A Global Theatre, Free to All

Under Frank Hentschker, the Graduate Center’s Martin E. Segal Theatre Center has strengthened its reputation as a United Nations of theatre.

As much as New York sees itself as a global city of the arts—an exchange for all forms of creativity—its theatre scene remains predominantly an American affair. “Theatre can be isolated; only a small percentage ever travels,” says Frank Hentschker, associate professor in the Ph.D. Program in Theatre and executive director/director of programs of the Martin E. Segal Theatre Center. “The Tony Kushners of France and Poland and Spain are not so well known here.”

The Segal Center’s mission is to change that. Originally founded as the Center for Advanced Studies in Theatre Arts, the Segal Center has hosted more than one thousand artists and performers from around the world in the last thirty-five years. With dozens of programs a year, all of which are free and open to the public, it is one of just a few theatre institutes in the world that is dedicated to international exchange. It is a magnet for academic research scholars, who come from around the world; in 2013, theatre scholars from China, Japan, Brazil, Germany, England, Egypt, India, Turkey, and Hungary came through the center.

As its director since 2002, Hentschker has strengthened and deepened the Segal’s reputation as the U.N. of theatre, drawing together scholars, actors, and playwrights from as many as sixty countries to its events and festivals. “The Segal Center team is building a bridge between the American and international performing arts worlds,” Hentschker says. “We’re also connecting academics, the performing arts worlds, and the public. Keeping all of our events free is an important part of this. As a theatre institute within the Graduate Center, and as a producer and presenter of original programs, we are strong believers in public access.”

It was in the spirit of open access that Hentschker recently completed a project to make all three of the journals published by the center available for free online, dating back to the earliest issues. The journals—the Journal of American Drama and Theatre, Western European Stages, and Slavic and Eastern European Performance—were first published in 1989, providing innovative scholarship and insight on the heritage of American and international theatre, and a window into an artistic world that was otherwise almost inaccessible. “During the time of the Iron Curtain, Slavic and Eastern European Performance was one of the few means of artistic communication between these two worlds,” says Hentschker. “By putting these journals online, it makes sure that this long history is preserved. And now researchers and students from North Africa to Southeast Asia will have access. In many developing countries, even the greatest libraries have maybe one journal on theatre, because they’re so expensive.”

The theatre remains best known for its two yearly festivals. The World Voices International Play Festival is part of the larger PEN World Voices literary festival held each spring and focuses on international playwrights. “We established the festival to bring leading talents from as many of the U.N. regions as possible,” Hentschker says. “By trying to represent all of these regions, and providing a supportive and open environment, we provide a platform for the development of new ideas and work.”

The annual Prelude Festival, which celebrated its tenth anniversary last fall, has an entirely different focus: experimental theatre from New York. “We have twenty or thirty artists show cutting-edge and exploratory works in progress,” Hentschker says. “There are just so few places where it is still possible for innovative artists to come together with an audience and with the theatre community itself.”

In the coming year, Hentschker will be working on building more digital bridges. The center is taking the first steps toward what he hopes will become a Huffington Post for the international theatre world. “We’ll have contributions by significant scholars and interviews about a wide range of topics, from theatre history in the nineteenth century to theatrical experiments in lab-like settings,” he says. “We have the means to make a global digital forum for theatre and for academics. People from all over the world already know that they can come to us, and this will be another way to do that. To be part of something inspiring—that is what motivates us.”
Man with a Million Cameras

Professor Lev Manovich, pioneering scholar of the digital humanities, sets his sights on a new way to measure the happiness of cities.

In 1929, the Russian director Dziga Vertov released his silent film Man with a Movie Camera, a documentary of contemporary life in Odessa, Kiev, and Kharkiv. The film is a collection of images and scenes, ranging from shots of store windows to the birth of a child, and is considered a classic of experimental cinema.

Eight decades later, Lev Manovich, a genre-bending professor at the Graduate Center who counts Vertov as one of his influences, is creating a very different type of urban portrait—one that is more inclusive and democratic, and on a massive scale.

Manovich, whose research is focused on social computing and data visualization, is leading one of six teams that were recently awarded one of Twitter’s DataGrants. More than 1,300 teams competed for the grants, which provide access to the company’s database of tweets going back to 2006. Manovich and his research partners plan to use this access to create what he calls his third “collective documentary”—in this case, a study of whether images shared on Twitter reveal a city’s overall mood.

Economists and social scientists currently measure the well-being of cities using indicators such as the Gallup well-being survey, crime rates, and economic statistics. In recent years, there has been a growing interest in studying the emotional content of text data such as tweets, a field known as sentiment analysis. In his new project, Manovich and his partners, including principal investigator Mehrdad Yazdani of the University of Pittsburgh doctoral student who wanted to collaborate on a project using Instagram images. (Hochman is currently a visiting scholar at the Graduate Center.) That was the beginning of Phototrails, a giant undertaking that gathered and visualized 2.3 million images from thirteen cities, including New York, Sao Paolo, and Moscow.

With Phototrails, the researchers sought to discover the visual signature of cities. But unlike the filmmaker Vertov, who selected his images carefully, Manovich and Hochman included everything they could get. “We didn’t separate the photos by content,” Manovich says. “We put them all together, compared them, and found significant visual similarities and differences.”

In a sense, they had created a database-fueled documentary. “Obviously, the people who shared their photos were not thinking of themselves as participating in a documentary,” Manovich says. “But once you collect all these photos and organize them by time, you see wave-like patterns of human behavior. Every twenty-four-hour cycle is similar, but also unique.”

Selfiecity, his next project, zoomed in on the individual. Manovich assembled a team of nine people, based in New York, San Diego, and Germany, taking advantage of his extensive industry contacts in visualization and design. They began downloading a new set of Instagram images without knowing exactly what they were going to do. “We wanted to go beyond Phototrails and look at images which have particular content, as opposed to everything,” Manovich says. “We did various experiments, both with the types of images to use and with visualization techniques. We considered food, tourists, all of New York City. And then the team suggested selfies.”

Selfies turned out to be a lot more complicated than they had predicted. Computers can identify faces, but not whether an image is a self-portrait. In the end, it took four months of hard work, but the effort paid off when Selfiecity launched in February 2014. Its interactive visualizations, interpretive essays, and findings—more men in their thirties post their selfies than women of the same age, for example—have generated hundreds of news articles around the world.

In fact, Manovich has been so busy with the response to Selfiecity that he almost missed the deadline for the Twitter Data Grant. The award has already led to new opportunities, including a public health project with Harvard Medical School. His Twitter project will involve even more collaboration, including drawing on the resources of the Graduate Center.

“When you’re analyzing the well-being of cities, you have to face many complicated questions,” he explains. “There are rich neighborhoods and poor neighborhoods. There are variables such as weather, which has a direct effect on some of the measures we’ll be studying. We have to make sure that we’re analyzing the data correctly.”

All of these factors suggest that the project will be both complex and fascinating, which is the realm in which Manovich prefers to operate. “It’s very exciting to visualize for the first time hundreds of thousands of images and see the patterns,” he says. “Social media is a mirror of society: not perfect, not complete, but a collection of snapshots of creativity, attitudes, and feelings.”

Lev Manovich
Computer Science
Closing the Inequality Gap

As the cofounder of the Public Science Project, Professor Michelle Fine has devoted her career to achieving social justice through scholarship and policy reform.

In the early 1990s, the federal government ended its policy of awarding Pell Grants to prisoners who enrolled in college courses while serving their sentences. In response, the number of college-in-prison programs dropped from around 350 in 1994 to just eight the following year. “The prisons and colleges shut off the programs when the money stopped flowing,” says Michelle Fine, distinguished professor of psychology, urban education, women’s studies, and liberal studies, and the founding faculty member of and director of the project at the Graduate Center. “We did the research to document the impact.”

In a quantitative analysis of women prisoners, the Project evaluated the effect that losing access to college had on recidivism rates, the prisoners’ health, and the health of their children. The results showed that women who did not participate in college had a 30 percent recidivism rate after three years, compared with a 7.9 percent rate for women who did participate. Losing access to college also had a negative impact on the health of women prisoners and their children’s educational aspirations, and on the culture and safety of the prison environment. The research, which controlled for factors such as criminal background and incoming education levels, was published in law reviews and presented to state legislatures, and changed the landscape of prison policy. “We were able to show the benefits of college even for people deemed ‘not college material,’ ” says Fine. “And while there still aren’t Pell Grants for prisoners, there are now private and public programs all over the country that are bringing college back.”

The college-in-prison research is one of many successful efforts by the Public Science Project that changed policy over the last two decades. A research institute that brings together policymakers, activists, and people who have firsthand experience with injustice, the Project investigates a wide range of issues related to education, poverty, and criminal justice. All of its efforts involve deep participation by community members and activists, who work alongside scholars in fields such as public health, psychology, and social welfare. “Our work is shaped very much by the people who have experienced social change or injustice, whether it’s school closings or incarceration or deportation,” says Fine. “That includes students, high-school dropouts, and women and men who are or were incarcerated. They are all part of the conversation.”

It is that perspective—of those who are directly experiencing injustice—that is sometimes missing from social and psychological theories, which often view problems such as poverty and incarceration from a position of privilege. Fine challenges the notion that only academics are experts, and argues that participation is key to scientifically valid research. This inclusiveness underscores the three goals shared by all of her projects: offering alternatives to current policy, shifting contemporary scholarship to take into account underrepresented views, and providing ways for community members to organize and increase their participation in the public sphere.

One ongoing effort is the Project’s evaluation of high-stakes testing in public schools. In a study based in California, researchers found that school districts that used a single, high-stakes test had much lower graduation rates among low-income students, African American and Latino students, and English language learners. The lower graduation rates were in turn linked to negative health and criminal justice outcomes.

In its investigation of alternatives, the Project evaluated a program in several high-poverty areas of northern New Jersey that allowed students who failed a high-stakes test to take a performance-based assessment. “With alternatives, it might take a student six years to graduate,” Fine says. “But they graduate and often go on to college. With high-stakes tests, they’re sort of short-circuited, and they drop out of school.” The Project is currently working with the chancellor’s office of New York City’s Department of Education and with the New York Civil Liberties Union on the connection between high-stakes testing and suspension disparities among students of different socioeconomic backgrounds. “We have low-income schools staffed with inexperienced teachers who are under extraordinary pressure to do well on tests, you get very high rates of suspensions, particularly if the students are already struggling,” Fine says. “So the relationship between testing and suspension is beginning to emerge.”

Much of the Project’s work takes place in New York City, where it has documented the effect of aggressive policing. There are negative consequences for children and families who grow up policed,” Fine says, including an increased risk of becoming a victim of police violence and a lack of trust in public authorities. “Social cohesion breaks down when there is no trust in public institutions.” Working with lawyers and community groups, the Project provided data used in recent court cases that challenged the NYPD’s stop-and-frisk policy. “But its work didn’t end with a court ruling. The Project is now working with Mayor Bill de Blasio’s administration and activist groups on developing alternative strategies for community-oriented, safe policing. “Researchers have an obligation to demonstrate the consequences of existing policy,” Fine says. “But we also need to provide the public and policymakers with alternatives to existing strategies. It’s not enough to make the critique.”

After more than thirty years of investigating issues of social injustice, Fine remains motivated by the resilience of individuals who have experienced oppression, and by the power of social movements to change policy. “What I really beautiful is that both activists and policymakers are turning to the Graduate Center and the Public Science Project to help them conduct research that reflects both bottom-up and top-down perspectives,” Fine says. “There’s a connection between structural injustice and the lives we lead. We can lead lives of laughter, lives of oppression, lives of desire. Here, in this intellectual space that has an ethical commitment to honor communities, we can work to develop policy as it should be—by showing the alternatives that are within our reach.”

“Researchers have an obligation to demonstrate the consequences of existing policy, particularly with respect to inequality.”

Michelle Fine
Psychology, Urban Education, Women’s Studies

PHOTO: PAULA VLODKOWSKY
From Black Holes to Brain Cells

As a member of the Graduate Center’s Initiative for the Theoretical Sciences (ITS), Vijay Balasubramanian is exploring the frontiers of physics and neuroscience.

Presidential Professor Vijay Balasubramanian is interested in maps. Not the kind of maps you might unfold on a road trip—or, more likely, check on your GPS—but the maps we construct in our brains. Two specific areas of the brain, the hippocampus and the entorhinal cortex, are particularly important to our sense of place and navigation, and seem to save and “load” maps of our environment, Balasubramanian explains. “This is why we can sometimes navigate in the dark, or as if we were blindfolded,” he says. “I can wake up and go from my bedroom to the coffee machine without really thinking about it. I already know the way; I have a path.” In our hands, a map is a concrete object, but in our brains, it’s a network of neurons firing in a complex pattern. “And that pattern of firing is where you are.”

Balasubramanian came to this area of research from an unusual background. A theoretical physicist by training, he has in recent years expanded his focus from questions of string theory to those of spatial cognition, which falls within the realm of theoretical neuroscience: the study of how the structure, mechanisms, and functions of the brain relate to its environment. Currently, for example, he is investigating the olfactory system, which produces our sense of smell. “Our olfactory system is a sort of agrandized way of sensing volatile chemicals,” he says. “Poetically speaking, every organism has to sense chemicals, because that’s the basic way in which creatures signal each other. They tell their own species they’re around, or they tell other species to go away. Bacteria swim toward nutrients and away from poisons. But how are smells represented in the brain? And how do they get connected to memories?”

Balasubramanian is exploring such questions in his new role as a scholar in physics and biology in the Initiative for the Theoretical Sciences at the Graduate Center, which includes researchers working on topics ranging from the nature of space-time to the collective behavior of cells. By drawing together scientists with different backgrounds and interests, the initiative is a way to foster synergies that advance research. “There’s growing recognition today that the methods used by theorists in what were previously considered disparate disciplines have converged,” Balasubramanian says. “Very often what happens is someone will invent a method to solve a particular problem in an area like theoretical physics, and someone in biological physics will discover that the method is exactly what they were looking for.”

Vijay Balasubramanian
Physics and Biology

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An Archaeologist with an Eye on Climate Change

Professor Sophia Perdikaris, director of the Graduate Center’s Human Ecodynamics Research Center (HERC), faces the impact of climate change on the island of Barbuda.

In just a few generations, the small Caribbean island of Barbuda—the sister island of neighboring Antigua—could be largely underwater. How can Barbuda’s 1,800 citizens use scientific research and technology to make the best choices for their future?

Professor Sophia Perdikaris, an archaeologist whose research focuses on the interaction between people and the environment, founded the Barbuda Research Complex two years ago to help answer that question. A cross-disciplinary effort that combines archaeology, paleoecology, and water and soil research, the complex is a place where Western scientists work together with Barbudan colleagues on projects involving heritage, climate change, and sustainability. “Our efforts are designed to increase local capacity and encourage citizen science,” Perdikaris says. “Rather than having a top-down approach, we’re combining grassroots initiatives with research to make a positive change in Barbuda.”

Perdikaris first visited the island in 2006, when one of her Graduate Center students was working on a project in Antigua, and a fellow scientist gave her a tour of Barbuda’s archaeological sites. “What made me fall in love with Barbuda is that you can walk through the archaeology—you see the past meeting the present, in a very interesting way.”

During her time there, she studies the dynamic relationship between humans and the environment, from the island’s earliest inhabitants through today, with a goal of devising solutions for the future. “People are very adaptive; we have survived all kinds of climatic events,” she says. “But we need to know the best ways to face the coming challenges. And the problems that Barbuda is facing are also threatening many of the small islands around the world.”

One of the biggest challenges is food security. “Because of climate change, there’s unpredictable rainfall, a lot of salinity in the soil and erosion,” Perdikaris explains. “So there is a lack of reliable crop production. At the same time, the island is facing diminishing fish resources, both because of coral reefs dying off and because of overfishing primarily by larger vessels from abroad. Fish is one of the main sources of protein for islanders.”

To address the need for sustainable, alternative sources of fish, the complex established an aquaponics facility. Aquaponics is a method of farming fish and plants in tandem. Fish are raised in tanks, filled with harvested rainwater. Water from the tanks is then circulated back to the fish tanks. “We’re able to produce both an agricultural product and a protein source,” without the use of hormones or GMOs. All seeds are organic and they save them from the crops they produce, Perdikaris says. “And because it’s a controlled environment, we’re not so dependent on the rain season or soil fertility.”

The facility is closely involved with Barbudan students, who work alongside students from the Graduate Center’s doctoral program in anthropology and the sustainability track of its master’s program in liberal studies. Every week, high school students visit the fish tanks and plant beds, where they grow lettuce, scallions, sunflowers, tomatoes, and herbs. The students sell the produce to local stores as part of their school’s small-business management program. The proceeds are used to buy fish food and water testing supplies.

The aquaponics program underlines the researchers’ dedication to working with the island’s youth. More than half of Barbuda’s population is under eighteen years old. Perdikaris notes. Two years ago, she founded two museums at the complex—one for adults and one for children. “I felt it was important to have scientific content that doesn’t leave the island when the scientists go back home,” she says. “It should be accessible to all Barbudans throughout the year.”

One of the main exhibits is a human skeleton that dates from 450 CE. The skeleton was uncovered not by archaeologists, but by 1980’s Hurricane Georges. It was stored in the basement of a local government building for years until Perdikaris located the skeleton during her first visit to the island and organized an excavation of the area where the skeleton was found. “We started excavating Seaview as an archaeological rescue project, because storms were accelerating erosion and the archaeology was being washed into the ocean,” Perdikaris says. The research team discovered that the skeleton belonged to a member of the Saladoid culture, and further analysis showed the presence of early Saladoid people in Barbuda by 100 BCE. These discoveries pushed back estimates of the Saladoid migration from South America, thereby changing the previously accepted chronology for the arrival of humans in the Eastern Caribbean.

This summer, Perdikaris and her fellow researchers are embarking on a new project: Eco Treks, which will allow tourists to explore the island without cutting paths through the natural growth. “They can take a stroll through the forest and see information on their smart device about medicinal plants, archaeological sites, and wild fauna,” she says. “We don’t want to destroy the environment for explorers to appreciate what they see.”

The principal at the local high school, who is also a director at the research center, often notes that scientists have the luxury of debating the impact of climate change. Islanders, on the other hand, have to survive it. “If we educate the young and learn from each other, we can make the right decisions for our survival,” Perdikaris says. “Barbudans have been handled all of these challenges. But together we can find solutions that will help Barbudans stay in Barbuda and maintain their identity.”

“What made me fall in love with Barbuda is that you can walk through the archaeology—you see the past meeting the present, in a very interesting way.”

Sophia Perdikaris
Anthropology
About the Graduate Center

The Graduate Center is the principal doctorate-granting institution of the City University of New York. Offering more than thirty doctoral degrees from Anthropology to Urban Education, and fostering globally significant research in a wide variety of centers and institutes, the Graduate Center provides rigorous academic training in the humanities, sciences, and social sciences.

Through its extensive public programs—lectures, conferences, performances, exhibitions, and conversations—the Graduate Center contributes to the intellectual and cultural life of New York City and affirms its commitment to the premise that knowledge is a public good.

The Graduate Center is home to a core faculty of approximately 150 teachers and mentors, virtually all senior scholars, many leaders in their disciplines, and more than a third holding the rank of Distinguished Professor—the University’s very highest academic honor. Further, as the only consortium of its kind in the nation, the Graduate Center draws upon more than 1,600 faculty from across the CUNY colleges, as well as from cultural, academic, and scientific institutions throughout New York City and beyond.

By virtue of its competitively funded doctoral programs, its emphasis on research, and its wide-ranging professional training, the Graduate Center benefits from a highly ambitious and diverse student body. About 90 percent of its 4,500 students are enrolled in doctoral programs, and a growing number of master’s students pursue degrees in disciplinary and interdisciplinary subjects. Throughout their courses of study, Graduate Center students acquire tools and skills that increase and diversify their prospects for careers both inside and outside the academy.

Research and the creation of theoretical and applied knowledge stand at the heart of the Graduate Center. In addition to more than thirty centers that foster research and programming in the humanities, social sciences, and sciences, the Advanced Research Collaborative (ARC) extends the Graduate Center’s global reach and prominence as an international hub of advanced study by promoting interdisciplinary research, facilitating collaboration, and supporting students, postdoctoral appointments, and visiting scholars.