Western Faculty Profile: Dr. Gabor Sass

Background

Dr. Gabor Sass is a part-time Assistant Professor in the Departments of Geography and Biology, and the Centre for Environment and Sustainability. He is also the founder of Sassafras Consulting, an organization that works to characterize and analyze environmental change in both the spatial and temporal dimensions by using a combination of ground, satellite, and airborne based monitoring techniques and hydrological and biogeochemical principles to infer the dominant controls behind environmental change. He has been involved in multiple projects investigating hydrological, ecological and biogeochemical change in boreal, agricultural, and urban landscapes during a 15-year career.

Tell us a bit about yourself and your career path.

I have ventured off of the standard academic career path. I studied environmental sciences as an undergraduate at York University, specializing in ecology and biogeochemistry. Subsequently, I pursued a Masters of Science at the University of Toronto, focusing on urban geography, remote sensing and spatial statistics. Building on these foundations, I decided to pursue doctorate work here at Western studying the hydro-ecology of shallow lakes using remote sensing and geographic information systems (GIS) as tools. My expertise in these fields of study led to the establishment of my own company, Sassafras Consulting, where I advise clients on the biophysical characteristics of landscapes and how they change over time. Initially many of my projects were based in Alberta, deriving from relationships that I developed during my time as a PhD candidate and post-doctoral fellow. My clients range from small municipalities that want to map and characterize their environmentally significant areas to watershed authorities such as the Athabasca and Oldman Watershed Councils who were interested in examining climate and hydrological dynamics in the areas they manage. Given the fact that most of my work is computer based I am able to work with clients across Canada and across the world. Overall, I split my time between consulting and teaching at the university, which I also find very fulfilling.

My interest in environmental and sustainability sciences has been applied to my own personal life. My family and I have always strived to live more sustainably. For this reason, we have constructed a large permaculture garden in our front and back yards, integrated extensive insulation in our home to reduce heating requirements, and installed solar panels to heat water. Behaviorally, we are trying to minimize energy and water use, growing as much of our own food as we can, and biking when weather permits. In my spare time, I am an active volunteer on the Advisory Committee of the Environment, which examines a whole host of environmental and sustainability issues including pollinator health and renewable energy.
What sparked your interest in the field of environmental science and geography?

I have always had a passion for nature ever since a young age. I grew up in Hungary where my family often took long hikes in the hills surrounding our home on the outskirt of Budapest. My grandparents lived in small villages in Hungary where they were very much tied to the land by growing their own food. Growing up in this atmosphere facilitated my affinity for nature and pulled me towards environmental and sustainability sciences.

At the same time, I have always enjoyed looking at maps, so my spatial consideration has always been big scale—macroscopic over the microscopic. In fact, my interest in physical geography has translated to many of my current consulting projects where I use remote sensing to characterize and analyze landscapes.

What kind of research have you done and what are you working on now?

My past research has been very interdisciplinary. From examining the interaction between natural and human processes to evaluating landscapes for their hydrological and ecological functions, I have gained experience in many fields, including biology, geography, and politics.

My current passion is focusing on urban sustainability. How have we altered these urban landscapes? How can we restore the lost ecological relationships? I believe humanity’s grand challenge is to become sustainable in the long term and ground zero for that striving is in urban areas. But how are we going to get there? How do we inform society of this critical need? At present, I believe research alone in this area is not enough. Therefore, my focus has been redirected from research to knowledge translation, namely through deciphering scientific knowledge and making it relevant to policy makers. So this is what I stress in my teaching and this is what I work on in advisory committees, and in my personal responses to policy dilemmas at different levels of government. As I mentioned earlier, I also try to walk the talk to the best of my abilities. For example, if the best science says that we have to reduce carbon dioxide emissions by 80% to prevent runaway climate change then we all have to implement those cuts. In many ways, my passion for research has now morphed into action and activism for an ecologically aware culture.

I understand that you teach a fourth year Political Biology class. What would you want your students to take away from this course?

My goal as a professor is to empower my students. I want my students to understand that they have political power. In addition to voting every four years, there are many avenues to become an active citizen in their community. In my classes, I try to delineate many of these opportunities such as letter writing, speaking up at municipal meetings, disseminating opinion and fact through social media and perhaps running for office. I hope that this class will encourage students to also consider professional paths that focus on the intersection of biological sciences with policy and political decision making. Personal or professional, I would like all of my students to translate their scientific background into political change through employment of their critical reasoning and communication skills to speak up for scientifically sound decision making. There is an urgency to act, and I know my students can make a change for the better!

What is some advice that you have for students who are hoping to go into this area of political biology?

My number one advice to my students is to persevere and be patient. Policies and opinions are often very difficult to change. I often use the analogy that society is like an ocean liner. You cannot change its trajectory from one second to the next, but you can shift the rudder and sway the ship slightly to eventually change its overall course. For this reason, I want my students to retain hope, and remember that there are many other people working on their area of concern. Keep working at it, make use of all the brainpower they have accumulated through their academic studies and connect with other like-minded individuals. Together we can effect change towards a society of responsible decision making based on sound science.