



**Title VIII Research Scholar Program  
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**Final Report Guidelines**

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Preparing for Crises: Layers of environmental risk mitigation in Serbia

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**Abstract**

This research examines the evolution of environmental risk knowledge production in Serbia from the 1970s-present in order to understand the current system. The Socialist Federal Republic of Yugoslavia (SFRY) had an efficient system for preparing for and responding to natural hazards. However, after the 1990s, that system in changed; smaller floods and hazards continued to place stress on the Serbian system, as different groups pushed for awareness of disaster risk reduction (DRR). Yet the spectacle of the May 2014 floods, which were the worst floods in the recorded history of the region, demonstrated the need for additional training for the population regarding natural hazards and also a need for increased awareness of the threat of floods throughout Serbia. While there is much domestic expertise in Serbia regarding natural hazards, international organizations have been active in promoting different types of education and training for DRR in collaboration with local institutions. I used qualitative methods (semi-structured interviews, archival materials, and participant observation) to investigate the production of environmental risk knowledge. I argue that the production of environmental risk knowledge 1) is a process within



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historical-political contexts, 2) depends on the politics of attention – what is (not) deemed as a threat or funding-worthy, and 3) is a performance that requires questioning how and by whom knowledge is produced. The materials gathered during this research will shape a dissertation that will demonstrate the value of understanding the evolution of the production of environmental risk knowledge in Serbia.

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**Goals**

My goals in this research were to understand 1) the system during the latter decades of SFRY to prepare for and respond to natural hazards and 2) the contemporary relationships that stem from international organizations to different stakeholders in Serbia that include the state, municipal governments, and local communities. Meeting these two goals would help me to articulate the current and potential roles that international organizations play in shaping current knowledge of environmental risks in Serbia.

More broadly, I wanted to understand how spectacles of emergencies influence how aid is received for planning and preparation for future natural hazards. This idea of spectacle is important because as floods are the greatest natural hazard threat in Serbia, there are many longer-lasting spectacular concerns occurring. I wanted to understand how the production of environmental risk knowledge is influenced by simultaneous political or social concerns.

I investigated these themes over a period of nine months from September 2017 - May 2018. My goal was to collect data via interviews, archival material, and participant observation to better understand how environmental risk knowledge production shifted over time. During interviews I spoke with research participants about their role in the 2014 floods, training and awareness for natural hazards before and after the floods, and about the key components of building reliable disaster risk awareness in a community. I went to archives to gather materials to better understand the evolution of the SFRY system of natural hazard response, and to support historical data that I heard about anecdotally or what was mentioned during a public panel. All of these aspects

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contribute to articulating the shift of environmental preparedness and awareness from the latter part of SFRY to present day Serbia.

Understanding this shift allows for a deeper understanding of Serbia's position in the international community today. Additionally, understanding the relationship between the international community and disaster diplomacy<sup>1</sup> in Serbia can provide insight into what types of aid (or expertise or knowledge) are needed regarding long-term planning for natural hazards in and beyond Serbia. Theoretically, this research will contribute to articulating how multiple events in recent history influence and reshape systems that respond to emergencies instigated by natural hazards. The layers of events that have taken place in Serbia over the last thirty years cannot be separated from the current processes of producing knowledge of environmental risk. I am currently analyzing materials collected to assess results of this exploration. Therefore, this report is a preliminary discussion of the majority of research that will shape the dissertation.

## **Activities**

### ***Archives***

This dissertation now relies much more on materials, historical and contemporary, than

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<sup>1</sup> Disaster Diplomacy examines how disaster-related actions influence diplomacy during or after the event (Kelman 2018).

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initially anticipated. I visited the Archives of Yugoslavia and Croatian State Archives. I researched the fonds as much as I could online prior to visiting the archives. I also relied on the guidance of the archivists. Additional materials were received from interview participants, e.g. books and pamphlets, that are not available online.

Certain aspects of response and preparation for natural hazards during SFRY remained in Serbia and some aspects changed. Over the year, there were three different periods during which I visited the Archives of Yugoslavia. The question environmental risk perception cannot be found in one fond or collection in Archives of Yugoslavia. There is no fond that is only about environmental events such as floods. The materials I collected at the Archives of Yugoslavia span the years 1945 – 1984. They deal with different aspects of emergency management, disaster response, and coordination among the republics within SFRY.

In the archive, I collected materials that show the discussions between regional governments that relate to flood preparation (such as building canals and barriers) and flood response (such as providing aid after the 1964 flood in Zagreb and the 1965 flood in Serbia) as well as diverse activities by the Red Cross. Additional materials from after World War II call for the first community brigades to prepare for floods which called for 66 men and one horse. Of much interest to this research are pamphlets for residents of BiH and Serbia in 1949 specifically related to flood defenses and how to respond during floods. These guidelines provided a clear directive of what type of knowledge the government provided to citizens who were living with

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environmental risk.

Prompted by archival materials found at the Archive of Yugoslavia, I traveled to the Croatian State Archives in Zagreb. That archive provides important materials that include discussions about the state initiative for management of natural hazards and efficient emergency responses during the 1970s-1980s. This material provides insight into discussions between and across scales<sup>2</sup> that shaped the networks that coordinated the expertise and action regarding natural hazards during the latter part of SFRY. I also collected materials about the 1964 flood in Zagreb, but most important to my research are the materials about the conferences against environmental hazards that took place throughout the last decades of the SFRY. The conferences were a meeting of the republics to continue preparation for environmental hazards and discuss coordination efforts. I also found materials promoting awareness about floods from after the 1964 floods. The archival materials supplement the interviews undertaken over the nine months of research.

***Interviews***

In Serbia, I interviewed residents of Obrenovac. Each resident was affected by the 2014 floods. Many engaged in some kind of volunteer or coordination effort during the flood. Some were involved in the recovery aspect, others in supporting the social and institutional memory of

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<sup>2</sup> Aspects of DRR rely on scales used to define roles and responsibilities during emergencies. For example, the state, the municipality, and the international community.

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this flood. During these conversations, residents shared their personal stories of the flood effects and their thoughts on the recovery process. Additionally, those with volunteer or other experience during and after the floods discussed the situation during and after from that perspective. I also conducted interviews with academics and others who work in the field of natural hazards. I interviewed participants in a training program sponsored by an international organization<sup>3</sup> with the goal of (re)building the state's capacity to deal with environmental hazards. All of these interviews were semi-structured; I had key questions and themes that guided the discussion, but the interviews were holistic conversations rather than the participants answering one question after another. Interviews (even repeat interviews) lasted anywhere between one hour and a half to four hours. Many of my interviews were with employees of NGOs, international organizations, university professors, and also those who worked in governmental positions such as municipal employees. These connections speak to the co-curricular section at the end of the report.

***Participant Observation and Site Visits***

In fall 2017 I attended a three-day intensive focused on mapping data. This intensive was a part of a larger training program coordinated by an international organization to promote awareness of disaster risk reduction (DRR). To acknowledge the human-instigated aspects of disasters, DRR states that “There is no such thing as a 'natural' disaster, only natural hazards”

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<sup>3</sup> Following the protocol of the Internal Review Board of the University of Wisconsin-Madison, I do not share the name of the organization to avoid disclosing identifying characteristics.

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(UNISDR, 2017). DRR is an important aspect of building the resilience of people threatened by natural hazards (UNISDR, 2015). It was an opportunity to meet and get to know the trainees, to learn why they were interested in DRR and what they hoped to gain from the program. Participation in this training also allowed me to experience firsthand training educated people who are interested in DRR but not necessarily trained the themes of DRR. This intensive three days introduced me to the typical software used by academics and practitioners in the region.

I went to Obrenovac multiple times throughout the year. The changes in the city since I first visited in 2015 are substantial. Reconstruction is even more pronounced than in previous years. Walking around the city with participants allowed me to have a deeper understanding of the changes that the May 2014 floods brought to the landscape. Through contacts made during research, I also had the opportunity to visit sites of previous floods (for example, Stari Slankamen in Vojvodina), which expanded my understanding of how communities in Serbia – beyond Obrenovac – have dealt with or prepare for hazards such as floods. I was also invited to attend a workshop that was a collaboration between universities and institutions. The workshop topic was the relationships between actors that can strengthen how preparedness, protection, and response to natural hazards can occur in Serbia. The actors included in this workshop represented universities and both public and private institutions. Presenters work in many places throughout Serbia. Hearing the thoughts and concerns of those from local and municipal scales lent to a fuller understanding of the roles of academics and institutions in preparing for natural hazards in Serbia.

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The Title VIII Research Scholar Program was a key factor in my ability to collect empirical data that will contribute to understanding how Serbia maintains both its physical and institutional structures to cope with ongoing environmental hazards over time its resilience to future crises. Serbia offers insight into the set of relationships of multiple crises that states and communities increasingly confront, yet the results will benefit regions beyond Serbia. This project contributes a deeper understanding of knowledge production and its implementation during and after multiple occurrences of crises in one place, which hopefully will influence conceptions of resilience building against future crises domestically and abroad. I am currently conducting data analysis but provide some early conclusions below.

## **Research Findings**

Here I will discuss preliminary findings that emerged from the materials gathered during research sponsored by Title VIII Research Scholar Program. Themes include the influence of previous historical events on how preparation for natural hazards is organized today; the role of young people in preparation for natural hazards; and uneven development. I argue that historical contexts of a place must be considered in tandem with contemporary issues in that place that include inequality and uneven development. In other words, the slow violence<sup>4</sup> left by remnants of previous crises – social as well as environmental - shapes how resilience can be constructed in

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<sup>4</sup> Slow violence is poses harmful - although not overtly violent consequences – to humans and the environment. The results of slow violence are noticed long after it was initiated (Nixon 2011).

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that particular place.

Resilience is a crucial goal of DRR.<sup>5</sup> Resilience acknowledges the instability of human-environment relations – describing a world that is shaped in and through often unexpected ruptures to ‘normality’ and for which planning is difficult. That is precisely why long-term thinking and strategies for dealing with natural hazards must be taken into consideration by all actors in a community (e.g. international actors, the state, and residents of communities). Interview participants echoed scholars stating a need to prioritize long-term sustainable approaches to preparing for and recovering from environmental hazards. The UN approach of “Build Back Better” is a step in that direction, which both UN organizations and other local institutions keep in mind in the recovery stage of dealing with natural hazards. However, participants and recent reports highlight that it is difficult to sustain that long-term focus in other aspects of DRR, such as education. Along similar lines, residents of towns - who are not involved in natural hazard preparation - are also concerned about environmental hazards. Yet daily demands outweigh their attention and concerns.

One promising way of building up community capacities is to focus on education about natural hazards. Education is an important aspect of DRR as it gives people the tools with which to prepare for and respond to natural hazards (Sendai, 2015). Geography is also a discipline well-suited to discuss DRE within formal and informal educational settings (Mönter & Otto, 2017;

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<sup>5</sup> Benadusi 2014

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Majkić, Milošević, Panić, Miljanović, & Čalić, 2014). Especially in the discussions that brought up education, young people were one of the main themes that emerged. Youth is a term broadly used. Roughly, participants defined “youth” or “young people” as those who are of high school age or college years. Sometimes it is extended to those who are younger than 30 years old. Young people themselves and also people who work in diverse ways with the theme of natural hazards see potential in educating young people about environmental hazards. Many individual participants as well as institutions see hope in the potential of young people to be active in building the capacity within Serbia to be prepared for and respond to natural hazards. The considerations are how to fund the inclusions of these young people.

It was at this point in the conversation where concern about young people leaving Serbia due to unemployment or lack of opportunity would come up. Young people have their own concerns about their future livelihoods in Serbia that include (but are not limited to) the lack of care for the environment by locals and the government and what they view as conservative (loosest sense of the term) approaches to organizing for environmental change. Additionally, many young people stated that they did not want to leave Serbia for long, but they felt that they likely would due to lack of employment and further educational opportunities in Serbia. On the other hand, adults with whom I spoke felt that, with just a little bit of money, they could build programs that would focus on supporting young people while building capacity for preparation and education regarding natural hazards.

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Lack of financial resources was an ongoing theme throughout this research and was consistently tied to uneven development. This theme was mentioned during interviews without my prompting. Serbia's tighter financial constraints were compared to more developed countries in Europe. Participants then discussed uneven development within Serbia in-depth. Often they cited Belgrade's status as the key economic hub unhelpful to smaller communities. For example, if young people have to leave their town to work in Belgrade, there are less able-bodied people to volunteer during an emergency in the towns left by the young people. Informants who were not from Belgrade also drew on their personal experiences in small towns and cities that included areas in the north, the west, south of Niš, and in eastern Serbia. These regions are diverse economically, but Belgrade is the primary city. Many participants wished that additional investment in institutions for protection from environmental hazards would occur in secondary cities – providing added opportunities for jobs and businesses in those cities. After the 1990s many smaller cities lack viable industries but still have the infrastructure to support investment once again.

The Sendai Framework for Disaster Risk Reduction (2015-2030) articulates the goals of the UN for enhancing resilience to natural hazards and building back better during recovery. None of these terms – such as building back better or resilience – began with the UN. But now that the UN has taken up that discourse, institutions that work with the UN have taken it up as well. For example, Serbia incorporates goals of Sendai (and its predecessor Hyogo) framework into its

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amendments to the Law on Emergency Situations<sup>6</sup> and the 2015 National Action plan for the National Disaster Management Program.<sup>7</sup>

Some participants say that to reference SFRY is a case of nostalgia. However, participants that study or apply knowledge related to natural hazards response and preparation state the fact that the system during SFRY was efficient. Therefore, it is worthwhile to consider what system was in place during SFRY and what aspects of that system 1) are still in place today and 2) would be useful and efficient to implement now. On a more anecdotal note, one participant mentioned explaining DRR to their grandfather who was an engineer during SFRY. He responded by saying that DRR was exactly what they had in SFRY. We do not need to compare DRR to the system during SFRY but instead think about what other aspects of SFRY might enhance our understandings of DRR and its implementation today.

To whom does responsibility for environmental hazards belong? The simple answer is to everyone but to some more than others. We have to ask just how it is that individuals, communities, institutions, and the state can work together to prepare for environmental hazards. Educating the population about DRR started long before the 2014 floods. Popular belief sees the May 2014 floods as the point from which attention to disaster preparation began, however, Serbia has long been involved in discussions about DRR. The Law on Emergency Situations (2009) and research by scholars at numerous institutions demonstrate awareness of natural hazard threats in Serbia and

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<sup>6</sup> Baras. 2011. [http://www.protezionecivile.gov.it/resources/cms/documents/IVAN\\_BARAS.pdf](http://www.protezionecivile.gov.it/resources/cms/documents/IVAN_BARAS.pdf)

<sup>7</sup> National Action Plan for the implementation of the National Disaster Management Programme (2015).

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the potential of DRR. Serbia's academics are trained in the problems and hazards of the environment. Much work has been done to access the curriculum and textbooks for children.<sup>8</sup> Researchers found that while textbooks discussed hazards, the hazards were not local and there was no instruction as to what to do during such hazards.



**Figure 1 Obrenovac, Serbia. Canal 2018** *This is one of many canals that goes through Obrenovac.* Photo by author.

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<sup>8</sup> Previous research is detailed in the manual by the Institute of Jovan Cvijić and UNICEF “How to protect yourself from natural disasters: a manual for teachers” (2018).

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**Figure 2 Updating the Obrenovac bridge.** *The entrance to Obrenovac is via this bridge, over the Kolubara River.*  
Photo shared by Obrenovac resident.



**Figure 3 Urban flood planning, Novi Sad, Serbia 2017.** *Photo by author.*

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**Policy Implications and Recommendations**

One common theme in discussion was that Serbia was mostly prepared to respond to disasters, but there remains a need for more long-term thinking by all actors involved. This involves preparation and education for all sections of the population that is timely and up to date. My goal in this process was to understand the nuances and multiple facets of actors that make up the mechanism [or assemblage] of institutions and individuals that are ready to respond when crisis – especially natural hazards occur. Policy could be enhanced by continuing support regions for outside of Belgrade, using the knowledge and expertise that is already in place in Serbia, and by supporting long-term collective approaches to strengthen 1) capacities to respond to environmental hazards and 2) knowledge and education regarding environmental risk. Additionally, incorporating young people and their organizations into this work will potentially strengthen capacities in the long-term.

**Co-Curricular Activity**

In January, I presented my research in-progress at the Center of Southeast European Studies which is a part of the University of Graz in Austria. The presentation was 45 minutes in length and given to a diverse audience of regional scholars who were masters and doctoral students. Some undergraduates as well as faculty were also present. Knowing that there were no geographers in the audience, I first introduced the literatures with which I am working and focused particularly on political geography and the idea of slow violence (Nixon 2011). I laid out the empirical cases

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that were developing from research. I then connected the research questions to the empirics of research and discussed the direction of the research. This experience was an excellent professional development and networking opportunity. Through this event, I met with young scholars who are working in the region. I also had especially informative and exciting conversations with PhD researchers who conduct research in Serbia. Many thanks to the scholars at CSEES and American Councils for the opportunity.

As mentioned earlier, many of the interview participants work at NGOs and other international organizations affiliated with the UN or European Union. While I cannot divulge more information due to Internal Review Board policies at UW-Madison, the conversations and relationships with many people remain ongoing.

## **Conclusions**

This dissertation is not about the spectacle of a flood nor any other hazard or disaster. Rather, this project explores the slowness of the in-betweens – what occurs in-between spectacles. How, during the slow, non-spectacular moments when the natural environment seems to work in tandem with human activity can momentum be maintained to prepare for the times when the natural environment will produce spectacular events that pose a threat to human life and livelihood? I argue that to find these answers we must look simultaneously backwards and forwards. Thinking about the spectacular during the non-spectacular is difficult in the realm of natural hazards. For once the recovery from the crisis has occurred, it becomes easier to look

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forward, forgetting the crisis. Additional ongoing financial and political crises turn the attention of stakeholders to the spectacular and ongoing emergencies, creating a challenge for the slow and unspectacular preparation that natural hazards necessitate.

**Plans for future research**

The next few months will involve analyzing the data and beginning to write dissertation chapters. The rest of the academic year will be devoted to finishing those chapters, presenting them at conferences, and then submitting each chapter as an article to peer-reviewed scholarly journals. I will present the beginnings of a dissertation chapter at the Royal Geographic Society annual conference this August. Another chapter will be presented at the annual Association of American Geographers meeting in 2019.

Future research will build on this fieldwork. For example, the theme of gender and disasters is one that should be further explored. While there is lip service to the importance of gender equality, context-specific discussions of gender relations and women's capabilities in responding to disasters are understated during trainings according to interviews, and this aspect needs to be examined in educational materials. Additionally, research from the archives shows a number of women were in high ranks of management of natural hazards and emergency response in SFRY during the 1970s and 1980s. Lastly, the visualization and communication of environmental risk is another project whose foundations lie in the data collected during this fieldwork. The support provided by the Title VIII Research Scholar Program allowed me to collect materials that give

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insight into evolution of Serbia's system of natural hazard management and that demonstrate the value of international relationships in supporting DRR in Serbia. Many thanks to the staff of American Councils in Washington D.C. and in Serbia for their help and support.

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