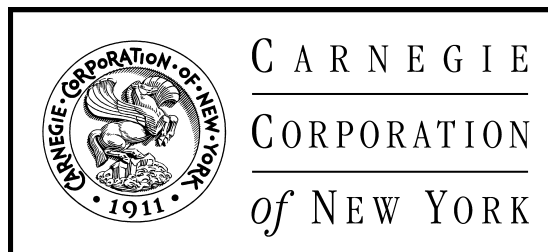


# 2002 Carnegie Challenge

## *The Urban High School's Challenge: Ensuring Literacy for Every Child*

by Anne Grosso de León



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*...[The students] describe, in painful detail, how they have faked “reading” during their silent-reading periods.... They show the interviewer how long to wait before turning a page to fool the teacher into thinking you are reading. Anyone who has listened to young people brag about such exploits cannot help but be impressed by their strategic intelligence, and worried about the colossal waste of energy expended.<sup>1</sup>*

**O**n the face of it, the notion of a literacy crisis in America’s urban high schools is profoundly counterintuitive. After all, by the time most American children are enrolled as high school freshmen they have enjoyed the benefits of eight years of elementary and middle school education and, presumably, have the skills necessary to decode the written word. And in most cases they do. Unfortunately, a belief prevails—indeed, it is virtually an article of faith—that early literacy instruction will somehow “pay automatic dividends in accelerated literacy learning,” and that it will help “children to make the leap from learning to read to reading to learn, and, ultimately, to reading to solve complex and specific problems with ease.”<sup>2</sup>

Substantial evidence suggests that this “leap” is not taking place for many young people in our nation’s schools and that we as a nation are not meeting this most vital of challenges: teaching our children to *read to learn*. Consider that in America today, nearly one-half of 17-year-olds cannot read or compute at the 9th grade level.<sup>3</sup> Only 68 percent of students entering high school earn a standard high school diploma. Another 16 percent eventually receive an alternative diploma, such as a GED.<sup>4</sup> In 1995, 29 percent of all college freshmen and more than 40 percent of those in colleges with high minority enrollment were required to take

remedial courses in reading, writing or math.<sup>5</sup> The problem is most acute in America’s cities. Some examples:

- In the 35 largest central cities in the country, between forty and fifty percent of schools have weak “promotion power,” or the capacity to hold and promote students from 9th through 12th grade. In these cities almost half of the high schools graduate only 50% of their students four years later.
- More than half of entering students in these high schools read at the 6th grade level or below.
- More than a third will fail several of their ninth grade courses.

At precisely the moment that the bar for academic achievement is being raised in increasing numbers of high-stakes state examinations, unacceptably large numbers of ninth graders have demonstrated that they lack the reading and writing skills necessary to meet these high standards. The international standing of American students as readers illustrates the problem. A recent 32-nation study assessing the educational achievement of 15-year-olds conducted by the Paris-based Organization for Economic Cooperation and Development showed

that while many American students are at the pinnacle of reading achievement, in the nation's inner cities, reading levels are below the average. According to this study, the gap between America's best and worst readers is wider than for any other country participating in the study (a group that included Mexico, Russia, Latvia and Brazil).

What has happened here? As demands for more complex literacy skills have increased, and competition in the economic and technological arenas at home and abroad has grown more intense, why are so many of America's schoolchildren entering high school with literacy skills unequal to the challenge? Why, when we need students to be able to read increasingly difficult texts (with comprehension and for information), are we faced with the poignant image of students developing clever strategies for "faking" reading? Let us dispose of the obvious: American students in the twenty-first century are no less able than the generations of students who have come before them; arguably, many, with their multimedia virtuosity, have enriched and expanded our definitions of literacy.

"Nothing is wrong with the kid," observes Anthony J. Alvarado, chancellor of instruction for San Diego Schools, pointedly. On the contrary, he adds, "Everything is wrong with our instructional delivery system."

Nor should energy be expended pining for a mythical golden age of literacy in America. It is instructive to note that in seventeenth century colonial

New England, where conventional wisdom suggests that a high level of literacy prevailed, a mere 60 percent of the men and 30 percent of the women could sign their names.<sup>6</sup> The Bible was the primary, and in many cases, the only text available for reading, and as a result, those who could read tended to read it over and over again. Such an age is more *papier-mâché* than golden when compared to the twenty-first century and its riot of diverse texts and the complex literacy skills demanded of American readers

Historically, American interest in educational issues has characteristically waxed and waned over time. As literacy historian Carl F. Kaestle has observed, "Americans only periodically focus on the importance of literacy to the nation's fate. Reading is a mundane activity, and in the twentieth century, with nearly universal elementary schooling and very high nominal literacy rates, we have sometimes taken literacy for granted. At other times, however, our needs for literacy have become pressing and have outdistanced the abilities of American readers. At these times, literacy has become an important policy issue and a frequent topic of social commentary. We are living in such a time."<sup>7</sup>

### **Wanted: An Educated Citizenry**

A society in which the information base doubles every five years demands an educated citizenry. Vartan Gregorian, president of Carnegie Corporation of New York, put it this way, "During the past century, the nation could absorb a 50 percent dropout rate from our high schools. In the twen-

ty-first century, a century of global competition—a knowledge-dominated, rather than a sweat-dominated era—our nation cannot afford to lose half of our high school graduates. Our nation, more than ever, needs an educated citizenry, a cultured citizenry with multiple competencies and expertise to meet our nation’s needs and aspirations.”<sup>8</sup>

The benefits of an educated citizenry—to this nation and to the rest of the world—are not optional. It is a truism that higher education, once a mark of social standing and privilege, has become essential for full participation in the workplace. Full participation in a productive workforce ensures a sound tax base and deep participation in the activities that strengthen a democratic society: voting, community service, volunteerism, economic partnerships and collaborations and creative civic and social enterprises.

In the absence of a dynamic, productive society that is democratic and civic-minded, the social structure begins to fall apart. In such a society, as Gara LaMarche, director of U.S. Programs for Open Society Institute has observed, urban high schools with 50 percent dropout rates often serve as “conveyor belts for the criminal justice system.”

Finally, as the preeminent leader of the free world, America must advance and safeguard its leadership in technology, science and the arts. Such leadership relies upon universal literacy of the highest order; it requires that none of its citizens—America’s most valuable resource—be treated as expend-

able. If literacy is, in the words of noted educator Paulo Freire, “the practice of freedom,” then clearly not all Americans are fully enfranchised.

### **Poised for Action in A Climate of Change**

Historically, literacy in America has been “rooted in the social structure and is thus stubbornly unequal,” observed Kaestle. Indeed, “Literacy is associated with power, with advancement, and with status. . . .For most of our history, advantaged Americans have kept women, nonwhite people and poor people from full access to education.”<sup>9</sup>

Over time, the more blatant forms of discrimination have diminished, in part because of resistance by the affected groups and also “because our political principles challenge our prejudices,” explained Kaestle. “But advantaged people have the appetite and the resources to acquire more and more education themselves, and our literacy needs and expectations are continually rising, so the gaps between groups continue at higher levels.”<sup>10</sup> In short, it is not so much that there has been a “decline” in literacy in America but that since the post-World War II era the general population has aspired to unprecedented higher levels of literacy. At the same time, progress in achieving these levels has essentially stagnated. Indeed, National Assessment of Educational Progress scores between 1970 and 1988—precisely the period when literacy demands and expectations increased exponentially—did not decline but remained essentially the same.

There are encouraging signs that Congress and the federal government have recognized the critical importance of reducing gaps in literacy between advantaged and disadvantaged groups. Notably, and with great fanfare, it has declared reading a national priority, and Congress has begun to take a closer look at reading research. With accountability the overriding theme, a new \$26 billion education bill signed by President George W. Bush mandates the annual, standardized testing of children by states in reading and mathematics in grades three through eight. If schools with poor performances fail to show improvement after two years, management changes will be mandated and parents will be provided with federal funds for tutoring.

Schools will now be required to separate out the performances of minority groups. The intent of the practice of “disaggregation” is to prevent schools from hiding lagging test scores in larger averages. The Bush administration has disseminated 328,000 booklets containing the findings of a Congressional National Reading Panel which points to phonics as a preferred strategy for teaching reading to young readers. It will require schools to adopt “scientifically based” ways to teach reading.

Thus American education finds itself in a state of creative ferment. High on the national agenda, education has become the subject of earnest, ongoing public discussion and debate. The federal role in public education has expanded—with early literacy getting most of the attention. In making read-

ing the focus of national educational policy, the government has lent reading first-principle status. Indeed, there is a growing recognition, as Daniel Fallon, chair of the education division of Carnegie Corporation, has put it rather elegantly, that “Reading is fundamental to achievement in school.”<sup>11</sup>

Why has the task of teaching something as “fundamental” as reading proven so difficult? Part of the reason appears to be that, in many schools, the teaching of reading essentially comes to an end once students have mastered “decoding” skills. This has disastrous consequences for the developing child. “We are learning. . .that the nature of reading changes dramatically with development,” says Fallon. “A child who reads well in the second grade will not know how to read well in the fifth grade unless supplemental instruction in how to read more complex material is provided.”<sup>12</sup> Clearly, the teaching of reading must be ongoing through a child’s schooling, beginning in elementary school and continuing through middle school and high school.

As adolescents struggle mightily with basic issues of identity and self-differentiation, the need to build the skills necessary to create the person they want to be becomes paramount. Reading critically is one of those vital skills. High school freshmen are faced with the challenge of reading a broad array of increasingly difficult texts. Students today must read very different types of materials including fiction, scientific and technical tests, charts and

graphs and historical documents. This higher standard of reading requires many skills including comprehension, reflection, the ability to distinguish facts from argument and the ability to weigh evidence and make conclusions. Indeed, as one editorial has noted, “Adolescents need to be taught how to second-guess, analyze and weigh, critique and rewrite [these] texts, not just of literary culture, but of popular culture, online culture, corporate life and citizenship. In a culture where texts are there to position, define, sell, and, indeed, manipulate and shape a population at every turn, to give students anything less than a fully critical literacy would be to abrogate our responsibility as educators.”<sup>13</sup>

### **New Initiatives Point the Way**

*“It’s boot camp. We work all the time. We read, read, read. All of us. Yeah, it’s good. I like that we get to choose and tell each other good books to read.”<sup>14</sup>*

In the face of this challenge, school districts around the country have begun to address the need for effecting systemic change in the teaching of reading to high school students. Carnegie Corporation of New York, broadly addressing the challenge of adolescent literacy, is simultaneously examining the issues faced by children in grades four through eight, as well as issues unique to high school students. As part of this focus, the Corporation, in partnership with the Bill & Melinda Gates Foundation, is supporting a far-reaching high school reform initiative, “Schools for a New Society,”

(SNS) in which urban districts are directly tackling the issue of accelerating the achievement of high levels of literacy by all their students, and is encouraging the development of ground-breaking new approaches to adolescent literacy by research and professional development centers, public education funds and districts themselves.

Under SNS, which was announced in October 2001, a total of \$60 million, to be matched locally, has been committed to reform efforts in seven cities—Boston, Chattanooga, Houston, Providence, Sacramento, San Diego, and Worcester—over a five-year period. Included among these new approaches and district-wide literacy reform strategies are the following:

**The “Genre Approach” in San Diego.** In literacy classes in San Diego, California high schools, ninth and tenth grade students are given ample amounts of the following: time to learn, personalized attention and support by their teachers, and diverse reading materials. Six-week units of study are organized around genre—short stories, memoirs, or poetry, for example—and students learn to examine the text features unique to each genre, taking note of how the author crafted the piece. A student-centered model, the genre approach aims to get students to “make meaning explicit” as they read, explains Staci Monreal, director of literacy for San Diego Public Schools. They are taught to synthesize and make connections in their reading.

The starting point, of course, is a clear assess-

ment of student reading skills. Students with good skills are given one period of genre studies; students below grade level, two periods; students significantly below, three periods. Class size is reduced to twenty students. Since most students enter reading below grade level, they are often enrolled in two or three periods with the same teacher. The result is a positive one for both student and teacher who have more time to explore a diversity of texts in depth and to get to know each other better. Genre literacy classes receive generous allowances for the purchase of books, and so classrooms are well-stocked with diverse reading materials.

Teachers are selected by their principals to participate in genre literacy summer workshops. Overall, teachers receive 120 hours a year of professional development—and principals continue to play a leadership role. A full-time “staff developer” is assigned to each school to provide coaching for teachers, and one day a week teachers meet district-wide, explains Chancellor of Instruction Alvarado, to discuss “what works and what doesn’t work.” In such a dynamic process, observes Monreal, “Teachers become students themselves.” Ultimately, she says, “Teachers feel much more supported.”

Key to the success of the initiative, according to Alvarado, is that “The teacher gets an extraordinary amount of training and kids get a huge exposure to books.”

Beyond the improvement of reading skills, of course, the thrust of the genre literacy initiative is

to improve instruction. By the eleventh and twelfth grades, the goal is to have instruction begin to mirror more closely what is required in college. The Stanford Diagnostic Test is used to assess progress, and early data suggest positive results. Says Alvarado, “I think we’re onto something.”

**In Providence, A Disciplinary Approach to Literacy.** While also making use of expanded opportunities for professional development and coaching, in Providence, Rhode Island high schools the focus is on incorporating literacy instruction into each academic discipline. The approach is based on a framework developed by the University of Pittsburgh Institute for Learning, which identifies as its overriding goal the following: “To invite effort by treating all students as smart and able to get smarter and by apprenticing all students as capable readers and writers.”<sup>15</sup> A more specific goal reflects similarly high expectations, namely: “To help students develop deep content knowledge as they learn to read, write, think, talk and solve problems as historians, scientist, mathematicians, poets, geographers, etc.”<sup>16</sup>

At the heart of the instructional framework for disciplinary literacy employed in Providence high schools is the concept and practice of apprenticeship. At a time when adolescents are addressing identity questions, the timing could not be better for encouraging struggling ninth grade readers and writers to see themselves as persons able to do “rigorous, authentic work in a discipline.”<sup>17</sup> Indeed, explains Diana Lam, superintendent for Providence Public Schools,

this framework “was created specifically for students who were struggling in the content areas because of their lack of strategies for deep understanding of written material in various content areas.”

Begun as a pilot in three high schools in 2000-2001, the goal of the disciplinary literacy initiative was “to implement a train-the-trainers model where coaches and lead teams build the capacity of the rest of the faculty to use disciplinary strategies in their teaching,” says Lam. Currently, all eight middle schools and nine high schools are involved with 16 secondary coaches/instructional reform facilitators and a total of 136 lead team teachers. All teachers, regardless of their academic discipline, receive the same training where they learn to employ teaching strategies in the different content areas through modeling by the consulting staff, their fellow teachers and through interactive debriefing of actual lessons.

Diana Lam expresses optimism about how teachers have responded to the concept of lead team training. “While it has taken a couple of months for some of our lead team teachers to see its value and to be willing to give it a try in their classrooms,” she says, “we are beginning to see many of the lead team teachers doing so and beginning to influence others to build capacity in schools.” As for the students, Lam declares, “I am very excited about the prospects that this project holds for us to increase the number of students meeting or exceeding standards, reduce the dropout rate and increase the number of students who pursue higher education.”

**The Talent Development Program at Johns Hopkins University.** This approach is based on a comprehensive reform plan aimed at the lowest performing high schools. Offering an innovative literacy curriculum and pedagogical approach, the Talent Development Model is being used in high schools in a number of cities, including Baltimore, Newark, New York City and Philadelphia.

In addressing the challenge of adolescent literacy, Jim McPartland, director of the Center of Social Organization of Schools at Johns Hopkins University in Baltimore, Maryland, has a fundamental message for students. It is this: “[Use] your mind rather than your memory.”

“Kids don’t have the acuity to step back and say ‘what does this mean?’” says McPartland, pointing out that for the average ninth grader, the problem is not basic skills but fluency and comprehension. For these students, stresses McPartland, phonics and skill-building efforts are “misdirected.” Too often, he observes, “Kids are just processing words,” when what we need to have them learn to do is “mentally [interact] with a piece of work,” get them in the habit of “predicting, relating to prior experiences and thinking about meaning.” If the goal is to help students read with fluency and comprehension, says McPartland, but “we treat them like babies, they’ll turn off. So, let’s treat them like adults.”

The practice of “Read aloud, think aloud” is a vital part of the talent development team modeling



approach. Teachers read aloud to students from the text being taught and then verbally articulate what is in their minds. Students are taught to do the same, says McPartland, emphasizing that far from being esoteric, this is an eminently teachable activity. In effect, teachers are saying to students, “Hey, wake up. Be conscious readers.”

The talent development model gives students more time in which to work and teachers more time for thoughtful instruction; clearly, both benefit. Classes of 25 ninth graders are given 90-minute periods and work in groups averaging four students. The students work as cooperative learning teams with students reading in pairs, side by side. Reading partners get into discussions of the text, working together on vocabulary and comprehension questions. (Students know that they will later be tested on these questions.) Meanwhile, the teacher is freely moving about observing the discussion and occasionally joining one of the teams.

Part of each period is put aside for self-selected reading, and every class is equipped with its own library and learning tapes. In the first half of the term, middle school texts are often used to reduce the frustration level of students; the popular “Chicken Soup” books are also used. By the second term, the goal is to have students reading with fluency and comprehension books that are required by the school district.

Coaches and literacy experts are selected from the district, and six master teachers are trained at Johns

Hopkins University. Two full-time coaches are assigned to each high school to work with teachers. Notwithstanding the importance of the coaching component of the program, its fundamental role is “non-evaluative.” In other words, according to McPartland, the coaches can say quite truthfully, “We are not snoops!” They are there to teach, to support, to encourage strategic reading, and, he adds, “The teachers like it.”

Now in its fourth year of operation, McPartland reports that the talent development model is yielding “some evidence that kids are beginning to see the purpose of reading—for information and pleasure.” The real lesson being taught, after all, is helping students to grasp intellectually and to experience personally “what a mature reader is and what a writer’s craft is all about.”

#### **The WestEd Reading Apprenticeship Program.**

In the fall of 1996, a mandatory “academic literacy” course was introduced for all ninth graders at Thurgood Marshall Academic High School in San Francisco. It was developed by WestEd, a nonprofit regional educational organization based in Oakland, California. The course was part of the Strategic Literacy Initiative (SLI), a comprehensive approach to improving reading for low-achieving students that includes an instructional program called “Reading Apprenticeship” and an intensive professional development component for teachers that provides them with the intellectual resources and social support to better utilize each other’s knowledge, gain new perspectives from students’

responses to classroom teaching and to synthesize, adapt and critique new teaching ideas and methods.

Offered as an alternative vision to traditional remedial reading instruction, the academic literacy course at Thurgood Marshall had three basic goals: To increase the student's engagement, fluency and competency in reading; to increase the student's sense of agency and control of their reading practices; and to increase student motivation for reading by revealing, within the student's own frame of reference, the power of literacy to shape their lives.

Among the students was Rosa. In many ways, Rosa, a Latina student in one of the academic literacy classes, was representative of students at Thurgood Marshall Academic High School—and at urban high schools throughout the country. A bright, articulate girl who eagerly participated in the life of the school, according to teacher Christine Cziko, Rosa “didn't bring the strategic thinking and competence and engagement that I knew she had in other aspects of her life—her social and community lives in the school and her neighborhood—to academic tasks.”<sup>18</sup> The gap between Rosa's real life persona and her performance in the classroom existed in part, according to Cziko, because of a fundamental mystification on the part of students regarding what is expected of them in school.

Very simply, the literacy apprenticeship model used at Thurgood Marshall aims to “demystify” literacy practices, by making “the invisible mental processes

involved in the task” of reading both “visible and available to apprentices as they actually engage in meaningful literacy activities.”<sup>19</sup> It is instructive to keep in mind that in every apprenticeship, — whether that of a cabinet maker, medical intern, or athlete—the apprentice learns while doing. Moreover, the learning is the result of a partnership in which both teacher and student have much to offer each other from their respective life experiences.

In the case of a reading apprenticeship, the teacher or “master” reader draws from his or her knowledge and expertise, using them “to model, direct, support and shape the apprentice's growing repertoire of practice.”<sup>20</sup> The work is conducted in a safe environment where, Cziko emphasizes, “it's cool to be confused.”<sup>21</sup> In periods of “sustained silent reading,” students read books in diverse subject areas of their own choice from well-stocked classroom libraries. They keep a “metacognitive log” in which they record in some detail their reading processes, including their befuddlement, exasperation, and triumphs—and regularly share these logs with each other as well as with their teachers. For students like Rosa, this demystification of reading is more like a revelation.

Once again, evidence suggests that use of the literacy apprenticeship model is yielding positive results. Indeed, the overall impact of the academic literacy course on the diverse student population at Thurgood Marshall, as measured by the Degrees of Reading Power test, was significant. Rosa and her fellow reader apprentices developed “two years of

reading proficiency in only seven months of instructional time while engaging in rigorous, academic work.”<sup>22</sup> Moreover, the students continued to gain ground as they moved into the tenth grade.

### **Looking to the Future**

A man whose education largely consisted of reading books, Andrew Carnegie is perhaps best known for his establishment of free public libraries—in more than 2,500 communities in the English-speaking world, including the United States. The motivation behind this inspired gift appears fairly straightforward. At 13, working as a bobbin boy in a cotton factory in Allegheny, Pennsylvania, Carnegie, already an avid reader, took advantage of a private library made available to local working boys by a generous citizen. It would be hard to conceive of an individual who, through the cultivation of his literacy, did a better job of figuring out who he was and what he wanted to do with his life, or of participating fully in the life of this democracy. Indeed, more than 80 years after his death, Andrew Carnegie is still participating through the regenerative effects of his philanthropy, and America is still reaping the benefits of his enlightened and productive citizenship.

At the beginning of the twenty-first century, many years after the building of the first free public library in Carnegie’s native Dunfermline, Scotland, Carnegie Corporation of New York is working to ensure that every young American who completes high school can read, write, and enjoy the glorious written word so revered by Andrew Carnegie, in

forms now far more numerous and diverse than even Carnegie could have imagined in 1881.

Much good work is under way in school districts across the nation to meet the challenge of ensuring urban high school literacy. Much more work is needed as America moves forward to meet its future. The reform initiatives to which the Corporation has lent its support—exemplified by the work of districts and their partners participating in “Schools for a New Society,”—are shining examples of the creativity and the passion which American educators can summon up when the times demand it.

There is reason to be optimistic: Reading has become a stated national priority, backed up by a significant financial commitment by the federal government. These developments have helped to keep education near the top of the national agenda and a vital part of the ongoing public conversation. Without question, the political and educational climate in America has become remarkably hospitable for adapting innovative ideas and practices, forging partnerships and collaborations, making use of the growing body of research on reading, leveraging resources, and developing new initiatives. Surely America faces no greater or more fundamental challenge: ensuring that America’s children have the literacy skills required to succeed in college, the workplace, and a lifetime of learning and in so doing enabling each child to realize the full promise of productive citizenship.

## Notes

1. Cynthia L. Greenleaf, Ruth Schoenbach, Christine, Cziko, Faye L. Mueller, "Apprenticing Adolescent Readers to Academic Literacy," *Harvard Educational Review*, Vol. 71, No. 1, Spring 2001, p. 80.
2. Ibid, p. 82.
3. Murnane, Richard J. and Frank Levy. *Teaching the New Basic Skills*. New York: The Free Press, 1996.
4. McCabe, R.H. (2000) *No One to Waste: A Report to Public Decision-Makers and Community College Leaders*. Washington, D.C.: Community College Press.
5. National Center for Educational Statistics. 1997. *The Condition of Education 1997* (NCES 97-388), Washington, D.C.: U.S. Department of Education.
6. Carl F. Kaestle, "Literate America: High-Level Adult Literacy as a National Goal," *Learning from the Past*, edited by Diane Ravitch and Maris A. Vinovskos (Baltimore: Johns Hopkins Press, 1995), p. 332.
7. Ibid, p.329.
8. Remarks by Vartan Gregorian at the Grace Adams Tanner Lecture in Human Values, delivered at Southern Utah University, Cedar City, Utah, April 5, 2001.
9. Op cit, p. 331.
10. Ibid.
11. Remarks by Daniel Fallon at the University of South Carolina Homecoming School of Education, October 19, 2001.
12. Ibid.
13. John Elkins and Allan Luke, in an editorial, "Redefining Adolescent Literacies," *Journal of Adolescent & Adult Literacy*, 43:3, November 1999, p. 215.
14. Ninth Grader, Talent Development literacy class student.
15. "Framework for Disciplinary Literacy in Middle and High Schools," a research paper prepared by the Learning Research and Development Center of the University of Pittsburgh Institute for Learning, 2002.
16. Ibid.
17. Ibid.
18. Greenleaf et al., op cit., p.99.
19. Ibid, p. 89.
20. Ibid, p. 88.
21. Ibid, p. 96.
22. Ibid, p. 112.

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