INTRODUCTION

IN 1987, LEE SHULMAN was at the top of his game as a scholar in the field of teacher education. Yet rather than stay within the confines of his field, Lee gradually began speaking and writing to wider audiences in higher education about issues of teaching and learning across the disciplines. By 1997, his work in both K–12 and higher education had become so widely admired that he was asked to become president of The Carnegie Foundation for the Advancement of Teaching, succeeding the distinguished educators who led the Foundation's programs in the past, including Clark Kerr, John Gardner, and Ernest Boyer.

This collection chronicles Lee's growing fascination with issues of teaching and learning in higher education.

As Lee roamed the country responding to invitations to present his ideas, he left wonderful speeches in his wake. Some remained fugitive documents; others were published in various magazines and journals. Were it not for this new book, much of the work might have drifted away. All of us who care about higher education owe a debt of thanks to members of the Carnegie Foundation staff who edited the materials and assembled them in this single volume. Now we can relive some of those marvelous occasions when we heard Lee speak, recover his wonderful metaphors, and—best of all—see and reflect on Lee's contributions as an evolving body of work.

Chronologically, the collection dates back to Lee's article "Knowledge and Teaching: Foundations of the New Reform," which was published in the February 1987 issue of the *Harvard Educational Review.* The product of years of research into the nature of medical and teaching expertise, the article opened up a new window on the world of teaching. It was as if the explorer had mapped a land that no one knew was there.

The new land was a domain of knowledge, a "missing paradigm" in the prevailing view of what expert teachers know and can do. Yes, Lee argued, expert teachers understand the subject matter they are teaching, and, yes, they have a grasp of general teaching techniques. But they also possess something more—a knowledge of how to transform the particular subject they are teaching into terms that their students can understand. In addition to *chemistry* (the subject) and *teaching* (generic methods) there is, Lee argued, a third domain of knowledge: the *teaching of chemistry.*

Lee's article was not only groundbreaking, it was also timely. In 1986, the Carnegie Forum on Education and the Economy issued *A Nation Prepared: Teachers for the 21st Century.* The report argued that schools had become the most Tayloristic of American organizations, that school reform would never succeed until schools stopped treating teachers like factory workers and started treating them as professionals. A consensus was emerging that the professionalization of teaching had to be a key strategy for school reform. Yet the claim that teaching deserves professional status assumed that there was indeed a knowledge base for teaching. Lee's gift was to identify what the character of that knowledge is.

I suspect that I was invited to write this introduction because I was partially responsible for enticing Lee to pursue the implication of his ideas for higher education at large. In 1987, as president of the American Association for Higher Education (AAHE), I was on the lookout for ways that AAHE could help put colleges and universities in the service of the schools. Deeply moved by *A Nation Prepared,* I let the Carnegie Corporation know that I wanted to help. In time, AAHE became part of a family of Carnegie Corporation initiatives. My initial assignment, working with Stanford University President Donald Kennedy, was to organize a retreat that would enlist the support of university presidents. Don suggested that, in developing the agenda for the retreat, I should go see his friend and colleague Lee Shulman.

I'll never forget that first meeting. Lee greeted me like a long-lost comrade, quickly assumed that my problem was our problem, and came up with an ingenious suggestion. "Presidents are busy people," he noted, "and we have only a small piece of their time. Instead of sending them a ton of reading, why don't we ask them to schedule a one-hour appointment with a member of their faculty who is outstanding at both research and teaching. Have them ask their faculty colleague to bring along a syllabus from a course they teach and walk through it, reflecting on the design of the course and how it works—-and then, at the retreat, have the presidents report out what they learned."

Well, the presidents arrived at the retreat brimming with ideas they wanted to share in discussions with their colleagues. Lee's creative "homework assignment" transformed the retreat into an engaging experience and also made the presidents receptive to Lee's second contribution to this work in higher education—a talk (see "Learning to Teach" in Section Two) that reframed the agenda. The presidents had come to the retreat believing that the problem was what to do to fix their schools and departments of education. They left realizing that the problem was not "teacher education" but "the education of teachers" by the entire university.

Lee returned to his "real work" at Stanford. I returned to AAHE marveling at what Lee had contributed. He had not only introduced a new perspective on the nature of the problem but had designed an ingenious task that engaged the presidents in inventing their own solutions. And he did so with zest, enthusiasm, and humor. The presidents left realizing that the topic of teaching could be intellectually interesting—and fun!

Over the next several years, my AAHE colleague Pat Hutchings (who would later join Lee at the Carnegie Foundation) and I conspired to lure Lee into a web of occasions. We convinced him to address AAHE's 1989 national conference, "Stand and Deliver," where he presented a talk entitled "Toward a Pedagogy of Substance." Pat launched a new AAHE program we called the Teaching Initiative, organized around Lee's ideas about the documentation and display of teaching. We used AAHE's national conference and annual special-purpose conferences as meeting grounds for Teaching Initiative projects, and Lee graciously attended and spoke at most of these meetings. We began a new annual national meeting—the Forum on Faculty Roles and Rewards—and enticed Lee to address that gathering on a regular basis.

By 1993, Lee's reputation and standing in higher education was approaching celebrity status. And he had begun to grapple seriously with a new set of intellectual challenges. It was clear that to improve the training of teachers, colleges and universities had to attend to the quality of teaching *throughout* the arts and sciences disciplines. But that imperative, in turn, introduced a larger, more ambitious agenda: improving the quality of teaching for *all* undergraduates. To do so meant tackling questions about how teaching could become a more respected dimension of all the disciplines and professional fields that make up the academic profession. This collection, then, traces Lee's evolving answers to this challenge.

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Where does the collection lead us? What themes and patterns connect its various pieces? Let me suggest that it can be best appreciated if viewed from three perspectives: as *pedagogy,* as *prescription,* and as *philosophy.*

First, the pedagogical perspective. Most of these papers began as speeches. And if you know Lee, you'll know that he is a person who thrives on social interaction and is apt to give birth to his most creative ideas and metaphors on the eve of—or during—a major address. Thus, to think of these contributions simply as "papers" or "articles" is to miss seeing and appreciating something important: that these pieces arose out of, and brilliantly reflect, the very particular pedagogical circumstances of audience, setting, and purpose that Lee encountered in each rhetorical occasion.

Consider, for example, "Toward a Pedagogy of Substance," the speech Lee delivered to AAHE's 1989 National Conference on Higher Education. This is Lee's coming-out party, the first major occasion in which he explains his ideas about teacher knowledge to a large and heterogeneous audience. And look at what he does! The setting is Chicago, so he begins with an opening story about his cab ride to the hotel that beautifully sets up the larger point he wants to make. He builds his argument around an explanation of what makes Jaime Escalante—the amazing teacher who was the subject of the movie *Stand and Deliver,* who keynoted the conference the night before Lee's address—an excellent teacher. Escalante, Lee points out, did a lot more than stand and deliver; he was keenly aware of the prior knowledge that his students brought into the classroom, and he developed an extraordinary repertoire of physical representations, models, and stories to help represent the stuff of mathematics to Hispanic kids from Los Angeles.

"Toward a Pedagogy of Substance" offers a window on Lee as a master teacher, practicing what he preaches. But there's something else going on as well. Lee believes in the unity of the scholarly life; that acts of discovering, integrating, applying, and representing ideas are mutually reinforcing; that professing what one knows can lead to rich new discoveries. This process is on display throughout the collection. It's in the context of particular rhetorical occasions that Lee generates some of his best ideas and most creative metaphors.

This aspect of pedagogy is also very much evident in Lee's much-quoted piece, "Teaching as Community Property," originally a presentation to AAHE's 1993 Forum on Faculty Roles and Rewards, in San Antonio. This new series of forums was pitched to provost-level concerns about the faculty reward system and other issues about why teaching was undervalued. The occasion challenged Lee to view teaching from a perspective that was different from the one he had taken in his previous AAHE appearances. Characteristically, he refuses to buy into the familiar diagnosis of the conflict between teaching and research. Instead, he sets forth a fresh perspective, and out tumbles a new metaphor:

> I now believe that the reason teaching is not more valued in the academy is because the way we treat teaching removes it from the community of scholars. It is not that universities diminish the importance of teaching because they devalue the act of teaching itself. It is not that research is seen as having more intrinsic value than teaching. Rather, we celebrate those aspects of our lives and work that become, as we say in California, "community property." And if we wish to see greater recognition and reward attached to teaching, we must change the status of teaching from private to community property.

I don't know for sure whether the notion of community property popped into Lee's mind during the speech or the night before—but I'd bet the farm that it was the occasion of the speech that brought it forth.

This brings me to the second way we might look at this collection—as *prescription.* What is Lee's vision of how to go about improving teaching throughout the university?

It's important to remember that Lee engaged these issues a step at a time. Each new occasion challenged him to explore a new piece of the puzzle. So what we have here is a gradual unfolding and successive elaboration of Lee's core ideas. Conveniently, the essays are organized into families of topics. To whet your appetite, let me say just a word about each of these families.

The first section includes four essays in which Lee sets forth a vision of what it is that undergraduates need to learn. The most straightforward and revealing piece on this topic, and a good place to start, is the volume's opening essay, "Professing the Liberal Arts." Here Lee argues that the characteristics of a professional—which include not only learning a body of knowledge but coming to judgment, putting ideas into practice, and reflecting on this—are exactly what's needed to fix what's wrong with liberal learning, which is that students either forget or fail really to understand much of the material they encounter in their studies. The other essays in the section then elaborate on this core idea.

In the next section, we find several essays that deal with the importance of discipline-specific pedagogy and Lee's early interpretations of what this means. These then lead to additional later pieces that introduce, nurture, elaborate, and clarify an idea that is central to the work that Lee now directs as president of the Carnegie Foundation: that the key to improvement lies in a conception of teaching as a scholarly endeavor. "Teaching as Community Property" serves as a kind of trial balloon for this idea, arguing that teaching must be reconnected to scholarship. "The Scholarship of Teaching: New Elaborations, New Developments" then charts the progress of what was by the time of its writing in 1999 the beginning of a movement. In it, Lee and his colleague Pat Hutchings envision a world in which *all* faculty teach in a scholarly manner and *some* faculty in each discipline and professional field engage in serious investigations of issues of teaching and learning in their particular fields. As they candidly acknowledge, neither goal is easy. For serious investigations of teaching and learning to become legitimate areas of disciplinary scholarship, the disciplines themselves need to be open to a range of methods of inquiry, including case knowledge and other modes of reflection on the wisdom of practice. These are tall mountains. But the remarkable thing is that we can see them at all.

Finally we come to a section that deals with *enacting* the conception of teaching as scholarship in actual practice. Here, Lee "the generator of ideas" becomes Lee "the master architect," designing ways that people can move toward the larger vision.

How might faculty document their work and thinking as teachers in ways that can be reviewed by peers? "From Idea to Prototype: The Peer Review of Teaching" offers guidelines for faculty interested in exploring such a process.

What would a university do differently at the point of hire if it valued teaching as significant, scholarly work? See Lee's ingenious proposal for "The Pedagogical Colloquium," and the experience of several institutions that have experimented with it.

What would be different about promotion and tenure? For teaching to be regarded as scholarly work that merits peer review, faculty would need to learn how to think of their courses as scholarly projects that require thoughtful choices about how they should be designed and enacted, and how the results should be evaluated. Lee's essay on "Course Anatomy" models the kind of reasoning that might inform these choices.

What kind of support would the university provide to foster excellence in teaching? In "Visions of the Possible," Lee envisions sanctuaries and structures where faculty whose scholarly interests include teaching and learning can find safety, support, and colleagueship while working on the pedagogies of their fields.

The collection ends with a truly visionary essay that deals with what I believe Lee regards as the wellspring of the problem *and* the solution: the years of graduate training where faculty form their initial conceptions of professionalism. "The Doctoral Imperative: Examining the Ends of Erudition" includes Lee's description of the Carnegie Foundation's initiative aimed at tackling this central challenge. The doctorate, he reminds us, was originally a teaching degree. The medieval university believed that superior students were those who could teach what they understood—that, as Aristotle claimed, teaching was the highest form of understanding. It's time, he tells us, to reclaim this legacy and treat the Ph.D. as a *professional degree.* All those who earn a doctorate should learn how to profess their fields to others.

Characteristically, Lee doesn't just leave us with a big idea. He spells out a program of action that engages faculty in the act of reinvention: "The questions that are now in the air about graduate education are not questions that can be solved by rhetoric, or by speculation, or by enlightened policymaking. They are questions that will need experimentation, assessment, evaluation, and data-based deliberation. My hope is that our re-envisioning of the Ph.D. becomes, not a new set of unexamined orthodoxies to replace the old, not a new set of doctrines to supplant their predecessors, but a commitment to develop new models and possibilities and an accompanying body of evidence that suggests why some of those models and possibilities deserve greater warrant than others."

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This brings me to the third and final perspective from which to view this volume: as *philosophy,* especially Lee's philosophy about how to go about the improvement of teaching. Lurking underneath Lee's prescriptions and creative designs I detect a cogent philosophy, partly implicit and partly explicit, about what is important to change and how this change can best be brought about. In addition to exemplary pedagogy and refreshing prescriptions, you will find an approach to change that challenges prevailing notions about the reform of higher education. Here I call your attention to four examples.

The first is Lee's worldview about *what* needs to change. Most of the scripts for improving higher education assume that the *unit* of change is the college or university; many further assume that the instruments of change lie in top-down efforts to change public policy, governance, and management. Lee's attention, in contrast, is focused on the faculty as members of *two* professional communities: the community represented by their scholarly discipline or professional field, and the community they become part of when they accept employment in a college or university—the academic profession writ large. In Lee's view, significant change means altering the conceptions that faculty hold about what it means to be a professional, and the norms that guide professional practice.

The essays also reflect a view of *how* to bring about change. Lee is no great believer in extrinsic rewards. He assumes that faculty change in lasting ways when they become intellectually excited about new ideas or are introduced to a better way to do something. The task of leaders is to envision new possibilities and to design tasks that will translate these possibilities into practice. As an envisioner and designer of ways to improve teaching, Lee has no peer.

Third, I'm struck by the number of times in these essays that Lee warns us not to let today's solution become tomorrow's orthodoxy. This warning clearly arises from deep convictions—convictions that were, I suspect, shaped during his undergraduate and graduate years at the University of Chicago. A liberal education, he once wrote, "is a combination of the passionate embrace and understanding of general simplifications of facts and ideas along with the development of critical, skeptical attitudes." In other words, trust—but verify.

Finally, this attitude leads to a further belief that there is no final resolution, no educational model that will work for everyone, or everywhere, or forever. There is only the perpetual, self-renewing experiment. Indeed, as I read through these pages, this seems to be Lee's ultimate message. Teaching across the university *should be* a perpetual experiment. That it is not regarded as such is the fundamental problem we need to address, and the way to address it is to go about teaching in a scholarly manner and to foster a scholarship of teaching within each academic profession.

Lee's arguments double-back, pick up steam, and become more powerful as they go. So start anywhere. Wherever you begin in the essays that follow here, you're in for a treat.

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