

Elinor Ostrom: “A Magnificent and Irreplaceable Treasure”

Rick K. Wilson* and Catherine C. Eckel†

Introduction

Elinor Ostrom, Distinguished Professor at Indiana University, died on June 12, 2012, at the age of 78. She was followed in death by her intellectual partner and husband of almost 50 years, Vincent Ostrom, who died June 20, 2012, at the age of 92. Lin, as all her friends and colleagues knew her, was a social scientist with broad reach. During her distinguished career, she served as President of the Public Choice Society, the Midwest Political Science Association, the American Political Science Association, and the International Association for the Study of Common Property. She was a Fellow of the American Association for the Advancement of Science and a member of the United States National Academy of Sciences. In 2009, Lin was awarded the Nobel Memorial Prize in Economic Sciences, the first (and only) woman to win the prize. She shared the Nobel Prize with Oliver E. Williamson, Professor Emeritus at the University of California, Berkeley. Oddly, Lin was not an economist but a political scientist. First and foremost, she considered herself a social scientist who drew on all of the social sciences.

Lin’s contributions are many. For the Nobel Committee her main contribution was for challenging the common wisdom that the “tragedy of the commons” inevitably required centralized, top-down solutions; instead, she drew upon the many ways in which locally organized individuals solved social dilemmas to argue for a decentralized, individualized approach. For her many coauthors, she was an indefatigable force. For her many students, she was an inspiration and an endless source of information and ideas. For those who met her, Lin was infectiously exuberant, down-to-earth, and capable of finding something important to discuss with anyone she encountered. At a reception in her honor at the Southern Economic Association Meetings in 2010, she was standing in a corner by herself for a few moments until the graduate students discovered her. Suddenly, she was surrounded by students asking myriad of questions to which she was happy to reply, and, as always, she pressed the students about their own research.

Lin believed in the power of institutions and built a long-lasting example of her own. In 1973, Lin and Vincent founded the Workshop in Political Theory and Policy Analysis

* Herbert S. Autrey Professor of Political Science, Department of Political Science, MS 24, Rice University, Houston, TX 77005, USA; E-mail rkww@rice.edu.

† Sara & John Lindsey Professor, Department of Economics, Texas A&M University, College Station, TX 77845-4228, USA; E-mail ceckel@econmail.tamu.edu.

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(affectionately known by participants as Camp Wopotopa). The Workshop brought scholars from a variety of disciplines together to work jointly on projects. Its primary goal was to bridge the world of ideas with the world of practical policy advice. The Workshop provided an intellectual center around which undergraduate and graduate students could learn the research process, faculty could elaborate new ideas, and visitors could come to share in the intellectual enterprise. Over the years, it became a large extended, intellectual family that had the breadth exhibited by Lin's work. The Workshop was central to Lin's work, and we return to it later.

Lin's Background

Lin grew up in Los Angeles, California, and received her undergraduate and graduate degrees from UCLA in political science. From the beginning, Lin was interested in studying economics, but she was strongly discouraged from doing so. Undergraduate advisors told her that women did not have the appropriate aptitude for math and rigor demanded by economics. Instead, she was encouraged to go into political science where the demands were not as high. But, even in political science there was resistance to admitting women into the graduate program. In her first year in the Ph.D. program, only four of the forty graduate students admitted with a stipend were women. The decision to fund those four was hotly debated in a faculty meeting where there was strong (a minority, happily) opposition to wasting departmental resources on women who would not go on to get good academic positions.²

Lin's dissertation, "Public Entrepreneurship: A Case Study in Ground Water Basin Management," raised the questions that would engage her for the next 50 years. The question was simple: Why did some water management groups solve the problem of over-extraction, while others failed? The answer was buried in the institutional details, differences in the "rules" that self-organized management groups implemented. Lin's dissertation only dealt with the basic institutional outlines, but the deeper questions underlying this social dilemma shaped her career.

Lin and Vincent arrived at Indiana University in 1965. Vincent was given an appointment in the Political Science Department, and Lin was made an adjunct professor in the Department. Her primary teaching responsibilities included an undergraduate level introductory course at 7:30 am on Tuesday, Thursday, and Saturday—a slot that no one else wanted. After a year the Department asked her to become the Director of Graduate Studies (DGS). She pointed out that the Department would look bad if she was DGS while merely an adjunct faculty member. Lin was quickly put on a tenure track appointment and accepted the assignment.

Some of Lin's early research focused on a fundamental issue in local government. In the 1960s and 1970s, there was a strong movement in Public Administration claiming that municipal governments were too fragmented and that there would be efficiency gains in public services if local governments consolidated. Lin and her students asked whether there was empirical support for such a claim. Her skepticism was fueled by an influential article by

² Lin wrote a wonderful autobiography of her journey through the academy prior to winning the Nobel Prize. In it she describes the conditions faced by many women in the Academy at the time (Ostrom 2010). For information on women in economics see Ginther and Kahn (2004) and the references therein.

Vincent Ostrom, Charles Tiebout, and Robert Warren (1961) who argued that a multiplicity of jurisdictions, providing different bundles of goods and services, would be much more responsive to citizens than something imposed from the top down. Lin's study of this topic culminated in a 1972 paper that dissected the claims made for consolidation and noted the flimsy (and oftentimes nonexistent) grounds for such policy prescriptions (Ostrom 1972). The article brought together all of the empirical findings on the topic and weighed the evidence on both sides. It was the culmination of several years of seminars and reflected the help of many students.

In the 1970s, Lin continued to question the consolidation movement. She taught several courses that combined undergraduate and graduate students to examine the delivery of public services. This research was conducted on a shoestring: Lin and her students took to the field. Comparing localities required the development of novel measurement strategies, including an early form of propensity score matching across jurisdictions (Ostrom and Whitaker 1973). Among the bright-eyed young students joining the project was Jane Pauley, who later went on to enjoy a news broadcasting career and who fondly remembers the joint work by the research team. In a tribute posted on the Indiana University website Ms. Pauley noted, "I was privileged to have taken a class with Dr. Ostrom, one I've actually remembered and applied in the years since."³ This is high praise from a student, especially one as accomplished as Ms. Pauley.

In 1974, the National Science Foundation awarded Lin a very large grant (\$2.4 million) to study police services across jurisdictions in St. Louis, with replications in Grand Rapids and the Nashville area.⁴ Again, Lin and her research team focused on multiple jurisdictions using a mixture of research strategies. These included archival records concerning policing, budget allocations, citizen surveys, and riding with officers on patrol. Never one to leave the excitement of field research to others, Lin was often seen in the back of a police car, coding police-citizen interactions. The study yielded two clear findings. First, in line with her previous research, small jurisdictions outperformed large jurisdictions across a wide array of police services (Ostrom, Parks, and Whitaker 1978). Second, the success of these small jurisdictions was enhanced by coproduction between service providers and citizens (Parks et al. 1981). An example involved citizen watches in their neighborhoods, adding to the traditional role of a police patrol. The mixed productive effort of both citizens and police officers in smaller communities produced higher satisfaction with police services and lower rates of many types of crime.

Lin and the Commons

In the early 1980s, Lin returned to the questions from her dissertation. She understood that institutions matter, but her problem was how to characterize the daunting variety of institutions she observed. She began working with Larry Kiser, an economist, applying what she had learned from her observational studies and bringing rigor to understanding institutions. Drawing on the New Institutional Economics (North 1990; see also Williamson 2000), Lin wanted to parse the central features of institutions that mattered for the provision of

³ Taken from the Memorial Tribute to Elinor Ostrom, <http://elinorostrom.indiana.edu> accessed October 24, 2012. The second part of the title of this article is taken from Indiana University President Michael McRobbie's remarks about Lin also on this webpage.

⁴ The call for proposals concerned public services. Three major awards were given to study police services, fire protection, and garbage collection. Among the other principal investigators funded was E. S. Savas who later became the Assistant Secretary of the U.S. Department of Housing and Urban Development under President Ronald Reagan.

public goods. In 1981, she took her first sabbatical when she and Vincent were invited to Bielefeld, Germany. While there, the game theorist Reinhard Selten asked Lin to sit in on his game theory course and encouraged her to consider the design of institutions as a game theoretic model. Noncooperative game theory was in its infancy in political science (and not yet well established in economics), but the approach made a great deal of sense to Lin. The culmination of her thinking was delivered as the Presidential address to the Public Choice Society (Ostrom 1986). Later Lin would say that the game theorists thought her exercise was silly. She was trying to understand complex combinations of rules when most of the analytic tools at the time focused on the comparative statics of a single rule change. What she was attempting was too complicated. However, she would reply that natural settings are complicated as well, and it is the natural settings that we aspire to understand.

Before heading to Bielefeld, Lin pestered her graduate student (Wilson) to settle on a dissertation topic. She urged me to use some of the police services data, but I told her, "I have spent 27 years avoiding the police and I am not about to start dealing with them now." She let that go but gently pushed me to find a topic. Shortly thereafter, I dashed into her office and asked her if she knew some guy by the name of Charles Plott. I had read an article by him touting the value of lab experiments and decided that I wanted to use them. Lin acknowledged that she knew Charlie and his work. She then asked me what question I had in mind. I stammered something about problems in collective choice and public goods. She listened for a bit, agreed that I had a rough question, handed me a lengthy set of readings, admitted she had never run an experiment, but said it seemed like a reasonable method to use to answer my questions. Lin then told me to go talk to a new hire in the Economics Department—Arlington Williams, a student of Vernon Smith, and one of the very few experts at that time in the mechanics of programming and running experiments. Lin was well aware of Vernon's work and thought that I would learn a great deal from Arlie (and she was right). Lin read everything, knew what was important, and kept up in fields far beyond her own; she was happy to give a graduate student a push in the right direction.

By the mid-1980s, Lin focused on natural resource dilemmas. Beginning with the "tragedy of the commons," as explicated by Garret Hardin, she challenged the idea that only a central authority could solve the problem of the commons. While the problem seemed intractable because many individual users of the commons could not be excluded and had an incentive to overconsume the resource, Lin thought otherwise. She was asked to serve on a National Research Council Committee on Common Property Institutions and began uncovering substantial evidence that self-organized groups of individuals routinely solved problems associated with social dilemmas. This led her to draft students and staff at the Workshop to systematically read and code cases of successes and failures of watersheds, forests, and fisheries. Lin was not satisfied with merely compiling a set of successful cases but instead wanted to determine if the institutional design principles she had developed provided any clues about what might determine a success or a failure. To amass the appropriate data, Lin, her students, coauthors, and staff spent years building measurements and reading through records from economic historians, anthropologists, sociologists, and political scientists. The culmination of this work was found in *Governing the Commons* (Ostrom 1990). There she strongly refuted the call for imposing a top-down solution for social dilemmas and instead pointed to the tools that local, self-organized groups used to solve those dilemmas. Rather than an imposition by a central government, she pointed out that people were fully capable of self-governance and were better at solving their specific problems than a one-size-fits-all imposition from a higher level of government.

Around the same time, Lin joined with experimentalist Jimmy Walker and theorist Roy Gardner to begin systematically modeling what was turning up in the case studies. Jimmy had recently joined the faculty at Indiana, and Lin invited him and Roy to the Workshop as participants in regular discussions of commons dilemmas. Lin wanted to triangulate on key causal elements associated with institutions, including the role of communication, the threat of sanctions, and the endogenous formation of rules that institutions comprise. This could be done within a game theoretic framework and could more easily be tested in the laboratory (see Ostrom, Gardner, and Walker 1994). As with everything else, Lin threw herself into running experiments, often serving as the assistant to the experimenter and helping with debriefing subjects. She thought of experiments as a marvelous tool for understanding behavior, and her example served to stimulate many of her subsequent graduate students to use experiments as part of their toolbox. Lin attended several of the very early meetings in Tucson that later gave rise to the Economic Science Association, and she was instrumental in supporting the rise of the Experimental Political Science Section of the American Political Science Association.⁵

From the 1990s forward, Lin continued to expand the set of commons problems on which she focused. Her studies carried her to many different areas of the world and dramatically increased her travel. For example, Lin became very interested in the ways in which Nepalese farmers solved irrigation problems. In keeping with her approach to research, Lin would spend days hiking through fields (taking her “field work” seriously) and talking to farmers. Only after getting a clear understanding of how local farmers were handling their social dilemma would she venture advice. She frequently would return to the same groups to see how they were faring.

Lin took this same enthusiasm to forests, fisheries, and grazing lands in places as varied as Nigeria, Uganda, and Bangladesh. In the mid-1990s, she helped found the Center for the Study of Institutions, Population, and Environmental Change (CIPEC) at Indiana. This served as an umbrella for geographers, anthropologists, ecologists, economists, and political scientists to focus on commons dilemmas. One project that came out of CIPEC involved an intense study of forests using satellite imagery, on-the-ground recordings, and laboratory experiments (Ostrom and Nagendra 2006). This multiple method approach was emblematic of the way in which Lin liked to tackle a research question. By the mid-2000s, Lin had helped found the Center for the Study of Institutional Diversity at Arizona State, which was a sister of the Workshop. Like the Workshop, that Center continues as an ongoing, vibrant enterprise.

One of the remarkable things about Lin’s focus on environment and context was her recognition of the importance of the human element. She saw that not only the physical and technological details of a resource mattered but also the details of the cultural context: Human motivation was shaped not only by incentives, but also by culture, social norms, and social identity considerations. In some respects, Lin was far ahead of the behavioral economics movement, exemplified by her early embrace and endorsement of experimental economics (Ostrom 1998). Her work in the past five years aimed at characterizing the social-ecological systems in which humans and the environment interact (Ostrom 2009).

Following the Nobel Prize, people increasingly began to solicit Lin’s advice concerning commons dilemmas. A year ago, Wilson remarked to Lin that the prize had given her a fine soapbox from which to speak. She agreed, telling him that rather than having to pound on the doors of bureaucrats to get them to listen, now governments sent ambassadors to her home to invite her abroad. Despite the fact that new decision makers were listening, Lin had to redouble

⁵ For a discussion of Lin’s contributions to experiments, see Ahn and Wilson (2010).

her refrain that there were “no panaceas.” She was fully aware of the complexity of natural settings and the difficulty in finding a single answer to every question. At the same time, she sought out systematic regularities and patterns that could contribute to more general theories of commons and solutions to commons problems.⁶

Camp Wopotopa

The Workshop was a critical intellectual space for Lin and Vincent. For everyone who came to the Workshop it was, as Vincent often put it, an opportunity to practice artisanship. Both Lin and Vincent were woodworkers; they built much of the furniture in their house from trees they felled on their own land. They brought the same sense of pride in craftsmanship to their intellectual endeavors and worked to instill the same in those who came to the Workshop. Artisanship meant learning the tools and the environment and a strong respect for the importance of the details (V. Ostrom 1980). Lin and Vincent knew that focusing on abstract theory alone could get a policy maker into trouble. For example, in much the same way that a woodworker needs to know the direction of a wood’s grain before using a hand plane, one also had to know the policy environment before applying analytic tools. There were no hard and fast rules (or tools) that could be applied universally.

For graduate students, participating in the Workshop amounted to an apprenticeship. If a project was started, students were expected to take part. If they had something to say, they were listened to. I (Wilson) had ample experience with raising hair-brained ideas that were quickly shot down through the intensive give and take in the Workshop. But the criticism was always easy to take when Lin would erupt in laughter and then gently reframe the discussion as if I had said something insightful.

While the Workshop often seemed a “Tower of Babel,” with people from different backgrounds and disciplines speaking many different languages, the Workshop provided a common framework. The *lingua franca* was microeconomics and political economy. A common, year-long course in political economy was implemented as a way of getting everyone to share this common language. Senior faculty and graduate students alike were expected to attend. At the end of each semester a mini-conference was held in which each participant’s work was presented by an assigned commentator. This was a fabulous learning process, because if you had not communicated your work clearly in writing, it would be presented in a fashion you might not recognize. As well, every Monday at noon there was a colloquium where anyone could present their own work. The colloquia were extremely varied, ranging from talks on specific forests in Africa to breakthroughs in neuroscience that had implications for social cooperation. Lin never failed to have something interesting to say, accompanied by a thorny question and an engaging smile.

One secret to the Workshop’s success was Lin’s knack for finding talented people and putting them into positions where their talent could flourish. Lin was fiercely loyal to the staff and that loyalty was reciprocated. When Lin won the Nobel Prize, the staff immediately put up a protective wall around her, shielding her from her own good nature (which would have resulted in her responding personally to thousands of emails and phone calls from well-wishers). When Lin

⁶ For more detail on her contributions, see McGinnis and Walker (2010).

was diagnosed with pancreatic cancer in the fall of 2011, the staff again banded together to protect her from overcommitting (a nearly impossible task). Lin would never ask staff to do anything that she was not ready to do herself. An important part of Lin was that her connections were intensely personal—whether with staff, students, or collaborators.

Another important part of the Workshop is a gathering every five years called the Workshop on the Workshop (WOW). Part conference and part family reunion, the WOW is self-organized by different intellectual interests. The experimental group organizes its own sections, the commons group organizes its sections, and so forth. Lin would always appear in a panel, listen patiently, and then offer provocative comments (always accompanied by that engaging, disarming great smile). The panel was always made better by her appearance, as if everyone wanted to show off to Mom. The lighter side of WOW was marked by common meals, dinners, and even a “hootenanny” led by Jimmy Walker’s wild guitar playing and accompanied by Lin playing a tambourine while hanging on to a long-neck beer. WOW 5 is scheduled for 2014. It will be a success, and she will be in every session, in spirit.

We are struck by the way in which the Workshop provides an alternative production function for research. Social scientists tend to produce research either on their own or in conjunction with one or two coauthors or student assistants. The Workshop, in contrast, served as a kind of research hothouse. The expertise and energy of many different people contributed to the research atmosphere of the Workshop, and all kinds of ideas emerged. By insisting that all these different forces talk to and listen to each other, the Ostroms fostered a truly interdisciplinary approach to research and problem solving. Every element of the Workshop contributed to its productivity: the fully involved Ph.D. students, the visiting scholars, the structure of the talks, the extended informal interactions, the superb staff, and Lin’s persistent herding, provoking, encouraging, demanding, and engaging presence.

Why was Lin so successful?

Like many extremely successful people, Lin was amazing in what she could accomplish in a small amount of time. It always seemed that she had secretly cloned three of herself, hidden them in a chamber, and ordered them to work without sleep. However, Lin’s success was due in large part to her hard work and discipline. This is illustrated by four behaviors that we observed. First, Lin awoke by 3:00 am to get busy on the day ahead, and she never let things sit. Wilson can remember the early days of Indiana’s primitive but effective email system. He would work late into the night, fire off something to Lin, and immediately be greeted with a cheery “Good Morning!” at 4:00 am. By the time he slept and awoke, the chapter would have received a thorough review and a detailed response.

Second, Lin and Vincent developed a secret hideout. In the summers they would escape for several months to Manitoulin Island on Lake Huron. At best, the cabin they had helped to build could be considered rustic. Over the years, they added a version of running water and a generator to keep Lin’s laptop running. Getting to the cabin was an ordeal, involving a rough ride in an ancient jeep over what could barely be called a footpath. Even so, it was an idyllic place that let both of them write, hike, and enjoy their surroundings. The key was no interruptions.

Third, Lin was a voracious reader. When she got interested in a subject, she would marshal the Workshop staff and graduate students to assemble an impossibly long bibliography. At that

point, she would plunge into it, distilling what was important and synthesizing the work. This capacity to organize information from many disciplines set her apart. She read broadly and closely. While Wilson tried to keep ahead of her, every time he suggested some new avenue of study, Lin always responded with a “Yes, that piece is interesting—have you seen the following five articles that address the same point?” One had to rise very early in the morning to try to get a step ahead of Lin.

Fourth, Lin used the Workshop that she had made for both ideas and support. The Workshop ensured a great variety of ideas, and, at the same time, it served as a massive science team, which contributed in many ways to the ongoing multitude of projects. Lin was always central to these projects and thrived on juggling them. New collaborators, fresh ideas, and a lively, open give-and-take atmosphere made the Workshop an intellectual center. It also energized Lin.

Ending Remarks

Lin organized her work differently from the standard social science model. She did not have a research strategy that focused on dissecting a theoretically based idea. Instead, she focused on a problem and then sought to explain its causes and find its solution using every method she found useful. On the other hand, this did not mean that Lin was atheoretical. Lin’s favorite challenge always was, “So what’s the question?” This was quickly followed by, “So what’s the theory?” Methods were celebrated but took back seat to the question. For Lin the question always dictated the appropriate methods. There was no one-size-fits-all approach to research.

This methodological diversity has always shown in Lin’s work. One of her recent books, written with Amy Poteete and Marco Janssen, is *Working Together: Collective Action, the Commons and Multiple Methods in Practice* (2010). This is a wonderful book that exemplifies Lin’s contributions. She and her coauthors detail the central question (the problems inherent in collective action for common pool resources) and then proceed to triangulate on the question with a multiplicity of methods. This is an accessible but very deep book that illustrates social science at its best.

Lin was a public citizen. She believed in putting social science forward and using that science to make a difference. She wanted us to get it right and use what we learned to improve institutions. To this end, she was relentless in pushing what she learned and working with many different people to get the research out. Lin’s hallmark was that she was a scientist first and foremost. She did not make policy recommendations unless they were firmly rooted in theory and empirics.

Not many political scientists win the Nobel Prize for Economics.⁷ Lin’s winning the prize was a great source of pride for all of us and for many reasons. For Wilson it was an acknowledgment of the importance of political economy. For Eckel it was a vindication of behavioral economics and a remarkable symbol. The day that Lin won the Nobel Prize Eckel called Wilson up at the crack of dawn to ask if he had heard that Lin had won. He had not. She

⁷ Herbert Simon considered himself a political scientist, as well as a member of many other disciplines.



Lin and Vincent at the Workshop. They are wearing sweatshirts from the third “Workshop on the Workshop” in 2004.

then told him, “It’s about time they gave the Nobel Prize in Economics to a woman—and they had to go outside Economics to do it!” Lin will be greatly missed.

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