# IGNITE CHANGE. GO GREEN.

## Faculty Spotlight:
## Peleg Kremer, PhD, Assistant Professor of Geography and the Environment

In this interview series we bring you inside the world of Villanova's faculty and explore how their work relates to creating a sustainable future. In this issue we hear from Dr. Peleg Kremer, an assistant professor in the Department of Geography and the Environment.

**What is your academic background?**

I started my academic career at the Hebrew University where I combined the study of economics and environmental science. My MA is from the geography department at Tel-Aviv University and my PhD in Energy and Environmental Policy from University of Delaware. I did my post-doc at the Tishman Environment and Design Center at The New School.

In my dissertation research I analyzed social-spatial structures related to the local food system in Philadelphia and asked how our understanding of the development of the local food system can be understood from the point of view of urban sustainability. I mapped the spatial and organizational structure of the different components of the local food system, and tested the ability of the Philadelphia region to support the food needs of the city.

**How long have you been teaching at Villanova?**

I started working at Villanova in the fall of 2015 as a Visiting Assistant Professor in the Department of Geography and the Environment. I joined the department in the fall of 2016 as a tenure-track member of the faculty.

**In your own words, how would you define sustainability and why is it important to you?**

I think the word "sustainability" is very broad and has been used in so many ways that we need to ground it in specific contexts of application. From an ecological economics perspective, sustainability is achieved if we sustain the life support systems on earth by utilizing less than what can be regenerated (meaning for example that if a resource cannot be regenerated or substituted for we, cannot consume it). I like this definition because it provides a straightforward reasoning for what we should and should not be doing in our society and economy. Nonetheless, given the reality of our economic systems, more useful are definitions that rely on understanding sustainability as a process. One example is Stephen Wheeler's (2000) proposal to understand sustainable development as continuous improvements in the long term health and well being of human and ecological systems. Such conceptualization allows for the formulation of short-and long-term measurable goals that help operationalize sustainability.

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**Why is sustainability important to you?**
In general, I think that creating positive narratives about the options we have to ensure the well being of humans and ecosystems is the biggest challenge of our time. The concept of sustainability, if used in this context, helps frame the vision, goals and benchmarks for progress. I see my work on urban sustainability as a way to provide forward looking, and positive outlook on the relationship between humans and nature in cities.

**What is your current research focused on?**
I use spatial analysis to study the relationships between urban nature, the built environment and the social context of urban greening initiatives as a framework to support local and regional decision making, and to preserve and enhance ecosystem services and their underlying natural support systems. My current research includes conceptual and empirical investigation of spatial patterns in urban ecosystem services (UES) as they interact with the urban social-ecological system. In particular, I am interested in questions of scale, thresholds, trade-offs and synergies in the supply and demand of UES, access to and the distribution of UES, the relationship between urban structure and the provision of UES as well as the influence of land use change and development policies on UES.

**Do you collaborate with others on your research?**
My research is always a collaborative effort.  I am still new to Villanova, but I already have worked with faculty and students from my department and other departments. I also work with colleagues from across the US and Europe in various disciplines including ecologists, biologists, economists and planners.
I strongly believe that such collaborations within academia and with non-academic practitioners is essential to make sustainability science and research relevant for the actual challenges we face.

**Have you been able to incorporate sustainability into your course work?**
Yes. My course "GIS for Urban Sustainability" is all about sustainability. In this course we look at the processes that created the modern condition of unsustainable urban systems and work our way through spatial aspects of urban sustainability problems and solutions.

**If you could create any course, what would it be?**
I recently created "GIS for Urban Sustainability" as part of the department's efforts to further engage students in both GIS and sustainability challenges and plan to continue to improve it for future students. Students found the field work in Philadelphia to be particularly rewarding, and I plan to enhance that portion of the course and add field trips to exemplify urban sustainability solutions.

**What are your favorite outside of the office activities?**
Almost all of my free time is dedicated to my family. I have 2 kids (8 and 3 year old) and with them we enjoy going to the beach, camping, exploring the playgrounds in our neighborhood and reading books about princesses.