## About me



This is me, Agata Petrelli, for the first time in Madagascar on a shore in summer 2016, after having been awarded a First Class degree in Philosophy from Ca' Foscari University of Venice, but before applying to GLOCAL. That trip represents the core reason why today I am a postgraduate student at the end of an Erasmus Mundus Joint Master's Degree in Global Markets, Local Creativities (GLOCAL), with specialisation in Development.

My postgraduate taught program takes place at three universities and releases a triple-title MA degree from the School of Social and Political Sciences of the University of Glasgow, the Faculty of Economics and Business of the University of Barcelona (Spain), and the Faculty of Business and Economics of Georg-August University of Göttingen (Germany). I am one of the 32 international scholars selected out of 500 applicants, with whom I shared this incredible experience by travelling and studying together for 2 years.

Having had the privilege of being the first student admitted to the course, I hold a research training certificate in Evidence-Based Policy Research Methods (EPRM) from the United Nations University and Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT), in Maastricht, The Netherlands. During this 4-month training I undertook in parallel with my third term in Göttingen, I have designed and developed a research project for my master's thesis on child labour in

mining and quarrying in Madagascar. The great honour of having been awarded a Mac Robertson Postgraduate Travel Scholarship of  $\pounds$  3,180 enabled me to carry out a fieldwork in Antananarivo, Madagascar, and to organise a geological expedition in collaboration with the Department of Geology of the Polytechnic High College of Antananarivo (ESPA), Madagascar in May-July 2019.

## Why did I apply for the Travel Scholarship?

The International Labour Organisation (ILO) classifies child labour in mining and quarrying under the worst forms of child labour, which includeschildren slavery, prostitution, illicit activities and work harmful for the health, safety or morals of children. Mining and quarrying fall under the latter category, which is referred to as 'hazardous work'. Children performing these type of activities can suffer from spinal deformation, respiratory and dermatological diseases, bacterial infections, injuries and in worst cases can be subject to sexual exploitation or die.

Children from poor rural families are particularly vulnerable to working in mines and quarries and several cases have been studied in Africa, Asia and Latin America. Yet, in Madagascar – which is one of the poorest countries of Sub-Saharan Africa and worldwide, inhabited by 26 million people, 40% of which under the age of 14 and 60% under 24, according to the Central Intelligence Agency – has been one of the cases neglected by international and national intervention policies.

The only available quantitative studies on child labour in Madagascar were carried out by ILO in 2007 and 2012, and by UNICEF Multiple Indicator Cluster Survey (MICS) in 2018. Nevertheless, these studies present several comparability issues and none of them collected statistically significant amount of observations on child labour in mining.

Researching and identifying children working in mineral exploitation represents a challenge for all known strategies targeting child labour. The types of mines and quarries where children work, are often informal, artisanal and illegal, whose coordinates are difficult to track and whose trades are not officially registered. Furthermore, mines and quarries are often located in geographically isolated sites difficult to access. Thus, they

often lack access to both social services, such as schools, hospitals and police stations, as well as to basic services for sanitary, hygiene, and drinkable water.

Child labour in mines and quarries is correlated to extreme poverty, which, among rural communities significantly relying on subsistence agriculture, such as in rural Madagascar, is affected by natural disasters, human-driven depletion of natural resources, constrained access to ecosystems goods and services, and/or land grabbing by large private companies mostly operating in intensive agriculture and mineral exploitation sectors.



Rural village in Alaotra Mangoro, Madagascar

In order to understand all of these correlations in depth, I had to apply a holistic approach under the guidance of three extremely brilliant and motivating professors from my three universities, specialized in social sciences, poverty and geopolitics. My first supervisor, Prof. Sebastian Vollmer from the University of Göttingen equipped me with the development economics analytical tools and introduced me to the Geographic Information Systems, with the support of his research assistant Dr. Le Thi Ngoc Tu. My second supervisor, Dr. Hannah-Louise Clark from the University of Glasgow thoughtfully encouraged me to adopt both anthropological and systemic perspectives encompassing the cultural, socio-historical and politico-economic determinants of child labour. Finally, my third supervisor, Prof. Aurèlia Mañé-Estrada from the University of Barcelona inspired me to expand the systemic perspective to the different local and international actors to understand their economic and political role.

Despite all of this huge amount of inputs, the reconstruction of the phenomenon necessitated of different types of data and information unavailable online, ranging from

mines data on substances, size and coordinates to administrative data, unpublished reports and geological expertise. There was only one answer: fieldwork in Madagascar.

In the desperate search of mines coordinates, a coincidence put me in contact with Dr. Dominique Rakotomanana, Senior Geologist at Tantalum Rare and Lecturer at ESPA, with extensive professional experience in both private and public mining sector. Together with Dr. Anick Ratefiarimino, Head of ESPA Geology Department, we developed a proposal for a geological expedition to a gold mine involving her master students in geology and her PhD teaching assistant. Then I started to research and apply for scholarships to fund an on-site collaboration with ESPA, involving the geological expedition and a fieldwork in Antananarivo.



View of Antananarivo rice fields from the airplane

## Details of the Visit



View of Antananarivo from Faravohitra.

After two months of email exchange, I finally met in person Dr. Rakotomanana. The first question he asked me was: "Why did you choose to study Madagascar?". The conversation ended four hours later. We talked about Madagascar, Europe, my research, his life, children, Malagasy children and world children. We encompassed education, richness, poverty and gold. In a sense, we made a tour of the world. In an another, we only talked about life. The very essence of life on this planet. That during all our conversations we were always talking about life, is something I understood only the last day. But let's start from the beginning!

On May 16<sup>th</sup>, 2019 I landed in Ivato, the international airport of the capital of Madagascar, Antananarivo. Locals call it Tanà. It is situated at the very heart of Madagascar, on top of a geological formation called Antananarivo Virgation, at 1,200 metres above sea level. Tana is, as most capitals worldwide, overcrowded, polluted and full of traffic. And poor. "La pauvreté, la pollution et l'embouteillage" is the daily mantra every

Malagasy person repeats itself and the world from sunrise to night. The only way to tackle it is by "mora mord", the other Malagasy mantra, meaning 'take it easy!'

During the first week, I met Dr. Rakotomanana and Dr. Ratefiarimino. To deal with the traffic congestion and especially the intricate maze of the bureaucratic offices and ministries, as well as to overcome linguistic and cultural barriers, they offered me the assistance of one of their best master students, Miorasoa Andriamisandratra. Miora is one of the brightest minds I ever met and without her assistance it would have been simply impossible to collect all data and information as we did.

In the following month, Miora and I visited, interviewed and collected data from INSTAT, the Ministry of Education, the Ministry of Mines and Strategic Resources, the Bureau of Mining Cadastre of Madagascar (BCMM), UNICEF, ILO and IOM. This took a vast amount of time mostly because of the complex bureaucratic internal processes to access the offices, data, schedule appointments, etc. Moreover, driving to offices within the city can take up to 2h, in addition to waiting time, filling documents, waiting again...



Ministry of Education of Madagascar. Anosy, Antananarivo

House of United Nations, at the end of the road on the left (where UNICEF and ILO office are); and IOM office at the right of the second palm. Galaxy, Antananarivo.



Bureau of Mining Cadastre of Madagascar (BCMM), Ivato, Antananarivo.



Me & a Human-size Ammonite (left) and a giant pink quartz (right) at BCMM museum





On July 1<sup>st</sup>, the day before the expedition, I went to ESPA Department of Geology, where I introduced my research project, while the expedition team presented the geological framework of the site through different types of maps and then a class discussion followed. The geological expedition took place between July 2<sup>nd</sup> and 12<sup>th</sup> in a gold mine in Behenjy and involved the entire team of 19 master students, Dr. Ratefiarimino and her PhD teaching assistant, Rija, portrayed in the picture below.



ESPA Geological Expedition Team

## Impact of the Travel Scholarship

Mac Robertson Postgraduate Travel Scholarship enabled me to realise my first field research in a country I studied for over two years and visited four times, to date. It allowed me to collect an incredible amount of quantitative data and to develop a Global South-North collaboration between the social and natural sciences across 6 universities; to organise a field work of 10 days with 22 Malagasy geologists in a gold mine; to visit the Ministries of Population, Education, and Mines, as well as INSTAT archives, the House of the United Nations, and IOM office; to discuss with the Secretary General of the Ministry of Education, UNICEF, ILO and IOM officers, anthropologists and international development consultants the reasons and future implications for Malagasy children working in mines; to collect precious secondary sources either unpublished or unavailable online; as well as to visit the museum of the Bureau of Mining Cadastre and the Museum of Art and Archeology of the Institute of Civilisations of Antananarivo.



Mac Robertson Scholarship gave me the unique chance to re-discover Madagascar and my research topic under a participatory perspective I have never experienced before. Collaborating with ESPA has brought a lot of new inputs, perspectives and challenges to the development of my research. What I realised through this collaborative visit, is that natural sciences can bring incredible value to social research, not only in terms of a different point of view, but also in terms of technical tools.

Child labour in mining is a topic that encompasses several disciplines, from geology to human rights legislation, from geography to education, and from poverty to technology. Geographically and economically, children working in mines in the poorest countries sustain the basis for cheaper technology and luxury goods in rich ones. If we want to understand poverty, we need to understand richness, but this can be done only allowing research to shift from global economics to anthropology, keeping a foot in history and the other in the future our planet and its species.

What the maps that I photographed at the Museum of Art and Archeology remind us of, is that migration is the seed of human history. Madagascar maintains geological links to India, East Africa and Antarctica since before Jurassic era, while its population present genetic influences from Indonesians, Bantu, Arabs, Indians and Europeans, and speak an Austronesian language. Their most important traditional value is *"taninandrazana"*, the cult of ancestors' land. Doesn't it teach all of us something about our all common roots?