

BREATHING LIFE INTO BOSNIA: UNIVERSITY OF SARAJEVO IGNITES RENAISSANCE OF MODERN PHYSICS

THE OFFERMANN FAMILY - FATHER, MOTHER AND SON - HAVE A TRADITION OF SHARING THEIR RESOURCES THROUGH INTERNATIONAL CHARITABLE ACTIVITY. A MAJOR FOCUS OF THEIR ATTENTION LIES ON THE BEAUTIFUL CITY OF SARAJEVO, BOSNIA. PREVIOUSLY, THEY RESTORED CIVIC PRIDE BY REBUILDING THE CABLE CAR CONNECTING THE CITY WITH MOUNT TREBEVIĆ, WHICH WAS DESTROYED DURING THE CIVIL WAR OF 1992-1995. TODAY, THEIR SHARED FIELD OF STUDY HAS INSPIRED THIS FAMILY OF PHYSICISTS TO PROVIDE FUNDING FOR THE REMARKABLE RENAISSANCE OF THE PHYSICS DEPARTMENT AT THE UNIVERSITY OF SARAJEVO.

Born in Sarajevo, Maja Serdarević completed a degree in Theoretical Physics at the University of Sarajevo and then undertook her graduate studies at the University of Illinois, Champaign-Urbana. There, she met and eventually married Eddy Offermann, a Dutch physicist

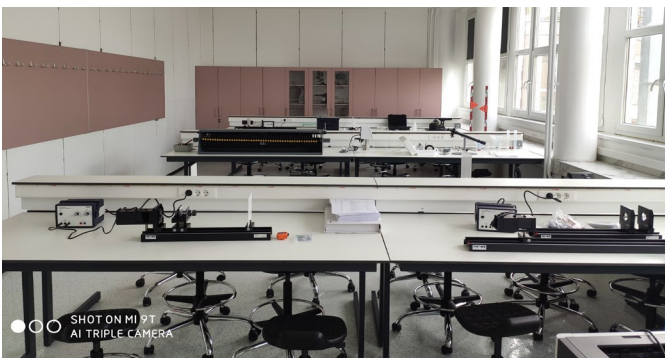
conducting his post-doctoral fellowship. Carrying on the legacy, their son, Jan, is currently completing PhD studies in Physics at the University of Chicago. Together the dynamic trio has created the Three Physicists Foundation.

RESTORING CIVIC PRIDE

Before the disintegration of Yugoslavia in 1992, the Offermanns frequently visited Maja's family in Sarajevo. Once they rode the cable car with their niece up to Mount Trebević, where the bob sledding competition was held during the 1984 Sarajevo Olympics. In this city surrounded by mountains, the cable car held an important place.

When the Offermanns returned to Sarajevo after the civil war, they found a city of rubble. After years of bombardments from atop Mount Trebević, the city stood in ruins. The famous cable car had been destroyed - the land and station buildings taken over and repurposed. The scene broke their hearts, and the Offermanns quickly decided on their first major contribution to Maja's hometown.

Maja and Eddy determined that replacing the cable car was critical to the reconstruction of Sarajevo. As Eddy Offermann notes, "the cable car served an important function. Not only did it connect the city to the mountain, but it had enormous symbolic importance, especially to the older generation." Working in close collaboration with the City of Sarajevo and with KBFUS, they decided to fix it. The project not only restored the cable car, but also gave local residents a renewed sense of civic pride and cohesion.



LIMITED TO THEORY

Looking at new opportunities to make a difference in people's lives, the Offermann family then turned to the Physics Department at the University of Sarajevo. "When I studied there, they had a very strong department of Theoretical Physics," says Maja Serdarević. "But even in 1982, the equipment for Experimental Physics was outdated - it was from the fifties," she describes. "And it was damaged by the last war," adds Eddy Offermann. He continues, "the majority of those studying theoretical physics end up leaving the university environment after their graduation. Perhaps 5% stays at the university and another 10% teaches physics in schools. With theoretical physics education, what is missing is the linkage to industry."

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EDDY OFFERMANN

As a trio of experimental physicists, the Offermann family came up with what they call "the Big Idea." It all came together around Jan's PhD thesis at the European Center for Nuclear Research (CERN) in Switzerland, the premier research center for experimental physics. They wanted the University of Sarajevo to be able to join other international leaders in this field. "We decided to invest so that the University could establish an ion source in conjunction with researchers at CERN," says Eddy Offermann. He continues "an ion source together with an accelerator allows the creation of high-energetic heavy ions, used by hospitals as a highly effective new cancer treatment."



A REGIONAL SOLUTION

Cancer patients across the Balkans currently do not have access to heavy-ion radiation therapy and limited access to Radioisotope therapy. “We designed two plans to solve this challenge,” explains Eddy Offermann. “Under our Plan A, the Balkan countries would band together and utilize the University of Sarajevo’s new ion source. They would share this very expensive medical intervention, and collectively build an accelerator to host the injection source for the radioactive isotopes in the cancer treatment for patients across the region.”

Recognizing that this international cooperation may not come to pass, the Three Physicists Foundation created a fallback plan. “In this case, Plan B would continue the engagement with researchers at CERN to create radioactive isotopes,” explains Eddy Offermann. “Right now, the Balkans have to buy these isotopes from other countries,” Maja Serdarević interjects. “Plan B entails establishing a facility at the University of Sarajevo to create and sell isotopes.”

“It has been demonstrated at CERN that these kinds of

experiments become incubators leading to spin-offs, where the professors develop new businesses based on experimental work,” notes Jan Offermann. CERN itself stands as a significant international incubator, drawing interest and participation from European nations as well as from the U.S. “Establishing the University of Sarajevo as a Level III Observer allows the professors to work with researchers at CERN to bring the isotopes under control - and enables their students to do experiments both on site and remotely,” Eddy Offermann adds with characteristic enthusiasm.

MODERN PHYSICS EXPERIMENTS

The Offermanns’ plans for the Physics Department received a warm welcome. However, the polite Bosnian physics professors revealed a hidden frustration often seen when a donor makes a contribution without consulting the recipients. “We realized they were miffed, and then we understood. These dedicated physicists had for years been trying to bring resources to the department so they could conduct modern physics experiments,” notes Eddy Offermann.

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ELVEDIN HASOVIĆ

The Three Physicists Foundation rose to the occasion. “We asked them what they wanted in terms of equipment. They took a couple of months and presented us with such thorough research—the types of equipment, the best prices and where to make the purchases,” says Eddy Offermann. In answer to such a request, Eddy

Offermann told the professors at his wife's alma mater, "You know what - we're going to buy it all! I want you to be the envy of the whole university."

RENEWED SPIRITS

The Offermann family also decided to refurbish the whole department, from furniture to walls to doors and bathrooms. "When we visited the department in the summer of 2020, it was bleak and depressing," says Maja Serdarević. On a return visit, in the midst of removing old doors and renovating bathrooms, some painting had been done. "One of the professors had chosen pink for a hallway," she notes with a smile. The color symbolized the lifted mood and renewed lease on life for the department. As the equipment began to arrive, students streamed down the pink hallway into newly refitted classrooms. "There were more than 30 new physics students in the first semester. It was crowded by Physics Department standards," says Maja Serdarević with clear satisfaction.

Professor Elvedin Hasović at the University of Sarajevo's Physics Department notes, "working with the Offermanns was a transformative experience. We share the same values, dreams and passion towards the beauty of physics." With the new equipment, he explains "for the first time in our history, we are in a position to organize a doctoral study program in experimental physics." In relation to researching at CERN, he notes "this helps us to establish new, important collaborations and to better prepare to effectively use the sophisticated research equipment that the Offermann family has given to the Department of Physics." Finally, Hasović shares the ultimate vision for this Renaissance: "We dream with the Offermanns of reversing the 'brain drain' into a 'brain gain' which is of crucial importance for the future of Bosnia and Herzegovina."

SIMPLIFYING THE PROCESS

It was the Offermanns' private bank which suggested the King Baudouin Foundation United States (KBFUS) to help make donations to Bosnia. "We reached out to KBFUS, and they made everything simple for us," says Eddy Offermann. "The cable car donation back in 2016 went very smoothly. However, giving to a university in Bosnia has its complications. We learned that every piece of equipment would have to go through a competitive tender process, which just wouldn't work for the kinds of equipment the Department wanted."

KBFUS had a solution. They reached out to a local foundation partner in Bosnia and invited them to form an American Friends Fund at KBFUS. Eddy Offermann explains "This way, we could give tax-deductible donations to KBFUS, and their partner in Bosnia could purchase and deliver the specified equipment directly to the Department." Speaking for his family, Eddy sums up the experience with KBFUS "Their resources and connections made the donation process easy for us, and the fees for the transaction and expertise were extremely reasonable."

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