).

I have written the following chapters of this thesis with the Interactive Ethnographies in mind with the intention of those being the focus of this thesis rather than the ethnographic material. In effect, I am more concerned here with what can be done with ethnographic material, and presenting a particular example of this, more so than expanding on the ethnographic material itself in a written ethnography. The chapters that follow are each accompanied by an Interactive Ethnography, in .PDF format, and should be read with the understanding that while they are written primarily in ethnographic style, they were written with the Interactive Ethnographies in mind as an alternate and equally suitable means of approaching this material.

PART III – MINING, WOMEN'S LIVES AND COMMUNITY

--CHAPTER THREE--

Artisanal Mining

Introduction

In this section I will be demonstrating, through the study of Artisanal/Small-scale Mining (ASM) worldwide and in the northern Malagasy mining town of Ambondromifehy, the value of comparison in anthropology, particularly in setting up an ethnographic field project, such as the one described in this thesis. Comparison allows us to identify common features of disparate cases and to situate a particular community, activity (mining, in this case), or phenomenon, within a broader context be it regional, national, or even global. As you will see in the discussion that follows, comparison is also an important tool that reveals the common features that might be described as "characteristic" of boomtowns, while at the same time, revealing the paucity of research on such communities after they boom (this will be discussed more in the next chapter). Ideally, this is done before the field research begins, but in cases like mine, much of this was done after the data was collected. This is not necessarily a bad thing; in many more cases, the researcher finds things quite different from what they expected. Also, as was previously discussed in relation to the work of Malkki and Cerwonka (2007), sometimes we can't carry out the research we planned prior to going into the field for the first time and we have to improvise and then make sense of what we did find after the fact. Unless otherwise indicated, all of the photographs in this chapter are from the photographs I took while in Ambondromifehy.

Introduction to Artisanal Mining

What is Artisanal Mining?

Artisanal mining forms a large occupational sector in many countries around the world and over time. Communities and Small-scale Mining (CASM)[7] estimates that at least 13 million people worldwide in over 30 developing countries are involved in artisanal/small-scale mining and that a further 80-100 million people depend on this sector for their livelihoods. In many cases, such as that of sapphire mining in Madagascar, the artisanal mining sector has become extremely important to national and regional economies. For example, Hayes (n.d.), in a report for Pact Congo, suggests that there are approximately two million people involved in mining in the Democratic Republic of the Congo (DRC) and that 90 per cent of the mining is done in small-scale operations, with 15-20 per cent of the population dependent on this activity. Statistics in Madagascar are similarly staggering. Cartier (2009:82), in his article on the livelihoods of artisanal ruby and sapphire miners in Madagascar, notes that "the number of people engaged in artisanal gemstone mining in [Madagascar] may have already surpassed 500,000"[8]. Rubies and sapphires "currently account for the majority of Madagascar's gemstone exports" with Madagascar being "the largest producer of quality sapphires in the world" (Cartier 2009:81).

Artisanal small-scale mining, is essentially subsistence mining. Cartier (2009:81) suggests that,

Even though mining is frequently divided into artisanal small-scale mining (ASM)

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[7] Communities and Small-Scale Mining (CASM) is a global networking and coordination facility with a stated mission to "to reduce poverty by improving the environmental, social and economic performance of artisanal and small-scale mining in developing countries." CASM is currently chaired by the United Kingdom's Department for International Development and is housed at the World Bank headquarters in Washington, D.C. (CASM 2007).

[8] The World Health Organization estimates that the total population for Madagascar is 19,159,000 as of 2008.

> and large-scale mining (LSM)… it is much more useful to treat non-mechanised artisanal mining and small-scale mining (most often legalised) as different entities.

The mining that is occurring in the case of Ambondromifehy is artisanal mining, as per Cartier's distinction, while many of the comparative cases discussed in this chapter would be considered small-scale mining. For simplicity, I will continue to use the common term artisanal small-scale mining (ASM) to refer to both throughout this thesis.

Worldwide, the informal mining sector is easy to enter, with many people (including an increasing number of women) trying their luck in artisanal mines in an attempt to relieve the strains of poverty (see, for example, Heemskerk 2003, Hinton *et al.* 2003). According to the World Gold Council, these artisanal or small-scale miners are not employed by a mining company, but rather work independently, mining or panning for gold using their own resources. Hinton *et al.* (2006:209) suggest that artisanal mining may be better characterized "by a lack of long-term mine planning and use of rudimentary techniques".

These people are washing, panning, and sorting out sapphires from sacks of dirt carried out of the reserve. Photo by the author.

Despite the difficulties facing artisanal miners, involvement in this activity continues to expand. Artisanal and small-scale mining is both poverty driven and poverty alleviating, meaning that its continuing attraction is the opportunity it provides to many to secure their household's survival, however minimally (CASM). Although artisanal mining communities are places of opportunity, they can also be dangerous places.

Mining camps have been commonly perceived as "a collection of strangers rather than a community of kinsmen, friends and neighbors" (Douglass 1998:100, as quoted in Werthmann 2008:62). Many of the people engaged in this activity have limited rights and face harsh realities related to the mining work, health issues, and financial struggles, particularly women. These aspects of artisanal mining will be discussed below.

Migration in the Context of Artisanal Mining

Much of what has been written on ASM comes from studies on gold mining. As I will discuss later, some of the points raised in this discussion do not necessarily apply to gemstone mining. For the purposes of comparison in anthropology, it is still extremely useful to use cases of other types of mining, such as gold mining, particularly cases that share common features such as migration patterns, community formation, or post-boom characteristics. The mining sites that develop in the small-scale sector are typically discovered by a small number of people, even a single individual, and the news of the opportunity is spread by word of mouth, causing these communities to pop up 'overnight', so to speak.

In his ethnography on the Amazon gold rush (particularly in Brazil), Cleary (1990:51) offers one of the most complete descriptions of how small-scale mining operations come to be. The case described by Cleary is on a larger scale and involving significantly more workers, however, it still provides an excellent comparison in terms of worker's experiences of migration, which as mentioned above tend to be similar or have similar features. Cleary describes a number of different ways in which mining sites come into being, with many of these sites or communities having several common features. In many cases individuals or small groups start small-scale mining operations and within a

short time, rumors began to circulate and soon hundreds then thousands of people flocked to these mining sites. In other cases, small-scale mining occurs on the fringes of large-scale mining operations or once large-scale operations have shut down, leaving people free to move in and rework the area. This means that people are migrating to these areas with the knowledge of the risk and potential of the opportunity and that the people who end up forming the community are commonly from very different regions and backgrounds. This sort of migration and community formation is dangerous, however, in that there can be disputes over pit boundaries, coupled with the fact that no one knows anyone else, making each individual a tempting target for the unscrupulous (Cleary 1990:52-3).

Cleary (1990:74) identifies two main types of miners based on their involvement in mining and their patterns of migration. These types include those who only work for a few weeks and then return to rural or urban occupations and those who see themselves as 'full-time' miners and often travel between different regions of the mining area. These types can also be seen in other mining contexts worldwide, and are supplemented by other categories of workers including daily wage labourers who earn a percentage of the gold mined, those who work in the stores, people who own their own mining machines, as well as various sorts of entrepreneurs (Cleary 1990:84-94). Several cases (see, for example, Upton 2003: 315) suggest that in certain sociocultural contexts, migration to mining communities is central to the development of male gender identity and social support and as such, can be an important part of a man's life cycle.

Today, many people migrate not from a home village, but from another mining region; before that, they may have lived and worked in several mining regions since

leaving a home community. In a more recent case of ASM, Luning (2008:190) describes the gold-mining village of Liliga-Goren in Burkina Faso. The site Luning (2008:190) describes is a small site (1km^2) with no more than 300 people on the site at one time, shallow pits (about 3m deep), and miners using simple techniques involving gravity, wind and water to process the gold. This site is close to agricultural fields. Luning (2008) describes how mining in Liliga-Goren began in the mid 1980s and was followed by several gold rushes. Many people in Burkina Faso are faced with the choice of whether to work the fields (the primary occupation in Burkina Faso) or look for gold. As Luning (2008:191) notes, mining is often carried out seasonally, with people returning to their regular activities in agriculture after a period of mining. This is similar to the case of Ambondromifehy, where miners today tend to work the mines seasonally or when there are no more lucrative opportunities elsewhere (such as in gold mining in the region).

The nature of many mining towns worldwide is such that many people who end up in these communities only view them as stopping grounds until the source runs out or a better, bigger opportunity comes up. As in the case of the Haitians remaining in the Dominican Republic after working on sugar plantations (as described by Martinez 1995), however, there will always be people who remain behind in these places, even once the opportunities have moved on. This is the case of the post-boom mining community of Ambondromifehy, which will be discussed in greater detail below. For now, suffice it to say that despite the fact that the boom has passed, many people here have remained in the town despite their previous or standing intentions to leave as soon as they are able and these communities are clearly not disappearing with the boom. The characteristics of the

town during and after the boom, and the factors that figure into people's decisions to stay or leave, will be discussed below.

Women and Migration in the Context of ASM

Migration is an important issue in the lives of women who live in ASM communities. In many cases, either they have migrated to the community, and may have engaged in multiple migrations before, or their spouses migrate for work, leaving them behind to await their return or to be sent for to join their spouses. While the majority of migrants to artisanal mining communities are men, there are many situations where women also migrate to these communities. Martinez (1995:123) in his discussion on migration to the Dominican Republic for work on the sugar plantations, suggests three categories of women migrants: 1) international traders; 2) spouses and children, and; 3) single women. While Martinez is not discussing ASM in particular, his discussion of migration in this context is unparalleled in the ASM literature and these categories are relevant to the discussion of women's migration in ASM. This makes the case described by Martinez appropriate for comparison given that those migrating to and from Ambondromifehy are following similar migration patterns. While not all women migrants fall into the particular categories listed above, this division gives a good sense of the types of migration women may be engaged in when they move to ASM communities. Martinez can help us to understand the migration of women to towns like Ambondromifehy, as many of these women could also be considered "peripheral migrants". He found that women who migrate to the Dominican Republic to work on the sugar plantations tend to exercise as much autonomy as men, however, he also notes that women who migrate tend to have more vague goals that men (i.e. they are not migrating

to make money to build a house, for example) (Martinez 1995:125-6). In this case, women who migrate tend to travel with one or more friends, relatives or neighbours, and those who do travel alone tend to end up in some sort of spousal union (Martinez 1995:127-8). This is also the case in ASM communities where husbands or male kin are often crucial for introductions and transport to mining areas (Heemskerk 2003). While there are women migrating, it is also often the case that they are left behind, either in the home communities or at a declining mining region, while their partner is off trying out a new opportunity.

Women who stay home while their spouses migrate are affected considerably by their husband's absence. These effects vary considerably worldwide and within particular societies (Martinez 1995:130). However, in the case of the migration of men to the Dominican Republic as described by Martinez (1995:132), migration not only separates spouses but also leads to the intensification of the labour of the wife, who is left to take up her husband's duties in farming, and so on. Therefore, in addition to their roles as mother, household manager, or trader, women are also taking up their husband's business or agricultural work with a high amount of risk for themselves and their families (Martinez 1995:134-8). As another example of women being left behind, Upton (2003) discusses the case of Tswana society, where the incidence of HIV/AIDS is extremely high and where women are the ones caring for ill family or orphaned children. Many of the women left here have partners engaged in migration and are left awaiting remittances from men who are often unreliable in these contexts (Upton 2003:317-8). In addition, this case presents a further complication where men who are migrating are acting as vectors of disease.

Introduction to Artisanal Mining and Ambondromifehy

The town of Ambondromifehy was originally established in 1909 by migrants from Madagascar's northeast coast (Walsh 2002:373). In the mid 1990s, Ambondromifehy was a small village of about 400 agriculturalists, however, upon the discovery of sapphires in the region in 1996, the population spiked to around 14-15 thousand inhabitants (Walsh 2005:658). At the tail end of the boom, as Walsh (2003:293) describes, miners in Ambondromifehy comprised three-quarters of the population and worked for themselves or as members of small groups, using simple technology to dig pits and process (i.e. clean, sort) the sapphires. New mining opportunities opened up when the sapphire mining in Ambondromifehy began to decline around 2001 and most of the people living in the town left for these new opportunities or to return to their homes. However, approximately 3000 people remained in the community. Since leaving to try their luck elsewhere in various forms of resource extraction in other parts of Madagascar – sapphire mining in the south, gold mining in nearby northern regions, or harvesting vanilla on the east coast – many people have returned to Ambondromifehy. Some have returned after a short period, others after several years; some stay for only a few weeks at a time, others have remained indefinitely. This situation is not unlike that seen worldwide in small-scale

This mining operation is in the reserve and consists of several men, women and children. Photo by the author.

resource extraction efforts, be they mining, logging, or even crop-harvesting.

Similar to the case of ASM of gold in Burkina Faso, discussed earlier, women in Ambondromifehy often said that they were here waiting for the return of their husbands who had gone off to work in the rice fields since the sapphire trade was slow at that time. However, the men intended to return to Ambondromifehy to pick up on the mining activities after working in agriculture. Luning (2008:191) suggests that people view agriculture as a more sustainable practice with annual yields whereas mining is seen as a short-term venture with the result of temporary wealth.

While there are several key differences between the case of gold mining in Burkina Faso (Liliga-Goren) and the case of sapphire mining in Ambondromifehy, the aspects described above are very similar. The primary differences were in the mineral being mined and also in the scale of mining.[9] International mining companies were involved in the case of Liliga-Goren whereas there are no mining companies operating in Ambondromifehy. This was likely the case in Ambondromifehy partially because much of the mining is occurring in a protected area – the Ankarana Special Reserve -- that is meant to be off limits. Initially, it was forbidden to seek gold in Liliga-Goren forcing villagers to go searching at night; once the government made a move to permit mining, not only did mining (and miners) become more visible, but the state began to attempt regulation of mining activities, which has proved extremely difficult in Ambondromifehy, where mining in the reserve is illegal. By comparing cases that share similar features, it is also possible to see those features that are unique in particular cases, as well as issues that are not discussed but that would be interesting directions for further

[9] There are also several technical differences between gold and gemstone mining, however it is beyond the scope of this thesis to address those.

research. In cases like Ambondromifehy, it is also beneficial to compare cases like Liliga-Goren where changing circumstances led to mining regulations and likely additional support or interest from government or aid agencies.

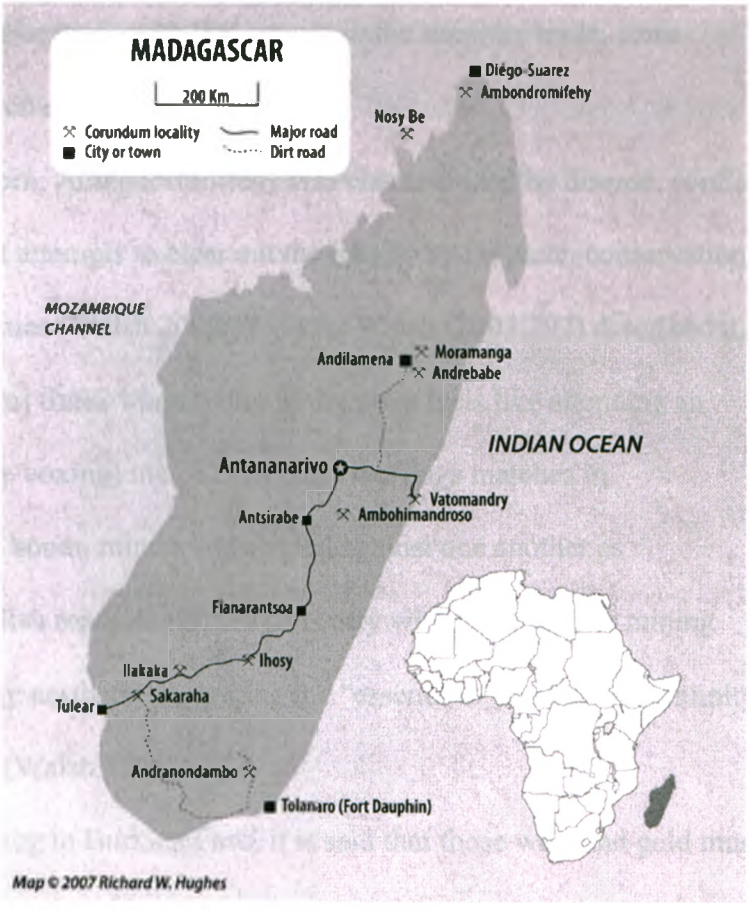
Mining Sapphires in Madagascar

The blue stones are sapphires. The man holding this pan is separating the sapphires from the stones. Photo by the author.

The case of artisanal mining of sapphires in Madagascar follows many of the trends seen in artisanal mining worldwide, but it is also unique in several respects. In Ambondromifehy, many miners go into the Ankarana reserve, which happens to be an important local source of sapphires (Walsh 2005:654). The Ankarana Special Reserve is located several kilometers west of the town of Ambondromifehy; digging in the forests or the caves surrounding an immense limestone massif, the miners are viewed as causing irreparable damage to the reserve's unique ecosystem (Walsh 2003:292). The miners who migrated here would have been from different regions and different ethnic backgrounds. Lesley Sharp (1993:53-4) suggests that there are approximately 18 ethnic groups in Madagsacar, making it a substantially polycultural country. Many of the men and women who migrated to Ambondromifehy during the sapphire boom have been previously involved in, what is in many cases, a series of short-term migratory labour experiences in which they may have been involved in mining, fishing, agriculture and urban activities (Walsh 2003:292). However, as Walsh (2003:292) notes, Ambondromifehy is not a "frontier"

that migrants plan to settle in permanently. Many people have left after the boom or have begun to migrate back and forth between mining and other subsistence activities, such as rice farming.

Gezon (2000:239) suggests that women in the Ankarana region in northern Madagascar differ from one another mainly in three ways: connection to an extended family, marital status and residence, and age. While the women Gezon is discussing live very different lives and in very different types of communities than the women in Ambondromifehy, this comparison based on region and shared language and culture is valuable to provide insight into women's lives in Ambondromifehy. As well, many women who live in Ambondromifehy may have originally come from villages like those discussed by Gezon and share similar characteristics. Gezon (2000) explores the processes of establishing and negotiating access to political authority and economic resources such as land, labour, and cash. She finds that women who are



Map: http://www.ruby-sapphire.com/madagascar_ruby_sapphire.htm

unmarried generally fare worse in political/economic opportunities and constraints than men or married women, and that women (in their involvement in these sectors) differ from one another as much as they collectively differ from men (Gezon 2000: 250, 257). In Ambondromifehy, most of the women I spoke to suggested that it was necessary to have some kind of connection, most often a husband, in order to obtain work within the community. Whether the connection is a family member who introduces the woman into the community, or a spouse who provides economic support for the woman until she is able to start her own business or work with that spouse in the sapphire trade, some connection and support is often considered necessary.

At the height of the boom, Ambondromifehy was characterized by disease, conflict and corruption, with frequent attempts to clear out the miners by the state, conservation agencies, and mining companies (Walsh 2002:373). As Walsh (2003:297) described it, during the boom, "there [were] times when living in the town feels like attending an extended morengy [Malagasy boxing] match". In these *morengy* matches in Ambondromifehy during the boom, miners were pitted against one another as individuals, fighting to establish reputations they can carry with them in their mining expeditions, with the morengy aesthetic suggesting the "essence of youthful masculinity [as] constantly center stage" (Walsh 2003:297).

In the case of gold mining in Burkina Faso, it is said that those who find gold must be connected to its "real" owners, the bush spirits; these people who are connected to bush spirits are characterized as behaving excessively in most respects: they act violently, too generous, and take too many risks (Luning 2008:199). Newcomers to places like Liliga-Goren or Ambondromifehy tend to rely on others to teach them the basics of the

industry or develop social networks. Walsh (2003:293) discusses some characteristics of these relationships in that they tend to be based on ephemeral means (smoking, drinking, eating or gambling together) and they often rely on excessive spending and generosity in order to maintain them. Similar to the excessive behaviors noted as characteristic of miners in Burkina Faso (Luning 2008), miners in Ambondromifehy often used the word "risk" to describe their activities and their reasons for coming to Ambondromifehy (Walsh 2003:294).

The social networks that existed within Ambondromifehy at the height of the boom were generally unique and relatively short-term (Walsh 2002:373). When prospectors to the community first arrived they followed the expected customs and introduced themselves to long-term residents, explaining why they had come. However, as Walsh (2002:383) notes, as the sapphire trade grew and the notoriety of Ambondromifehy grew along with it, respect for traditional customs became less of a priority; this threatened not only the social framework of the community but the sanctity of the reserve and protected areas, places in which people are meant to behave in particular ways (by respecting land taboos, for example).

The red mark on this tree, put there by the World Wildlife Fund representative, indicates to miners an "extra" protected area within a protected area, as it is known that miners are going into the reserve anyway. Photo by the author.

One particularly important aspect of this sort of artisanal mining is that it interferes

with the protection of the reserve in that it is seen to be unsustainable and destructive to local ecosystems (Walsh 2005:658). Previously, when there was an attempt to regulate the mining in Ambondromifehy – and this was not the case when I visited in 2008 – miners who were caught mining in the reserve would have their equipment and sapphires confiscated, and were required to pay fines. After several incidents, including the burning down of the police station in Ambondromifehy, the government discontinued its effort to regulate the mining in the reserve by the means mentioned previously and it seems as though the town has been "written off" by the government. By the time the population of the town had fallen considerably (between 2001-2003), many people, even those who lived there, were talking about the place as being on the verge of complete collapse. Today, miners continue to work illegally in this reserve (Walsh 2005:658). What this means is that most miners have operated (in terms of their economic activities) and continue to operate outside of the communities in which they live, such as Ambondromifehy (Walsh 2002:375). Now that miners are free to actually live inside the reserve, many do not return to Ambondromifehy more than once every week, with some staying in the reserve for several weeks at a time.

As is suggested in the above discussion of the boxing matches, places like Ambondromifehy are often characterized as masculine settings. Men are usually represented as being prominent in the mining sector and most research traditionally neglects to discuss the roles of women in these communities. Worldwide, the role of women in artisanal mining sectors is as varied as it is constant. Small-scale sapphire mining in northern Madagascar appears to be a unique case in that compared to women in most other African and Asian contexts, women in northern Madagascar have a much

lower level of participation in the actual mining work (Lahiri-Dutt, pers. comm.). Women here tend to play a prominent role in support roles within the mining sector and the community itself.

Women in Artisanal Mining

Context

In this section, I will outline the roles that women can play in the artisanal/small-scale mining sector by discussing case studies of women in Latin America, Africa, and Papua New Guinea. While women in these different regions experience a variety of different circumstances, it is interesting to examine comparative cases and particularly areas of overlapping experience. By doing this, we are able to see common issues that are raised as well as identify gaps in the existing literature. This also helps when designing a research project, such as my own fieldwork in Ambondromifehy. By reviewing the existing literature, I was much more aware of issues that would likely be experienced by the women in Ambondromifehy, therefore, it was easier to come up with areas and issues for discussion based on those that were commonly raised in the research of others looking at women in similar situations.

This woman is part of a group of about five people working at this mining site. She and several others were breaking apart dry dirt looking for sapphires. This method is different from the typical panning I saw in this area. Photo by the author.

Although women play important roles in mining throughout history and around the

world today, Hinton *et al.* (2006:209) point out that there is a paucity of information on the roles of women in artisanal mining communities and even fewer accounts describing the actual lived experiences of individual women miners. This may be because their roles are generally viewed as being less important and less relevant than those of men or simply because most writing on mining towns focuses on them in "boom times", when men tend to dominate the local economy, work and social contexts, rather than the aftermath of the booms when numbers of men and women tend to even out.

Compared to men, women face many different obstacles or difficulties in the artisanal mining sector and this comparison can often be just as valuable as comparing women in different contexts. In many cases women may have access to land but have no control over it, suggesting a need for increased consideration of women by mining ministries in the countries where artisanal mining occurs (Hinton *et al* 2003:18). In general, and particularly in ASM contexts, women often face a lack of standards for wages, problems related to social organization and health and safety concerns (Heemskerk 2003). These problems for women are not necessarily increased compared to men because these standards and safety concerns do not exist for men as well. It is likely because any standards that do exist tend to do so in more formal mining arrangements where men are primarily working in pits owned by mining companies, with women often going in and scavenging pits after they have been exploited or working on the periphery of mining pits, thus not being recognized or included in any existing initiatives.

Comparisons over time are also valuable in anthropological research. Often historical cases can shed light on both contemporary cases in the same region as well as

historical and contemporary cases in other parts of the world. In their general account of the indigenous, colonial and imperial legacy and its influence on the development of mining worldwide, Gier and Mercier (2006:12) discuss situations in Latin America, Africa and South Asia. Colonists to various countries in Latin America established trading centres for gold and slaves and soon conquered many indigenous groups for their gold and silver. As settlement and trade increased, colonists needed to bring more male slaves to work in the mines and women were often less than 20 percent of the population (Gier and Mercier 2006:12). In the 19th century in Latin America, machines began to replace workers, particularly women workers, in gold and silver mines and women began looking for new opportunities, such as trading in the community (Absi 2006). Although women's roles in mining were reduced in the 20th century and opposition to their presence in mines increased, this exclusion was more socially constructed and at times unevenly enforced (Absi 2006). Mining wives, unlike their husbands, often maintained connections to their peasant roots, which allowed them to revive peasant survival strategies in times of economic crises, as mining remained a precarious enterprise through the 20th century (Gier and Mercier 2006:15). Women's roles in the mines increased later when other opportunities, such as those in agriculture, offered cash wages for men (Gier and Mercier 2006:12, 13).

While Africa was one of the later mining regions exploited by major imperial powers, Hinton *et al.* (2006:209) suggest that today the percentage of female artisanal miners is the highest in Africa, averaging between 40 and 50 per cent of miners. In African countries, many women engage in mining precious gemstones, copper and other metals, and the United Nations Development Fund for Women has assisted with the

creation of the South African Development Community (SADC) and the Association of Zambian Women Miners (AZWM) (Gier and Mercier 2006:17).

In her chapter on women working in the gold mining industry in Papua New Guinea (PNG), Macintyre (2006)[10] discusses the introduction of gender roles in the workplace. She notes that all industries involving wage labour were introduced to PNG by white people, usually Australians, who brought along their conservative ideologies about women participating in the workforce (Macintyre 2006:131). Melanesian women routinely performed heavy labour, planting, tending, and harvesting gardens, and then transporting produce back to their villages. Macintyre (2006:132) argues that in Melanesia women likely dominated the subsistence sector, but when it came to the introduced wage labour industries, men dominate overwhelmingly. This case is of a large-scale gold mine (for example Ok Tedi Mining Ltd., Lihir, or Porgera), however, it is relevant here in that we can see an example of how as the scale of mining increases, women's involvement decreases. In ASM communities like Ambondromifehy, women's involvement is unsurprisingly very high.

Mining work, employment in the informal sector, and poverty are all significant factors influencing the health of women in ASM communities. Hinton *et al.* (2006:218) point out that it is widely recognized that health status generally is tied to socioeconomic status. Hinton *et al.* (2006:213) outline the multiple layers of the social determinants of health. These include: socioeconomic, cultural and environmental conditions; living and working conditions; social and community networks; individual lifestyle factors; and,

[10] Another excellent case study of gold mining in PNG (Mt. Kaindi) is by Moretti (2006). Moretti discusses the obstacles women face in entering ASM as well as the "gendered history" of mining and its subsequent effect on contemporary laws and practices.

age, sex and constitutional (i.e. part of, or a consequence of, one's physical/psychological makeup). There are some specific health issues related to mining. The occupational health and safety issues that plague ASM communities[11] can mainly be attributed to: 1) the informal and often illegal nature of ASM; 2) inadequate equipment and neglect of safety measures due to economic demands; and, 3) a frequent lack of expertise and insufficient training (Hinton *et al.* 2006:216). In cases such as gold mining, where women are grinding and crushing rock, possibly in poorly ventilated huts, the inhalation of fine, crystalline dust can result in pneumoconiosis, including the incurable lung disease silicosis (WHO 2000). Conditions resulting from silicosis include emphysema, lung fibrosis, and silica-tuberculosis (Hinton *et al.* 2006:211). When women are united, through associations or co-operations, they are more likely to bring up safety concerns and to obtain training or education in alternative mining methods (Hinton *et al.* 2006:216).

Roles of Women in Artisanal Mining Communities

While every artisanal mining community is unique in terms of its characteristics and conditions, women tend to be engaged in specific and often multiple roles within these communities. In some cases, as in the women working in coal mining in India (see, for example, Lahiri-Dutt 2006), women are directly involved in the actual mining process. They may be working in the pits, transporting dirt to be sifted, sorting and cleaning the extracted resources, or in buying/selling/trading. Occasionally women are initially driven to work such as mining due to the ill health or death of a spouse or family member (Hinton *et al.* 2006:214). In some countries, such as those in Africa, women are

[11] For a detailed discussion on the perception and management of risks related to small-scale gold mining in Northern Benin, see Gratz 2003.

increasingly being financed through micro-credit programs and often participate in the formation of organizations or cooperatives that can help women to set up their own businesses or help them obtain capital for investment.[12] In other cases, primarily men carry out mining-related jobs, with women engaging in livelihoods that support the communities in which the mining occurs. These occupations include maintaining the household and caring for the children or selling food or goods in the market.

The organization of work varies according to the type of mineral being mined. This is one reason why it is particularly important that researchers do not make generalizations about "women's work" or "typical" mining jobs. While the cases being compared may all be ASM cases, the differences between the types of resources being extracted can mean very different types of work or even very different reasons for doing similar types of work. Werthmann (2008:63), in her discussion on consumption in mining camps, describes how alluvial (or placer) gold, for example, can be worked individually or in small groups by washing, panning or shallow-pit mining. Other types of gold mining, for example lode (or reef), require deep shaft mining. Where and whether women work has a profound influence on

The women at this market, which is located in the forest at the edge of the reserve, are selling fruits as well as some cooked foods. There are several groups of women selling different kinds of food at this small market. Photo by the author.

[12] In the case of Ambondromifehy, many women indicated that they just needed enough money to buy some sapphires to get started in trading or selling. However, due to the absence of lending programs, many women have a lot of difficulty gaining that initial investment.

their quality of life and their level of satisfaction with their lives. Gender equity is critical to women's well being within ASM communities. Some of the primary constraints to the effective participation of women in ASM include, "legal and social taboos; widespread illiteracy; and organizational, technical, and financial constraints" (Mrs. Ofei-Aboagye of the Ghana Institute of Management and Public Administration, 1995, as quoted in Hinton *et al.* 2006:220).

Women in Madagascar engage in a variety of roles, both political/economic, religious and social. I am reluctant to make any generalizations about women in ASM as situations worldwide vary considerably. As Gezon (2000:258) notes, gender is cross-cut by multiple social identities and categories of lived experience and "normative description of ethnic, cultural, or gender roles masks the ambiguities present in individual interactions and hides the processes by which certain behaviour patterns are established, negotiated, and maintained".

Hinton *et al.* (2006:215) point out that women working in mining often have a markedly increased workload as mining is conducted in addition to their regular household duties. This is consistent with the literature in other regions as well as with my own research in Ambondromifehy. Veiga (1997), who writes extensively on ASM, discusses how women are often exclusively responsible for domestic responsibilities even when they are engaged in wage labour outside of the home, while men still remain responsible for predominantly economic activities.

Gill Burke (2006:25) suggests that women can be involved in mining in three different ways: (1) as actual miners; (2) as workers at the surface, or; (3) as members of the mining community. These three categories will be used for the purposes of the

following discussion as they represent the broad variety of ways in which women can be specifically engaged in ASM. I consider the first two categories as those in which women working are considered *miners* and the third where women working are considered *non-miners*.[13] As you will see, the types of work women engage in varies with both the type of resource being extracted and the location of the mining site.

"Women as Miners"

The first category suggested by Burke (2006) is that of women as *miners*. Women in this occupation are physically entering the mines and bringing out either rocks to be crushed or dirt to be washed and sorted in order to extract the mineral being mined. In the colonial case in Cuba, as well as in most modern mining cases, it can be concluded that women's roles and importance in mining increased as the industry itself remained outside the industrial and export sector (Gier and Mercier 2006:13). Early mines were generally small, family-run operations and it is in this context that most women became miners. However, as the mines deepen the women stay at the surface. "Women miners are back where they have always been - in small scale mines" (Burke 2006:34). Burke (2006:26) suggests that the low profile of women miners takes on a special quality due to the contrasting high profile of male miners. "Gender therefore is

While I did hear of some women who go into the mines in Ambondromifehy, I was mostly told that it was men who did the actual mining. Photo by the author.

[13] Where necessary and relevant, I will distinguish between women working in the mines and women working at the surface. In the case of Ambondromifehy, almost all women *miners* are 'workers at the surface'.

central to the business of unpacking miners' history" (Burke 2006:27). Crispin (2006:259) indicates that in PNG only a handful of women were identified as miners in their own right; however, this does occur in a few areas.

Many of the women in Ambondromifehy said that women do not go into the mines because the work is too hard and must be done by men, who are much stronger. In another case of mining in the Philippines, one Filipino mining engineer explained, "sure, women are as able as men. But that is not the issue. The issue here is about wantonly endangering women" (Chaloping-March 2006:196). Hinton *et al.* (2006:212) suggest that this division is due to the limited capacity of women for pit labour, but do still point out the irony of this fact in relation to women's work in agriculture and other resource extraction, which is equally laborious. This seems to follow an almost-worldwide notion that mines are just not places for women. In several cases involving various resources being mined (see, for example, Lahiri-Dutt 2006; Macintyre 2006), it was noted that it is considered 'bad luck' for women to go down in the mines. Chaloping-March (2006:197) discusses a case in the Philippines where one native priest and three miners were killed days after four women had entered the mining shaft. People correlate the number of deaths in this case to the number of women who went underground, reinforcing the belief that it is bad luck to have women in the underground areas. As another example, in Zambia, one woman described the challenges in gemstone mining for women caused by the belief that women should not approach a gemstone mine as the spirits of the ancestors would drive the stones deeper into the earth (Synergy Africa, 2001, as quoted in Hinton *et al.* 2006:219). These examples are a few of many in various regions around the world and whether it is believed that women are not physically as able as men to work

underground as miners or that it is simply too dangerous to allow women to do such work, it is generally the consensus that women's work in mining (if they are to do any at all) is at the surface.

"Workers at the Surface"

Women workers at the surface engage in work such as carrying, panning, washing, or sorting the extracted resources. Hinton *et al.* (2006) divide the roles of women miners at the surface into four categories: 1) rock crushing and grinding[14]; 2) panning, washing, hand sorting; 3) transporting ore and water; and, 4) selling. Rock crushing and grinding, in the case of gold mining for example, involves taking rocks that have been mined and breaking them apart to extract pieces of gold. In the case of gemstone mining, such as sapphire mining, this process may not be done as the stones may come from soft dirt rather than rocks. Panning seems to be a standard part of most resource extraction in mining. In the case of sapphire mining, panning and washing are carried out either in a stream or pool of still water. Women and men will use a sieve to contain the rock material once the dirt has been washed away and will then sort through the remaining stones by hand, separating the gemstones from the non-gemstones. Women working at the surface are often

These children were with their mother(s) in the largest group of miners that I saw. They were not doing any mining work that I witnessed, nor did I hear of children doing mining work. Photo by the author.

[14] This is in the case of gold mining. In gemstone mining, for example, this category of crushing and grinding does not exist.

accompanied by small children who will either help or play in/around the mining area (see, for example, Crispin 2006:260).

In most cases, transporting either ore or sacks of dirt to be sorted is a significant part of the surface work in mining. Mines are not always located next to a water source and are often in remote areas. This work is carried out by both men and women. Women also engage in selling. Hinton *et al.* (2006:212) point out that in the Mukiberi District of Kenya, women are typically regarded as being more honest than men and are often engaged in selling. Women may be selling gold or gemstones that they have mined themselves or that they have purchased; in some cases they may also be selling what they have scavenged from discarded rocks or dirt. Crispin (2006:260) identifies one gold mining site in Papua New Guinea where women would move around the mining area picking up very small flakes of gold from both worked and unworked areas, which they then stored in small bottles. He was unsure, however, whether or not the women were able to keep the gold for themselves or if they had to turn it over to the men; however, the latter is probably more likely given the nature of male domination in the country (Crispin 2006:260). Women involved in sapphire mining in northern Madagascar could also be considered 'scavengers' in that they can often be found reworking already sorted dirt and panning in the rivers in an attempt to find left-over gemstones.

"Members of the Mining Community"

Women, whether participating in mining or not, are a crucial part of the mining community. Werthmann (2008:68), in her study on consumption in mining camps in various regions worldwide, suggests that those who are most likely to earn a steady living in mining camps are the providers of goods and services. As mentioned above,

Macintyre (2006) discusses the work of women in PNG before the mines as generally consisting of producing staple foods.

> For the majority of women this role has changed little... now most have other ways of gaining some monetary income... [although] the amounts of money they gain are small and the work they perform is much the same as it was before the mine began (Macintyre 2006:136-7).

This is likely the case in many other mining communities. Even when women obtain a means of earning income, they are still responsible for the traditional work expected of them in terms of caring for the family and the home. In one case described by Macintyre (2006:138), almost all women interviewed said that if they weren't engaged in paid employment, their gardens would be different; most needed the help of others to maintain their gardens and many were not confident in their ability to provide food for their families.

Within the community, women are of fundamental importance in terms of food security, community stability, cohesiveness and morale, and act as primary agents in facilitating change (Hinton *et al.* 2006:221).

Women typically earn money by selling fruits or cooked food on the streets in Ambondromifehy. This photo was taken by one of the women in the Camera Project.

Women are also responsible for maintaining and transmitting *social capital* or *cultural capital* (Hinton *et al.* 2006:215). This means that women may play a prominent role than men in maintaining traditions, passing on language and cultural traits to their children, and forming and maintaining social groups, like associations. This results from that fact

that, particularly in contexts of artisanal mining, men tend to migrate more often than women. Women will generally remain stationary waiting for their husbands to either return or to send for them.

Summary

In this section, I discussed artisanal and small-scale mining and the case of Ambondromifehy. This chapter also highlights the value of comparison in anthropology. By using comparative cases, it is possible to find relevant topics by which to organize a research problem as well as issues of key importance. As we saw above, the case of Ambondromifehy is in many ways different from the comparative cases used, but at the same time we could easily pick out the similarities. In many cases, by looking at comparative cases, we can also see where gaps in the literature exist and perhaps attempt to address those. For example, in the case of Ambondromifehy, very little had been said about women and there are no published accounts of women's lives or articles that focus on issues of importance to women. In addition, comparison can be used between cases that vary by location, resource being extracted, time period as well as gender roles in the same cases. In the chapter that follows, I will attempt describe women's lives in the ASM town of Ambondromifehy by discussing my methodology, then providing two case studies followed by a breakdown of the elements of women's lives into seven key categories.

--CHAPTER FOUR--

Women's Lives in ASM Communities: Case Study, Ambondromifehy

Introduction

This chapter looks at women's lives in the ASM community of Ambondromifehy. This is done through a presentation of ethnographic data, both written as well as several of the photos that came out of the Camera Project done over two weeks of my fieldwork. This chapter also emphasizes methodology in anthropological research and how we can use the material that comes out of projects like the Camera Project. When discussing the initial plan to go into Ambondromifehy and speak to women, my supervisor and I thought that, as a woman, I would be able to conduct research that my supervisor (as a man) would never be able to do. This assumption was likely correct in many ways, however, in others I think it was more so the fact that I was foreigner that prevented me from getting information on certain topics or from certain people, rather than the fact that I was woman helped me to get information. I think we overlooked that fact that as a foreigner (whether male or female) there was information that women did not want me to know. At one point in my research (and this problem was corrected soon after) where my field assistant/interpreter-assistant had to promise a participant that she would not disclose the information to me in order for the woman to share her story. In that case, my being a woman had nothing to do with access to particular information and while the participant did not know my assistant before this interview, she was comfortable sharing the story with her simply because she was "from there" and spoke the same language and was, simply, Malagasy.

I will begin this chapter with a section on my methodology used, followed by two case studies of young women living in Ambondromifehy, then I will go on to present a description of women's lives in Ambondromifehy. All of the photos taken in this chapter are part of the Camera Project and were taken by women who were interviewed during this fieldwork. I have the women's permission to use all photos that appear in this thesis.

Methodology

The field research on which the ethnographic portion of this thesis is based was done during a two-month period of fieldwork in Madagascar from May 14-July 22 2008. The majority of the interviews carried out over this time were intended as initial surveys and conducted in the community of Ambondromifehy, which is located approximately 100km south of the city of Diego-Suarez in northern Madagascar. The research conducted here by my interpreter-assistant and myself, was part of a larger collaborative project involving my supervisor Dr. Andrew Walsh of the University of Western Ontario and the Universite Nord Madagascar. Particularly within the context of research in developing countries, it is important and mutually beneficial to work closely with people who are from the country where the research is being conducted. By doing so, issues that are not necessarily apparent to a foreigner can be illuminated and explained by someone who is comfortable in that culture.

During this fieldwork, twelve women were interviewed in a formal style and several other women were casually interviewed or spoken to in conversation. Key participants were recruited through several long-time contacts of my supervisor. Once establishing contacts with these key participants, many women heard about my research by word of mouth and were interested in participating.

Four main research tools were used in my research. First, the simple act of observing the daily activities of women throughout the town helped to establish key sectors of employment and occupations of women in this community. Women were observed in public spaces such as the market, the street, shops, as well as in their homes and mining areas. The second tool that was employed was that of informal interviews. These conversations helped to establish and strengthen relationships with contacts we had made in the town and these were primarily conducted by my interpreter-assistant based on a series of key topics of discussion that were developed and reviewed in advance. The third tool used was the formal interview. Formal interviews were conducted using a set list of questions (see Appendix 1) that were read to the participants. The interviews were either audio or video recorded, as per the informed consent of the participant. As mentioned above, these interviews were intended as initial surveys, however, due to time constraints we were unable to conduct further interviews. The fourth tool used includes the visual methods such as videography, photography and a Camera Project (these will be discussed in Section III).

Working with an Interpreter-assistant

Berreman (2007:137), in his discussion of the paucity of information on practical problems in fieldwork, refers to these problems in the field as "the secrets of ethnography". These practical problems in the field may be individual "difficulties of morale and rapport, [the researcher's] own compromises between the ideal and the necessary, [which were unique] and perhaps signs of weakness or incompetence" and as Berreman (2007:137) points out, "consequently, these are concealed or minimized". I'm not much for secrets and as I will be the first to point out, I did not conduct "ideal"

research as a cause of my own actions or those out of my control. I was cautioned against putting unnecessary details in this thesis, however there are some issues that occurred during my fieldwork that highlight some very important lessons for those going into the field, particularly when working in the imperfect context of relying close to 100% on an interpreter-assistant for the collection and interpretation of research data.

Since I had a very limited time frame[15] it was not possible for me to learn the language spoken in Amdondromifehy, therefore an interpreter-assistant (Zora) was employed for the duration of the project. Zora[16] had previously spent several months in Canada conducting her own research and during this time she lived with me. This relationship was crucial for developing the trust and confidence that I think is essential to working with an interpreter. However, trust and confidence is not always a guarantee of a successful relationship, including relationships with research assistants. The use of an interpreter-assistant has both benefits and problems.[17] Interpreter-assistants are generally native speakers of the language and can therefore converse much more comfortably and fluently than those who have learned a language recently or even during the fieldwork period. They can also maneuver more easily within the cultural context and this can often make participants more comfortable in the research setting. As Berreman (2007:149) pointed out,

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[15] Most researchers suggest that the first few months of fieldwork are spent building rapport and getting established in the community, town, city, etc. See, for example,. Berreman (2007:144). I was only in Madagascar for 70 days total and not all of that was spent at the research site.

[16] Pseudonyms have been used for all names of research assistants and participants in this thesis.

[17] For an excellent discussion of the use of interpreter's in anthropology, see Axel Borchgrevink's 2003 article titled, "Silencing Language: Of Anthropologists and Interpreters".

> It was largely from [my interpreter-assistant] that impressions were derived which determined our status [in the village where we worked]. It is for this reason that the characteristics of the interpreter-assistant were of crucial significance to the research effort.

Impression Management, the topic of Berreman's 1972 book, is always a big part of participant observation as a form of social interaction and this is where the interpreter-assistant can play a crucial role in helping the research team become tolerated or even welcome in social situations and conversations.

Working with an interpreter can be challenging at times and is not without problems. Some critical problems with conducting research through an interpreter-assistant include: 1) I myself was not conducting the interviews, 2) different people interpret things differently; and, 3) I cannot know for certain that what was told to me was in fact what was said. In addition, there were several key issues (for example, the negative manipulation of situations or participants) that I was completely unaware of until after the fact.[18] The example of manipulating participants in order to obtain information highlights the extreme importance of communicating the research standards and objectives, and in some cases the necessity of teaching the interpreter-assistant about conducting research (in particular, the importance of ethical research) before going into the field.

In anthropological research, there are often critical issues or points requiring follow-up that are often said in passing and not easily recognized by someone untrained in the discipline or who has not designed the research project. It was not possible, in this

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[18] The cases of participant manipulation were corrected promptly once I was aware of them. We revisited these participants and fully disclosed our intentions as well as the conditions under which they could give their consent. Some of the women retracted their consent for us to use certain pieces of information that were shared, and this was respected in every case.

context to have an interpreter translate each word or sentence being spoken by informants because that would have greatly disrupted the flow of the conversation and taken significantly more time of the participants than would have been reasonable. The problem of different people interpreting the same thing differently did exist in this situation for the most part in that I did work with only one interpreter-assistant during the entire research period and subsequently worked with two others after the research was completed. As Gotschi *et al.* (2008:229) found in their camera study involving farmer groups in rural Mozambique, even with a skilled fieldworker translating between languages, there is still a loss of information through the translation process; despite the visual references of the photos, it is still impossible to translate everything and capture various shades of discussions and arguments. I found this to be true, particularly as I was going through my field notes and translations when I was back in Canada; some things that had seemed very clear at the time became hazy when I had only my vague memories of the interviews and the very literal translations of the photo explanations.

The process of explaining the research to Zora and teaching her what information is relevant and an appropriate method for conducting interviews proved to be time-consuming[19] and this would not have been possible to do with more than one person over the limited time period available. In addition, over the time spent in Ambondromifehy, Zora established relationships with many of the participants that would have been difficult to recreate with another interpreter-assistant and since many of the participants were visited on several occasions, these relationships were critical to advancing the

[19] This was particularly true in that once I found out about certain discrepancies in what was told to participants, we had to go back to those women and properly explain what would be done with the data collected and obtain consent for those purposes.

research and asking more detailed and in-depth questions. For the transcription, however, three interpreters were used in the end (Zora, a United States Peace Corps worker in Diego, and my supervisor) and key interviews/passages were reviewed with my supervisor, who speaks Malagasy.

The Camera Project

As Bourdieu (1965) has argued, photography performs social functions, "for in valorizing what is 'photographable', it is never independent of social class, hierarchy and prestige; it is the recording or compilation of objects, people or events designated as important" (as cited in Hurdley 2007:357)[20].

A girl on the main street in Ambondromifehy. Photo by a woman in Ambondromifehy.

During my undergraduate studies I came across a study that involved the researcher handing out disposable cameras to participants and having them take pictures of things they felt were important. While I don't remember the details of the study or who conducted it, I always remembered the concept and so when I went to Madagascar, I took five disposable cameras with the intention of using them in a similar way should the opportunity arise, but also with minimal expectations. Firstly, the quality of disposable

[20] Hurdley's (2007) research involved giving 16 people disposable cameras to photograph their mantelpieces every two weeks for one year. The study centered on the composition of the mantelpiece and she did not discuss the disposable camera project in this particular article, and so was not appropriate to be fully discussed as a case study here.

camera photos is limited in the best of circumstances. In addition, I suspected (correctly) that many of the women I would give cameras to had never personally used one before and would never have thought about issues related to lighting (for example, the results of taking a photo into the sun or without enough light), framing shots (subjects, covering the lens with a finger, see right), or even the basic workings of a disposable camera (i.e. advancing the film after each shot or warming up the flash). After rather long sessions with each woman where my interpreter-assistant and I tried to explain the way to use the camera, I also realized that I may not even get the cameras back and if I did, there might not be very many usable photos on each roll. I accepted this possibility (I had already bought all the cameras and developing photos was quite cheap in Madagascar anyway) so I let the situation unfold as it would.

This photo shows a grandmother and her granddaughter. Photo by a woman in Ambondromifehy.

After we had collected all the cameras and developed the photos back in Diego, I was quite shocked at the overall quality of the photos. Some of the women took beautiful pictures, ones that I would never have thought to take and in places where I would not have even had the opportunity to be. In a way, I was able to catch a glimpse of various aspects of the town, their families, and their community, that wouldn't have been apparent to me otherwise. Even in cases where women took rather unexciting (and multiple) pictures of mundane scenes, for example one woman took three or four pictures of a large log in front of her home, it was interesting to speculate as to why she may have done so and what significance that

scene may have for her. However, it could also (and perhaps more likely) have been the case that she simply didn't realize that she had been taking the photos, merely a learning curve of the disposable camera. The photos I have used to illustrate the rest of this chapter come from the disposable camera project. All photos appear in their original condition and are included here in their unedited form. I chose these photos based on their quality, subject matter, and aesthetic value. The Interactive Ethnography accompanying this chapter, demonstrates how the ethnographic material can be combined with visual material, such as that collected in the Camera Project, and written information in a form that is accessible to students in an interactive way.

Case Studies

In this chapter I will present two particular case studies along with a variety of quotes from women in Ambondromifehy. The case studies of Soa and Mboty will introduce the key issues that will be further discussed below. These cases show women who are around the same age but who have very different lifestyles. Soa is twenty years old and has been living in Ambondromifehy since 2001. She primarily cares for her family. Mboty is a twenty-two year old who has lived in Ambondromifehy since 2003 mainly selling gas and occasionally clothing as well. As you will see in the case of Soa, many women are very dependent on their husbands for support, while other women, like Mboty, are very independent. Despite this difference as well as several others, these women still face similar issues and have similar desires brought about by living in Ambondromifehy.

The case of Soa is interesting in that it highlights several key points that I will discuss further along in this chapter. Soa is very focused on money in much of what she

says, particularly in terms of decision-making and her feelings towards living in Ambondromifehy. Like many women here, Soa is economically dependent on a partner/spouse and any decisions she makes regarding where to live or whether or not she can leave Ambondromifehy are dependent on her husband. Soa says that she and her family remain here because they do not have money to go elsewhere; this is a rather common sentiment among women (and men) in Ambondromifehy. Living here, she mainly cares for her children like most women in town. Even women who work selling in the markets or washing/sorting sapphires often have their young children with them while they are working. As you will see below Mboty has a rather different life compared to Soa, but there are also many common desires and needs that they share as women living in this kind of town.

Mboty is a successful woman compared to many in Ambondromifehy. She is a woman who is always very fashionably dressed and who wears copious amounts of gold jewelry - bracelets, earrings, necklaces, rings, even toe rings. Even though she is relatively more educated than her female counterparts in town mainly through access to information in the bigger towns, Mboty is still misinformed about health issues like birth control and indicates a desire to learn more to protect herself from sexually transmitted infections like most women in town. However, her case is in the minority in Ambondromifehy in that she doesn't rely on a husband for income and seems to have the ability to leave the town should she choose to do so. Mboty also owns her own house as well as a house in a nearby, larger town. She has the ability to send her son to a good private school rather than the public school in Ambondromifehy, which she doesn't think is adequate. In addition, as she claims she has a Thai boyfriend, she also has one of the

ultimate status symbols a woman in Madagascar can have: a *vazaha*.[21] The issues highlighted here will be addressed more fully in the sections that follow.

Women's Lives in Artisanal and Small-Scale Mining Communities: Ambondromifehy

Introduction

As Geoff Crispin (2006) emphasizes in his work on women involved in small-scale gold mining in Papua New Guinea, the economic and social power of women is not the same throughout the country. Some women have considerable power while others remain relatively powerless. This is the same in Madagascar, but the range of power also varies greatly among women living in the same community. Despite the advantages of status and roles that some women have, this variation in power is still overlaid with the problems of domestic violence, rape, HIV/AIDS and a lack of economic equality - and the opportunities to obtain that equality - between men and women (Crispin, 2006:255). Women's lives in artisanal mining communities are influenced, and the quality of their lives is determined, by a number of factors.

For this discussion, I will use the following categories, based on the questions we asked women in the field (see Appendix 1), to address the factors and issues facing women in ASM communities: 1) Education; 2) Migration; 3) Family Life: Spouses and

[21] While beyond the scope of this thesis, I think it interesting to address this issue of Malagasy girls "dating" *vazahas* [foreigners]. After seeing yet another beautiful young Malagasy girl with a not-so-desirable (usually older and white) foreign men, I asked one of the local undergraduate students what she thought about these men with young Malagasy girls. Her reply was that it was "the fashion" but she didn't really like it. So, in fact, the woman I saw was not only the *vazaha's* arm candy, but he was also hers. These men represent to other Malagasy people that the woman has power and opportunity compared to her counterparts. For a discussion of transactional sex among young women in Tamatave, Madagascar, see Cole 2004.

Children; 4) Work/Occupation; 5) Services Available in the Community; 6) Health and Health Education; and, 7) Associations and Community Supports. I came up with these topics after reading a variety of articles on women in mining communities and these seemed to be recurring themes for discussion. The following sections rely heavily on quotes from women living in Ambondromifehy. The data anthropologists collect is most commonly in the form of words and by presenting contextualized quotes, I hope that students can get as much if not more from them as they might from my paraphrasing the women's words. While I have chosen passages that will give a sense of the breadth of women's experiences, I have retained passages that would be deemed repetitive. By hearing the same sorts of things over and over again, anthropologists can identify topics of concern in a community.

Education

> *"I attended school as a child but left to help care for my aunt's children in Nosy Be where I lived until my mother sent for me to come to Ambondromifehy. My work is caring for my children [a 6-year-old male and a 1.5-year-old male]. My children were both born in the house with a midwife. My oldest child attends school but I am not pleased with the school as the teachers often get into disagreements with one another and so the children do not receive a very good education."*
>
> - Soa

> *"I attended school for 8 years as a child. My child is 3.5-years-old and was born in the hospital in Anivorano* [a regional centre located 20km north of Ambondromifehy]. *He is not yet old enough to attend school and I will send him to Ambilobe [a regional centre 30km south of Ambondromifehy] for schooling. Children here are very naughty and it is difficult to raise good children here."*
>
> - Mboty

In Madagascar, the adult literacy rate is suggested to be below 50% (Rakotonanahary *et al.* 2002:341). Most of the women, like Soa and Mboty, who were interviewed during my fieldwork had only been formally educated for a few years and

many of them expressed concern over the quality of education that their children were receiving in Ambondromifehy. Several noted that the problems in the school were not just related to the quality of educational material but also the quality of the teachers and that fact that the teachers were often in disputes with one another, distracting them from their focus on teaching. The photo below shows the public school in Ambondromifehy. I never did go inside the school, but it appeared to be a one-room schoolhouse with limited resources available. Walsh (2009) discusses a school meeting he attended while in Ambondromifehy in 2008 that was called because of the recurring problem of the school being too small to meet the needs of the community. This meeting was run by the teachers at the school and attended by about twenty members of the "Parent's Association". Some of the concerns raised at the school, highlighting conflicts between teachers and parents, included: 1) teachers concerned that parents weren't paying monthly fees; 2) parents concerned with the school's finances; 3) what type of fundraising should be done, and; 4) what should be done with parents who failed to show up at the meeting (and here one teacher suggested removing their child(ren) from the school) (Walsh 2009). This example reinforces a concern brought up by Mboty that she didn't like the school in town particularly because of the amount of conflict.

Migration

> "*I arrived in Ambondromifehy around 2001, when the town was* maresaka *[crowded, busy, bustling]. Now, it is quiet. When I arrived, my mother was already living here and I had a friend living nearby. I stayed with her mother. None of my relatives came after me.*
>
> *We remain in Ambondromifehy because we don't have money to go somewhere else. I am* tamana *[satisfied] here because I am* mitady vola *[seeking money].*[22] *I want to remain here to mitady vola, but this depends on the money; currently the*

[22] This was a phrase commonly heard throughout the interviews as a response to why women came here, why they have remained here and what their occupations entail.

price of sapphires is very low and we don't make money. If I ever decide to, and am able to, leave, I would plan to return here when the price of sapphires gets better. For me, everything depends on the price of sapphires."

- Soa

"I first arrived in Ambondromifehy in 2000 for a holiday to visit my mother, but I moved here to stay in 2003 when I got married. When I came here I was joining my mother and stayed with her initially. My marriage lasted two years and since then I have not returned to my hometown. When I arrived here, people were richer – they misy vola *[had money]. It was very different then; everything people sold was* mandeha *[going]. For example, my mother sold rice and a houseful wouldn't last until the evening. I decided to stay here because I met somebody – my husband – and had to follow his orders. Ambondromifehy is a place where it is hard to say that there is no money. It is a rich town, so women from Ambilobe or Diego came here because they heard about sapphires and to find a husband/partner since there were also lots of men. Since I have arrived, I asked relatives to move here because of the sapphire work.*

I am tamana [satisfied] here because of the money I make but I do not want to remain here. I am only here because I can make money – I want to be in a bigger town because Ambondromifehy is really in the countryside. Now there are no patrons *[buyers] so everything that is sold makes little money and this makes me want to leave. Now I am selling things and if I can't make money here doing that and there is another place where I can make money, I will leave this place. If I do leave, I will not sell my house or land because I might come back one day. This is a place where people leave and often come back after two years. Some people, when they leave, sell things and when they come back, they are* mivandravandra *[without a place to stay]."*

- Mboty

Both Soa and Mboty moved from their hometowns to Ambondromifehy, while most of the other women interviewed had lived in several places before coming to Amnbondromifehy. Despite this difference, these women who migrated to Ambondromifehy (all those who were interviewed) had several common experiences. Almost all of them came here with a family member or friend and/or were coming here to join a family member or friend. They lived with someone they knew until they were able to either get their own home or moved in with a boyfriend or husband. Several were also here after having lived in many places after leaving their hometowns. Consider the

following migration stories of Yolande, Francine, and Ravo.

> *"I moved to Ambondromifehy in 1997. I lived in Diego and my children came to visit, then they came to live with me. I heard about sapphires and told my children that they have to work and I would tell them where to work. I said, "go to Leveka" (for gold mining) and my children went. I remained in Diego and brought them some things to sell in Leveka. They stayed there and built houses, but when they heard about sapphires they came to Ambondromifehy. When I heard that, I also moved here. At the time, there were only about three houses made of corrugated iron. My children were happy when I arrived there because I made cakes to sell. Their houses that they built were very close to the road but they were burned down in a big fire. People took the land that my house had been on so I couldn't move back there if I wanted to. At that time, I moved to the house where I currently live. I didn't buy the land; the tomptanana told me I didn't have to buy but could just choose the place and build a house. Then I enjoyed life in Ambondromifehy. I didn't do any mining, but I took care of all my grandchildren and sold cakes. My children were doing sapphire trading."*
>
> - Yolande, a 58-year-old woman

While Yolande arrived in Ambondromifehy in the early years of the boom, not all women living here now did so. Francine, as you will see in the next example, arrived long after the boom had begun to subside.

> *"I first left Sambava with my ex-husband in 1994 when we lived in Diego. I went back to Sambava and stayed there after I broke up with my ex-husband. After that, I went to Ambondromifehy in 2004 with husband. I have not returned to Sambava since I arrived here. I often went back for visits when I was in Diego but only returned there after breaking up with my husband. I found living in Diego was hard; I found* mitady vola *[seeking for money] in Diego very difficult. Otherwise, life in Sambava was easier because of the vanilla boom. I went to Ambondromifehy when the vanilla price was declining. I travel a lot and move a lot in order to seek for money.*
>
> *I own a house in Sambava, which is being cared for by my aunt who collects the rent. I also have a zebu and a vanilla plantation in Antalaha. My mother, who lives there, takes care of that.*
>
> *I arrived in Ambondromifehy in 2004 and I came here because I heard about sapphire mining. People were richer when I came here and there were more women in 2004 and this is still true today. This is because men who come to Ambondromifehy are generally not married, young and they do not want to mamelon tena [have a family yet]. They travel to seek for money so it is very easy*

for them to move to another place where there is more money since they are not married."

- Francine, a 36-year-old woman

As in the case of Francine, we will see the next example of Ravo, whose migrations were also motivated by economic reasons.

"I first left my home when I was still very little (7 years old) and I left for Diego with my mother. I return to Bealanana almost every year. I go every April to buy rice since I was an adult and while I was in school I returned for holidays. I lived previously in Diego, Labeka, Ambondromifehy, and Ilakaka [in the south] since I have left my hometown. I went to these places to try to earn money. When I left her ex-husband in Diego, I moved to Labeka for gold mining, where I lived for 3 years. I moved from Labeka to Ambondromifehy for sapphire mining and after 3 years here, I moved to Ankazomborona in Ambilobe. There, I spent 2 400 000Ar [$1,338.00CDN] to buy a boat and fishing net, and I took up fishing with my husband. The problem with fishing was that it was harder than mining, you earn more money on sapphire work than on fishing, and I did not enjoy fishing but my husband was insisting on it. We gave up fishing when we heard about sapphire mining in the south (in Ilakaka) and traveled there for mining work. I remained in Ilakaka for 7 years, from 1998-2005.

We enjoyed mining in Ambondromifehy but couldn't work there at that time because the mining was closed and nobody could mine there. From Ilakaka, we often travelled to Andilamena for sapphire mining and trading during the period from 1998-2005. From Andilamena, we moved to Maroansitra (in the east) for sapphire mining. From there, we went back to Bealanana. Before we travelled to the south, there was a time when my husband went to Antalaha, in the Sava region, to work on the vanilla trade. During that time, we started to lose a lot of money, as my husband was spending it on his mistress. At this time I thought about breaking up with him because of this, but I wanted to wait until we regained some of our money (several years) before leaving him. Otherwise, I would not have been able to make a living for myself – I left him when our child was 5 years old."

Ravo, a 36-year-old woman

Women, along with men, tend to have the view that Ambondromifehy is simply a "stopping ground" before they move on to other things.

"I'm not happy here but I just don't know when I can leave yet. My plan for leaving hasn't been born yet. I have a lot of money invested in sapphires and may not be able to sell them. I want to get back into gold; if there is gold out east, I want to go out east."

- A woman selling sapphires

Women who have bought large quantities of sapphires (usually small and of low quality) are more "planted". These stones are harder to liquidate. Men with few stones of high quality can leave easily as there is always a market for these stones and they are easy to transport.

It is common to see women, and men as well, spending hours sitting in huts like this on the main street, sorting sapphires. Photo by a woman in Ambondromifehy.

As can be seen from the migration stories above, many women who live in Ambondromifehy follow a similar pattern seen in ASM communities, discussed in Chapter 3, where this place is one of many that the migrant has lived in. This is true even for women, many of whom do travel with husbands but some who travel with either family or friends, or to meet up with family or friends who have moved ahead of them and in some cases may have sent for them. The story of Ravo (above) also shows some of the complexities of migration in terms of family life, i.e. the relationship between men and women in ASM communities, discussed below.

Despite the fact that the sapphire trade is in decline and many women would like to leave and move on to new opportunities, they remain here for one reason or another. In most cases, women do not have enough money to leave and may be waiting for a spouse who has already left to send for them. Others, like one sapphire trader I spoke to, didn't

want to leave until she had sold her stones as the many small stones she had would be very difficult to sell elsewhere and she didn't want to lose her investment. Still other women simply liked it here; they felt that this was now their home and they have no desire to leave, like the woman quoted below:

> *"When I came here a while ago, there were a lot of people and it was* maresaka *[bustling]. For example, if we were walking together, if we weren't holding hands, we would be lost and we wouldn't see each other again until we got back to the house. But it's changed now. The number of people living here has become small and making a living has become hard. But I'm happy – I don't know what I would do in Diego [a nearby city] if I had to go there."*
>
> - A woman sifting rice in Ambondromifehy

This woman admits that life is hard in Ambondromifehy but she is comfortable with her life here and does not want to leave.

Family Life

> *"I have a husband and we have been married[23] for four years. We had two children together, but one has died. I have another child with my previous husband; I left this husband because of his drinking and his selfishness with money. But I think it is very easy to have a partner in Ambondromifehy because there is no need to get the approval of the families, which is required in my hometown. If we decide to buy something, my husband lets me decide what to buy"*
>
> - Soa

> *"I have two boyfriends: one Malagasy miner and a Thai boyfriend, who buys sapphires to take back to Thailand. My Malagasy boyfriend often gives me gifts of money. I had a husband and we had one child but he was unfaithful and this caused too much stress so we broke up. It is very easy to find a partner here because everyone is* be nahono *[they meet when grown]. Since men are interested in new, unknown women, Ambondromifehy is the easiest place to find a partner. There are many men here and [helped along by rumors of those who made fortunes here] they pretend to be rich, so women are interested in them as well.*
>
> *I think that men and women spend their money differently. Men spend money on their girlfriends and drinks. Even if they work hard and earn 10 million FMG [$1,146CDN], it is not a problem for them to spend it on drinks and girls; they spend all the money and then go and work again. Women spend their money on*

[23] The terms 'husband' and 'married' are used loosely and do not necessarily refer to a relationship that has been recognized by religious ceremony or legal declaration. These terms are commonly used for live-in partners regardless of the duration or level of commitment in the relationship.

pleasure; buying things like jewelry, clothes, house furnishings. Women buy qat[24] *and cigarettes to* manadoso asaloha *[to get rid of/forget problems/worries]."*

- Mboty

As we can see with the stories of Soa and Mboty, women's family lives tend to vary with their circumstances. However, it seems to be the case in many ASM communities that relationships tend to be more fluid and are often formed on the basis of mutually beneficial economic situations. Werthmann (2008:69), quoting de Boeck (2000), explains how women traders in Angolan diamond mines choose their temporary partners on the basis of their economic performance and their political influence; a woman who chooses her partner on this basis may then leave him as soon as he has served his purpose. In other cases, such as that of women in gold mines in Burkina Faso, women may pay visits and offer drinks to successful miners in order to attract their attention, however, these relationships only last as long as the man is capable of demonstrating his affection through gifts of cash (Werthmann 2008:69). As we saw in the case of Mboty, she suggests that this is one of the easiest places to find a partner because people meet when grown and many men pretend to be rich so women are interested in them.

This woman is selling clothing on the main street. Photo by a woman in Ambondromifehy.

Another issue linked to family life and relationships is consumption. As noted in

[24] *Qat* is a drug (plant) that people chew on. I have heard that it is not very strong and you need to chew a lot of it for it to have an effect but it was very common to see people chewing it on the street, although I mainly saw men doing this.

most cases, while women undertake the same labour as men, there tends to be considerable inequity in earnings. The revenue generated and managed by women in ASM communities tends to contribute more directly to the family and the household that generated by men (Hinton *et al.* 2006:218). Cash from mining, spent by men, is often spent on short-lived consumer goods, food, cigarettes, and alcohol (Werthmann 2008:65). Voicing the perspective of many of the women I interviewed in Ambondromifehy, the following two women offered these comments:

> *"If the man sees a woman, he will just waste spending money on them. For women, it's stuff having to do with the house that they spend money on. [Does the wife know when the husband is out with other women?] Some know about it, some don't. So other things that men spend money on is playing around – playing dominos, chewing qat. But for gold though, it's women who spend money on gold."*
>
> - A woman peeling a papaya in Ambondromifehy

> *"Women in Ambondromifehy typically spend more money than men because they dare to buy expensive things such as clothes and shoes. Men can* mamody bara *[close a pub, spend a lot of money buying drinks; it essentially means that you would enter a pub and then prevent any stranger from entering by promising the owner that you will spend as much money as you can in that pub]. Many women smoke cigarettes and chew qat here."*
>
> - Francine, a 36-year-old woman

Places such as Ambondromifehy are not condusive to the sort of investment common in one's hometown in Madagascar. These types of investment spending include: clearing fields, buying cattle, marriage, supporting children, making necessary sacrifices, and building houses (Walsh 2003:298). As Walsh (2003:298) found when he was in Ambondromifehy during the latter part of the mining boom, none of the miners he spoke to had any intention of staying over the long term and when they did invest in property it was in easily portable goods such as bicycles, gold jewelry, clothes, mattresses, or electronics such as radio-cassette players. In addition to that, as noted above, men spend

their money on "la vie" – paying for prostitutes, buying beer and pot to be shared in the bars and homes, and so on (Walsh 2003:303). Walsh (2003:303) also discusses how "daring consumption" appears to be an obvious central component to youthful masculinity in Ambondromifehy with the things men spend their money on (alcohol, prostitutes, cigarettes, etc.) are the things men are expected to desire most of all.

All of the women who took photos for the Photovoice project included several photos of family members. Photo by a woman in Ambondromifehy.

According to Hentschel *et al.* (2002), women in ASM towns spend their money on things like education, food, agriculture, etc, whereas men tend to spend their money on gambling, prostitution and alcohol. This follows what I found by speaking to women during my own fieldwork; they generally felt that men spent their money on "playing", in effect, alcohol, chewing *qat* (a "drug" plant), and 'girlfriends', while women bought 'things for the house'. Women also tended to invest in gold – something that is easily portable and considered a safer investment for the future. There are very few people in this region who have or would use a bank account so, in effect, they convert their money into an asset like gold that can be sold or traded later.

Work/Occupation

> "*I have recently started going to the mining area where people sometimes hire me to carry* barda *[sacks of dirt] from the pit to the river, where it will be sorted. The man who owns the barda may pay me 1000-2000Ar [$0.56-$1.12CDN]). However, I generally only get money from my husband. I am very dependent on him. Men*

and women typically do the same work but women are weaker; in my own case, I have a baby so I cannot mine or even build a pit."

- Soa

"*My primary work is selling gasoline, which I buy in Ambilobe and then I sell it in Ambondromifehy. I earn 500Ar ($0.28CDN) per litre; people really need gas to run generators and it is in high demand. I am not the only one who sells gas but since I am a pretty young woman, people are more interested in buying from me. I also earn money selling second-hand clothes but I haven't done this for several months now. There are always leftover clothes, but no leftover gas. When I do go around to markets in various cities selling clothes, my mother sells the gas for me. When I was with her husband, I earned money buying and trading sapphires."*

- Mboty

There are several women, like Soa, who are completely dependent on their husbands (or other family members) for income and who don't work. Others, like Mboty, are independent and have an income regardless of their relationship status. As we saw in the previous section, many women who have families and who engage in wage labour are also still solely responsible for their traditional roles as mothers and caretakers of the home and husband. The extension of their work into the wage labour sector can cause significant stress on women and affect the quality of their lives. Below are several women's descriptions of their work as well as the occupational roles of men compared to women. In the first quote, Ravo discusses the variety of work she engaged in both in Ambondromifehy and before she came here.

Women often work in shops on the main street. This woman owns her own shop. Photo by a woman in Ambondromifehy.

"I work in trading or I have a rice business. I trade for different things such as sapphires, rice, etc, but I choose my goods or merchandise according to the season. My primary work is selling rice and I do that in the rainy season. I used

to trade sapphires in Ambondromifehy and Tulear [in the south] but I gave up now because of the price decline. I also stopped because I had a problem in Tulear where I was attacked by criminals and lost one of my sisters there (we were both sapphire traders). I have also mined for sapphires when I first arrived here. Almost everyone who comes here starts their life here with sapphire mining until they get enough money to start trading (and have their own business). Sapphire mining was not that hard before, when you could use only a stick (piece of wood) to find sapphires."

- Ravo, a 36-year-old woman

Unlike Ravo, Francine doesn't work but relies entirely on her husband for money.

"I don't currently have a job but I used to sell things on the street (for example, oranges). Men generally work for sapphires (my partner is a sapphire miner and he also repairs broken shoes to earn money). Many men also trade sapphires, open shops or make charcoal. Women generally pan for sapphires or are hired to harvest other people's rice during the harvest time (which is now) in Marivorana, near Mahamasina [a farming community 50km south of Ambondromifehy]."

- Francine, a 36-year-old woman

In the next quote, you can see another type of work, prostitution, as described by Sylvie.

"I work as a prostitute and sometimes bring things from here to Marerano when I go there [to sell...?]. I have never had work other than prostitution that has earned me this much money; I earn a lot from prostitution. I earn 1000Ar [$0.56CDN] for passé-temps, passing people, and 5000-6000Ar [$2.79-$3.35CDN] for people who stay for one night."

- Sylvie, a young prostitute in Ambondromifehy

Unlike Sylvie, Yolande has worked selling coffee, cakes and other food for many years. Yolande also describes her perceptions of the typical work that men do and the typical work that women do. This is similar to the perceptions of many women I interviewed.

Women often work in jobs where they can also care for their children. Photo by a woman in Ambondromifehy.

> *"I currently work selling coffee and cakes and I do not earn money with any other work. When there were lots of people in town, during the boom, I also owned a small restaurant and sold cakes. I have never worked in sapphires but my daughter has in Andilamena and Ilakaka. Men are involved in mining and collecting/trading sapphires and women do panning and trading sapphires and also sell in the market. During the rainy season, both men and women can go work in the plantations (planting). Men and women do similar jobs but women can sell things and cannot go into the pits – men bring out the sapphires and women pan. There is also a difference between married women, who work less, and unmarried women, who work more. Married women, or women with a partner, have someone to give them money."*
>
> - Yolande, a 58-year-old woman

As can be seen from the quotes above, women work in a variety of occupations and may change occupations once or many times based on changes in their life situations. The comments from Francine and Yolande regarding the perceptions of men's and women's work are reflective of those of the other women we spoke to in Ambondromifehy. In general, it was perceived that men are stronger and that's why they do the mining work and women are weaker and must care for children so they work in support roles. Women are often required to take care of young children and so their choice of occupation must allow for them to do both.

Mining can greatly affect the activities and social organization of people living in ASM communities. Crispin (2006:257) discusses how most of the rural incomes in PNG are from agriculture and many of the people are paid in kind or in non-wage rewards. In the mining regions, however, incomes are now derived solely from mining with many people not gardening extensively anymore, which is unusual as home gardening has been the primary food source for families in most rural communities. This new need for cash in ASM communities (to pay for food, school fees, medical expenses, etc) that has arisen from the changing aspirations and consumption patterns of the people is what drives the small-scale mining in most places (Crispin, 2006:257). However, he also notes that there

is another section of the population that still has agriculture as the primary and preferred source of income. In these cases, no mining is carried out when the crops are to be harvested until that work is finished. Since the boom has subsided and it has become more and more difficult to earn the money needed to keep households going through mining, many people have begun to take up rice farming in and around Ambondromifehy. There has been an increase in gardening in the community as well and this may be a trend worth watching for future research.

Services in the Community

> *"I would like to see services available here such as water – water is not very available here and the town is dirty because there is not enough water. All the water sources are used for sapphire work so they are dirty and people can't use them. I also want toilets – people go anywhere. There were people sent by the government asking what people needed in the town and people said water then* WC *[toilets]."*
>
> - Mboty

Mboty, among many other women interviewed, points to the lack of services in the community such as water and sanitation. Since many ASM communities operate outside of the formal sector and exist only as a result of the mining, community services are often lacking or insufficient.

> In hastily established artisanal mining communities, residents may experience the worst of both urban and rural environments, being able to access exclusively poor services, becoming increasingly dependent upon the cash economy, and exposing themselves to

Many women took pictures of their husbands. Photo by a woman in Ambondromifehy.

pollutants. (Shoko, 2002, as cited in Hinton *et al.* 2006:217)

Compared to their urban counterparts, women in rural areas tend to have less access to services, such as healthcare and education (Hinton *et al.* 2006:217). They also typically have a reduced dependence on the cash economy for purchases (food and non-food) and fewer health problems from contamination (i.e. air or water pollution) due to overcrowding.

In Ambondromifehy, there were limited services available in the community. There were several shops, primarily located along the main street ("highway") going through town, and a weekly market to buy food and other goods. The public school was generally not well regarded by women whose children attended it and there was no hospital or clinic. The nurse in town had a small hut on the main street, but had limited equipment and medications. The pharmacist in town was also referred to as "the doctor" and claimed to have delivered hundreds of babies (however none of the women I spoke to mentioned a doctor, but only a midwife or they went to the nearby town that did have a hospital.) The pharmacy did have a variety of medicines and it is likely that people who were ill would ask the pharmacist for something that would help for a particular condition. Several women I spoke to mentioned the use of antibiotics for any sickness they experienced and one said that she would often take them as a preventative measure; this women was a prostitute and thought that the antibiotics would prevent her from getting a sexually transmitted infection. The pharmacist in town suggested that people in Ambondromifehy "have the attitude of people from the bush – they aren't used to seeking out *vazaha* (foreigner) medicine, but they'll go out and get the leaves of trees or they will seek out a massage. Then if that doesn't do it, they'll come see me for help." Many of

the women I spoke to were from rural towns throughout northern Madagascar, but several had lived in Diego and many had been in Ambondromifehy for many years. The perception of the pharmacist of the attitudes of "people from the bush" may be reinforcing a stereotype of people in this town that is likely based on little factual information. As I found when I spoke with a prostitute in Diego and sat in on several educational seminars at a health clinic for prostitutes, these women from the city who are receiving education do have more knowledge but it is certainly comparable to that of several women interviewed in Ambondromifehy.

Women carry out most of their daily chores with their children. Photo by a woman in Ambondromifehy.

The pharmacist in town pointed out that there should be other distractions here:

> *"It doesn't just have to be sex. If there were sports here, more games going on, things going on here... but when the sun goes down, there's nothing else to do here. Sex is the only distraction."*
>
> - The pharmacist in Ambondromifehy

This, along with the obvious lack of other community services, i.e. water, highlights the need for government involvement or involvement of non-governmental organizations (NGOs) in organizing education programs and providing much needed basic services to alleviate some of the health issues and particularly the poverty currently evident here. However, governments and NGOs are often reluctant to invest in boomtowns such as Ambondromifehy because of the assumption that the towns will be short-lived. While it is true that the population of Ambondromifehy has declined since the height of the boom, the town has not disappeared and is still receiving nowhere near the attention from

government and aid agencies that other, much smaller, communities in the region receive. In addition, the mining occurring in the reserve is illegal and the government does not want to appear to be encouraging this activity by offering support to those undertaking it.

Health and Health Education

> *"For any health problems, I stay in Ambondromifehy. I don't go to a traditional Malagasy healer, but I visit the nurse here. If I were to go elsewhere, I would go to Anivorano [a town around 20km from Ambondromifehy]. I have gone there for check-ups during her pregnancies. People come from Anivorano to help pregnant women here in Ambondromifehy. I don't know how the health services here compare to elsewhere, as I have never had any significant health problems or difficulties with my children's births, and so I have never been to a hospital.*
>
> *I have heard about* SIDA *[HIV/AIDS] from the radio and from people who came to Ambondromifehy, who often drive through shouting from a megaphone to raise awareness. Occasionally, there are public seminars, but I do not attend these. I know that SIDA kills people and it is a disease that women get from having sex with a male partner. I also knows there is no cure but I don't know how it can be avoided. I don't really listen when people drive through and shout information from the megaphones. I would like to learn more about health issues related to pregnancy, particularly birth control, including the calendar method, pills, or injections. It is difficult to have 8 children today – 4 boys and 4 girls – as the ancestors did and as people should strive for today. I only wish to have 5 or 6 children. Oh, and I also want to learn more about sexually transmitted infections that will come to women."*
>
> - Soa

> *"In the event of an illness, I do not remain here – I go to Anivorano or Ambilobe to see a doctor. I think that most people here go to a traditional healer here. I leave because there is no hospital available in Ambondromifehy so whenever there is a serious problem, I go to Anivorano. I do not think there are sufficient services here for pregnant women/mothers/babies. I went to Anivorano for pregnancy check-ups. Ambondromifehy is big but the problem is that there is no hospital but just a midwife and maybe small private 'clinics' that are not for the public. The midwife in Ambondromifehy can help with a birth but if there is a problem, they have to go to Anivorano*
>
> *I know about SIDA. Everyone is wondering if it exists or not and people are asking "who has seen someone who is dying from SIDA?" It might exist but I have no idea because I have never seen somebody with SIDA. I know that people have to use condoms because this is what people are telling us to do if they want to avoid SIDA – people sometimes come to explain about SIDA and they bring lots of condoms to give to people. There are many women and many prostitutes*

coming here from everywhere – since there are so many women and not enough men, it is easy for men to have more than one partner. Some of the men have about 4 partners. The wife does not accept this but nobody can stop the men from doing that. There are always problems with couples – only sometimes they have good conversations, the rest of the time is problems. Many women who have money and rich husbands still go out with many men.

I would like to learn more about birth control using the calendar method – it is very rare that people know how to do this. Ambondromifehy is a place where there are lots of pregnancies – many people are pregnant but there are no doctors available. People are miteraka *[reproducing/giving birth] – women who cannot have a baby should come to Ambondromifehy. People here do not know how to control birth [fisa – birth control]. Hard-working people like to have sex and with no birth control there are always lots of children. It is also hard to use the calendar method with men because even if the woman follows it, the man wants sex when he comes to town. If they are gone in the forest for a long time, they will never accept that it is not a 'good day' for the woman. They always insist on having sex. I know that birth control can make you sick but it is still important – I used birth control for one year (injection) but after you stop, it's ok because the injection lasts for another year to two years. Then you have to get* manadio kibo *[cleaning the belly] – an injection from a doctor. We need to have more hospitals here then women will know more about health issues. Another important health issue for women is being together [having sex] with a man – having a partner is the cause of all the problems. For example, prostitutes have different partners all the time even if they don't like them because they need to make money. They have sex with the men and they can get lots of diseases from them. Prostitutes in big towns, like Diego, take drugs while they prostitute*[25] *– these are for their health. They also go to the hospital for check-ups but the prostitutes in Ambondromifehy do not because there is no hospital – the prostitutes here need a hospital available.*

- Mboty

As may be apparent from the stories of Soa and Mboty, there are very limited health services available in Ambondromifehy and there is a very low level of knowledge of health topics. People in Ambondromifehy have different relationships with medical people than many are accustomed to. Most medical efforts in places like Ambondromifehy are about prevention and health care providers rarely explain treatments or at least they are not explained in a way that people understand. Consider

[25] In speaking with a prostitute in Diego, I learned that they would often take antibiotics as a precaution to prevent getting a sexually transmitted infection in the first place.

the following quote:

> *"It is important for women to know about taking care of their bodies. You shouldn't be with people left and right [sexual partners]. I have children with one person, but other people, they might be with someone then that person leaves and the woman is stuck with a child. I would like to learn about how to keep healthy and there are some people who don't really know how birth control works. I had a needle once, but I don't know what it was for and they gave me pills but they made me sick. I would want to learn about the side effects and what pills and things are for."*
>
> - A woman breastfeeding her baby

Women are unaware of or poorly educated on health issues that would usually be considered of great importance to women such as birth control, women's health (sexual health, in particular), and their family's health. This is not surprising since many of these women have lived most of their lives on the periphery, migrating from one rural community to another and having little exposure or opportunity to learn health-related information. I will briefly point out some issues related to women's health in mining communities in general then I will return to a case study (on HIV/AIDS) of women's health education in Ambondromifehy.

Women often work with one another in shops but also keep one another company, such as when a friend or family member is working. Photo by a woman in Ambondromifehy.

The health and safety concerns women in mining face are generally shared with men. The vicious cycle of ill-health in many developing countries may have driven women and children into the mining industry in the first place, however, once there, this cycle is only exacerbated. Chemical dangers, ground failure, shaft collapses, machinery

accidents, dust explosions, high intensity labour jobs, as well as medical illness that can occur related to work in the mines are some of the extra dangers faced by miners (Hinton *et al* 2003:8-10). During interviews, many women in Ambondromifehy highlighted a need for education, particularly for women's health, and the need for educators to come to the town to speak specifically to them as women. They wanted to learn about things like birth control, sexually transmitted infections, and vaccinations.

> *"I want to have someone come here to explain about health issues and encourage people to build toilets for themselves; a doctor should come to explain the importance of cleanliness."*
>
> - Ravo, a 36-year-old woman

In Ambondromifehy, there is no running water in town, no toilets (that I heard of), no electricity, and no formal government or police force. There is a village/community "government" or *fokontany* but it is nowhere near sufficient enough to deal with the issues faced by those in the community. As a courtesy, when I arrived in Ambondromifehy with my supervisor, one of our first visits was to introduce myself and my interpreter to the 'president' of the *fokontany*. In addition, during my time in Ambondromifey, their influence was not apparent to me. I did not hear of any other community services or organizations other than the associations formed by people from similar regions or women. Associations will be discussed in a section below as well in the next chapter.

In ASM communities, girls are somewhat more susceptible to sexual exploitation and child prostitution is common; this may especially be the case in African countries where virginity is given high status and also where young girls are seen as unlikely to carry HIV/AIDS or other sexually transmitted infections (Hinton *et al.* 2006:214). In addition, partly due to the transient nature of mining (as discussed above) and the sex

trade present in ASM communities, high incidence of sexually transmitted infections including HIV tend to plague these ASM regions. Heemskerk (2003) notes that the relationships between men and women often had transparent boundaries, particularly between commercial arrangements and other relationships; this put women in a vulnerable position as far as HIV infection, and this is demonstrated by the often-high rates of HIV/AIDS in the mining regions of Suriname. This is a potential problem in the small mining communities of Madagascar where the rates of HIV are extremely low and yet the potential for an exponential increase is quite high as a result of increasing numbers of mine workers coming into the country from other mining regions in Africa.

The Ministry of Health in Madagascar and UNICEF Madagascar have made the fight against HIV/AIDS a priority, having seen how quickly the infection has spread in other countries. In their evaluation of HIV/AIDS programs in Madagascar, Rakotonanahary *et al.* (2002) concluded that knowledge about the infection does not appear to be high even amongst high-risk groups. They noted the complication felt by women who did not feel that they had the power to protect themselves against HIV/AIDS and this suggested the need for the sensitization of men as a focus of prevention programs in the future. Another study by Lanoutte *et al.* (2003:918) suggests that HIV/AIDS awareness is high in Madagascar but knowledge of how it can or cannot be transmitted and the use of condoms in prevention are limited. In the following two quotes you can compare the responses of two prostitutes: one in the large city of Diego and one in Ambondromifehy.

> *"I earn money from prostitution but prostitution makes me sick. I often feel it. For example, when I have many clients in a day I definitely know I got a disease from sick clients. To cure that kind of disease, I often buys drugs, such as penicillin, tetracycline, and takes those drugs on my own. I don't have to go to a*

hospital, as I understand my problems. When I hurt my hip or my back, I often take antibiotics every hour for my treatment. I can have sex with 20 clients in a day but I definitely have to take some antibiotics after because having sex with so many clients always makes you sick."

- Sylvie, a young prostitute in Ambondromifehy

"I know about AIDS. It is a sexual disease, which has no treatment so far. I did not believe in AIDS before, even when I was already raising women's awareness about health issues. I always thought that AIDS was a kind of political system existing everywhere. Now, I really believe that AIDS exists because one of my friends, who was also a prostitute here in Diego, died because of AIDS. I noticed all the symptoms of AIDS appearing on that person until she died. I also believed because every doctor who had to touch the sick prostitute had to wear double gloves. The doctor told the aunt of the sick prostitute that she died of AIDS."

- Celeste, a prostitute in Diego-Suarez

When asked about their knowledge of HIV/AIDS, women in Ambondromifehy rarely had much to say on the topic. Most acknowledged that it did exist; however, none had seen it and a few said that they were uncertain of whether or not it existed for this reason. You can see several responses of women in the quotes below. These women express common ideas about HIV/AIDS in Ambondromifehy.

"I know about HIV – but I hear about it very rarely. I know that it is a disease people can get from sexual relations and that doctors encourage people to protect themselves. I sometimes hear about it on the radio or rarely, people come here to explain about things – maybe once per year. People who explain about HIV tell people to avoid this disease by remaining faithful and this is addressed to people who are younger and having children. I want to learn more about health issues. It is quite necessary to have people coming to explain about health issues – if they came, I would go to listen and learn. I want an explanation on how to avoid AIDS (so I can explain to people, my grandchildren), and I want someone to explain to kids in school how to behave; also to tell women who breastfeed how to take care of babies/children."

- Yolande, a 58-year-old woman

"I know about AIDS as a sexual disease that nobody can cure; I also know that it is contagious. I knew more about health issues when I was married to a military man. People who work for the military get a lot of information about health issues. Now I want more information about health issues and I think the people here should be given more information. People here are ignorant. For many people, some parents consider condoms as balloons and they leave their children to play with them."

- Ravo, a 36-year-old woman

"I don't know anything about AIDS."

- Sylvie, a young prostitute in Ambondromifehy

In terms of the "use" of condoms, both the nurse and the pharmacist indicated that people in Ambondromifehy, including women, do not like or want to use condoms whether or not they are aware of the dangers and risks they are taking without using them. Men are often found using the money they make to get young girls or married women and in many cases women will exchange money or goods for sexual favours.[26] When women are concerned about their health, they often don't know when it is necessary to seek a health professional or even whom to turn to. In addition, they may not be able to explain or show anyone what their problem is and self-diagnosis and treatment may be more common here than is apparent, as is seen in the above quote from a prostitute in Ambondromifehy.

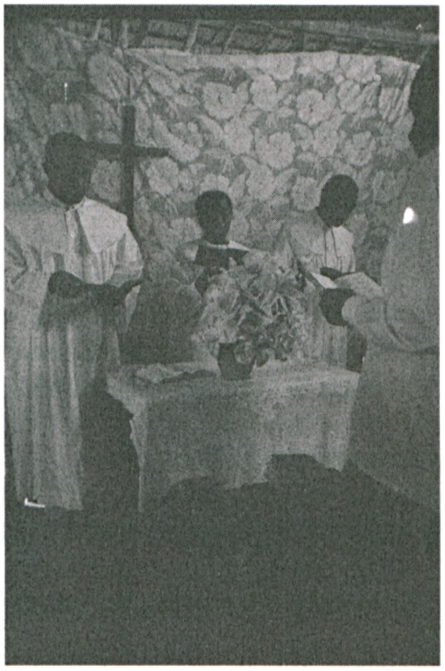
Associations and Community Supports

> *"I attend the FPVM church [Protestant church] but this is new to me since I arrived in Ambondromifehy – I used to be Catholic. I currently also belong to the Association of People from Andapa and the Women's Association. I have belonged to these associations since I had a child; I felt that after I had a child I was grown up and should start behaving like an older person. Since now I am older and had a child, I feel like I need people around me to depend on in case I have a problem. To join these associations, I paid fees but we do not meet or pay more unless something happens like an illness or death of someone in the association."*
>
> - Soa

[26] It is essential to point out here that there is a very fine line between prostitution and sex with a "boyfriend". Many relationships that women call "marriages" are solely based on the husband's ability to provide money and goods and when that is no longer coming to the woman, she moves on and finds another "husband". There are also more clear-cut exchanges of sex for money that go on in Ambondromifehy, but many of the people (including the prostitutes) who engage in them have a permanent partner as well.

"I belong to the Catholic Church here and have always belonged to the Catholic Church. I don't go very often – when I was with my father, he was very strict and wouldn't let me go to church – I had to work – but here I can go. I belong to the association of people from Vohemar since this year. The association was not very good before, but now it is better/stronger. I paid an entrance fee of 2000Ar [$1.12CDN] and if something happens (illness/death) and someone doesn't have the money to take care of the problem, the members will have to contribute 1000Ar [$0.56CDN] to help. This dry season the association plans to organize a disco to raise money for the association. They will use the money to help one another and the association can also do all kinds of activities to make money. The association is always mitady vola *[looking for money]. The association is very important, particularly if there is a death; they would send the body home. I have never belonged to an association before coming here because this is the first place where I have my own home."*

- Mboty



Only one woman who participated in the Camera Project took photos in a church. Photo by a woman in Ambondromifehy.

As in the cases of Soa and Mboty, most women belong to at least one association and many attend a church in Ambondromifehy. In many cases, women are challenging traditional gender roles by entering the mining sector and may face social stigmatization, especially in regions where there are specific notions as to who should and should not be mining (Heemskerk 2003). Associations can connect women with others who come from their home region and provide them with support from other women who may share similar experiences. Many women in Ambondromifehy belong to at least one association. Of the women interviewed during my research, only one did not belong to any association. The women pointed out the benefits of belonging to associations that include: participating in social events, having the security of knowing that there is help in times of need (illness, for example), and

having the assurance that one's body would be returned home by the association if one were to die in Ambondromifehy (see inset below). The fact that people generally think it important to belong to an association may also indicate their understanding of the dangers associated with living here. In most parts of Madagascar, it is very important to return a body home after one's death and this is one of the most commonly cited benefits of belonging to an association of people from one's hometown or home region.

> *"My husband is part of an association – it is one of the types that ensure that bodies end up back in their family tombs. Together, as a couple, we participate in this association although this new association has just started. I am also in the 8th of March women's association. At the start, we only paid 5000fr [less than $1CDN]. I don't know what they do at the association – I have never gone to a meeting. But the idea is that they gather money and if you are a member of the association and you have a problem you can go and take money – or borrow it and return it later. And one of the projects they have is to sponsor a dance or event where men wrestle cows. You join an association and you look to these people to save you in times of crisis."*
>
> - A woman in Ambondromifehy

I spoke with several women who said that they belonged to associations of people from a different region simply because these associations were better run; they were quite sure that the association would still help them if they were in need despite the fact that they were not from that town or region. There were also a few women who belonged to associations but weren't sure exactly what they were for; they just knew that other people belonged to associations and that's just what people do. Community will be discussed more fully in the next Chapter.

Summary

In sum, this chapter provided a description of women's lives in ASM communities worldwide, combined with both written and visual ethnographic material. After learning about women's lives, I posed a question at the end of each interview: What would make life here better for women? These are some of the responses:

"To make life better for women, I would like to have services such as a tap to get water from and better schools. And women need to make enough money to buy clothes and to be able to build a house. Vola maha olo ny olo *[money makes a person a person]; even if you are woman, you can't do anything without money. It is also good to have a family - to have a family and to have money. That is what will make women's lives here better."*

- Soa

"Life for women here would be better if they have a job whether they are married or not. Prostitution doesn't make enough money and women should at least have a partner even if they are not married and the husband/partner should work too. If you are a woman and you don't work, you are nothing – if you just prostitute, you can't survive because you just earn 500Ar or 1000Ar [$0.28 or $0.56 CDN] for prostitution and that's nothing. Like myself, I work and many people are jealous of me – people say I work hard and I have a better life. In Ambondromifehy, it is easy to make money but some of the women are happy with just prostitution. Even if you are a woman, if you work and seek for money you have a good life whether you're married or not. Nobody can survive being a prostitute. As a woman, you don't have to have a fixed partner but you always have to find a partner for yourself. Even if you don't live together, if you respect each other, it's ok. All of this makes life better for women."

- Mboty

"Women's lives would be better if they were rich and met a rich husband. I want to have a tokantrano *[a "home"] but the husband must be a richer person or I would never get married. Meeting a foreign husband would make life better. I wish to be able to start correspondence with foreign people then when I find someone, I would go abroad."*

- Giselle, a 23-year-old woman

"Women's lives would be better if they had a job. Having a job makes women more independent from men in terms of money. I want to own a shop that I would run by myself."

- Ravo, a 36-year-old woman

"Women's lives would be better if they have the possibility to avoid being trotraka *[rotten] or getting old very easily; and the only possibility is to earn enough money to care for themselves (buy clothes, food, etc). I also think that I'll have a better life when I have enough money to support four people [she means her four children] before I get really old."*

- Francine, a 36-year-old woman

"To make life better for women, it is best for women to have a tokantrano *[a "home"]. They should have a family home, children, not break up with their spouse, and raise the children together. This makes people's life good and I wish for every woman to have that. If you stay single with this hard life it's going to be*

tough. That's my experience; that's my observation. Women should have a tokantrano and then work for the family.

"There are quite a lot of schools here, but as for services, I would like water – a better, cleaner water – then a hospital, a place to keep sick people; these are very important for me."

- Yolande, a 58-year-old woman

"The life of people here is all about sapphires. I would recommend that men go out mining and women stay here. You can see that the land around here is good for growing things, so they should be growing things as well. You'd think that all these people from the bush would know that they should be growing things. They could alleviate all their stress if they grow things but they're not interested in growing things, they are only interested in sapphires. You find sapphires today, you can earn the money today but when you are growing you may have wait a long time before you earn anything. That's my solution, while men are out mining, women should be growing things."

- Lisette, the nurse in Ambondromifehy

Overwhelmingly, women included some reference to the need for water in their interviews. In 2006 the World Health Organization estimated that 36% of the rural population in Madagascar had access to sustainable improved drinking water sources and only 10% of the rural population had access to sustainable improved sanitation (WHO 2006). Apart from water and sanitation, some of the specific responses were rather different from what I would have expected. Most pointed out the need for money – money would make their lives better because it would allow them to buy the things they needed like water, food and clothing for their families, or even simply independence. This emphasis on money follows the reasoning most of the women used to explain why they came here in the first place or why they would need a husband. As one of the women stated, "Vola maha olo ny olo [money makes a person a person]; you can't do anything without money." This sentiment resonates throughout the town and shapes the actions of both men and women. This also contributes to the uniqueness of places like Ambondromifehy that are on the economic periphery but that still carry the reputation as

places in which fortunes can be made, fueling the imaginations of those who come here or stay here believing that they will "strike it rich". It is interested to consider the nurse's perspective as well, which is quite different from those of the other women. The nurse is in a unique position in that she has a portable skill that is in demand and could quite easily leave the town should she choose. She is from Diego herself, but neglects to consider that many of the women, while possibly from small villages originally, have lived in larger cities such as Diego, some for many years before coming to Ambondromifehy. On the other hand, she may be correct in suggesting that having gardens and growing things could alleviate some of the pressure of having to always buy certain foods. Of the women I spoke to, all denied having a garden and only one woman said that she sometimes planted cucumber.

From what I heard from women and observed, access to clean water and toilets would probably be a significant factor in improving the lives of both women and men in Ambondromifehy. In my concluding chapter, I will discuss some of the ways that research in ASM communities can contribute to the goals of making life better for those, particularly for women, who are living in these communities.

This woman is sifting rice on the main street. Photo by a woman in Ambondromifehy.

PART IV – CONCLUSION

--CHAPTER FIVE--

Conclusion

Contributions

There are several ways in which this project contributes to both the discipline of Anthropology as well as teaching in the university context. The three main contributions of this project are in the original ethnographic data collected on women in Ambondromifehy, the introduction of the "Interactive Ethnography" portfolios, and an example of a way to incorporate visual material in teaching conceptual issues with practical aspects of field research in the Anthropology classroom.

Original Ethnographic Material

The research for this project contributes original ethnographic data on the subject of women in Ambondromifehy. While sapphire mining has been studied in this town previously (see, for example, Walsh 2002, 2003, 2005), women have not specifically been studied here. In addition, there is almost no current literature on women in an artisanal mining community similar to this one, leading similar lives to these women. That said, I do not think this is an unusual case on a global scale but more so that it is just not attention-grabbing: there are no specific cultural barriers to women working here (as in the barriers of the caste system in India, (see, for example, Lahiri-Dutt 2006), there are no violations of human rights by mining companies (see, for example, Macdonald 2006), and there are few economic effects from this mining that are significant to many more people than live and work in this town. In sum, contrary to the notorious reputation the small town of Ambondromifehy has in northern Madagascar, it is little more than a sleepy roadside town filled with people trying their luck in an unstable and unyielding

small-scale mining effort, that grabs little attention outside the legends of those who made it big here during the mining boom in the mid-1990s. This case may be representative of many more worldwide that have not managed to garner the attention of governments and researchers but that give insight into how many people in so many different contexts are struggling to make a living in the wake of economic ups and downs and a very serious lack of infrastructure and community supports.

Interactive Ethnographies

Interactive Ethnographies provide an alternative way to present ethnographic material, rather than in the traditional form of a written text. This way of presenting ethnographic data allows the student or "reader" to actively engage with the material in a way similar to how the ethnographer experienced it, i.e. fragmented, in the context of some previous background knowledge, and with the need to look beyond the ethnographic material for connections or explanation in the literature. This provides an different way to accomplish the same goals as a written ethnography but perhaps with easier accessibility and in a more interactive way. The goal with the interactivity is to not only make the material more accessible to students who have grown up with media such as internet, television, digital cameras, and video games, but also to make the material more relevant to the student as there are clear links between the ethnographic material (i.e. practice) and the conceptual issues in Anthropology.

Visual Material in the Classroom

The use of this original ethnographic material in constructing a way of illustrating, and subsequently teaching, the possible uses of data collected in anthropological research or presented in ethnography is also a contribution of this work. As is clear to most

anthropology students, the link between what anthropologists find in the field and the conceptual material presented in class is often hard to find and even more difficult to maintain as the theory becomes more complex and students are left to apply it to their own ethnographic material. Through the visual elements present in the ethnographic text, but more so through the Interactive Ethnographies, website and video clips accompanying this thesis, it is hopefully apparent how visual material can be used in a variety of ways to enhance the material taught in the classroom (lectures) and in course readings.

Future Directions for Research

Women, Mining and Madagascar

As this is the first ethnographic study that looks specifically at women living in the small-scale mining town of Ambondromifehy, Madagascar, there is much work to be done here to gain a better understanding of the lives of those living in the community, women, their children, and the men. Further studies and research could greatly help to raise awareness of the situation here, namely the lack of fundamental services such as clean water, hospitals, and schools. Ambondromifehy, unlike other ASM communities in Africa and Asia, does not have any assistance from aid organizations that provide community supports and/or help people create and maintain social support organizations. While these organizations are not always successful, it is likely that the attention from outside organizations and the funding and education that often go along with them would be beneficial in a town such as Ambondromifehy, where community supports are often unreliable or non-existent.

According to CASM, "most previous efforts to address the challenges confronting

artisanal miners and their communities have focused on the technical rather than on the sociocultural poverty aspects of their situation". Hinton *et al* (2003:21) suggest that social equality must be improved before men and women in these countries can fully benefit from artisanal mining and that this can be accomplished through strengthening social networks, gender mainstreaming in government agencies and assistance programs, adoption of inclusive strategies, additional research into gender roles in this sector, and the advancement of sustainable livelihoods in artisanal mining communities. In order to make community-based mining sustainable and make an ongoing contribution to survival and development, it is important for women to be able to access the economic benefits, skills involved, and for them to be aware of possible health and safety issues involved in ASM (Crispin, 2006:256-7).

Heemskerk (2003) suggests that there is a need to incorporate a qualitative understanding of people's working lives into the research and to create policies that fit with the culture of a region, or the culture of a mining community. Hinton *et al* (2003) argue that with increasing numbers of women working in a variety of roles in artisanal mining operations, any work done here, in terms of development, must involve a community centric approach and the enhancement of women's roles may help to bridge the gap between well-conceived technical and socioeconomic changes and the actual facilitation of positive transformation of the artisanal mining sector. This transformation is necessary because in many cases, artisanal mining is either illegal or unregulated and yet, increasing numbers of individuals (both men and women) depend on this industry for their livelihoods. Women in many contexts however, are forming social networks to

enhance their skills, organize themselves economically, and create assistance programs (Hinton *et al* 2003:21-22).

In many places either micro-credit programs, co-ops or charity funding help women to support themselves and their households; Hinton *et al.* (2003:18-9) found that women are generally paid less than men and that more of their income goes into supporting the household than does that of men. Despite the dangers and drawbacks, as Cleary (1990:113) suggests mining may afford more advantage to the workforce than any other occupation they could enter in these contexts and further research and understanding of these issues could greatly improve the working conditions for women, as well as men in artisanal mining. Crispin (2006:262-3) outlines several key steps in assisting women in small-scale mining in PNG. These can also be applied to other regions around the world and include: 1) including women in education programs and allow them to access support systems; 2) including women in professional teams carrying out the various educational programs; 3) carrying out activities such as educational or financing programs through various women's groups; 4) attempts to address the shortfall in the provision of healthcare and health education; and, 5) the development of micro-finance programs. Providing this assistance will allow women to grow their incomes to better support their families and possibly allow them access to slightly better technology to improve mining (Crispin 2006:263).

Future research in this area should focus on women's roles in ASM communities and include women in development projects and plans for education, legislation, and lending programs. It is important that research into improving or developing communities like this consider the *priority* of improvements. While many of the

programs discussed above would improve life for women in Ambondromifehy, currently the biggest benefit to the community would be basic services like sustainable clean drinking water and sanitation, rather than micro-credit programs.

Interactive Ethnographies

There is still much to be done in this area as anthropologists/professors are continually experimenting with different technologies to enhance students' learning experiences. I hope that this thesis provides a workable example of an interactive approach to teaching anthropology and may inspire professors to seek out other visual materials or online resources to enhance the learning experience for the student and to make what is being taught more relevant to students. As is the case particularly in Anthropology, many students do not go into a career as a 'professional anthropologist' – in fact, I'm not sure this career path exists outside of the university setting. As is true with many university degrees, most of these students do not often see how their degree in anthropology prepares them for the careers they end up in. I think that with a more "hands-on" approach – and the discipline of anthropology does allow for this – students can see how to connect the things they see around them with larger theoretical concepts. Further exploration into how this can be done in the university classroom will no doubt allow a hands-on approach to be used more frequently in illustrating the theoretical material while still maintaining the integrity of the discipline.

The incorporation of visual material and interactive learning is not an easy task and the amount of work an individual professor would have to put in to do this is the first obstacle to address. With more research into the effectiveness of various approaches and the development of effective materials, it will perhaps become the case that written texts

in introductory anthropology or ethnography will be available in "packages" with interactive material included and easily incorporated into the course curriculum.

Visual Anthropology

The field of visual anthropology is continuing to grow and more visual material is being incorporated into classrooms. Projects using Photovoice or methods like the Camera Project used in this thesis are still few in number in anthropology but I think that more research using this technique will prove its usefulness in helping to give voice to those whose voices are traditionally not heard, particularly children and those who are unable to write about their everyday experiences. Interviews are limited in that they only address specific issues in a particular place (where the interview is held) and don't account for the everyday activities of the participants, whereas a Photovoice project where the participant has a disposable camera for several days may provide an opportunity to capture a moment that an interviewer might not ask about and that the person interviewed might not think to bring up. More research into the role of video in ethnography may provide a more prominent place for it and perhaps new 'documentaries' that can be used effectively in the classroom and perhaps even to bring anthropology to the public sphere.

Conclusion

This project was not only an exciting adventure for me both in the field and in working through the writing process of my thesis, but also I think in what has come out of it. Interactive Learning and visual anthropology are not always used to their potential and would greatly improve the quality, relevance and accessibility of anthropological data. Cases like that of Ambondromifehy can be better understood when visual material

is used in conjunction with written material. Nothing compares to actually going to a place, walking the streets and talking to the people, but a photograph can often show much more than a paragraph of text and a video gives an even better sense of what is like to actually "be there" than a photograph and text combined. When students are able to interact with ethnographic material and move back and forth between text, photographs, videos, website links, and so on, they become more engaged with the material and have the opportunity to actively participate in and direct their own learning. This provides a far more interesting and relevant learning experience than simply reading something and being told how to think about it. As discussed earlier in this thesis, many anthropologists today are collecting visual data, but very little is ever done with it. I hope that this thesis and the visual material combined with the Interactive Ethnographies encourages instructors/professors to push their students to think about the connections between different theoretic concepts and to look beyond the text.

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--Appendix 1--

Interview Question Guide

Recorded YES NO AUDIO VIDEO
Date _____

Observed Characteristics

General Appearance
Build SLENDER MEDIUM HEAVY
Hair Style
Dress
Jewelry
Teeth
Physical Handicaps

General Information

Age Yrs Yr Born Unknown
Where were you born?
When you were a child, did you attend school? YES NO
For how many yrs did you attend school? (up to what age/grade?)

Partners

Do you currently have a husband/spouse/boyfriend? YES NO For how many yrs
Does he currently live with you? YES NO
Do you have children with him? YES NO How many?
Is he away? YES NO Where is he?
Will he be returning here? YES NO
Will he be sending for you to join him? YES NO
Is it difficult to have relationships with men here compared to other places? Why?

Chidren

Do you have children? YES NO How many?
Ages/gender?
Where were your children born?
Do your children live here or away? HERE AWAY - Where?
Do your children attend school here? YES NO Which school?
How much are the school fees? Who pays the fees?
Are you satisfied with the school? YES NO Why?/Why not?
Do your children attend school elsewhere? YES NO Where?
With whom do they live while they are attending school?
Is it difficult to have relationships with your children here compared to other places?
Why?

Work

What is your primary work?
Do you earn money with any other work? YES NO
What is your other work?
What other work have you done since you've been here?
What sort of work do **men** do?
What sort of work do **women** do?

Why do men and women do different/same kinds of work?
Are you getting monetary support from a spouse or child? YES NO
Do you have any other sources of income?
On which of your incomes do you rely most? (Primary, supplementary, spouse/child)

Migration

When you first left the place you were born, how old were you?
When you first left, were you on your own or still dependent on others (family, etc)?
Have you returned there since you left? YES NO
How many times/ for how long?
Why did you return?

In what places have you lived since you left the place you were born and why did you live there?

Place Year Reason for moving there Reason for leaving

Do you return to any of these places regularly? YES NO Which one(s)?
Do you own/rent land/a house or cattle in any of these places? YES NO Which one(s)?
If yes, who is taking care of your land/cattle for you?

Life in Ambondromifehy

In what year did you arrive here (Ambondromifehy)?
How did you come to live here? What was it like when you came here?
When you moved here, were there more men or women? Or was it equal?
Now are there more men or women here?
Why do you think this has/has not changed?
When you moved here, did you travel with relatives or friends? YES NO Who?
When you moved here, did you already have relatives living here? YES NO
Did you stay with them/work with them when you first arrived? YES NO
Have any of your relatives moved here since you have lived here? YES NO
Who?
Did you ask your relatives to move here? (did you send for them?) YES NO
Why?
Are your relatives who have moved here MEN WOMEN and are they YOUNGER OLDER than you?
Did your relatives/friends obtain land/a house near yours here? YES NO
Do you ever send money/rice/etc to relatives who do not live with you here? YES NO
What/to whom?
Do any of your relatives send you money/rice/etc? YES NO
What/from who?

Ownership and Consumption

Do you own land/a house here? YES NO
Did you buy the land? YES NO Who gave you the land?
Do you own anything else? (generator, compressor, fridge, TV, etc)
Do you think men and women spend their money differently? YES NO
What do men spend their money on?
What do women spend their money on?

Do many women smoke cigarettes? YES NO
Do women buy qat? YES NO

Staying or Leaving

Do you stay here all the time or do you go somewhere else for part of the time?
Why do you leave for part of the time?
Are you *tamana* here? YES NO Why/why not?
Do you want to remain here? YES NO
What would make you want to stay here?
What would make you want to leave?
If you leave what will happen to your house/land?

Community

Do you belong to a church here? YES NO Which one?
Have you always belonged to this church or did you join it when you arrived?
Are there more MEN WOMEN in your church? Equal?
Why do you think there are more/less women in your church?
Do/did you belong to any associations here? YES NO Which one(s)?
How long have you belonged to this association?
Are there fees? YES NO How much?
What activities does this association do?
What are the benefits of belonging to an association?
Before you came here, did you belong to any associations? YES NO
Which one(s)?

Gardening and Water

Do you have a garden? YES NO When did you start your garden?
What have you planted?
Where did you get the plants/seeds?
Do any of them have fruit/ are any fully grown? YES NO Which one(s)?
Where do you get water? WELL BUY LAKE RIVER
Does this change during the rainy or dry season? YES NO To what?

Health

What do you do if you or someone in your family becomes ill?
REMAIN HERE GO ELSEWHERE
If you remain here, what sort of help do you seek? (nurse, traditional healer, church, etc)
If you go elsewhere, why do you go there?
Do you think there are sufficient health services available here? YES NO
Are there sufficient services for pregnant women/mothers/babies? YES NO
Explain
Compared to other places you have lived, how do you find the health services here?
Explain
What services would you like to be available here?
Do you know about HIV/AIDS? YES NO What do you know about it?
Where do you learn about health issues?
Do you want to have more information about health issues? YES NO What issues do you want to learn more about?

What health issues are especially important for women here?

Summary Question

What would make life for women here better?

--APPENDIX TWO--
Interactive Ethnographies: Facilitator's Guide

FIELD2STUDENT: MADAGASCAR

FACILITATOR'S GUIDE

April 2009

This guide was written and compiled by:

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Table of Contents

Introduction.....120

Incorporating Interactive Ethnographies into the Class.....121

Portfolio #1: Artisanal and Small-Scale Mining.....124

Portfolio #2: Women in Ambondromifehy and ASM Communities.....126

Welcome!

This facilitator's guide is intended to help you incorporate the portfolio activities into your course. There are instructions for each activity as well as suggestions for each of the four steps to incorporating visual material into your course, as per Mallinger and Rossy (2003)[27]. These include: 1) Pre-class or pre-assignment Preparation; 2) Class Session or Assignment; 3) Faculty-Led Debrief; and, 4) Follow-up Assignment (optional). Each Portfolio Guide is set up following this format. The preparation step can include preparation for a class session or preparation to complete the assignment for the portfolio. Therefore, there are suggestions for the class session, but if there is no class session, the assignment can be completed as part of the course requirements. Sample assignments are available on-line and on CD for each portfolio. Suggested discussion questions will be included in this guide that may be particularly useful if a class session is being conducted following exploration of the portfolio.

The objectives of incorporating these portfolios into your course include:

1. Allow the student to actively engage with original ethnographic material
2. Increase the perceived relevance of theoretical material to the student
3. Make ethnographic material more accessible to a wider audience
4. Help students develop the skills needed to connect broad concepts
5. Encourage researchers to consider alternate applications for visual data collected in the field and how that data can be incorporated into the classroom

[27] Mallinger, Mark and Gerard Rossy (2003) Film as a Lens for Teaching Culture: Balancing Concepts, Ambiguity, and Paradox. Journal of Management Education. 27:608-624.

Incorporating the Interactive Ethnographies into the Class

Each portfolio is set up to allow multiple interpretations of the material presented and to allow students to direct their own learning, to the extent that there are opportunities for them to work beyond the portfolio. When incorporating a portfolio into your class schedule, I strongly suggest a discussion-based lecture and give a format for this below. This allows the students to continue the active engagement with the material and discuss the multiple, but often overlapping, interpretations of the data presented in the Interactive Ethnography. The set-up presented below follows Mallinger and Rossy (2003).

Pre-Class/Assignment Preparation

This section includes pre-class or pre-assignment preparation. If the Interactive Ethnographies are included as a course assignment, there may not be a class session specifically devoted to discussing that Ethnography. In that case, the pre-assignment preparation may include assigned readings or student-directed research of the existing literature before exploring the Interactive Ethnography. This may also be followed by a written assignment to hand in. If the Ethnography is to be discussed in class, pre-class preparation may include readings as well as exploring the Ethnography before the class session. Suggested readings for each Portfolio are included in this guide.

Class Session

If your classroom were conducive to small-group discussion, this would work best. However, discussion in pairs is also possible in a theatre style classroom. Groups should be encouraged to discuss how the case of Ambondromifehy, as shown in the portfolio, as well as relevant comparative or reference material. The discussions can be focused around a set of specific questions that each group will address and this will be followed by a whole class discussion and a faculty-led debrief of the topic.

If your classroom is not set up adequately to allow group discussion, the discussion questions can also be discussed as a class. Alternatively, you could split the class in half,

or some other way, based on the aisles between seats and assign an article that only students from a particular "section" can comment on during the class discussion.

Faculty-Led Debrief

If you have conducted a class discussion, you may have included your own comments and guidance in the discussion.

If you have conducted small group discussions, it is important to debrief with your students to ensure that they understand the material, the comparative value of each particular case as well as any other relevant points to that class session. This is easy to conduct in group discussion format, allowing each student group to present their comparison article (at least so that each article is covered), with you as the instructor filling in the gaps, ensuring student understanding and providing additional information as necessary. This can also be done simply in lecture format, however, by using the group discussion method, as above, students are more actively engaged in the lesson and more likely to pay attention and retain certain points.

If you have the space, another idea would be to have each group write their five points for comparison on the blackboard. This will give students a visual reference and it will be interesting for them to see how many of the points are comparable in all the articles and which ones are specific to certain articles. By doing this, they will have a better idea of how to apply the concepts illustrated in a particular Ethnography when doing research of their own and writing essays on specific topics.

Follow-up Assignment

You may wish to do a follow-up assignment. This could be accomplished by assigning a short essay topic where students are expected to address 1-3 cases (these may or may not include the cases in the pre-class assigned readings) in relation to the portfolio case of Ambondromifehy. Those who attended the lecture and completed the pre-class preparation would be in a good position to do this assignment well, leading to further

development of research and analytical skills. Several essay questions are suggested on the website: www.field2student.ca.

Portfolio #1: Artisanal and Small-Scale Mining

The purpose of this portfolio is to show the importance of comparison in Anthropology. The case of Ambondromifehy is given, along with several comparable cases that are relevant for various reasons. In this portfolio, the pre-class preparation in terms of readings is rather important in order for students to be familiar with the cases they will be comparing. The readings below are recommended as they are mentioned in the portfolio, however, they need not all be completed and this list is by no means exhaustive with several other readings providing as good, if not better, comparative cases.

Recommended Readings:

Cartier, Laurent

2009 Livelihoods and Production Cycles in the Malagasy Artisanal Ruby- sapphire Trade: A Critical Examination. Resources Policy. 34:80- 86.

CASM

2007 Communities and Small Scale Mining. http://www.artisanalmining.org/index.cfm, accessed January 2009.

Cleary, David

1990 Anatomy of the Amazon Gold Rush. Iowa: University of Iowa Press. (Introduction)

Hentschel, T., F. Hrushka and M. Priester

2002 Global Report on Artisanal and Small-Scale Mining. Report to MMSD, P. 67, http://www.iied.org.mmsd, accessed April 2008.

Luning, Sabine

2008 Gold Mining in Sanmatenga, Burkina Faso: Governing sites, appropriating wealth. Dilemas of Development: Conflicts of Interest and their Resolutions in Modernizing Africa. Jon Abbink and Andre van Dokkum, Eds. Leiden: African Studies Centre. Pp. 189-205.

Martinez, Samuel

1995 Peripheral Migrants: Haitians and Dominican Republic Sugar Plantations. Knoxville: University of Tennessee Press. (Introduction)

Walsh, Andrew

2003 "Hot money" and Daring Consumption in a Northern Malagasy Sapphire-mining Town. American Ethnologist. 30(2):290-305.

Suggested Discussion Questions:

1. What characteristics are shared between the selected cases?
2. What difference do you see between the cases?
3. How is the case you are comparing relevant to the case of Ambondromifehy? (i.e. why is this a good case to compare it to?)
4. Come up with five (5) points of comparison that are relevant to the case study you are comparing (for example, you could compare the type of mining being done).

Portfolio #2: Women in Ambondromifehy and ASM Communities

The purpose of this portfolio is to show an ethnographic case of women's lives in the ASM community of Ambondromifehy. This portfolio also highlights some issues related to methodology in anthropology, particularly the use of Photovoice as a way to collect data and the issues raised when working with an interpreter. In this portfolio, pre-class or pre-assignment readings may not be necessary and you may wish to focus more on the student's interpretations of what they read and see.

Recommended Readings:

Berreman, Gerald

2007 Behind Many Masks: Ethnography and Impression Management. Ethnographic Fieldwork: An Anthropological Reader. Antonius Robben and Jeffrey Sluka, Eds. Malden: Blackwell Publishing Ltd. Pp. 137-158.

Clark, Lauren and Lorena Zimmer

2001 What We Learned from a Photographic Component in a Study of Latino Children's Health. Field Methods. 13:303-328.

Darbyshire, Philip, Colin MacDougall and Wendy Schiller

2005 Multiple Methods in Qualitative Research with Children: More insight or just more? Qualitative Research. 5:417-436.

Ember, Carol

2003 Current Issues in Ethnology: Is Ethnography Relevant? Teaching Anthropology: SACC Notes. 9(2):7-13.

Gotschi, Elisabeth, Bernhard Freyer and Robert Delve

2008 Participatory Photography in Cross-Cultural Research: A Case Study of Investigating Farmer Groups in Rural Mozambique. Doing Cross-Cultural Research. P. Liamputtong, Ed. Springer Science and Business Media B.V. Pp. 213-231.

Hinton, Jennifer, *et al.*

2006 Women in Artisanal Mining and Small Scale Mining in Africa. Women Miners in Developing Countries: Pit Women and Others. Kuntala Lahiri-Dutt and Martha Macintyre, eds. Burlington: Ashgate Publishing Company. Pp. 209-225.

2003 Women and Artisanal Mining: Gender Roles and the Road Ahead. The Socio-economic Impacts of Artisanal and Small-scale Mining in Developing Countries. G. Hilson, ed. Lisse: Swets Publishers. Pp. 161-204.

Hurdley, Rachel

2007 Focal Points: Framing Material Culture and Visual Data. Qualitative Research. 7(3):355-374.

Werthmann, Katja

2009 Working in a Boom-town: Female Perspectives on Gold-mining in Burkina Faso. Resources Policy 34:18-23.

2008 "Frivolous Squandering": Consumption and Redistribution in Mining Camps. Dilemmas of Development: Conflicts of Interest and their Resolutions in Modernizing Africa. Jon Abbink and Andre van Dokkum, Eds. Leiden: African Studies Centre. Pp. 60-76.

Suggested Discussion Questions:

1. What representations of "typical" divisions of work based on gender do you see in this portfolio? Why do you think there are/are not differences in the types of work that men do compared to women?
2. What can consumption patterns and the differences/similarities between men and women tell us about gender differences in Ambondromifey?
3. What are the benefits of using data collection/interpretation methods such as Photovoice or video recording?
4. What are the limitations of using visual data collections methods, such as Photovoice or video recording?

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Website: www.uwo.ca/research/ethics

Use of Human Subjects - Ethics Approval Notice

Principal Investigator: Dr. A. Walsh
Review Number: 15051S **Review Level:** Full Board
Review Date: April 4, 2008

Protocol Title: Health Priorities Among Young Malagasy Women in Two Contexts.
Department and Institution: Anthropology, University of Western Ontario
Sponsor: SSHRC-SOCIAL SCIENCE HUMANITIES RESEARCH COUNCIL
Ethics Approval Date: May 9, 2008 **Expiry Date:** May 31, 2009
Documents Reviewed and Approved: UWO Protocol, Informed Consent Script.
Documents Received for Information:

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

During the course of the research, no deviations from, or changes to, the study or consent form may be initiated without prior written approval from the NMREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of monitor, telephone number). Expedited review of minor change(s) in ongoing studies will be considered. Subjects must receive a copy of the signed information/consent documentation.

Investigators must promptly also report to the NMREB:

a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) all adverse and unexpected experiences or events that are both serious and unexpected;
c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to this office for approval.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the NMREB.

Chair of NMREB: Dr. Jerry Paquette

Ethics Officer to Contact for Further Information			
☐ Grace Kelly	☐ Janice Sutherland	☐ Jennifer McEwen	☐ Denise Grafton

This is an official document. Please retain the original in your files.

cc: ORE File