On Common Ground

Strengthening Teaching through School-University Partnership

YALE-NEW HAVEN TEACHERS INSTITUTE

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LINCOLN SELIGMAN, PLACING THE LAST LINK

The Yale National Initiative: Making Connections

By Thomas R. Whitaker

his number of *On Common Ground* illustrates the continuing progress in 2005 and 2006 of the Yale National Initiative. "Making Connections" is our theme, as our cover image dramatizes. Lincoln Seligman's painting, "Placing the Last Link," posits the urban scene in which the Initiative does its work, evokes the solidity of the growing structure, and calls attention to the care and precision with which the two partners must maneuver every link into position. Our own process of establishing those links among teachers, university faculty, and administrators across the nation can be glimpsed in our feature, "A Wonderful Team Enterprise," the welcoming remarks addressed by President Richard C. Levin to the participants in the Intensive Session in New Haven in July 2005. But a brief history will be helpful for our new readers.

The Yale-New Haven Teachers Institute was founded in 1978 as a partnership

between Yale University and the New Haven Public Schools. It became the first program of its type to be permanently established as a unit of a university. It seeks to strengthen teaching and learning in the local schools and, by example and direct assistance, in schools across the country. This distinctive program offers seminars in the humanities and sciences that are led by university faculty members in response to the expressed need and interest of school teachers. The *(continued on next page)*

"A Wonderful Team Enterprise"

By Richard C. Levin

Editor's Note: These remarks were addressed by President Levin to the participants in the Intensive Session of July 2005.

elcome to New Haven and to Yale for what will be, I think, a very productive experience for all of you—two intensive weeks engaged in both the practice of what the Teachers Institute is all about and a learning experience involved with school teachers and university faculty working together to explore new topics and develop new curriculum around those new topics.

This is a fabulous moment. I know some of you are totally convinced—some of you *Richard C. Levin is President of Yale University.* from Houston, Pittsburgh, as well as New Haven, are deeply committed to this enterprise and already have very viable working Teachers Institutes. I understand that those of you from several other cities are in various stages of introduction to, and exploration of, programs like the Yale-New Haven Teachers Institute. I urge you to pursue that, and I actually wholly expect that over the next two weeks you will deepen your commitment to this very worthy enterprise.

We are very proud of this at Yale, having started it more than 25 years ago under the able and steady leadership of Jim Vivian. We feel we have made a really significant contribution to education in the City of New Haven and a direct impact on new curriculum coming into the schools and helping the students. Also important is a secondary impact, which is to provide very effective professional development opportunities for school teachers that they so clearly need the kind of ongoing education stimulation that these Teachers Institute seminars provide.

By the way, the University faculty get as much out of these experiences as you do. They are always telling me that for them the confrontation with teachers who are so intimately engaged in how to communicate the lessons of new learning in their field is very stimulating. In fact, it is a wonderful team enterprise and really has a tremendous impact on all of you who are here to think seriously about what role you can play in promulgating this model throughout the country. Lord knows, we need all the help we can get in improving elementary and secondary education throughout this country.

The Yale National Initiative: Making Connections

(continued from front cover)

seminars, characterized by collegial relations between seminar leaders and Fellows, culminate in the writing of curriculum units designed by the Fellows for use in their own classrooms-and, potentially, in the classrooms of other teachers. After a four-year National Demonstration, designed to make clear the applicability of this model to other localities, the Institute announced in 2004 the Yale National Initiative, a long-term endeavor to establish Teachers Institutes in states throughout the nation. In the course of its work, the Yale National Initiative has also established a League of Teachers Institutes to enable closer collaboration among these new Institutes in various cities.

A significant part of this endeavor is the mounting each year of national seminars. These seminars provide an exemplary immersion in the Institute's kind of learning—and an opportunity for observation of that work by administrators and university faculty members. In welcoming the 2006 National Fellows this May, Director James Vivian could tell them that they had come from ten cities in nine states. In six of those cities teachers and administrators are exploring or planning a Teachers Institute.

Each May the National Fellows prepare with their seminar leaders revised "curriculum unit topics" and reading lists that chart the work they will carry out. Then, on returning to New Haven for the Intensive Session in July, they will complete their curriculum units. They will return again in October for an Annual Conference, at which they will share the results of beginning to teach the units and report on the progress being made in their Institutes or in planning new Institutes. This year the Second Annual Conference was a lively and rewarding occasion. The national seminars reconvened and Fellows reported on how they were taking their curriculum units into the classroom. There were panels and reports on aspects of the Teachers Institute approach, a session on planning national seminars for 2007, and meetings of the teams from the cities represented. At the end of the Conference, as each city reported, we learned of the positive steps to be taken in the coming months by those in Atlanta, Charlotte, Richmond, Santa Fe, and Wilmington as they proceed toward establishing new Teachers Institutes. The emerging theme of this Conference was indeed also "Making Connections."

We illustrate the detailed process of the Yale National Initiative in our first section, "Connecting Seminars and Classrooms." We focus on the national seminars of 2005, in which curriculum units were prepared that were then taught during the 2005-2006 school year. Statements by those leading the national seminars are followed by reports from Fellows on the subsequent teaching of their units in their own classrooms and, in some instances, the classrooms of other teachers.

Our second section, "Connecting Schools and Universities," provides a rather detailed example of how a new Teachers Institute may be established. Four of the key participants in establishing the Teachers Institute of Philadelphia describe that process from their own points of view: the President of the University of Pennsylvania, the Chief Academic Officer of the School District of Philadelphia, a *(continued on page 4)*

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Credits: Front Cover: Lincoln Seligman. *Placing the Last Link*. Private Collection, The Bridgeman Art Library. Page 5: Benjamin West. *Helen Brought to Paris*. 1776. Oil on canvas. 56 1/2" x 75 3/7". Smithsonian American Art Museum, Washington, DC. Photograph courtesy of the Smithsonian American Art Museum, Washington, DC / Art Resource, NY. Page 7: Jacob Lawrence. *Builders, No. 1.* 1968. Gouache and tempera on paper. 30 1/2" x 22". Private Collection. © 2006 The Jacob and Gwendolyn Lawrence Foundation, Seattle / Artists Rights Society (ARS), New York. Photograph courtesy of The Jacob and Gwendolyn Lawrence Foundation / Art Resource, NY. Page 9: *Pitcher in form of abstract duck*. Olmec, 200 BCE - 200 CE. Las Bocas. Grayware with traces of red paint. Height: 12 cm. Photograph © Justin Kerr, File No. K3513. Page 11: Edward Gonzales. *I Pledge Allegiance — Juro Fidelidad — A Tribute to Teachers*. © 2001 Edward Gonzales. Posters by the artist can be seen at www.edwardgonzales.com. Page 13: T. H. Matteson. *The Trial of George Jacobs, August 5th*, *1692*. 1855. Oil painting. Peabody and Essex Museum. Page 15: T. A. Rector (NRAO/AUI/NSF and NOAO/AURA/NSF) and B. A. Wolpa (NOAO/AURA/NSF). *The Eagle Nebula, M16*. Page 17: Joseph Mulheam. *Ben Franklin Bridge (detail)*. 1989. Photograph. University of the Arts, Philadelphia, PA. Page 23: The Virginia State Capitol, in The Virginia and North Carolina Almanack, Petersburg, Va.: Ross & Douglas, 1802. Courtesy of the Library of Virginia, all rights reserved. Page 25: Dan Namingha. *Dawn Over Mountain*. 2006. 48" x 48". Acrylic on canvas. © 2006 Dan Namingha. Page 10: After Wind). 1873-1876. Oil on canvas. 24 /16" x 38 3/16". National Gallery of Art, Washington, DC. Gift of the W. L. and May T. Mellon Foundation.

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university faculty member who has provided significant guidance, and the Planning Director of the Teachers Institute.

Our third section, "Connecting Cities through the League," includes reports from four cities in which Teachers Institutes have not yet been established: Charlotte, Richmond, Santa Fe, and Wilmington. We hear from a Regional Superintendent and five National Fellows who explain why they are enthusiastic about the possibility of establishing new Institutes in their home cities.

Our fourth section, "Learning from the Team Enterprise," shifts the focus to what can be learned by those who direct Institutes and lead their seminars. It begins with interviews with the Director of the Pittsburgh Teachers Institute and leaders of seminars in Pittsburgh, Houston, and New Haven. It then includes more extended pieces by other faculty members who have led seminars in those three cities. Each provides specific testimony as to the various ways in which the leading of a seminar itself becomes a valuable learning process.

The Essays and Images: Further Connections

How do Institute seminars provide links between the university faculty members who lead them and the Fellows who prepare curriculum units for their classrooms? President Levin describes the Yale National Initiative as "a wonderful team enterprise" providing benefits in both directions. Accounts by four leaders of the national seminars make clear that, though subject matter and teaching styles may range widely, a mutually stimulating conversation takes place as the Fellows engage the seminar topic. Paul Fry emphasizes the substantial agenda he brought to his seminar ("the whole history of lyric poetry: its origins, its place in human life across cultures, and the variety of its formal characteristics") and the diverse aims of the Fellows. Mary Miller describes a quite different agenda ("a deep familiarity with the art and life of Mexico") and also points to the diversity of the curriculum units, which "composed layers of the past, in effect a stratigraphic cut through art and time across Mexico today." Rogers Smith, clearly impelled by the political urgency of his seminar topic, "War and Civil Liberties." was also excited by the relevance of the curriculum units to various needs in the classrooms-including community fears, the demands of a great play, and the use of computers. And Sabatino Sofia emphasizes both the multi-disciplinary nature of his seminar on "Astronomy and Space Sciences" and the intriguing range of astronomical and mathematical topics in which the Fellows engaged their students-from volcanoes to the edge of the universe.

The pieces by some of the National Fellows indicate more fully how work in the seminars can lead to exciting teaching in the classrooms. Susan H. Buckson-Greene, a Fellow in the seminar on "Poetry of All Kinds," proposed a vertical teaming among the language arts teachers in her high school and those in the middle schools within their feeder system. She introduced portions of a curriculum unit designed for such teaming in several classes at different levels, using poems on Helen of Troy by Hilda Doolittle and Edgar Allan Poe. In her tenth-grade honors class she also asked the students to examine artistic depictions of Helen. We accompany her piece with a eighteenth-century brilliant image, Benjamin West's Helen Brought to Paris, which offers its own interpretation of the action that sparked the Trojan War.

Another Fellow in this seminar, Raymond Theilacker, designed a curriculum unit for vocational students. Because he believes that the reading and writing of poetry are not just an "enhancement" of education but are "essential in reading and writing instruction," he asks his students to look at poetry from the perspective of the worker and to compose their own poetry about the workplace. He has included in his piece some of the many poems he collected and published. We accompany his piece with *Builders No. 1*, a vividly stylized celebration of workers and their tools by the African-American painter Jacob Lawrence.

A Fellow in the seminar on "Art and Identity in Mexico" takes us to a very different kind of classroom. Elizabeth Lasure, who teaches at a visual and performing arts magnet school, has developed lessons "disguised as studio activity" that can introduce students to the history of ceramics—a "link that was missing in the current curriculum." We accompany her piece with a photograph of a pitcher in the form of an abstract duck—an ancient ceramic work like those used in her lessons, utilitarian objects whose aesthetic form and cultural significance have earned them museum status.

Rita Sorrentino, a Fellow in the seminar on "War and Civil Liberties," enlivened her elementary school unit on "The Dilemma of a Democracy" by relating it to her teaching of computer skills. Students used their computer time to write in their journals, search for illustrative images, and edit a video from their Constitution Day celebration. One of her lessons concerns Flag Day and the court ruling on the objections of Jehovah's Witnesses to requiring their children to recite the pledge. Her own students prepared a PowerPoint presentation which slides included each phrase of the pledge, its meaning, background music, images and their own voices. We therefore accompany her piece with the explicitly bilingual and multi-ethnic classroom depicted in Edward Gonzales' recent painting, I Pledge Allegiance—Juro Fidelidad—A Tribute to Teachers.

Another Fellow in this seminar, Elouise E. White-Beck, explored civil liberties in her high school class through a study of Arthur Miller's The Crucible. (With her piece we therefore include The Trial of George Jacobs, August 5th, 1692, an imagined depiction of a witchcraft trial in Salem Village by the nineteenth-century American painter, T. H. Matteson.) She then brought the questions raised by First Amendment rights yet closer to home by asking students to respond in a creative writing assignment to a hypothetical outlawing of amplified or recorded music on the grounds that it contained subversive messages. Their *(continued on page 6)*

The Seminar on "Poetry of All Kinds"

By Paul H. Fry Yale National Initiative seminar of 2005, "Poetry of All Kinds: Pictures, Places and Things, People," was an inspiring and wonderfully diverse experience. At our first meetings in May, teachers' responses to the famous minimalist Williams poem, "The Red Wheelbarrow," were so sensitive and original—and so well-informed—that I knew we were in for good times. We had

Paul H. Fry is the William Lampson Professor of English at Yale University.

them. My aim was not so much to reconsider pedagogical approaches to poems that teachers already know as to reintroduce them to the whole history of lyric poetry: its origins, its place in human life across cultures, and the variety of its formal characteristics. They happily embraced this agenda, while choosing by and large to write curriculum units on topics suitable to their classrooms. Many of them wanted to encourage their students to write poetry as well as read it, and while the writing of poetry could not enter

into the syllabus of our seminar, it did hover around the edges—especially because several of the Fellows were accomplished poets and organized an evening poetry reading by and for the Fellows of all the '05 seminars.

Because many of our fourteen Fellows teach in environments that call for curricula fostering self-esteem and a sense of identity, quite a few chose either to organize units around these themes or to encourage a sense of accomplishment by developing interpretive skills.

Building Blocks for Poetry

By Susan H. Buckson-Greene

Editor's Note: The Curriculum Unit described here, written in a 2005 national seminar on "Reading Poetry of All Kinds," outlines a vertical team approach to poetic analysis. It proposes that the same works of poetry be presented in sequential grades through a progressive structure of poetic analysis.

here is a definite line between what I believe children should know and what they actually do know when they arrive bright-eyed and bushy-tailed to my Advanced Placement English class. I expect them to have a firm grasp of literary terms and to have completed the process of formally analyzing various types of literary works, but my expectations are often disappointed.

Students, I like to think, have certainly engaged the three muses of literary terms simile, metaphor and personification. From their first alphabet book, they have experienced alliteration. Some must be able to spot the many instances of hyperbole found in a single poem. And surely by the time a student reaches a twelfth-grade Advanced Placement English Literature course, he or she has had comprehensive experiences

Susan H. Buckson-Greene is an English teacher at Booker T. Washington High School in Atlanta, Georgia. with a teacher who has stressed literary devices and their significance in poetry analysis. Nope! Not true! In classrooms around the country, the most frustrating aspect of a teacher's experience is inheriting students who have not been exposed to, and therefore have not acquired, the prerequisites for mastering the intricacies of poetic analysis. Discussions among teachers in many disciplines often center on how students' inability to comprehend the scope of poetic analysis limits the extent of informed intellectual discourse at higher grade and cognitive levels. The problem: many students are significantly limited in background knowledge. The answer: vertical teaming within disciplines to build this knowledge.

My curriculum unit addressing this problem sparked discussion about vertical teaming among the language arts teachers (continued on next page)



BENJAMIN WEST, HELEN BROUGHT TO PARIS, 1776

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in my high school and those in those middle schools within our feeder system. The basic premise of the unit is that teachers within a feeder system, grades six through twelve, should present at each level an identical collection of poems. At each level the students will have a different experience with the selected works. The unit seeks to overcome the unfamiliarity with poetry that results from year after year of limited exposure to the skills needed for effective poetic analysis.

Because of the difficulty in gathering together language arts teachers who would represent grades six through twelve, I focused on the vertical team within my local high school and the eighth-grade teacher at one of our feeder middle schools. We used the curriculum unit as a guide for the development of a collaborative teaching project across grade levels. We began by discussing what specific texts provided in the unit would be most easily introduced into the mandated curriculum foci at different levels. We realized that at each level we focused on some aspect of mythology, and we therefore chose to use "Helen" by Hilda Doolittle and "To Helen" by Edgar Allan Poe. Both poems would be unfamiliar to the students, but the allusion to Helen of Troy would be obvious.

I was scheduled to teach three twelfthgrade classes upon returning for the fall semester, but I discovered that one of my classes would actually be a ninth-grade class. After the initial shock, I realized that this was a prime opportunity to make certain that the class of ninth-grade students were exposed to both "Helen" and "To Helen." One of the works read in our ninthgrade mythology unit is the Odyssey. This work allowed the class to discuss Odysseus' life-changing journey and also the Trojan War, its initiation and its effect on those involved. Students became keenly aware of Helen-"the face that launched a thousand ships." I used the ninth-grade experience with "To Helen" to teach students how to write a précis. Having the literary background of the pro-Greek viewpoint, students were able to present concise summaries in the form of headlines. Examples included "Helen Brings Hell" and "The Face that Caused a Thousand Deaths."

After discussing the tone of "To Helen," I introduced "Helen" as well. The students readily understood that the view of Helen in the Doolittle work directly contradicts that of Poe. They prepared a Venn diagram that listed the similarities and differences between the works. This activity helped them to focus on points of view and diction. Because they had a strong background in the tales of Helen and the Trojan War, we could successfully discuss the classical allusions in both texts and how they help to support the authors' points of view.

I also taught a tenth-grade honors English class during the second semester. The students had had no exposure to either "Helen" or "To Helen," though most were familiar with Helen of Troy. They were less familiar, however, with what she had to do with the Trojan War. After a brief discussion of this connection. I introduced "To Helen" and worked with the students on the correlation between tone and imagery. We also examined several artistic depictions of Helen of Troy, giving students the opportunity to compare visual interpretations as well. Though I did not teach an eleventhgrade class this year, my team colleague who did teach that grade provided the students a similar experience with both poems. My colleague and I collaborated on presenting my suggested eleventh-grade lesson plan.

Throughout the year, I also taught AP English Literature and Composition. There I introduced each of my sequential unit lessons—one each quarter. This allowed the students to have three significant experiences with the texts. After having multiple experiences with the texts throughout the year, the students were significantly better prepared to respond to a prompt that required comparative analysis. They performed well in comparison to previous AP English Literature classes on questions that required the same skills.

Ultimately, the students whom I taught at both the ninth- and tenth-grade levels this year will come to me as twelfth-grade students. It will be a welcome pleasure to note how they fare with comparative analysis.

Whitaker: Connections

(continued from page 4)

narratives explored a number of anguished and defiant responses to the imposition of apparently unjust laws.

Eric Laurenson, a Fellow in the seminar on "Astronomy and Space Sciences," introduced his physics students at "a low socioeconomic and low performing school" to a unit on cosmic origins. He led them from observations of expanding balloons through calculations of the rate of expansion, and then to the more difficult calculations required to determine the size and speed of the expanding universe. "Together," he says, "we explored the dynamic nature of scientific inquiry and addressed the challenging process of incorporating new knowledge into our worldview." With his piece we have included one of the spectacular images made possible by NASA's Hubble Space Telescope, that of the Eagle Nebula, where stars are born in clouds of cold hydrogen gas.

We then turn in our second section to the complex process of connecting schools and universities, illustrated here in the recent founding of the Teachers Institute of Philadelphia. Four key participants tell us much about the challenges encountered, suggest the broader nets of connections that have enabled and encouraged the process, and show how the new Institute has been integrated into existing efforts-a task that each city must fulfill in its own way. Amy Gutmann, the President of the University of Pennsylvania, points to the Penn Compact that she had proposed. Gregory Thornton, the Chief Academic Officer of the School District of Philadelphia, points to the already existing Center for Community Partnerships. Rogers Smith, a university faculty member who provided significant initiative, points to his own previous work with the Yale-New Haven Teachers Institute. And Alan Lee, the Planning Director of the Teachers Institute, completes this series by emphasizing how, for a Teachers Institute to come into being, a "myriad of alliances and working partnerships must be shaped into the network of relationships." To accompany these essays on the building of educational (continued on page 13)

Poetry about the Workforce

By Raymond F. Theilacker

Editor's Note: The curriculum unit described here, entitled "A Curriculum Unit in Poetry for Vocational Students," was also written in a 2005 national seminar on "Poetry of All Kinds: Pictures, Places and Things, People." The unit, designed for eleventh- and twelfth-grade vocational

students, affirms that instruction in the reading and writing of poetry is "more than an enhancement; it is essential in reading and writing instruction." The poetry selected reflects people, places, and activities associated with service careers, blue-collar trades, and computer technology.

eaching poetry to adolescents can be daunting. Many students are resistant to poetry from the traditional "canon," and English teachers often feel inadequately prepared to teach it, or feel inadequately prepared to do the genre justice. I was encouraged to face this dilemma in the summer of 2005, as a participant in Professor Paul Fry's seminar in poetry, offered by the Yale National Initiative.

I have always been comfortable with teaching poetry, maybe because I write it; but the problem I defined for myself at the Institute was developing a plan anyone could use to teach poetry successfully to twelfth-grade vocational students. What emerged was an instructional unit that

looked at poetry from the perspective of the worker—a natural for vocational-technical kids, and for that matter for any teen who has had experience with employment. Also, the curriculum unit called on students to generate their own poetry, focusing on their experiences in and expectations of the workplace. (Most students in my classes are employed by com-

Raymond F. Theilacker is an English teacher at Howard High School of Technology in Wilmington, Delaware. panies engaged in a cooperative partnership with our school.) Implementation of the curriculum was successful, both in terms of formal poetry study, and in the prolific generation of some very unique student poetry.

The plan called for teaching some of the traditional aspects of poetry: imagery, sound devices, rhythm and rhyme conven-



JACOB LAWRENCE, BUILDERS, NO. 1, 1968

tions, and figures of speech; but always there was a focus on student practice, and on the long-term goal of writing a poem about work which would entertain, or elaborate, or explicate the nuances of what people do at their jobs, and how students experienced them. The unit was designed to span a semester, with instructional periods early in the week, a take-home assignment for completion during the week, and a culminating workshop session at the end of the week, during which the young poets could share their work.

Early in the unit, kids focused on the sounds of the workplace. They manufactured alliterative and onomatopoeic phrases that attempted to capture the sounds of their work environments. Our workshop classes came alive with the sounds of zooming dentist drills, and rumbling cams, and the screeching and smell of

tires on pavement. Just as I had guessed, students' heads were already filled with the sounds of their trades; and given the word tools, those sounds readily came forth. Next, I demonstrated and called for more metaphoric thinking, in terms of similes and metaphors. With some simple instruction, students added lists of similes to their growing work. Workplaces hummed like hives. The smell of a nursing home, personified, wandered through the halls of the senior citizen facility; or the walls themselves screamed.

From the very beginning, students engaged in the idea of writing poetry about work. In attendance at the seminar I had been able to find more than a few volumes of poetry about the workplace using Yale's library resources. Collections of poems ranged from the gritty to the sublime; and the Internet, of course, yielded finds on poems about cosmetology and network computer administration that enthralled some students. (More than a few kids printed out and squirreled away their favorites, and left

classes with a sense, I think, of having found someone else in the world who understood what it meant to wash, color and braid hair, or to have his workstation blue screen on him.)

The experience for my students, whose school setting is pretty much vacant of art, music, drama, or other organized creative outlets, opened up floodgates. When the study of the unit advanced through considerations of the emotional content of poetry *(continued on page 9)*

The Seminar on "Art and Identity in Mexico"

By Mary E. Miller

exico's art lies in deep, rich strata. On the surface, one finds the complexity of modern art, from the vast public programs of muralism, with the works of Diego Rivera, David Siqueiros, and José Orozco limning public buildings all across the country, to dramatic contemporary archi-

Mary E. Miller is the Vincent J. Scully Professor of History of Art at Yale University. tecture. But visible everywhere are the ruins of something else, a past that is Aztec in part, but the deeper one goes, the less one knows, even to the point that the languages spoken, the lives lived, slip into the shadows of archaeology. In our seminar, "Art and Identity in Mexico, from Olmec Times to the Present," we worked to gain deep familiarity with the art and life of Mexico. Without particular design, Fellows worked on projects that spanned thirty centuries, bringing Olmec pots to life on the one hand, and 20th century Mexican art on the other. A number of units focused on the period of the Spanish invasion, with attention to demographic disaster in the New World, and to the power of new, hybrid works of art. By the end of the seminar, our units themselves composed layers of the past, in effect a stratigraphic cut through art and time across Mexico today.

The Ceramic History of the Olmec Culture

By Elizabeth R. Lasure

Editor's Note: The curriculum unit described here, written in a 2005 national seminar on "Art and Identity in Mexico, from Olmec Times to the Present," was prepared for level I ceramic courses, but it contains information that is also relevant to a variety of other studio and Art History courses. The unit poses for the students such basic questions as: How does art evolve? How do we come to understand and learn from art? How did people learn to make pottery and why? What techniques did early potters use?

hen the Yale National Initiative offered me the prospect of developing a unit of study for my ceramics classes through a National Seminar, I was hesitant. In six years of teaching in the ceramics studio I had admittedly become very content in my routine. I know the strengths and weaknesses of my program, and like my students, I tend to stay within a comfort zone.

I teach at a visual and performing arts magnet school in Charlotte, North Carolina, where the students have been selected through a lottery, but must also attend an audition process before they are allowed to enroll. These students have

Elizabeth R. Lasure is an Art teacher at Northwest School of the Arts in Charlotte, North Carolina.

made a deliberate choice to attend this school because of its specialty programs in the arts. They select a major of study, and the elective arts courses become more specific and comprehensive as they progress through the program. I have found that the students who have chosen the visual arts as their major pose a unique set of teaching challenges. Apparently, a majority has come to the conclusion that because they are majoring in the visual arts, they are artists. Not students of art, but artists. I therefore have a constant struggle to keep in balance the process of learning and the product created. In their desire to be the next great artist of their time, they often fail to recognize the context of the studio lessons. The task of integrating lessons that address the historical traditions in ceramics and lessons that enhance students' ability to interpret and make personal judgments about works of art is often put on the back burner. Over time, my ceramics classes have become full working studios, with a curriculum dominated by technique and creative problem solving. Our school library and resource center has numerous how-to books along with amazing collections of art reference books, which show a variety of finished pieces by contemporary ceramic artists. In essence, what was easily available has been what I have used. The idea of researching and ultimately addressing the format of the course I have taught for six years was daunting, and, quite honestly, until I entered the National Seminar I did not have much impetus to explore those areas of weakness in my program.

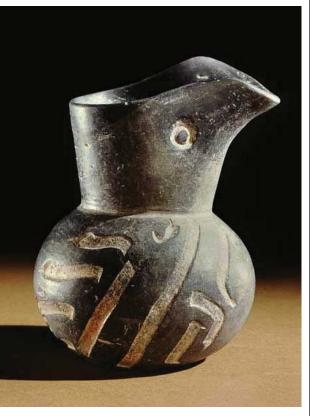
The seminar in which I participated was entitled "Art and Identity in Mexico." What better place to look at historical traditions of ceramics than our own backyard? I also teach art history, so it was inevitable that I began to look at the history of ceramics as a foundation in reformatting the class. Participating in the National Initiative included full privileges at Yale University Libraries and plenty of time with our incredibly generous and thoughtful seminar leader Mary Miller. From that seminar I developed a number of lessons (disguised as a studio activity so as not to distress my students!) that attempt to address these shortcomings in my curriculum. While not all of the lessons I wrote were successful, I can say the successes did outweigh the failures. Samples of both are provided here.

The first lesson I created in this unit was successful in engaging students with a depth of knowledge in the history of select works and a rationale as to why they are valued in today's society. I used this lesson at the beginning of the school year. This subsequently set the tone for the academic rigor that has been neglected in this studio class. This lesson introduces ceramic pieces that have historical significance, specifically works from the ancient Mesoamerican Olmec culture. The lesson objectives address the students' ability to form opinions about the value, meaning, form, and function of works of art. The students will ultimately be able to provide appropriate responses to such criticalthinking questions as: How does a utilitarian object such as the Bottle with Carved Jaguar-Dragon Paw Wing Motif, from the Early Formative Period of the Olmec culture, end up in an art museum? What is the established criterion for a piece of ancient pottery, for example, to be considered worthy of museum status? Who is it that defines this status? (It is worth noting that this type of questioning is one of the many things I learned from my seminar leader and look forward to using with my students on a regular basis.) In small groups, students are provided with a number of reproductions of ancient Olmec pottery. They are to examine each image and discuss the possible function and the potential significance of the design on the work. Within the group, students were asked to select half of the prints to be part of an art exhibit they were to curate. The group had to generate a

set of criteria in order to justify the value of the work and its role in their art exhibit. They consequently had to judge those deemed worthy and not worthy of their exhibit. Once the exhibit selection process was complete, students were assigned to research the works selected, write an accompanying exhibition description card for each work, and write an introduction to their art exhibit.

As I developed these lessons during the summer months, however, the idealist in me sometime didn't take fully into account matters of practical implementation. For example, for a lesson on primitive kilns—when and how they were introduced and how they functioned—I intended to involve students directly in the planning, building and firing of a traditional open-fire pit kiln. This practical knowledge would help students recognize a variety of applications that ceramics has had in the past and, in fact, how little it has really changed. The recreation of an early openfire pit kiln is a perfect model. In the midst of learning and writing on this subject, however, I failed to consider the inevitable constraints of scheduling. Finding a desirable site and obtaining adequate assistance were my two biggest obstacles. I know this lesson is manageable, though I now realize that I probably need to start earlier.

The results of my participation and completion of this seminar unit were twofold. First, my students were taught the history of ceramics in the Olmec culture through a comprehensive and organized unit of study—the link that was missing in the current curriculum. Second, I was invigorated with a meaningful professional development model—one that has greatly influenced my teaching. Personally, this program has opened a door to the ideas of research and study that I thought I might have closed.



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Theilacker: Poetry about the Workforce

(continued from page 7)

and a variety of forms available to them the sonnet, free and blank verse, and American haiku, for example—the toolbox seemed complete. (I was amazed at the number of students who preferred the Shakespearean sonnet!)

At the close of the school year, and in possession of the final products of two semesters' worth of student-generated work, I collected, organized and published a volume of their poems.

English teachers sometimes forget the value of publishing student writing. We know that it is a part of the "writing process," but are often too burdened or busy to follow through with the detail work or the material-gathering involved in publishing to actually make it happen. But since, in my unit, I had made the *theoretical* determination that this was to happen for my students, I made it happen for my students. Results were phenomenal. Consider this young culinary-arts student's words:

Vast amounts of work Only filth to show for it Pleasing to others My sweat into each dish

Another day devoured.

The words are simple; but for a young man who had never written a poem, and who, at seventeen, considers his sweat equity in terms of the meaning of his service, they are powerful.

Or, are this young woman's reflections poignant, clever, funny, or have we all known these sentiments?

The ersatz smile

I give to the customers

Feels false in my heart.

As night drags slowly onward

The smile imprints

A vague image on my soul.

I should not be glad.

Tears should glisten on my cheeks.

I blame it on the fruit punch.

I consciously determined that students should, as a result of this curriculum experiment, learn to reflect on the meaning of their work. I believe these students are off to a good start.

The Seminar on "War and Civil Liberties"

By Rogers M. Smith

The 2005 national seminar on "War and Civil Liberties" sought to provide historical perspective and current information on questions of how the U.S. government tries to protect national security and to preserve personal freedoms in wartime. After the September 11, 2001, terrorist attacks, those questions have become newly pressing and newly complex. We began with the late Chief Justice William Rehnquist's engaging book, *All the Laws But One*, focused on civil liberties restrictions under Lincoln. We then

Rogers M. Smith is the Christopher H. Browne Distinguished Professor of Political Science at the University of Pennsylvania. explored questions of free speech during World War I; the Japanese-American internments and the secret military trial of German saboteurs during World War II; the prosecutions of Communists during the Cold War; controversies over student protest speech during the Vietnam era; and finally issues raised by the USA Patriot Act, the Guantánamo detentions, and recent Supreme Court decisions on the rights of alleged "unlawful enemy combatants."

Teachers wrote superb units on a wide variety of topics, including the history of military trials, the Enlightenment philosophic roots of commitments to civil liberties, racial profiling, the science of using anthrax as a terrorist weapon, and more. The two units featured here represent well the range and the excellence of the teachers' work. Elouise White-Beck brings out vividly what community fears of dangerous "Others" can do and helps high school English students understand how a great play works by studying Arthur Miller's classic, The Crucible. Rita Sorrentino's unit richly informs students about the history of civil liberties in wartime and instructs them on how to use computers for research, writing, and graphical displays. Both are full of information and ideas that teachers can use to help develop student skills and excite students to think deeply about some of the most important issues all Americans face today.

Using Technology in Educating Young People

By Rita Sorrentino

Editor's Note: The curriculum unit described here was written in a 2005 national seminar on "War and Civil Liberties." The writer partners with teachers of individual classes on school-wide initiatives.

nitially, I had reservations about attending my first National Seminar. I thought that the topic, "War and Civil Liberties," might be too sophisticated for the students I teach. I worried that the fifthgrade students would not comprehend the issues involved, or would not be enthusiastically engaged in the materials and the lessons that were yet to be planned. However, through the seminar sessions and independent research, I became more comfortable with the subject matter. The topic took on a new life for me, and evolved into my curriculum unit: "Dilemma of a Democracy: Liberty and Security."

I am the computer teacher at Overbrook Elementary School, an inner city school

that enrolls 350 students in grades K-5. As part of my teaching assignment, I partner with teachers throughout the year to support classroom instruction with the integration of technology. I planned my unit specifically for the fifth-grade class for the ensuing weeks between Law Day and Flag Day. During that time our fifth graders would be preparing to visit the new Constitution Center in Philadelphia, and a local lawyer was scheduled to speak to the fifth-grade class on Law Day.

On returning to school in the fall, I learned at our opening professional development day that our school district was asking each teacher in every class to prepare lessons for Constitution Day, which was to be celebrated on September 17. This was an unexpected opportunity for me to share the activities of my unit with the teachers at my school. My first lesson, "Rights and Responsibilities-The First Amendment in our Daily Life," was ready to roll. As a staff, we decided to ask all students (not just the fifth grade as I had intended) to memorize the Preamble to the Constitution, and on Constitution Day we assembled in the schoolyard and videoed the chorus of voices. With this success of our Constitution Day kick-off, I decided not to defer the unit until April, and was able to work with the fifth-grade teacher to plan an earlier implementation of the unit. I learned first-hand and early on that other teachers could benefit from the curriculum unit by using it in its entirety or selecting whatever worked for their situations.

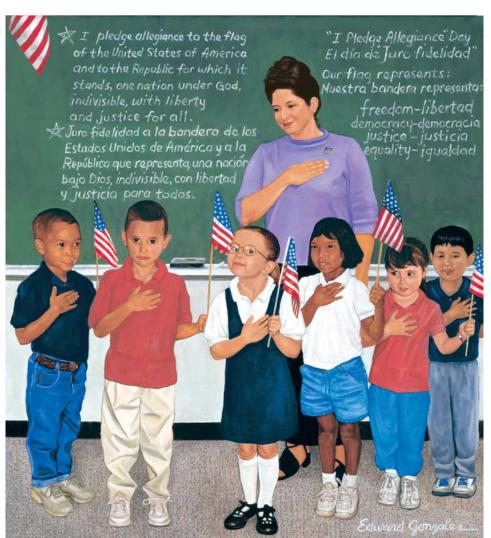
In one activity the students were coming to terms with the meaning of a "dilemma" and "democracy." They used their computer time to write in their journals and search for images to explain and illustrate its meaning. One student wrote: "A dilemma is a problem when you have one thing you like and another thing you like, too, and you want both of them but you can only choose one. My personal example was like when I had to decide on spending my money for new video games, or getting a new pair of sneaks. I decided to get the video games because when I really need new sneaks my Mom will help me out. But for the country it is more serious. President Bush and the American people had a dilemma when he made a decision that it was OK to listen to phone calls. They had to decide on privacy or protecting against terrorism." Another student defined

Rita Sorrentino is an English and Social Studies teacher who specializes in computer education at Overbrook Elementary School in Philadelphia.

democracy as follows: "Democracy means participating in government. This means people vote for leaders and they help to change laws that are bad and need improvement. Come on kids. Learn about the government and how it works before we get old and have to vote."

To set the stage for understanding civil liberties during wartime and President Lincoln's resolve to uphold "all the laws but one," the students were involved in an activity using my prepared script. This activity encouraged active listening and critical thinking. Each student in a small group selected the role of a specific character as they listened or read along with the narration. The roles included: president, lawyer, news reporter, soldier, and citizen. Following a brief discussion, students with similar roles worked together to formulate a position statement. Rather than bring the lesson to closure with the panel discussion I had planned, students acted out and adlibbed their responses, requesting time for making use of props. Perhaps teachers of older students would find the panel format helpful, but in this case role-playing was more interesting and engaging. Subsequently, when students were using the Internet to search for information about Civil War and Civil Liberties, they came across a collection of Civil War songs and were delighted to listen to them on the computer. We then printed out a few whose lyrics fit the theme and used them as a prompt for journal responses.

The unit continued in this vein. What I had planned was the framework, but student involvement and suggestions from colleagues enhanced and sustained the implementation of my unit. As we approached Flag Day, a fourth-grade teacher asked me to schedule her class for some research on the practice of saluting the flag. I had in my unit a tutorial text with grade-appropriate links. Students were interested in learning about the court ruling on Jehovah's Witnesses' objections to their children reciting the pledge. Back in their class, the students took the wording of the pledge and gave meaning to each phrase. I then was able to partner fourth- and fifth-



EDWARD GONZALES, I PLEDGE ALLEGIANCE - JURO FIDELIDAD - A TRIBUTE TO TEACHERS, 2001

graders to prepare a PowerPoint presentation. Working together, they designed each slide to include each phrase of the pledge, its meaning, background music, images and their own voices.

For a culminating activity, we revisited the video from our Constitution Day celebration. I worked with students in small groups to edit the footage and intersperse images in it with images to accompany the phrases. Students used digital cameras to find images in the school neighborhood. The final production was called the "blessings of liberty" and used at our end-of-year assembly.

Traditionally history has been taught with textbooks and printed materials. In the 20th Century, Internet resources enhanced learning. Today our teaching and learning make digital demands. Our students are adept at multitasking as thumbs click and their fingers fly. The role of the integrating technology in our curriculum is magnified, as access to the tools of technology is more prevalent in our schools. Having students use these tools as partners in the learning process can make any subject matter come alive.

I look forward to using this unit again, with a few variations. I am thinking of framing it around the days we celebrate as national holidays. The issue of civil libeties remains a timely and stimulating topic. My reflection on the writing and implementation of this unit has whetted my enthusiasm for teaching as well as learning from another generation of fifth grade students.

Bringing Civil Liberties to the Classroom

By Elouise E. White-Beck

Editor's Note: The curriculum unit described here, entitled "Arthur Miller's History Lesson: The Crucible as a Link from the Past through McCarthyism to Present-Day Terrorism," was written in a 2005 national seminar on "War and Civil Liberties." It is designed for an eleventhgrade English class in which the students are higher achieving than mainstream students but have not qualified for the gifted program.

any high school students will shrug if you ask them about their civil liberties. Many adults will respond similarly. I must confess that I used to be one of them. Last

year I applied to the poetry seminar in the Yale National Initiative. I wasn't chosen initially but one of the Pittsburgh participants dropped out and I was called shortly before the May meeting to fill in. This invitation was for me, an English teacher,

to participate in Rogers M. Smith's "War and Civil Liberties" seminar. With only a few days before the planning session I was at a loss for how to tie in this subject with my curriculum. I teach ninth-, tenth-, and eleventh-grade English at Taylor Allderdice High School in Pittsburgh, Pennsylvania. This is an urban high school with a student population of slightly more than one-half African American students, a small percentage of Asian students, and nearly one-half white students. The students come from several communities of varying socio-economic makeup. My fears were quickly allayed at the first seminar meeting. While listening to the other Fellows present their topics I was flooded with ideas for my own unit. I received my fall schedule shortly after returning from Yale in May. Noting I had a class new to me, eleventh-grade scholars (English 3), I

Elouise E. White-Beck teaches ninth-, tenth-, and eleventh-grade English at Taylor Allderdice High School in Pittsburgh, Pennsylvania. decided to design my unit with them in mind.

Eleventh-grade English concentrates on American literature. Examination of the core curriculum led me to consider The Crucible as the literary piece on which to base the exploration of civil liberties. Arthur Miller's play uses the struggles of accused individuals as prime examples of civil liberties threatened by a religiously slanted court. As class preparation for my unit I used part of Janis L. Wnuk's unit written for last year's Pittsburgh Teachers Institute. This unit, Early American Captivity Narratives and Their Indian Captors (available on the Pittsburgh Teachers Institute Web site) examined captivity narratives popular in the early years of America. Linking this study with the

Completing the seminar and writing the unit taught me that I could learn as much as the students could.

> information in the text, particularly the account of Olaudah Equiano, students became acquainted with the genre of the captivity narrative and were able to write their own original narratives. The results of this assignment were astounding and delightful. Students were encouraged to create their own unique situations and characters for their narratives. While some students chose to write in the same time period as the early American narratives, others presented a range of possibilities. One student's main character was a little girl lost in the Hurricane Katrina disaster and held captive by a demented man posing as a rescuer. Another student wrote about being held captive by a vampire, and still, another wrote about being taken by an alien. All the students observed the guidelines and wrote creditable narratives that were inventive and interesting to me and each other.

> Following the "Captivity" unit, I embarked on the anticipatory set for my own unit. I posed the following question to my class of 19 students: What are your

civil liberties? Answers ranged from freedom of speech and other First Amendment rights to more recent invasions of privacy such as airport security searches. The students disagreed on these points without reservation, encouraging me to hope for lively discussions during our reading and subsequent viewing of *The Crucible*.

Teaching *The Crucible* comes early in the fall semester, preceded only by readings of a few poems, essays, and Native American legends in the text. Because the play functions on several levels, it provides the students with opportunities to study dramatic structure, the history of the Salem witch trials, the connection to McCarthyism, and the ease with which a citizen's civil liberties can be threatened.

After our opening discussion, during

which students realized their own places in society and how they may be threatened, they could understand, through reading aloud, a real-time experience of some of the action and events as the play unfolds. The class progressed through each act of

the play, stopping for discussion, questions, and disagreements. Discussion items for each act are provided in the McDougell-Littell *Language and Literature* textbook from which we read the play. Following the reading, students viewed the film and responded in writing to what they saw and how it relates to the text. Video-viewing response sheets are included in my unit appendices.

After completion of *The Crucible*, students were ready to compose an original piece of writing designed to force them to make judgments based on what was read and discussed as well as on their emotions and beliefs.

Here is the assignment: "Suppose the government decided that recorded or amplified music contained subversive messages and outlawed any amplified performances and any recorded music? What would you do? Would you continue to listen to your music? What about turning in others who were breaking this law?" Since this was a creative writing assignment, stu-



T. H. MATTESON, THE TRIAL OF GEORGE JACOBS, AUGUST 5[™], 1692, 1855

dents were asked to construct fictional accounts that read as realistic prose. Many of them wrote first-person accounts of the fear and confusion they felt when they or their loved ones were arrested for what they believed shouldn't have been a crime. Our discussion led to the writing of many interesting stories. Papers ranged from anguished reports of a loved one being arrested and dragged from the house in the middle of the night to stories about being subpoenaed to testify against a friend and the confusion that followed.

As these excerpts will suggest, the students were able to glean information from the play and synthesize it into fiction representing their understanding and emotions. One student created a court scene reminiscent of *The Crucible*:

Q: Did you see anyone using any kind of musical device? Why won't you answer me? Don't you know that by revealing this information you can protect your country?

A: I seen Molly with an iPod. I seen Josh with a CD player. I seen Rachael listening to music.

Another student created a fictional account about being made to testify about

her brother and his subsequent arrest: "I lost all respect for any government official. From now on, I have every intention of breaking the law. I hate the laws. It was the law that took away our rights and it was the law that took away my brother."

At mid-year exam time, students were given a choice of essays including material from *The Crucible* as well as the other literature from the first semester. I was pleased to read that many of my students chose to write about civil liberties. Several students wrote that they had never before even thought about their civil liberties and that reading and writing the assignments in class made them more aware. And they were glad.

These observations from real students enrolled in real classes validate my efforts to raise their awareness of how civil liberties affect them. At the outset of this project I was apprehensive of my ability to construct a unit on an issue that I felt illprepared to tackle, but completing the seminar and writing the unit taught me that I could learn as much as the students could, helping me to realize the common goal of educators: to remain lifelong learners.

Whitaker: Connections

(continued from page 6)

bridges in Philadelphia we include a colorful local image—Joseph F. Mulhearn's Ben Franklin Bridge—that celebrates the civic, constructive, and painterly processes of making connections.

Our third section, "Connecting Cities through the League," presents the possibility of new Teachers Institutes as perceived by an administrator and several teachers in Charlotte, Santa Fe, Richmond, and Wilmington. Ann Blakeney Clark, the **Regional Superintendent for High Schools** in the Charlotte-Mecklenburg Schools, speaks of the importance of "teacher quality" for the students and of "supporting our best teachers" as a key retention strategy. "The Yale National Initiative," she says, "is a shining national beacon of professional development worthy of thoughtful study by public school districts across this nation." From a teacher's point of view, Jeffrey Joyce offers a vigorous assent, stressing the strategic importance of an emphasis upon teacher initiative and "content knowledge" in the sciences and humanities.

Clary Carleton, speaking quite personally but with a sharp eye on the entire district, comes to similar conclusions about the need for a Teachers Institute in Richmond, putting an emphasis also upon the need for educational reform. We accompany her piece with an engraved image of the Virginia state capitol, designed by one of the architects of our nation, Thomas Jefferson.

Kimberly Penn Erazo then speaks in persuasive detail of the process through which a number of Santa Fe teachers have begun to give just such thoughtful study to the need in their city for a Teachers Institute. We accompany her piece with a recent and symbolically appropriate depiction of "Dawn Over Mountain" by the contemporary Tewa Hopi artist, Dan Namingha. And Cary Brandenberger and Raymond Theilacker bring this section to a close with quite different and yet complementary arguments for a Teachers Institute in Wilmington that would serve the New Castle County Vocational Technical (continued on page 24)

The Seminar on "Astronomy and Space Sciences"

By Sabatino Sofia

stronomy studies objects beyond Earth by all scientific techniques available, regardless of the discipline that developed them. In particular, besides astronomical tools, it uses physics, geology, at times chemistry, biology, and of course, as all quantitative sciences, it bases many of its findings on results obtained through the use of mathe-

Sabatino Sofia is Professor of Astronomy at Yale University.

matical tools. Because of the above, the curriculum units developed in this seminar cover a variety of fields that would appear to have nothing to do with each other were it not by the common thread of its relevance to the study of objects beyond the confines of the Earth. Many of the units are designed to teach some form of mathematics, using the astronomical application to make the mathemitics exciting for the students, and to show its relevance to concrete problems. One unit deals with volcanoes in the solar system, and thus it deals with a lot of concepts of geology and earth sciences. The rest deal with more specifically astronomical topics, all the way from the solar system to the edge of the universe in the study of cosmology. Because of this diversity, I believe all Fellows became familiar with issues beyond their own unit, and as a consequence, their teaching should be much more exciting and informative for the students in their classes.

The Birth of the Universe

By Eric Laurenson

Editor's Note: The curriculum unit described here, written in a 2005 national seminar on "Astronomy and Space Sciences," introduces students to the exploratory nature of the scientific approach and the evolution of scientific knowledge. Designed for use in high school physics courses, it can also be simplified conceptually so that it may serve as an introduction to cosmology for a freshman general science course.

t the end of the year, when the students' interest in school was waning, I introduced a cosmology unit to my physics students as a capstone unit on waves, light and the Doppler shift. Their enthusiasm was at least in part the result of what I believe is an innate curiosity about our cosmic origins.

How did it all begin? What was the early universe like? What is the fate of the universe? These are the questions that I posed to my students, who are predominantly African-American juniors and seniors from Peabody High School in Pittsburgh, which is a low socioeconomic and low-perform-

Eric Laurenson is a Science teacher at Peabody High School in Pittsburgh.

ing school. Most of them had heard of the big bang but did not know much about it. My gifted students had significantly more background knowledge than my scholars students and tended to be more philosophical about the beginning of the universe.

My students grasp concepts when they are explained tangibly, so I taught them about the big bang first-hand with balloons. I gave each of them a balloon and had them put dots on it marked "us," "1," "2," and "3." "Start inflating the balloons," I instructed them. "What is happening to the dots? This is the model of the universe." By calculating the distance between points on the balloon as it expanded, the students then calculated the rate of expansion. I asked them, "Which point is at the center?" They determined that every point appears to itself to be the center of the universe because everything is expanding away from it. We discussed how this shows that we do not occupy a preferred position in the cosmos.

But the balloon is only a model, and unlike the balloon the big bang was an explosion *of* space not *in* space, and the universe expanded from a very small, nearly point-like space. The students wanted to know how we can possibly know this. I explained that we can know this because the early universe emitted a "light fingerprint" that is still traveling in space. That "fingerprint" is known as the cosmic microwave background. Because of the expansion of space the light has been stretched, a phenomenon known as the "red shift." So now everywhere we look we detect stretched-out waves, but if we project them back to the big bang, before they were stretched, the temperature would be millions of degrees.

From the balloon lab, my students calculated the rate of expansion of the balloon, which is equivalent to the Hubble constant. Since the Hubble constant has the unit of time in the denominator, the inverse of the Hubble constant enables us to figure out how old the universe is! In effect we are playing the film of the universe in reverse. This was the students' favorite activity. By taking this simple constant and converting the units the students were able to use their own calculators to figure out the age of the universe! This was empowering because it engaged the students as scientists, and they were able to see how science knows what it claims to know using a mathematical tool that had previously been inaccessible. According to my students' calculation, the universe is 13.72 billion years old!

The balloon analogy has another similarity in that the expansion of the universe has not been totally constant but is actually accelerating in its expansion, though unlike the balloon it will continue to expand. My students wanted to know why we don't experience that expansion, and I responded that we are gravitationally bound and it is only obvious on the scale of 100 million light years. Some things are not immediately accessible to our senses and are contrary to our "common sense" so we must rely on scientific inquiry to discern the truth. This also applies to the speed of light because although it appears infinitely fast to us, it has the constant speed of 186,000 miles per second. As a consequence of this, we can understand much of what we do about cosmology because the sky is like a great big time machine. Light takes time to travel. So the light from the sun is eight minutes old but the light that is traveling to us from the most distant stars is billions of years old! From what they know about constant speed my students were able to figure out the distance to the sun and determine the size of the universe.

Considering what science is able to claim, my students examined graphs to discern that the relative abundance of the elements in our universe proves that primordial nucleosynthesis required the extreme conditions of the big bang. It is the only way to explain the amount of elements we detect in the universe. The vast majority of elements are created in supernovae, which are exploding stars; therefore, we are made of stardust. While the students thought this was "cool," it was difficult to convince them that the data within graphs was definitive.

The enigmatic existence of dark matter and dark energy also confronted my students with the vast amount that science does not know. Although these constituents make up the majority of the universe, we know almost nothing about them! Scientific discovery is a process, and my students were amazed that despite how much we claim to know so much remains to be discovered.



THE EAGLE NEBULA, M16

I was surprised to find how challenging it was to address religious beliefs about the beginning of the universe. Some students expressed disbelief in the big bang theory because of their religious beliefs. They said that science can answer what is testable but they still indicated that they didn't think the big bang was "factual." So although the unit concentrated on demonstrating not only what we know, but more importantly how we know it, there was still incredulity about the science presented. Science and religion are distinct pursuits. Science cannot delve into why the universe began, but it is now able to discuss how it evolved. I was only marginally successful at conveying this distinction.

Inspired by the topic, my students engaged with the stimulating claims of science, delved into the scientific process of inquiry, learned the subtlety of scientific discourse, calculated their own results and were confronted with their own preconceptions. The hands-on models allowed the students to engage personally with these complex concepts. Together we explored the dynamic nature of scientific inquiry and addressed the challenging process of incorporating new knowledge into our world-view.

The Penn Compact and the Teachers Institute

By Amy Gutmann

For many years the colleges went on their way with little reference to the secondary, and especially to the public, schools. Now, however, university presidents consult the secondary schools which furnish them with students, and are interested in every grade of education Perhaps the most cheerful symptom in the present educational movement is the exchange of views by teachers from all sorts of institutions. It is a period of good feeling, of common interest, of mutual understanding, and of cooperation between the public schools and the universities of the land.

Is it not possible to devise a system which shall be rooted and grounded in actual universities and resident instructors . . . and which shall interest the great body of conscientious teachers now in service?

... can we not find some practical means by which teachers of the public schools may come under the training influence of the universities, and through which the universities may learn how to contribute toward supplying the needs of commonschool education?

Albert Bushnell Hart, Ph.D. "University Participation—A Substitute for University Extension" Educational Review, June, 1893

High school seniors are approaching the first major crossroads in their lives. Some are busy assembling the materials they will need to be admitted to their first choice of college: excellent SAT II scores, a vivid, wellwritten application essay, glowing teacher recommendations, impressive extracurricular activities, and ample funds. Some are contending with financial barriers and the assumption that a college education is beyond their means. And some are not giving college a second thought, because they haven't received a quality education

Amy Gutmann is President of the University of Pennsylvania. that prepares them for success in college and beyond.

Despite the impressive gains we have made in enrolling men and women of diverse backgrounds, our nation's colleges and universities remain out of reach for far too many capable students from the latter two groups. Without true cultural and socioeconomic diversity, we cannot educate leaders for all sectors of society.

How can we bring more students from diverse cultural and socio-economic backgrounds into the college-bound pipeline and onto our campuses?

In my presidential inaugural address, I proposed a Penn Compact that included a bold, unifying mission for the University of Pennsylvania and the higher education community: Bring the goals of increasing access to higher education, integrating disciplines of knowledge, and collaboratively engaging with local and global communities to bear on our teaching, research, and service for the betterment of society.

To fulfill the Penn Compact, we have reduced reliance on student loans by adding grants and scholarships to support undergraduate education. We have expanded the outreach efforts of Penn's Center for Community Partnerships and our Graduate School of Education to establish programs on nutrition in local public schools, workshops for Teach for America participants, and programs to improve math and reading scores in neighborhood elementary schools. Penn partnered with the Philadelphia School District and the Philadelphia Federation of Teachers to create the Penn-Alexander school, an excellent University-assisted neighborhood public school for kindergarten through eighth grade. The student body is more than threequarters minority, with many students coming from low-income households.

The children at Penn-Alexander are flourishing socially and academically. Three quarters of last spring's graduating eighth graders are now enrolled in selective high schools in Philadelphia, making their chances of getting accepted to selective colleges or universities much better than would have earlier been the case. Buoyed by our success, we have reached an agreement with the School District to create a magnet high school with an international focus.

Yet there is so much more a great University could accomplish toward improving public schools—especially in professional development for high school teachers, where the needle for frustration, burnout, and turnover has been stuck in the red zone.

In far too many public schools, teaching, like war, is hell. In many cases, teachers are assigned to subjects in which they are barely proficient. In other cases, they have long lost their enthusiasm and are just going through the rote motions.

What if university faculty could work closely with these teachers in developing innovative curriculum units that would make classroom instruction come alive for teachers and students alike?

Enter the Teachers Institute of Philadelphia (TIP). Based on the Yale National Institute model, TIP was established in July 2005 in the Office of the Provost, with funding from generous alumni gifts and a grant from the Arthur Vining Davis Foundation. Under the guidance of director Alan Lee and advisory board chair Rogers Smith, TIP has just completed a resoundingly successful pilot year. As subsequent articles in this issue will reveal, Penn faculty collaborated with local teachers to create thirty-five new curriculum units. which the teachers will incorporate into classroom instruction in schools in West and Southwest Philadelphia.

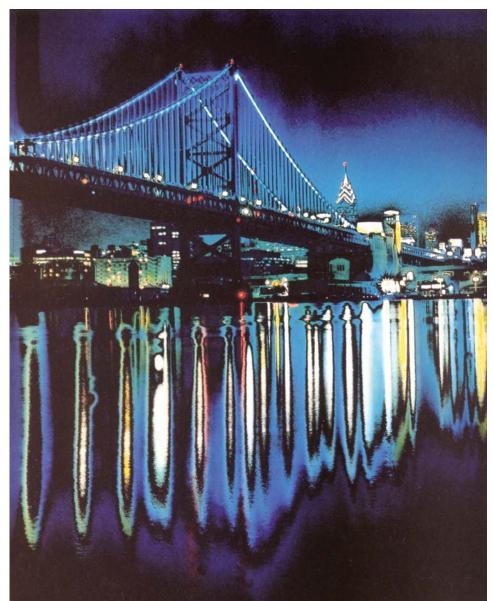
The Teachers Institute of Philadelphia captures the scope and spirit of the Penn Compact. TIP is forging closer connections between Penn and our neighbors. By promoting better student outcomes, it advances our commitment to make a college education accessible to a more diverse population. TIP also is marvelously integrative. By fostering creative, ongoing relationships among Penn faculty, the Graduate School of Education, the Center for Community Partnerships, the School District of Philadelphia (and its teachers), TIP is leveraging integrated expertise and resources to have the greatest systemic impact on public education in Philadelphia.

TIP's impact is global as well. With a couple of mouse clicks, teachers throughout the world now can freely access all TIP curriculum units on the Institute's web site. Moreover, faculty and teachers who participate in the program, not to mention the students who benefit from rejuvenated teaching and engaging content, will carry the experience, knowledge, and skills they have gained wherever they go.

The benefits that will accrue from TIP are myriad and mutual. The teachers who collaborated in planning the program, and those they recruited to participate, have had an opportunity both to blossom as educational leaders among their colleagues and to reinvigorate a profession that is fraught with burnout. Based on initial feedback from participating Penn faculty, translating academic expertise into lessons that engage and excite students in urban public schools can have a galvanizing effect on faculty teaching, research, and morale.

Building on TIP's initial success, we will expand seminar offerings, engage ten to twelve additional high schools in the program, and develop more support for teacher participation. The School District of Philadelphia's Chief Academic Officer, Gregory Thornton, is committed to offering stipends to teachers who participate in TIP, and envisions ongoing support of the program.

In higher education, we have made major strides in recognizing and accommodating students' diverse learning styles, and in preparing graduates for rapidly emerging career paths, particularly in the sciences. We have also expanded the liberal arts curriculum beyond the canon of Western thought to include scholarly examination of a much more diverse record of human endeavor, from the long overdue study of African American and women's history, to the collision of cultures that culminates in post-Colonial literatures. We have modified our pedagogies, shifting from strictly didactic instruction toward more dialogue,



where learning is multi-directional. We have recruited faculty who are more representative of the world's rich diversity of cultures and perspectives.

But to fulfill the promise of democratic education in general, and higher education in particular, we must redouble our efforts to improve public elementary and secondary education. If all universities deployed even modest shares of their expertise and resources toward improving public schools in their neighborhoods, the results would add up. One excellent public school here, another there, and pretty

JOSEPH MULHEARN, BEN FRANKLIN BRIDGE (DETAIL), 1989

soon, you're talking about some real systemic change in public education that yields more college-bound graduates from diverse social, cultural, and economic backgrounds.

Breathing new life into the teaching profession will not alone solve the crisis of public education in America. But programs like the Teachers Institute of Philadelphia can be part of a dynamic mix of university initiatives that ultimately will redound to the advancement of higher education's mission to educate the great future citizens and leaders of our democracy.

An Innovative Partnership

By Gregory E. Thornton

hen the School District of Philadelphia joined in partnership with the University of Pennsylvania to support the establishment of the Teachers Institute, it represented a new step in a long relationship. The School District of Philadelphia is nestled amidst a plethora of institutions of higher learning. As a result it has nurtured and sustained partnerships with most of the local colleges and universities. Among the more significant is its partnership with the University of Pennsylvania (Penn). This long-standing relationship with the District is characterized by Penn's significant presence in the District's West and Southwest Regions, the

communities surrounding the university. There are a number of past relationships with Penn with productive effects on the regions' schools that we should cite.

Historically, one of the most enduring relationships with Penn has been with its Center for Community Partnerships (The Center). The Center has helped to create higher education-assisted community schools that

function as centers of education, social services, engagement and activity for students, their parents, and other community members within a specified geographic area. In partnership with the Annenberg Foundation and Penn, the School District of Philadelphia is incubating the development of Professional Learning Communities throughout its schools. Participants in the Institute will bring an additional dimension to this initiative at their home schools as teachers involved in the Institute will be able to share exemplary practices and encourage collegiality among their peers. The ongoing need for improved health services in the West Philadelphia region has also led to the creation of a school and community-based health promotion and disease prevention center at the Sayre High School

Gregory E. Thornton is Chief Academic Officer of the School District of Philadelphia. in West Philadelphia. This partnership is working to bring to bear the University of Pennsylvania's many health resources, as well as those of other local health resources, to improve the health of all children and adults in the West Philadelphia community.

The Teachers Institute at the University of Pennsylvania has evolved to be a new option for innovative partnership. The District gravitated toward this model because of its emphasis on deepening teachers' content knowledge and enhancing their skills to develop instructionally sound and rigorous lessons, which will result in improved implementation of the rigorous curriculum in the major content areas. Teachers will attend seminars taught by

The District gravitated toward this model because of its emphasis on deepening teachers' content knowledge and enhancing their skills to develop instructionally sound and rigorous lessons . . . that adhere to the standards mandated by both the District and State of Pennsylvania.

> Penn professors. New lesson plans and materials will be created that adhere to the standards mandated by both the District and State of Pennsylvania. Furthermore, the Institute will nurture the leadership skills of teachers, which will have the impact of extending the benefits of participation to the entire school community.

We believe that the program offered by the Institute will be consonant with, and will contribute to, the School District's own efforts to improve the quality of our classroom teaching. We recognize the significant resources that Penn has allocated to the Institute. The School District intends to complement Penn's contributions with our own, in order to assist Penn in building a strong Institute that will enhance classroom offerings in the schools of West and Southwest Philadelphia directly, and in all city schools in the longer run. The School District of Philadelphia views these partnerships as vital as it continues to systemically move forward reforms that have impacted positively on student achievement. Integral to the District's reform movement is the mandated PreK-12 Core Curriculum which is standards-based and provides teachers with clear and explicit guidelines for what to teach and when.

After a recent audit of the Core Curriculum by *Phi Delta Kappan* revealed that the written curriculum was not the taught curriculum in many cases, the District responded with an unwavering focus on eliminating the gap between the written, taught, and tested curriculum. We

> do this by providing and encouraging strategic professional development via a variety of delivery options. Here, the Teachers Institute program of academic professional development will contribute a valuable content experience for teachers in their subject areas, of a type that is not available elsewhere. The District is also planning its own archive of "Best Practices" curricular

materials for classroom teachers' reference. In this light, we view the Teachers Institute's developing collection of an online archive of curricular materials and lesson plans, developed with the guidance of Penn scholars, to be a welcome parallel development. Both will enrich the resources from which our classroom teachers can draw as they plan their methods of applying the mandated curriculum to their classroom needs.

The fates of the University of Penn and the School District of Philadelphia are intertwined. We are neighbors, partners, and benefactors of a forged relationship. The new Teachers Institute is a logical and natural step in deepening a productive relationship, based on a common focus, to examine opportunities for improvement in the services that we mutually provide to our constituents.

Some Lessons from Philadelphia

By Rogers M. Smith

n 2001, I moved to the University of Pennsylvania after having taught at Yale since 1980. My time at Yale had been terrific, with nothing more fulfilling than my work from 1994 on with the Yale-New Haven Teachers Institute. By 2001 I had offered five local seminars, two "National Intensive" seminars, and served on the Institute's National Demonstration Project. The chance to work closely with teachers performing the nation's most crucial educational tasks always proved exciting. Talking over issues with the teachers, seeing the creative curriculum units they wrote, was inspiring. Though going to Penn was right for my family, I knew that I'd greatly miss the Teachers Institute.

So I soon began thinking about how we might create a Teachers Institute at Penn. But starting a Teachers Institute is timeconsuming, because many groups must be involved. There must be a corps of teachers that are eager to take seminars and to recruit others, and they must have the support of top school administrators. There must also be university or college faculty members who wish to lead seminars, and their institutions' officers must commit significant resources to the endeavor. None of that can happen unless there are at least one or two people willing to devote significant time to engaging these different parties. At first I couldn't do that. I knew only a few people at Penn, no Philadelphia teachers, and no school administrators.

But after several years, I knew many more Penn administrators and faculty members and felt that most would strongly support a Teachers Institute. I'd also met Dr. Alan Lee, an outstanding Philadelphia high school teacher who'd earned a Penn Ph.D. during his spare time and who had since taught at the university periodically. Alan was nearing retirement after 35 years of public school teaching, and we discussed my Yale-New Haven Teachers Institute experiences. He immediately grasped the program's nature and strengths, so I asked him to work

Rogers M. Smith is the Christopher H. Browne Distinguished Professor of Political Science at University of Pennsylvania. with me to begin to bring together people who could help create a Teachers Institute of Philadelphia. He agreed, probably not realizing that he would spend untold uncompensated hours trying to make something happen that perhaps never would.

We began by forming a Planning Committee of Penn faculty and administrators. It is not necessary to start with the university, as opposed to teachers or district administrators, and of course it is ultimately necessary to win support from all. But I knew many at Penn who could contribute different strengths to a Planning Committee and who were likely to serve. In deciding whom to ask, we bore in mind that Penn differs from Yale in important ways. It has a Graduate School of Education (GSE) and also a Center for Community Partnerships (CCP) that work extensively with the Philadelphia schools. We knew we could benefit from the knowledge of the leaders of these programs, and we hoped the Institute could work in partnership with their initiatives. So, in addition to leading School of Arts and Sciences faculty members like History Professor Walter Licht and English Professor Peter Conn, we included in our Planning Committee GSE Associate Dean Nancy Streim and Professor Vivian Gadsen, as well as CCP Director Ira Harkavy and Associate Director Cory Bowman, among others. This group proved invaluable in suggesting how to structure the Institute so that it would both fulfill all features of the Yale model and also fit Penn, working in synergy with kindred endeavors. We asked Yale's National Initiative Director James Vivian to meet with this Planning Group early on, and his visit greatly strengthened the understanding and resolve for the project of all involved.

As this occurred, Dr. Amy Gutmann, a political theorist who had written extensively on democratic education, became Penn's new President. Her vision for the university stressed community engagement, and she saw how well a Teachers Institute embodied her priorities, especially if linked with the university's other community programs. President Gutmann obtained two major donations to start the Institute, and her assistant for educational outreach, Dr. Sigal Ben-Porath, became an invaluable Planning Group member. When Provost Ron Daniels came to Penn in July 2005, he also quickly committed to give the Institute substantial support, including hiring Alan Lee as the Institute's Planning Director in fall, 2005. Again, a Jim Vivian visit helped give the new Provost confidence that he was supporting a program with a proven track record.

While the "Penn side" of the Institute came together, Alan visited schools and officials to build a network of Teacher Representatives. That effort received a great boost when Dr. Shirl Gilbert became Superintendent for West Regional Philadelphia and helped to recruit five teachers to participate in a National Intensive Seminar in New Haven in summer, 2005. This group became the heart of the vibrant team of Teacher Representatives Alan built in the fall. With support lined up from Penn, with enthusiastic teachers, and with the backing of our Regional Superintendent, we began meeting with Dr. Gregory Thornton, the Chief Academic Officer of the Philadelphia School District, to establish the Institute as a full partnership between the District and the University. He expressed strong enthusiasm, reinforced once more by Jim Vivian's presence at an early meeting. Soon thereafter, Dean Rebecca Bushnell of Penn's School of Arts and Sciences arranged for office space for the new Institute in spring 2006.

Having built up so much momentum, it was essential to sustain it. By late fall 2005, the Teacher Representatives had identified topics on which West and Southwest Philadelphia teachers wanted seminars. The Planning Group felt that, if Penn faculty members could be found to offer those seminars in spring 2006, we should do so. In a gratifying display of faculty commitment, it took Alan Lee only a few weeks to find outstanding faculty members who agreed to add another seminar to their next semester's load. As Alan describes here, the four seminars proved to be wonderful experiences for all concerned, (continued on page 24)

Forging Collaborative Relationships

By Alan J. Lee

he proposal for a new Teachers Institute in Philadelphia took on concrete form in this past interesting and exciting year. As Director of the Institute, I had the pleasure and challenges of being closely involved in the establishment and growth of this latest iteration of the Yale National Initiative model. We are very proud of our "pilot year" efforts made possible by strong support of the University of Pennsylvania, specifically President Amy Gutmann and Provost Ronald Daniels. We should note that a "pilot year" is not a normal part of the planning process but is unique to Philadelphia.

To offer a quick summary of our year, it might be noted that we were able to offer four academic seminars to 43 teachers from 14 schools in West and Southwest Philadelphia. We were able to organize an Institute program that gained the support of the Chief Academic Officer of the School District of Philadelphia, Dr. Gregory Thornton, and achieved the necessary agreement of partnership between Penn and the School District.

After Penn President Gutmann solidified our startup financing through generous alumni gifts, we were able to obtain foundation support of a grant from the Arthur Vining Davis Foundations that will allow the Institute to continue and grow beyond the pilot program status. Finally, we were quite delighted to send seven of our Teacher Representatives to Yale University for the Initiative's national seminars, who ably represented Philadelphia and who gained valuable experience in the Institute model.

There are two aspects of the Institute model about which I learned through our pilot year experiences that I wish to highlight for the benefit of readers. The first aspect is the role of the Institute Director, who, particularly in the earliest stages of planning and organization, is the one person who works fulltime for the Institute.

The Director has many functional responsibilities including overall leader-

ship, financial and organizational duties, as well as liaison links to other entities, including the National Initiative. One key responsibility is for the Director to maintain, and be the guardian of, the Institute model among the many people who have only partial knowledge or understanding of that larger picture.

I found that the Institute is much more of a network than a hierarchical organization. The Director must function as a connector of individuals and organizations, forging relationships among diverse interests at points where their collaboration is beneficial towards advancing the Institute program and for the mutual benefit of the actors themselves.

A myriad of alliances and working partnerships must be shaped into the network of relationships. As examples, we note the forging of a partnership between the University and the School District; the recruitment of seminar leaders from various schools and departments; the establishment of a corps of teacher representatives as well as a larger group of teacher Fellows from all levels and major disciplines of the public schools; and the organization of an advisory committee of diverse senior university educators, to name just a few relationships.

One of the core values within the Initiative model is the fostering of teacher leadership through the Institute program. Here the Institute Director's position runs into the paradoxical necessity of stepping back to provide space for the emergence of real responsibilities and empowerment by teachers assuming leadership positions and authority within the program. The importance of authentic teacher leadership cannot be overstated, and it is the second aspect of our experience in building an Institute that I wish to highlight.

One of the most impressive facets of all of the Institutes is the enthusiastic "buyin" on the part of teacher participants. Many teachers come to value the program at least in part because they feel valued *by* the program. In our case, Teacher Representatives have been tireless and extremely effective in recruiting their colleagues, acting as liaisons for the flow of information between the Institute and their school faculties, and presenting ideas to encourage success by participants in the seminar programs. Our Teacher Fellows in the program were not only enthusiastic about the seminars and their topics, but also patient with the growing pains of a new program in its pilot year. I choose to believe that these behavioral aspects were the result of our program that views teachers as responsible, intelligent, and, most of all, professional people who care deeply about their field.

At a time when many outside of public education classrooms view teachers as the objects of various notions of reform, most teachers seem to wish to be the active agents of education reforms and progress. From what I have observed, the experiences of a working collegial relationship with Penn scholars, as well as the networking among teachers from various schools, subject areas, and grade levels have fostered attitudes of competence and confidence. These feelings will surely have a positive impact upon teachers as more effective leaders in the classroom, among their faculty colleagues, and as advocates for public education in urban areas. As Director, I feel little hesitation in presenting my teacher leaders with important issues, and applying their input into policy decisions.

As I stated at the opening, it was an exciting pilot year, as every question and experience was a new one for all of us. Now the excitement in Philadelphia continues as we examine the possibilities of our second session, one we face with a bit of experience, and (dare we say?) a hint of wisdom. We must apply our lessons learned to set the bar higher, and, with the support of the Initiative, to expand our offerings while maintaining high standards. In doing so, we look forward to strengthening the partnership of the University of Pennsylvania and the School District of Philadelphia for the benefit of the teachers, students, and neighborhood communities of Philadelphia.

Alan J. Lee is the Planning Director of the Teachers Institute of Philadelphia.

A Key Teacher Retention Strategy

By Ann Blakeney Clark

s the pool of highly qualified teachers shrinks nationally, it is imperative that public education administrators focus on a strategic plan for retention of outstanding classroom teachers. Focus groups with "star" teachers reveal that the quality of the principal leadership and meaningful professional development are the two most significant variables in a teacher's decision making regarding a particular school assignment.

All too often public school principals focus on teachers who need support and corrective action and fail to recognize the need to support life long learning for master teachers. The Yale National Initiative provides an opportunity for urban school districts to foster and rekindle the yearning teachers have

for increased knowledge of content and the development of strategies to actively engage students.

The opportunity for public school teachers and college faculty members to engage in dialogue and debate about subject area expertise and pedagogy is rare and

a most powerful professional development tool. For two summers, I have watched some of the finest teachers in the Charlotte-Mecklenburg Schools leave for seminars with the Yale National Initiative and return wide-eyed with the possibilities of deeper teaching and learning. Simply the opportunity for a teacher to collaborate with a college faculty member with relevant subject area expertise and then publish a curriculum unit is an amazing professional growth stretch for most teachers.

Unfortunately, in the fast-paced reality of public education, teachers rarely find the time for reflective thinking on what and how they teach. The Yale National Initiative seminars provide an opportunity for teachers to step off the daily treadmill and immerse themselves in an environment that encourages self-reflection about content and pedagogy. The gift of time for such reflection is a prized treasure for public education teachers. Teachers are expected

Ann Blakeney Clark is Regional Superintendent for Charlotte-Mecklenburg High Schools. to differentiate instruction in the classroom to meet the learning needs of each student. Public school principals must also be expected to provide differentiated professional development for teachers in order for teachers to acquire deeper content knowledge, raise the bar of expectations for student achievement, teach with zest and enthusiasm and enhance skills in working with the most difficult to reach students.

Realizing that research points us to the vital weight of teacher quality in the formula for improved student achievement, the Charlotte-Mecklenburg Schools has invested in a focus on a continuum of professional development for teachers. These initiatives have included a new teacher orientation, full time mentors for first and second year teachers and a nationally recog-

The synergy among the participating teachers has created an extraordinary level of interest in Charlotte.

nized program for National Board Certified Teachers.

After two years of participating in the Yale National Initiative Teachers Institute, the synergy among the participating teachers has created an extraordinary level of interest in Charlotte. The Charlotte-Mecklenburg School System team has initiated conversations with faculty at several local colleges and universities to gauge interest in participation. The Charlotte-Mecklenburg School System is fortunate to have well established partnerships with each of our local colleges and universities so there is a strong foundation on which to build interest and enthusiasm for replication of the Teacher Institute model in Charlotte.

Next steps for Charlotte included sending a team to the fall conference sponsored by the Yale National Initiative in October 2006. This allowed the Charlotte delegation to interface with public school districts across the country who are at different stages of implementation. At this conference, the Charlotte team developed a strategic plan for presentation to our newly appointed superintendent in early November.

With eighteen years of experience as an elementary, middle and high school principal, I believe that the investment in professional development of all teachers is a nonnegotiable component in any public school system budget. Unfortunately, the challenging budget constraints often place superintendents in the untenable situation of having to cut professional development resources. Reduction of professional development dollars is in direct opposition to the research that points us to the quality of the teacher as the single most important factor in student performance.

Given the continuum of professional development for teachers available in Charlotte, a natural next step for the district

is to investigate the best professional development options for teachers beyond the National Board Certified Teacher (NBCT) Program. In order to continue the journey for the NBCT teacher, the professional development model must embrace many of the tenets of

the Yale National Initiative: engagement and collaboration with college faculty members, self-reflection on pedagogy, increased subject knowledge expertise, professional learning community that serves as a catalyst for continued passion for teaching and publication of curriculum units.

Supporting our best teachers in becoming better teachers is just as important as supporting our struggling teachers in becoming better teachers. As public school districts across the country prepare for a significant reduction in the teaching force in the next decade, it is imperative that public school administrators invest now in the professional development of teachers in collaboration with our higher education partners. A proactive investment in professional development is well advised prior to needing to be reactive to the reality of a shrinking pool of qualified teacher candidates. The Yale National Initiative is a shining national beacon of professional development worthy of thoughtful study by public school districts across this nation.

Why Teachers Need a Teachers Institute

By Jeffrey C. Joyce

Editor's Note: As a teacher from Charlotte, North Carolina, the author participated in the Intensive Sessions of the Yale National Initiative in July of 2005 and 2006. He is the teacher Representative for his city.

f there is one thing I know, it is what teaching is like in modern America. Certainly the experiences vary from place to place, but America is at some level a homogeneous place that is characterized by an obsession for reality television, material wealth, and leisure—time activities—all of which are being bred into our nation's youth. Therefore we teachers must be armed to combat trends in our culture that may not readily lend themselves to our

classrooms. The trouble with this realization is that it leads directly down the path to bureaucratic solutions. The modern socio-political climate asks governments to seek solutions to overriding problems. And in public education it is only natural that the political superiors seeking to craft the cures

quickly marshal bureaucrats to order. The result has been an absolute disaster of shifting paradigms that, over the years, have weighed heavily on the shoulders of the common classroom teachers who must bear the burden of every new quick fix that our nation's educational gurus thrust upon us. It is not uncommon to hear seasoned teachers, when faced with the newest solutions to our educational woes, make comments like "well, we have seen this before." The solutions seem to have become cyclical and circular. The ubiquitous "new think" in education has therefore done little but bog down an already tired process and frustrate a nation of teachers.

The question then is: what do teachers need that will make them better at their jobs, help them produce educated pupils, and work effectively with others? The answer is a Teachers Institute based on the model

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established by the Yale National Initiative. The approach seems rather simple, but in our modern educational climate it is quite radical. At its core the model is based on the idea that good teachers are life-long learners and that helping teachers sharpen their understanding of content leads to more enthusiastic, well-rounded and inspirational teaching. To this end an Institute insists that public school teachers and university faculty members work in a collegial manner to enhance content knowledge that the classroom teacher will include in a curriculum unit to be designed and written for his or her own classroom use. I like to think of this as being paid to go back to school. The advantages of this method are numerous.

First and foremost, it is based on the dissemination of content knowledge not peda-

What do teachers need that will make them better at their jobs, help them produce educated pupils, and work effectively with others? The answer is a Teachers Institute.

> gogy. Methods may well enter into the seminar dialogue, but they are not the primary impetus for the formulation of the seminar. Through the seminar process teachers are able to tap into the wealth of resources that a university has to offer, which include both the intellect and specialization of the professors and a host of library materials. Second, the curriculum unit is the mind-spark of the teacher, not the school district. Given our current over-standardization in the classroom, the Yale model gives the teacher a much-needed avenue for some measure of academic freedom. Third, the relationships within the Institute are remarkably valuable. The inner workings of the Institute as a whole and the seminars it offers are exclusively collegial. The teachers and university faculty members, and the Director and the Coordinators, are all geared toward making the curriculum units of each of the teachers the best they can possibly be without any trace of hierarchical dictation. In the top down world of education, especially here in

Charlotte, it is refreshing to be thought of as part of a team that has a coordinated goal for real improvement rather than as the proverbial cog in a machine.

Here in Charlotte we are working toward the establishment of our Institute for these very reasons. The problems within professional development in our system are well known to all. Nothing that we have done in the past ten years has survived the entire span of that time. Thus nothing has been worthy of survival. Most of what is done has a very cosmetic feel. For instance, the district developed pacing guides for those classes that are tested by the State to determine yearly progress. This is primarily for new teachers. But missing is any awareness of the actual material included in the pacing. By this line of reasoning, all one might

need is a list of the materials to be taught and date to teach and the results will come on their own. This is of course preposterous. The overall assumption would seem to be that all of us already have a rich knowledge of our varying disciplines. The learning process for teachers is over. But that is never anyone in any profession

true for anyone in any profession.

Those of us who have been lucky enough to participate in the Yale national seminars realize what a valuable tool a Teachers Institute can be for our district. Teachers need and deserve empowerment. Teachers need to be consistent and constant learners if their classrooms have any relevancy or chance for success. Teachers must have some level of control of the material they are to teach if it is to have genuine value for their professional goals and those of the districts where they teach. Charlotte area teachers need a Teachers Institute that can provide each of these intangibles.

Currently we have met with staff members at the University of North Carolina at Charlotte and Davidson University and with local administrators about the possibilities of developing a local Institute. Thus far we have received only positive responses. We hope that by the fall of 2007 Charlotte will officially join the community of Teachers Institutes.

The Need for a Teachers Institute in Richmond

By Clary W. Carleton

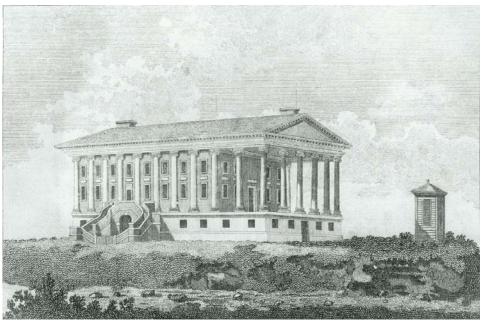
Editor's Note: As a teacher from Richmond, Virginia, the author participated in the Intensive Sessions of the Yale National Initiative in July of 2005 and 2006. She is the teacher Representative for her city.

R ichmond needs a Teachers Institute because our students deserve high quality instruction in the classroom. They deserve teachers who are passionate and well prepared to teach their subject. They deserve teachers who model a continual quest for knowledge and who view challenges as opportunities. And they deserve teachers who are not going to burn out. If teachers are to spark learning, their fires must be fed. That nourishment was what I needed two years ago when my enthusiasm began to wane.

While I considered myself an accomplished teacher, I found myself looking outside Richmond for a teaching position. My students were fantastic, but they were also demanding. And more importantly, I was not growing as an educator. I felt stagnant, isolated, uninspired. I knew I was doing some things well, but I also knew that continual improvement was the hallmark of good teaching. I wanted to nourish my students with the joys of intellectual inquiry, but I myself was undernourished. Fires need to be fed, but mine was burning out.

The Yale National Initiative came my way at the right time. It allowed me to reconsider the original reasons I became a teacher to share my love of learning—and allowed me to develop a curriculum unit that would be successful with my students, based on *my* knowledge of the classroom. I felt valued as a professional and validated for my commitment to public education. I met colleagues who shared my passion and reaffirmed the pride I felt when I chose to become a teacher. Experiencing the Institute model made me want to be more courageous as both a teacher and a leader.

Clary W. Carleton is an English teacher at Open High School in Richmond, Virginia.



THE VIRGINIA STATE CAPITOL, 1802

Now, I no longer want to leave my school district; instead, I want to bring this experience to other Richmond teachers.

The official vision for Richmond Public Schools (RPS) is to become "a premier learning community that is the first choice for ALL in Richmond and recognized nationally for student excellence." Richmond needs a Teachers Institute if this vision is to become a reality.

RPS serves over 25,000 students, and like many urban school systems, has faced numerous challenges over the years. Still, steady progress has been made, especially on the Virginia Standards of Learning assessments. Nearly eighty percent of our schools have earned full accreditation. Still, to advance our vision, it is evident that a larger culture change is necessary. Our current motto, "moving from good to great," is little more than a motto unless substantial content can be delivered by teachers to improve student performance. A Teachers Institute would advance the vision and help fulfill the motto.

The RPS vision involves a number of components, one of which is professional development designed to deepen the content knowledge of teachers. With support from university faculty, Institute teachers write research-based curriculum units derived from seminars on various topics that are selected in conjunction with teachers themselves. My participation in national seminars on poetry and world cinema has led to content-rich curriculum units. which are engaging, rigorous, and aligned with state standards. Wisely, the new RPS vision demands that we aspire to meet more than the minimum state standards. It recognizes that we must also meet the challenges of national and even international academic standards, elevating the curriculum to provide a truly world-class education for all students. Seminars can help teachers meet this challenge, through intellectual discourse, shared responsibility, and supportive social practices that motivate teachers to improve their instruction.

This vision can be attained, but teachers must believe in what our Superintendent, Deborah Jewell-Sherman, has called "our noble journey." As part of this journey, I would argue that Richmond teachers must view themselves as agents of educational reform in the city. A Teachers Institute would provide them this opportunity. By writing comprehensive curriculum units, Institute Fellows begin to take on more professional responsibility and become curriculum leaders in their building and in their *(continued on next page)*

(continued from previous page)

discipline. Thus the Institute creates teacher-leaders who can then encourage other teachers to engage in serious study of a subject. Institute Fellows are also asked to take on leadership roles in the planning, organization, and evaluation of the Institute itself. This kind of teacher ownership will certainly lead to better retention, recruitment, and morale, issues that Richmond like all school systems—must aggressively address.

Because an Institute is a true community partnership involving the school system and one or more local universities, a Richmond Teachers Institute will also help strengthen collaborations to the satisfaction of city stakeholders. While there are other collaborations currently in place, an Institute would involve Richmond teachers from ALL academic disciplines and ALL levels, fostering authentic collegiality among educational professionals within the city. It is a partnership that can help link Richmond teachers with each other as well as with the vast resources offered by local universities. Faculty in the humanities and sciences offer us a rare opportunity for immersion in our discipline, while teachers bring to the seminar a wealth of practical information unavailable to professors. The result is a rich learning community, where mutual respect and support is the norm.

The time is right. Richmond's new City of the Future plan involves a restructuring of the city schools, which should be accompanied by innovative initiatives that will directly lead to the number one priority: improved student achievement. Because teacher quality so profoundly affects student performance, establishing a Richmond Teachers Institute will provide a long-term investment in student achievement that we cannot afford to overlook.

The burn-out factor which I experienced looms large for many teachers. A Teachers Institute can combat this, and at the same time lead to a true renaissance in our approach to professional development. Richmond—and any other city that values education—should consider this model. Our students deserve it.

Smith: Some Lessons from Philadelphia

(continued from page 19)

culminating a successful pilot year.

What lessons for starting an Institute emerge from all this? First, start with whatever group you belong to, as a faculty member, teacher, school or university administrator. Form a Planning Committee of that group—looking especially for people who know people in the other key constituencies. Finding someone like Alan Lee, respected in both the school district and university and willing to give time to Institute-building, is invaluable.

Second, the Yale National Initiative provides excellent guides on the tasks to be accomplished. Jim Vivian is a fount of great advice and adds credibility to any meeting with university and school officials. The Directors at the other sites, along with their teachers and faculty members, are resources as well. Visiting Dr. Helen Faison, Director of Pittsburgh's Institute, greatly helped Alan Lee.

Third, work systematically to get support from each of the key constituencies not already on board, building on relationships with existing participants as far as possible—but don't be afraid to "cold-call." The prospect of participating in the summer National Intensive Seminars at Yale can be a great way to get teachers and school district officials engaged in Institute-building.

Fourth, identify potential funders, usually private foundations, early on and begin discussions as soon as possible, since many have long lead times. Again, Jim Vivian and the Directors of the other Institutes can provide advice.

Fifth, keep plugging away! Initial responses from busy people who do not know this program (so they often mistake it for something else already being done) may be discouraging. But our experience confirms what was already shown in the National Demonstration Project: when teachers, faculty members, university and school officials really grasp what a Teachers Institute is, they find it the best way teachers can continue their professional development, and one of the most satisfying contributions that a university and its faculty members can make to their community.

Whitaker: Connections

(continued from page 13)

School District. It's important to emphasize here how important it is for the Yale National Initiative to work with a school district that wants to integrate vocational, technical, and academic studies—and that can also emphasize the sciences.

Our fourth section-"Learning from the Team Enterprise"-makes clear how the connections between seminars and classrooms, schools and universities, and also between cities through the League of Teachers Institutes, provide significant benefits for those who work with the National Initiative. We hear briefly from Dr. Helen Faison, who has worked as teacher and administrator in the Pittsburgh Public Schools, has chaired the Department of Education at Chatham College, and is now Director of the Pittsburgh Teachers Institute. We also hear from three seminar leaders, Karen Goldman in Pittsburgh, Michael Field in Houston, and Sabatino Sofia in New Haven. Then Cynthia Freeland tells us how leading philosophy seminars for the Houston Teachers Institute has led to an expansion of her work and publication in film studies. Janet Stocks tells us how leading sociology seminars for the Pittsburgh Teachers Institute led to explorations in the field of forensics and participation in the Institute's self-evaluation. (We accompany her piece with John Kane's painting of the life of Pittsburgh as viewed from the artist's studio.) Finally, Mary Miller in New Haven describes what she has found "so liberating" about participating in both local and national seminars. Institute seminars have let her "cut across all disciplinary boundaries," offered an opportunity to take Institute experiments into the college classroom, and given her the experience of "being pushed out of my own comfort zone by the sorts of projects that spin out from the center in a national seminar." These seminar leaders know that Teachers Institutes serve university faculty members as well as school teachers.

In summation, our back cover offers a bold and realistic image by Winslow Homer that, read as a metaphor, beautifully expresses our guiding theme of "Making Connections."

"Making Meaning" for Teachers

By Kimberlee Penn Erazo

Editor's Note: As a teacher from Santa Fe, New Mexico, the author participated in the Intensive Sessions of the Yale National Initiative in July of 2005 and 2006. She was then the teacher Representative for her city.

f given the choice, most teachers in our district would rather work in their classrooms than attend a professional development session. To some, the term professional development is defined as another pointless meeting. To others, it is synonymous with doctor's appointments and mental health days. Perhaps a deep sense of work ethic propels many of the teachers toward these sessions, but I have watched my peers enter auditoriums and meeting rooms in pre-frustration mode; they are ready to give up hope that whatever happens within these walls will have any meaning. After all, they've been here before, countless times. Other teachers enter in escape mode.

Why should anyone have to *convince* teachers to attend professional development? Resistance seems to arise when teachers feel that they are wasting their time, or that they are powerless to make any significant changes within their field. Students aren't the only ones who require relevance. They aren't the only ones who need to feel empowered.

Our district is beginning to identify professional development for what it is: a meaningful experience where teachers collaborate, share expert knowledge, discover new pedagogical approaches, increase knowledge of subject matter, and, perhaps most importantly, apply the experience to the classroom in a way that benefits the students. A group of elementary teachers have created a year-long "Curriculum in a Box"—a gift geared for new teachers but available to all educators in the district. AVID (Advancement Via Individual Determination) is so tirelessly driven by our teachers; our administrators cannot

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help but support it and acknowledge its success. The need for real professional development is strong enough to give rise to a Professional Development Academy for the very first time.

Our focus this year is on teaching and learning-perhaps a worthwhile focus for any year-as the rapid departure of teachers and middle school students from the district can no longer be ignored. It is difficult to hold on to first-year teachers, and half of the resignations occur by the fifth year. In an effort to improve rather than replace teachers, a 3-Tier Licensure System has been set in place. Each level corresponds to an increase in salary. A level-one provisional teacher must advance to level two by the end of the fifth year in order to stay in the profession. A level-two professional teacher may either remain at this level or advance to level three and become an instructional DAN NAMINGHA, DAWN OVER MOUNTAIN, 2006

leader. Throughout this process, teachers must create a dossier, complete professional development plans, and have excellent annual evaluations. Clearly, a support system must be in place in order to retain teachers beyond the first level of licensure.

If teachers are not supported, how can they, in turn, effectively support students throughout the learning process? We are losing our middle school students to private schools. Students are failing English, math, and science in large numbers. Our graduation-event rate is only 81.27%, prompting our district to consider restructuring our high schools. In the face of failing scores and first-hand experience of disengaged students, we actively search for an answer to the question: How can we improve instruction in order to engage all students?

In 2005, two Santa Fe teachers tackled this (continued on next page)

The Case for a Vo-Tech Teachers Institute

(continued from previous page)

question by participating in the Yale National Initiative seminars. In 2006, four additional teachers came aboard to answer the same question. The word is gradually spreading to twenty-seven schools, and teachers are stepping forward to help bring the Initiative to Santa Fe. If we are to improve instruction through professional development, two conditions must be met: first, the teachers should feel empowered as professionals; and second, the experience should be directly applicable to the classroom.

The Yale National Initiative fulfills both of these requirements. Teachers from our district have reported feeling respected for the first time, seminar Fellows are energetic and enthused about teaching, and it is common knowledge that we are the experts of pedagogy. The national seminars allow each teacher to become an expert about a particular subject as well, through intense research and small-group discussions with the Yale professors. After producing a twenty-five page curriculum unit, the Santa Fe Fellows agree that no other curriculum unit has received such a high level of thought and dedication as the ones we completed at Yale. We were ready to teach when we returned to Santa Fe. We arrived with new knowledge about our subject, a carefully planned instructional approach that emerged from collaboration with our colleagues, and, not least, a renewed enthusiasm for teaching.

Our fellow teachers realize that we've found relevant professional developmentone that has nothing to do with pre-frustration grumbles or methods of escape-and they are curious, especially because the Institute applies to our 3-Tier system. Our superintendent has seen evidence that we are indeed empowered, and she offers her full support as we take the next steps toward building a partnership with our local colleges and planning a Santa Fe Institute. Most importantly, however, our students benefit from our dedication to teaching and learning—a dedication that will not fade as long as our professional development is true, authentic, and meaningful.

By Cary Brandenberger and Raymond F. Theilacker, who were, respectively, the teacher Representatives for their city in 2005 and 2006.

Cary Brandenberger:

P rofessional development programs do not, in general, adequately provide for the individual needs of teachers and students. Delaware, like other states, is grappling with this problem as we move toward compliance with the numerous NCLB regulations. The Teachers Institute model would allow us to comply with federal regulations while emphasizing the needs of teachers and students.

Delaware has six separate school districts that serve our largest city, Wilmington.

Our district, New Castle County Vocational Technical School District, NCCVT, serves approximately 3500 students from throughout New Castle County. The Teachers Institute model would provide a unique experience for our academic teachers as well as our vocational teachers. During the last summer Intensive Session one of our vocational teachers, Justin Benz, participated in the Global Warming seminar. It was an amazing experience for Justin, who runs the Environmental Landscape Technology career area at Hodgson Vo-Tech. He was able to make a link between the "academic" world and the "vocational" world. For him and for the academic teachers that attended the intensive session, this experience drove home the idea of collaboration and collegiality. It was obvious when they returned that they were inspired to teach their students the new lessons that they had created.

Our district is extremely committed to this effort, and we are trying to forge a partnership with the University of Delaware. We hope that a partnership can also be built

Cary Brandenberger is ELA and Spanish Instructional Specialist in the New Castle County Vo-Tech School District in Delaware. Raymond F. Theilacker is an English teacher at Howard High School of Technology in Wilmington, Delaware. with the other districts that serve students from low socioeconomic backgrounds. Our district Superintendent, Dr. Steven Godowsky, and Assistant Superintendent, Deborah Zych, attended the October Conference with the returning fellows. We hope that in collaboration with the University of Delaware a Teachers Institute can become part of Delaware's uniqueness.

Raymond Theilacker:

tudents who choose to come to school for vocational training in Delaware's technical high schools may have the notion that preparing themselves for a life of work is the ultimate and only worthy goal of their education. While training for the workforce is certainly a curricular priority in vocational education, the state mandate is that the academic rigor demanded of them be comparable to programs in any comprehensive high school. This places a practical demand, wrapped in a dilemma, in the hands of faculty; but it also creates an interesting and unique challenge: How do academic and vocational teachers train students for the workplace, while at the same time infuse them with the cultural history, literature, and scientific thought endemic to the liberal arts?

The Yale National Initiative helps answer the question. What if a culinary arts teacher, for example, studied the biology or chemistry of food, and as a result wrote a unit that helped her students make practical connections to these academic sciences? What if the Academy of Finance teacher attended a seminar in business ethics, and wrote a unit which immersed his students-aspiring accountants and real estate agents-in the morality of investment? These potential connections constitute an exciting and unique marriage of the practical to the intellectual, and the vo-tech houses the right audience-students who yearn for practical training, but who are expected to meet high academic standards. The Institute design affords interested vocational and academic staff opportunities to think toward such unique goals.

Interviews with a Director and Seminar Leaders

Editor's note: We include here selections from interviews in the summer of 2005 with Helen S. Faison, Director of the Pittsburgh Teachers Institute; Karen S. Goldman, Associate Professor of Spanish at Chatham College in Pittsburgh; Michael Field, Professor of Mathematics at the University of Houston; and Sabatino Sofia, Professor of Astronomy at Yale University.

OCG: What do you think, Helen, are the main advantages of the Pittsburgh Teachers Institute for the teachers in Pittsburgh?

FAISON: When I'm asked that question, I usually reflect upon the evaluations that the teachers have submitted at the conclusion of each of the seminar sessions. Generally, they will indicate that it is the best professional development series that they have ever had. Most of the professional development that has been offered to them by the school district relates specifically to the adoption of a curriculum or the adoption of a new textbook. In the Institute, the teachers have the option really to pursue studies that deepen their knowledge of the content they teach.

OCG: And how do your teachers help select what seminars will be offered?

FAISON: We ask teachers, toward the end of each year's seminars, to suggest topics they would like to see us pursue. They not only suggest topics of their own making, but also those that they have gathered from their conversations with their colleagues. For 2006, I think we must have 250 suggested topics. We will go through that list, try to categorize the suggestions by topic, and then see if there are some that can be combined. And then we'll meet again to decide which we think will be most popular, and we will rely very heavily upon the suggestions of the teachers and some that have been made by some of our leaders.

OCG: Your Institute engaged in a selfevaluation a year or so ago. What results of that were most heartening to you?

FAISON: Just as we learned from the annual evaluations that the teachers found this to be an excellent professional development experience, so we also learned that they like the fact that they are treated as equals in the seminars. They like the fact that there are some topics that they may never have considered pursuing when they were enrolled as full-time or part-time students in college or university. And most of them say that having had the experience they go back to their schools better teachers than they were before. They also feel that they've been better able to stimulate and motivate their students than they were before. And occasionally a teacher says that he or she would have retired except for that experience, but is now able continue teaching for a while longer.

* * *

OCG: Tell us a little, Karen, about the seminars you've been offering for the Pittsburgh Teachers Institute.

GOLDMAN: Of the four seminars that I've given since 2001, three have focused in the area of Latin America, but with different approaches, on different general topics. One I did on folk tales, which was a bit of a stretch to me, but I also have a background in both literary studies and studies of popular culture. That gave me the opportunity to offer the folk tale seminar, which teachers had been wanting for some time, and it also gave me the opportunity to develop my interest and work in the field as well.

OCG: Is there a substantial interest in Latin America or in Latino cultures in the Pittsbugh schools?

GOLDMAN: In fact there has been. Initially there was a request for seminars

that focused on the growing Latino presence in the United States. My feeling was that it was important to understand the background of those people, the cultures from which they came, the language, the history, the colonial legacy of those countries. Pittsburgh has a relatively small Latino population, so there is a relative lack of knowledge about U. S. Latinos there. The teachers felt it was important to begin to understand that better. So I started with Latin America and eventually moved into doing a seminar specifically on U. S. Latino culture.

OCG: What do you think are the main advantages that the teachers find in the seminars?

GOLDMAN: Most importantly, I think, the teachers are so excited about the seminars because they give them the opportunity to develop themselves intellectually. It may be some contact with a body of knowledge that has developed after their initial period of training. Or it may be something that just excites them and creates a spark of imagination, just a marvelous opening for them that they don't find in their daily lives. I've had a Fellow tell me that the seminar in which she was enrolled was a defining experience, that she had become very complacent about the kind of things she was teaching and suddenly the spark of excitement that the seminar brought into her life made her feel like a new excited teacher again. And that, for me, was the moment that made all of this the most important endeavor in education that I've ever been involved in.

OCG: Do the Fellows also speak to you about how their own students respond to their curriculum units?

GOLDMAN: They do. I believe it is very important for me, and for other Fellows, to have the opportunity to go back after a unit has begun to be implemented and see the thing as a living form. I've had the experience of going to the school of a Fellow who was implementing a curriculum unit that had a particular activity I'd wondered about because it was hard for me to imagine how it might play out in the classroom. It was absolutely invigorating and exciting to see the children doing what she had described to us in words, and to see them beginning to understand what she was teaching them about. It happened to be a very hands-on activity, a performance about a Latin American theme. We videotaped it, and that is now available to somebody who has the interest in seeing it "live." So I do think that knowing how the curriculum units are implemented is an important aspect of the work I do with the Fellows.

* * *

OCG: How was it, Mike, that you happened to start leading seminars in mathematics in the Houston Teachers Institute?

FIELD: I think I was asked because I'd been giving a couple of lecture courses in the Art Department at Houston. As a hobby, I do computer graphics work, so maybe ten years ago I was asked to give a course in the Art Department. They wanted to see what a mathematician would do with a bunch of math-alienated students. It concerns me greatly that many people have either a fear or a strong antipathy towards mathematics, because I believe that a lot of mathematics, especially statistics and geometry, are important for us to appreciate in order to appreciate the world around us and actually understand information. That's one of the reasons I was very keen to get involved with the Houston Teachers Institute.

OCG: Do you think that your seminars for the Teachers Institute have conveyed your view of mathematics to the Fellows?

FIELD: I think so. The last seminar I led was called "Hands-on Geometry." It was a diverse group ranging from elementary school to high school. There were one or two mathematics teachers and art teachers, and also two English-as-a-second-language teachers. But all of them, by the end of the seminar, had incorporated ideas from geometry into their classes. I got the Fellows to make big polyhedra. When they took them to school, the students saw them and started saying, "What are those? We want to make one." The upshot was, once the kids got to work on it they were very skilled at making these things. Being highly motivated, they wanted to do it. Providing the right motivation is important, and most university courses don't really have that, at least the way we teach them.

OCG: Can you say something about how leading an Institute seminar differs from teaching a university course?

FIELD: I think that everyone who leads one of these seminars goes through a characteristic learning process. They expect that it'll be a little bit like a graduate seminar. But it's not. Especially in the sciences, completely different strategies are needed. It is a kind of adult education. In a graduate course, one is usually standing in front of a blackboard and giving an exposition about the subject and the students go away and try to understand what you've been talking about. But if you have a group, especially a diverse group, in something like mathematics, it really makes you think about how you're going to present this if you really want to get people talking. And so I've learned quite a lot about adult education through doing this.

* * *

OCG: And how, Sabatino, do you proceed with a seminar on "Astronomy and Space Science" when the Fellows are not all science students? What strategies are required?

SOFIA: One has to be a little bit of a magician in the sense that you have to be accessible to those who have the least

background in science and yet be interesting to those who have the most. So I try to use a variety of approaches at different levels so as to maintain the interest of everybody, but it is a strategy that has to be rethought at all times to make sure that you don't drift too far away. I guess I have learned, through experience, the way of doing it, but I was not able to say in advance that it would work.

OCG: Do you find that useful discussions develop among the Fellows from different backgrounds?

SOFIA: There is a surprising amount of interaction despite their different levels of sophistication. Some are relatively advanced and others may be teachers of French or English or art. And despite this difference, the dialogue is rather intense and, well, everyone participates in it and I believe everyone gets something out of it. They also write a great variety of curriculum units. One extreme is introductory astronomy taught in French. The other extreme is a curriculum unit about such rather advanced concepts of modern cosmology as dark matter, dark energy, and black holes. In between there are units about the habitability of Earth, about greenhouse warming, and even units in other fields of study, such as using astronomy to teach math.

OCG: And why are you so interested in this process of leading a seminar?

SOFIA: I think it is a fabulous way of reaching out to teachers and helping them make their lectures more interesting and more timely—but especially helping them introduce in their teaching, very profoundly, the concept of the scientific method. This can be explained and taught at the very early stages of education; and I believe that by instilling it into the teachers, there is going to be a new generation of youngsters who are much more versed in what is real science.

By Cynthia A. Freeland

have now led three different seminars as part of the Houston Teachers Institute: Addressing Evil (Spring 1999); Film and American Values through the Decades (Spring 2001); and Art and Society (Spring 2005). It should be fairly obvious that I enjoyed doing these seminars from the mere fact that I've gone back for more, although leading a seminar takes up tremendous time and energy. In each case I learned a lot from the process. Here I will try to say more about what professors can get out of the experience of leading a seminar for public school teachers.

First, the seminars force us to look at our own discipline in a new way. Since my field is philosophy, which is rarely taught

at the pre-university level, the challenge was perhaps even greater than in other disciplines. For example, how well would abstruse theories of good and evil such as Hannah Arendt's "banality of evil" translate into something that could be used by a high school history or drama teacher? How can children in a French or Spanish class learn to look at modern and contemporary art in

all its strangeness? Can films teach something new to students in a high school biology class?

Second, the seminars offer opportunities to expand our own knowledge as we explore new areas of study. I have worked in film studies, but mainly in film theory, on topics such as the expression of emotions, or film and gender. In the seminar I organized, it struck me that a good way to get at the broad topic of how films present values was to look at diverse film genres: the gangster film, western, war movie, and so on. The problem was, I did not actually know very much about some of these genres! In preparing to conduct this seminar, I found new resources, such as texts by historians detailing distortions of

Cynthia A. Freeland is Professor of Philosophy at the University of Houston.

famous war movies. I developed a filmstudy notes sheet that included sets of questions about particularly useful scenes that would work well for historical or values analysis. I also uncovered material that was relevant to my own interests, such as accounts of the role of gender in the western. The work I did in the seminar led to new areas of publication. I became a fan of the controversial director Sam Peckinpah after discussing his film *The Wild Bunch*, and I have now addressed it in a published article.

A third and unanticipated benefit of participating in the Teachers Institute was getting to know some of my own colleagues at the university in new ways. Ordinarily, when we meet faculty members from other

Perhaps the most central benefit of the Teachers Institute is in fostering the relationships between us as faculty members and teachers, and through this, between their schools and our university.

> departments it is on committees where the focus is narrow and businesslike. Because the seminar process requires us to get together often to compare notes, I was able to enjoy interactions with fellow seminar leaders from fields where I do not often meet people, such as mathematics and chemistry. We all faced similar issues about translating our own subject matter into terms that would be workable for the teachers. This led to some interesting conversations about pedagogy and methods of leading an effective seminar. I discovered a new and enjoyable form of intellectual exchange.

A fourth and perhaps the most central benefit of the Teachers Institute is in fostering the relationships between us as faculty members and teachers, and through this, between their schools and our university. Most University of Houston students come from schools in the Houston community, so this is a way to get to know more about our next generation of students. Perhaps we can also encourage some students to come here who otherwise might not-either because they plan to go elsewhere or because they do not have plans to attend college. One Fellow who taught her unit on evil in her Shakespeare class the year after taking my seminar brought a group of students to my department to present their projects and ask me questions. I could see how excited they were to be in a university seminar room sharing what they had worked on with me. Surely it is a good thing getting young students onto our campus to see what it is like

> and to realize it's possible for them to go to college, too.

Finally, most professors, including me, developed much more respect for area teachers, the burdens they face, and how hard they work. This is not to imply that we began with a low opinion about teachers, but rather to say that we just did not know much about their jobs. As we listened to the Fellows talk among

each other, we learned a lot more about the incredible stresses they confront on a daily basis. They deal with pressures of statemandated testing, sometimes difficult relations with administrators, inferior facilities, and disciplinary problems. They are expected to lead extracurricular activities. Sometimes they must defuse troubling situations involving gangs and racial violence. Often they work without any support system from parents or the community. My admiration for our school teachers just grew and grew as I got to know more about all of these factors. Anything we can do to help keep them in the classroom and renew their excitement about teaching and their sense of intellectual ownership of their curriculum is clearly worthwhile-and intellectually exciting for us, too, as university faculty members.

Leading Seminars in Pittsburgh



By Janet Stocks

was a seminar leader in the Pittsburgh Teachers Institute (PTI) from the spring of 2000 through the spring of 2006. In all, I led seven different seminars. I have just moved from the Pittsburgh region to the Cleveland area and won't be able to participate any longer. I will miss it.

In the fall of 1999, my boss and mentor, Barbara Lazarus, who was then the institutional liaison for Carnegie Mellon University to the PTI, suggested that I consider leading a seminar. I was attracted because of my previous involvement with the Pittsburgh Public Schools as a graduate student researcher, and because both of my girls were, at the time, students in the schools. My field is sociology, and I have a long-standing interest in education. I am deeply committed to public education and I saw involvement with the PTI as a way to put this commitment into action.

There were two things that kept me involved, year after year. The first was the teachers. I learned a tremendous amount from them both in terms of the content of the seminars and about approaches to educating different types of students. These teachers are dedicated, hard-working, cre-

Janet Stocks is now the Director of the Center for Academic and Professional Success at Baldwin-Wallace College. JOHN KANE, FROM MY STUDIO WINDOW, 1967 ative, caring, smart people. They really appreciate the opportunity to wrestle with ideas along with other teachers, to be members of the university community, and to reflect on their practice.

The other thing that kept me coming back was the pure joy of working with Dr. Helen Faison, Director of the PTI. For very good reason she is greatly admired in Pittsburgh as a dedicated educator. She is also one of the most gracious people I have ever met and I felt honored to be her colleague.

After the first couple years of offering seminars that were squarely within my area of expertise in sociology, I started to stretch myself a bit and offered seminars about topics that would give me the opportunity to learn right along with the teachers. One strategy I used to accomplish this was to invite guest speakers or arrange for field trips when the topic was really beyond me. For example, I led a seminar titled "Law and Order" in the spring of 2005. A fair portion of the subject matter fell within my comfort zone. I started the semester with a discussion that was both philosophical and sociological about how deviance is defined in a society, who has the authority to make and enforce the law, what positive contributions "deviance" might make, and what the definition and control of deviance means for the development of a society. Unlike the undergraduates with whom I tried this approach, the teachers really appreciated the discussion and referred back to it many times during the course of the seminar. On the other hand, when a couple of the teachers in the seminar expressed an interest in forensics, I really didn't feel comfortable covering it myself, though I felt it was a legitimate area of inquiry. So I arranged a two-class segment on forensics, the first in a Chemical Engineering lab at Carnegie Mellon with some faculty who had developed forensics kits specifically for use in K-12 educational settings. The second was a field trip to the county coroner's office. In both cases I learned a tremendous amount, and the teachers were completely captivated.

The experience of being a seminar leader was so engaging, and my excitement about this model of in-service professional development so strong, that I was happy to have the opportunity to get involved in a deeper way with PTI. In the fall of 2002 I participated in the PTI self-evaluation, part of the larger national assessment, by doing a small study about the impact on students when teachers participate in the Teacher Institute model of professional development. This is a hard thing to tease out, of course, since there are so many different things that influence how teachers teach and what students learn and doing a really controlled study is, perhaps, next to impossible. But this was a wonderful way for me to work with some teachers who had not been part of my seminars to date. It became clear through this work that teachers were being energized by their involvement with PTI, and that their students were benefiting from this energy and the creativity that came from it.

I also took over as the institutional liaison for Carnegie Mellon when my dear friend and mentor, Barbara Lazarus, died of cancer in the summer of 2003. In this role I got a glimpse of the larger issues—fiscal and management—behind running an enterprise such as this. Along the way I also became part of the National University Advisory Council, representing the *(continued on page 31)*

Leading Seminars in New Haven

By Mary E. Miller

n art historian and archaeologist by trade, I rarely teach written texts per se. My primary texts have always been the works of art, and I've often assumed I need pictures on the screen or works in front of us when I lead a seminar. But one of things I've found so liberating about participating in the Teachers Institute is the way that an Institute seminar lets me cut across disciplinary boundaries, especially in working with the period of the Spanish invasion of Mexico. In 2005, I began our national seminar, "Art and Identity in Mexico, from Olmec Times to the Present," with We People Here, a recent translation by James Lockhart of many indigenous texts from the era of the Spanish invasion of Mexico that began in 1519. We People Here opens a window onto both the deeper past and what would become the future-the colonial and modern periods. It's also a rare collection of works by a defeated people, if we succumb to the commonplace notion that "history is the story of the victors." Most of the texts in the book were written down in the second half of the 16th century, and they are little more than brilliant shards of what must have been a vast written and oral narrative of indigenous peoples all across Mexico, as they wroteoften in the new alphabet of the invadersprose and poetry that both explicated the transformation and predicted it, while also conjuring a picture of a new world occupied jointly by Spaniard and native.

We juxtaposed these texts with narratives from the Spanish invaders, most notably that of Bernal Diaz del Castillo, who wrote a fast-paced narrative late in his life that told of conquest, betrayal, heroism, and simply old-soldier wisdom. We read Bernal Diaz's observations and speculations about the battle-hardiness of soldiers who had been through months of grinding battles, as he speculated on the problem of new recruits (a few ships arrived from Jamaica and Cuba with men, horses, and arms in the 2-year course of the invasion), and the likelihood that they would fall in

Mary E. Miller is the Vincent J. Scully Professor of History of Art at Yale University. battle; we read this just as the New York Times wrote about soldiers in Iraq, and the heightened vulnerability to the enemy's fire for new arrivals. How could one compare such different wars across such a cavern of time? Was it possible that Bernal Diaz wrote words of wisdom applicable today?

The opportunity to teach texts as texts has been invaluable for me, and I intend to apply what I've learned in the Teachers Institute to the next freshman seminar I teach for Yale College, when I'll tackle the Aztecs in a format that bears some relationship to that of an Institute seminar. The freshman seminar program at Yale, like the Institute, also frees faculty from conventional disciplinary bounds, so that I can, indeed, plan to read texts for the first two weeks, without worrying about whether the seminar conforms to traditional notions of art history. Every time I've led an Institute seminar, I find that I look forward to taking what I've tried out in the Institute into college classroom-and I'm sure I'm not the first Yale faculty member to say that I've worked this way.

But it's not just the type of material—say, texts versus art: it's the very sort of art itself. During the academic term, my classes for Yale students stay focused on the prehispanic past of the New World, with occasional forays into the first one hundred years of Spanish rule. But in my Institute seminar on Mexico, I worked with materials I'm less sure of-for example, 18th century portrayals of what were called *castas* paintings, in which gradations of race and class were anxiously deployed in sets of 16 or more paintings. We went to the Knights of Columbus Museum here in New Haven to think about the role of the Virgin of Guadalupe not just in Mexican religious practice but also in 18th century nationalism. To think about the role of muralism in the United States-and we know that the WPA mural projects received an intellectual charge from the pre-existing programs in Mexico-we planned visits to mural projects at New Haven sites, typical of the 1930s murals that can be found nationwide. I've relished being pushed out of my own comfort zone by the sorts of projects that spin out from the center in a national seminar.

As a master of one of Yale's residential colleges, I have the genuine pleasure of getting to know undergraduate students outside the classroom in ways that few of my colleagues may experience. I find it particularly gratifying to learn what undergraduates in fields far from my own are doing while we sit in the dining hall together, day in, day out, over the term, and to spend time with students who might not take a course in the humanities beyond those required for graduation. I think one of the aspects that appeals to me about the National Initiative is the way that Fellows spend time together in ways that are like those of college students, and I've enjoyed my time at meals, in the museums, and just chatting. I've come to feel particularly close to the National Fellows, and I know more about their classrooms and their own goals for life than I could in a regular, termtime city-based seminar. In this respect, I've found work in the National Initiative especially rewarding.

Stocks: Leading Seminars in Pittsburgh

(continued from page 30)

Pittsburgh faculty to the Yale National Initiative. The most fun I had in this role was when I attended a portion of the Yale Intensive during the summer of 2005 and got to sit in on seminars led by some of the Yale faculty. It was great both to see "how it's done" by veteran Yale faculty and be exposed to some of the diverse topics they were covering in their seminars.

I don't think it has quite hit me yet that I'm not going to lead another seminar in the spring. I've just recently moved and started a new job, at a small college that has a very different student population from Carnegie Mellon. This is where it comes in handy that I learned so much from the PTI teachers about how to work with different types of students. I'll miss "my teachers" and the chance to participate in public education in this way. I guess I'll just have to find another opportunity.

On Common Ground

Strengthening Teaching through School-University Partnership

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The Yale-New Haven Teachers Institute is an educational partnership between Yale University and the New Haven Public Schools designed to strengthen teaching and learning in local schools and, by example and direct assistance, in schools across the country. In 2004, the Institute announced the Yale National Initiative to strengthen teaching in public schools, a long-term endeavor to establish Teachers Institutes in states throughout the nation. Yale-New Haven Teachers Institute P.O. Box 203563 New Haven, Connecticut 06520-3563

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By Jules D. Prown

n Winslow Homer's *Breezing Up* a sailboat plows through choppy water into pictorial space, its diagonal movement countered by the silhouette of a larger vessel on the horizon. A man and three boys are linked together in the shared

Jules D. Prown is the Paul Mellon Professor Emeritus of the History of Art at Yale University. activity of harnessing the elements and controlling the forces of nature for their mutual pleasure. Everything depends, as in the Yale National Initiative, upon connections. The man in the red shirt holds fast to the sail with a line, controlling the powerful thrust of the wind and channeling it into the forward motion of the boat. The boy in the stern holds the rudder firm against the

WINSLOW HOMER, BREEZING UP (A FAIR WIND), 1873-1876

rush of the water to steer the boat, while the other boys lean the weight of their bodies against the heeling of the vessel. They all go as far as they dare in pressing sail and rudder against wind and water without capsizing the boat. Their aim is to control the elements to achieve maximum speed and exhilaration, and it can only be achieved collaboratively.