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Paolo Zimmaro, from California to Unical to study the effects of earthquakes: “For me it’s a great opportunity.”

Interview with the young researcher who after six years at UCLA has decided to return to Calabria, “an open-air laboratory.” And don’t call him part of the brain drain.

- COSENZA – What if it wasn’t strange at all? If the decision taken by Paolo Zimmaro – who has left a research post in the Department of Civil and Environmental Engineering at the University of California to return to do research and teach at Unical (Università della Calabria in Arcavacata, Italy) – were to become a regular thing?

“I’m not part of the brain drain,” he says, “I’m a professional in a global labor market. The University of Calabria is a great opportunity for me.” But the return to Arcavacata of the 34 year-old from Paola is still news, and it’s worth hearing his story. If only to respond to the question that many, somewhat understandably, will ask him:

- What made you do it?

“In Italy there as strong component of xenophilia. We tend to forget the excellence that we have at our fingertips – a phenomenon whose origin I don’t understand. I’ve always tried to keep my mind free from conditioning of this type. Even as a student I could have gone anywhere, but I attended Unical by choice, because it was an excellent academic institution. Then I decided to go abroad, but not with a carpetbag.”

- How did you end up at UCLA?

“I graduated from Unical in Civil Engineering, specializing in geotechnical engineering. At Unical I also got my doctorate, offered by a consortium of universities with an administrative seat in Reggio Calabria. My university training is 100% Calabrian. During the second year of my doctoral studies, in 2014, I had the opportunity to do a period of study abroad with a scholarship provided by the European Union. I chose to go to California, to UCLA, as a visiting scholar. I worked in the research group of Prof. Jonathan Stewart

, an eminent figure in seismic geotechnical engineering. I specialized in seismic hazard analysis with probabilistic approaches, studying civil infrastructure, mostly earth dams. Then I returned to Italy and finished my doctorate (under the supervision of Prof. Giovanni Dente in Calabria and Prof. Stewart in the U.S.). After the doctorate I quickly received an offer for the beginning of 2015 to do a period of post-doctoral research at UCLA, for studies concerning topics that interested me: site-specific seismic hazard analysis and the study of geotechnical infrastructures, primarily levees. At the beginning, I had a temporary appointment (2 years); then I was promoted to the level of research scientist with a permanent position. Later I also became a lecturer, at both the three-year associate rank and as a specialist.

- Among the principal motivations that pushed him to accept the offer from Unical is his scientific interest in an area greatly affected by seismic events.

“In Calabria we have very elevated seismic risk. The 1783 earthquake is one of the most studied events in the international literature, continuing to be analyzed even today because of the multiplicity of phenomena induced by that earthquake. Calabria has, therefore, a widespread seismic motion monitoring network that is part of the Italian National Seismic Network, and includes a great number of civil infrastructures like bridges, earth dams, and ports like Gioia Tauro. For my studies, it’s an open-air laboratory. The same level of quality studies proposed in seismic regions like California and Japan can easily be done in Calabria, too. For me it was the perfect opportunity to marry a personal predilection with a very stimulating scientific component. Being able to study Calabria firsthand, to stay in the territory, make daily observations and measurements in the field, to bring students to observe the effects of earthquakes directly on the land is a great privilege, and it gives you the opportunity to characterize your research.”

- In the acknowledgment letter that you sent to Rector Leone you wrote that you would not have accepted other destinations in Italy. Why?

“I liked the idea of taking up a challenge, of working in such a complex area from a seismic point of view, and of being able to do it using a platform like Unical, which is a great university with strong leadership right now, like Rector Leone and the director of the Department of Engineering and the Environment, Prof. Giuseppe Mendicino, with long-term ideas that I liked. I will have a stimulating sandbox and a prestigious platform, recognized internationally as a center of innovation. Two things difficult to find anywhere else.”

- Are there also personal motivations?

“Living with my family in a megalopolis like Los Angeles offers great opportunities but it also has its problems. It affects your quality of life. I have a one and a half year-old daughter, and my wife (also Italian, and a researcher at the University of Texas, specializing in the application of artificial intelligence to seismic engineering) is in the ninth month of pregnancy. Our decision to return has resulted, in addition to the possibility for me to work at a high-level university, in the opportunity to enjoy a high quality of life. Neither my wife nor I left Italy because we were forced to. I don’t like this narrative. We made conscious choices. We are not part of a “brain drain;” we are professionals on the market. We never fled; we chose a path, and this is the right time to return.

To have an impact on my homeland, for which I care a lot, at an informative level. I hope that all of this can be a source of inspiration for other people.”

- A culture of prevention has never really established itself in Calabria.

“In academia there is obviously great awareness and attention with regard to the risk level in Calabria; it’s evident from the many research groups, including the ones at Unical, and the many publications about Calabria. There are also plans for a public conversation about seismic and hydrogeological risk to raise awareness among the population. There is much to be done to make the region safe with regard to hydrogeological and seismic risk. Our problem, which can also be seen in other districts, is that we bear witness to very strong but relatively rare events, which recur after a generation has passed. The memory is lost, and perceived risk is lowered. As a result, we combat seismic risk only as a reaction to an event, instead of being proactive and taking preventative measures. From this point of view there is much to do, and not only in Calabria and in Italy. In recent years much has been done on a regulatory level with regard to infrastructure and civil works. But we need a culture of seismic risk, and for this we have to have exposure, because awareness of the population is necessary.”

- What is the first project you will start as a Unical researcher?

“A project that is particularly close to my heart, which I have already been working on for one year, is a study financed by NASA that aims to use satellite radar data to define and recognize damage following destructive events (like earthquakes, fires, and floods) and a project financed by the Nuclear Regulatory Commission on the use (for the first time in seismic engineering) of relational databases for organizing post-seismic observation data. It could change the way we respond to emergencies. I saw first-hand the Central Italy Earthquake of 2016 and the 2019 Ridgecrest Earthquakes in California, because I’m part of an association that conducts reconnaissance of geotechnical damage in the aftermath of major destructive events. The project financed by NASA provides satellite data that can support emergency management immediately after the event and aid with reconstruction efforts in the medium-term. It is very important to understand what happens immediately afterwards in order to improve the response for future events.”

- How will you spend your first free Sunday in Calabria?

“A lunch with my family: being abroad, family is one of the things that we’ve really been missing. Here in Los Angeles in recent weeks there has been a rather worrying increase in new cases of Coronavirus. To date there are no direct flights to Rome. We are in contact with the consulate to find out when would be the best time to leave. The idea is to return after the summer.”

Original article available at (in Italian):

<https://www.quotidianodelsud.it/calabria/cosenza/lintervista/cultura-e-istruzione/2020/07/12/paolo-zimmaro-dalla-california-allunical-per-studiare-gli-effetti-dei-terremoti-per-me-e-una-grande-opportunita/?fbclid=IwAR2ljEwSN3-ppbTk4ARNYI9QygZFPUhFw9INlsmddbM0vxtycyUShRhw>