**Chess Educator of the Year Award** University of Texas at Dallas Thursday, February 23, 2012 Bruce Pandolfini's Acceptance Speech

Thank you and good evening.

I'm pleased and honored to be here.

I must admit that when Jim Stallings first called, notifying me that I was the recipient of this year's Chess Educator of the Year Award, I was stunned. I didn't know what to say then, and I don't know what to say now.

But I have to say something, so I'll be simple and direct. I'll try to explain how I got to be a chess teacher, what I do as a chess teacher, and how I've made a living all these years. Maybe I can tell a few stories and show a number of chess positions. I think that's about all I'll have time for in this thirty minute segment. Afterward, I'd be happy to answer any questions you may have.

Let me say at the outset that I was never trained as a chess teacher. Back in 1972, when I first started teaching, I was a chess master, but an undistinguished one, and certainly I knew nothing about the art and science of teaching the game of chess.

I had a degree in chemistry, and I had done some graduate work in physical chemistry, but I never worked a day as a chemist. I had dropped out of graduate school to pursue a playing career in chess, but it didn't pan out. So I had to accept a few odd jobs to get by. I'm not sure any of them prepared me for the future, though they did acquaint me with the kind of pay I could expect.

Let's see:

I dug ditches on a Berkeley hillside for a dollar an hour.

For about the same pay in San Francisco, including tips, I was the world's worst waiter.

Back in New York, for minimum wage, I worked for Gimbel's Department Store as a salesman, selling clocks, blankets, and silverware. I wasn't very good at it, but I managed to amuse myself by approaching unsuspecting customers with lines such as: "May I hinder you?" I didn't last long.

Then I got a job at the U.S. Postal Service for two something an hour. Although I became adept at boxing mail, that's not what I wanted to do.

If anything, I wanted to be a writer, especially a poet, and I had a small collection of fifty poems or so I thought to be rather epic and even heroic. But actually, my poetry was just bad, adolescent and sophomoric.

Nonetheless, all that bad poetry inspired me to seek a job at the Strand Bookstore in Greenwich Village. That's where I was in 1972, shelving books, when PBS invited me to appear as an analyst helping to cover the Fischer-Spassky World Chess Championship Match in Reykjavik, Iceland. It's not exactly clear why they called me. The truth is I had practically turned down their offer, when they sweetened the deal. Although they couldn't pay me anything, they said they'd cover my expenses. Predictably, I wound up doing it.

That coverage proved to be a great success. Throughout the seventies it was the second most watched program in all of PBS. Only the Watergate Hearings outdrew it.

Even though I had been an insignificant part of the presentation, suddenly I was inundated with possibilities.

But at that time there were very few chess teachers in America who actually made a living teaching the game.

I knew of two: Jack Collins, Bobby Fischer's friend and personal chess coach, and Shelby Lyman, a very gifted man, who was probably then America's most successful chess teacher.

I viewed Shelby, the host of the PBS show, as the voice of good judgment. So when he suggested that I give chess lessons, it seemed like an attractive notion.

Perhaps I became a chess teacher, echoing Robert Frost, because the road ahead seemed grassy and wanted wear. Or maybe I didn't know what to do with my life. Who knows?

Forty years later, that road has led me here.

In the beginning, I formed a group with three or four other young chess masters I knew from Berkeley and later lived with in the South Bronx. All those guys were better teachers than I was, and surely they were stronger players. Nevertheless, we put everything into the pot and shared profits equally, and we called our "Marxist" company U.S. Chess Masters, Inc. or simply USCM. Among ourselves, however, we jokingly went by an anagram of those letters.

From the start, fearful of not being able to make a living, I took every assignment I could, no matter what it paid.

At the height of the frenzy, I was probably working 75-80 hours a week. I gave lessons as early as six in the morning and as late as 1am.

You ask who takes lessons at one in the morning? For one, there are rock stars; for two, there are other strange people. You'd be astounded how many of them live in New York.

All told, as a chess teaching professional, I have had six staple sources of revenue.

In addition to teaching, I've earned money by writing about the game instructionally in books, magazines, and newspapers, though I've always felt uneasy calling the stringing together of chess variations, with a few English words inserted here and there, real writing.

A further boost to my earnings has come from giving chess exhibitions, either blindfold and/or simultaneous, yet I have to admit, to this day, I can't decide if I should be called an exhibitor or an exhibitionist.

Another bolster to my income has come from administering and running businesses, such as managing the Manhattan Chess Club when it was in Carnegie Hall, or by co-founding and developing the Chess-in-the-schools program in New York City. Neither enterprise was lucrative, but both left memories.

I've also been a consultant, advising businesses, advertising agencies, television shows, and filmmakers. An example of the latter would be my work on the film *Searching for Bobby Fischer*, which was based on Fred Waitzkin's acclaimed book of the same title. The book and movie present the captivating story of Fred's extraordinary son Josh (then my student, now my good friend) as he wins his way to the national scholastic chess championship.

It's funny, even twenty years after the film's release, I still get the same questions about it. For entertainment's sake, and also because I forget what I've made up, I seldom give the same answers.

These activities -- writing, exhibiting, consulting, managing and developing – have provided me with supplemental income. Not surprisingly, my main source of earning has come from teaching. I've taught and lectured at schools, colleges, and clubs, and I've given private chess lessons, which is how I've earned the bulk of my income, as scant as it's been.

It's hard to believe I've stayed with chess teaching for forty years, when many of my colleagues have abandoned the profession for more profitable ventures.

It reminds me of something said by Adam Smith in his *An Inquiry into the Nature and Causes of the Wealth of Nations.*  He said, and I quote: "In a profession, where twenty fail for one that succeeds, that one ought to gain all that should have been gained by the unsuccessful twenty."

Thank you, Adam Smith, you genius, you!

Anyhow, I can't complain, since teaching chess has been rewarding in so many non-material ways, especially to my sense of humor. To give an idea for the kinds of experiences I'm alluding to, let me share with you the following anecdote.

I call it "the businessman story," and it really happened.

One day, back in 1972, amid the turmoil of my crazy schedule, I received a call from the office of a well-known businessman. He wanted a chess lesson and I was eager to give it. In preparation, I thought of all kinds of fantastic arrays and motifs to show him.

But when I got there, and was ushered into his office, he didn't want a lesson precisely. No, he hoped I would look at a chess position set up on his desk. He wanted to know if I could help him find the best move for White.

I said okay and proceeded to analyze away. After an hour of examining that nondescript, totally illogical position, we settled upon a move that seemed good.

The businessman was so pleased he practically begged me to come back for another lesson the next day, and he assured me I could show him anything I'd like. I said yes, and began thinking about the next session. But when I got there the next day, preparation to no avail, he wanted me to explore the same position, advanced by one move, with the other side having played. It seemed he must have analyzed all night to find Black's move. Well, I did the deed, and that went on for a few days.

About a week later, after having helped the finance wizard get ahead by a piece, I was called to the office of another successful businessman, and this time I was determined to parade some chess niceties.

But guess what. He didn't want a real lesson either. He wanted me to look at the very same unappealing chess position, though from the other side, now two pieces down.

Suddenly, it all crystallized. Those guys were waging a Harvard-Yale bet and were hoping to use me as the key to their success.

A devilish thought came over me. I said to myself, I could keep this game going indefinitely and make a bundle.

Well, I tried that for a few days, but decided it wouldn't be right. So I invited both of them to lunch – at the same place and time. They were genuinely surprised, and embarrassed, and though we all had a good laugh, neither one ever took another lesson again.

I'm not sure what nugget of advice can be drawn from that experience, but I did resolve one thing. If someday two businessmen wanted me to collude on a similar project, I would do so, and smile all the way to the bank. Anyway, what did I want to teach both of those wily investment bankers?

Back then, there wasn't as much pragmatic chess literature available as now. There were plenty of volumes by Fred Reinfeld, Irving Chernev, and Al Horowitz, and there were certain classic texts, including Siegbert Tarrasch's *The Game of Chess*, Emanuel Lasker's *Manual of Chess*, and Jose Raul Capablanca's *Chess Fundamentals*. In those books, and elsewhere, leading chess authors and players advocated beginning with the endgame phase.

They had at least three good reasons for assuming that stance. For the most part they said:

(1) The endgame stressed the essential elements of chess in their purest form.

(2) The endgame instilled a sense for goal orientation and completing a game.

(3) The endgame lent itself to study because endings could be grouped by character and type.

Support for the last rationale can be found in the writings of Aristotle, who essentially said: When you classify something you know more about it. That is, you assume the characteristics required to be a member of that class.

Armed with such compelling logic, I studied the endgame myself and prepared to teach it to all my students.

But the more I taught, the more I encountered a certain objection. Students would say, but I never get to the endgame. Why should I study it so much?

Unquestionably, I was armed with cogent arguments to defend my position, but I also had to deal with another reality.

If students truly felt that what they were doing was doomed to failure, that feeling would unconsciously work against the process to defeat it.

A different concern also seemed relevant here. When teachers have a system, or a set of methodical ideas, they tend to teach the same curriculum to everyone, without regard to individual needs. That thought troubled me.

I still believed in the gods of the chess acropolis, yet I wondered if they had come down too much on the side of theory. They may have been right on paper, but it seemed they had dismissed the frailties and shortcomings of the human condition. After all, how many chess lessons to real people did Tarrasch, Lasker, and Capablanca actually give?

With nagging reservation I eventually broke with the way I had been teaching and opted to treat each student as a unique being. In order to help a particular subject I would first have to learn who that person was, what his or her likes and dislikes were, and what he or she could reasonably expect to do.

That doesn't mean I've never used some of the same examples. But no matter how many times I've utilized my treasure trove of working models, I've always tried to adapt what's reprocessed for individual needs in context.

The tool I chose to implement this diagnostic was the art of asking questions, better known as the Analytic or Socratic Method.

Once I got going, I might ask hundreds of questions during an hour lesson. Yet by framing it all conversationally, students seldom perceived what was transpiring, that they were being thoroughly scrutinized and investigated.

Obviously, not all my questions were answered, and some of the questions answered were not the ones posed. Students typically responded to what they thought they heard or wanted to hear.

For instance, consider the following position.

(To set the stage, all the examples shown this evening, not that there are going to be that many, were based on some illustrations provided to New York City's Board of Education back in 1985 and 1986, when I was trying to persuade their so-called "critical thinking experts" that chess should be taught in Gotham's classrooms.)



White has mate in two moves. After setting this position up, and telling a student or class about the mate in two, I might ask the following question: Do you know how to solve a position like this?

Invariably, I would get answers consisting of specific moves, but no pertinent or satisfactory replies to my particular question.

And for those students who were actually listening, they had compounded perplexity. How could they answer my question without asking me a question in turn? That is, what did I mean by the phrase "like this."

Well, what is *this* like? Or, somewhat restated, what kind of position is *this*?

If I had to categorize it, I'd say it's a position where the defender has very few possible responses. In situations like that, it makes more sense to determine where the opponent must go and then work backward, playing a move that exploits the anticipated future. This retrograde analysis, and other methods similar to it useful for teaching purposes, fall under the didactic rubric of what I call *redactive instruction*, where one looks ahead and essentially edits down or back to trace a path to the solution.

For the inquisitive, since Black's king must go either to f8 or d8, White's queen mates next move by simultaneously attacking the squares h8 and b8. That can be achieved by playing the queen to any of three squares (e5, h2, or b2).

Another stratagem I tried to employ in my lessons was presenting illustrations in series, especially playing off the same root position with slight changes.

So, having given the first setup you've just seen, I'd often show the next position as well, where the white queen is replaced by a white rook.



Here it's not mate in two, but mate in three. By putting the two positions in an instructional package I'm able to emphasize the difference between the powers of the queen and rook. But once again I might add a twist to the presentation. After telling the class or student that there's more than one answer to the problem, I like to throw a curve, saying that no one has ever given me quite the answer I've wanted. By putting it that way, my aim is to provide a kind of incentive. When it works, students are moved to find the preferred solution. By the way, it doesn't always work.

What *is* the answer I've hunted for and never gotten? Actually, I have gotten it, though not often. The answer I favor hearing is something like "any random rook move mates in three moves." Better than looking for a single move, I want students to think globally, to search for the big answer.

Sometime within the first year of my teaching practice I began insisting that students analyze without moving the pieces. It's hard to be an accomplished player if you're unable to visualize chess moves and positions in the mind.

To lay down the law, I'd typically say: "If you move the piece, even if you get it right, it's automatically wrong. But if you tell me, and don't play it on the board, even if you're wrong, I'll give you a chance to correct it."

This may seem Draconian, but it usually achieves the desired end. That is, it slows students down, makes them more careful and deliberate, and enables them to develop positive routines at the board. It also readies them to augment and enhance their analytic abilities.

I'm not saying anything new to most experienced chess teachers. They already know about the importance of not moving the pieces. But there's more to my approach, and as Paul Harvey used to say on his national radio show, "now for the rest of the story."

One day, early in my chess teaching adventures, I arrived at the home of a promising ten-year-old student.

He had a bad cold, and frankly, I was upset with the parent for not canceling the lesson. After all, I could get sick myself, which I wasn't thrilled about, but that contingency also entailed risk for hundreds of others to whom I came in weekly contact. Let's face it: chess pieces are among the most germ-ridden objects on the planet.

That's when I had a moment of perceptivity. Knowing that we had been focusing on analytic work, I told the student we were going to examine a game without using a board and pieces.

That is, while he sat comfortably on his living room couch, I would be stationed fifteen feet away in an easy chair. We would talk chess and, in my own mind, I'd be sufficiently distant from the little nose-running infector to minimize his contaminating capability.

It was hard, and the student complained all the way, coughing and wiping his nose repeatedly, but by the end, though he had come to hate my guts, he seemed to admit that he had accomplished something.

Moreover, I had a new four-step technique for helping students visualize moves better. And that was "the rest of the story." What *were* the four steps my student and I relied on that day?

(1) He had to say each move, clearly and loudly, in algebraic notation.

(2) He had to visualize each move as best as possible, including the act of transfer, from starting square to destination square.

(3) He had to describe and elucidate each move and its impact on the interplay of vital sectors and key forces. For instance, he had to say what lines were now opened, which squares were suddenly weakened, what defended what, and so on.

(4) He had to explain each move as part of a meaningful plan, thereby developing a coherent account connecting all the moves in a grand narrative. That storyline was the cement giving the game its logic, which helped the student recall the moves in their proper sequence.

There was nothing extraordinary about it, but I couldn't recall seeing that plan of attack spelled out before. As expected, I helped the student get through rough spots that day. Nor am I saying that the procedure works all the time.

Yet it has helped many of my learners provide structure to their attempts at remembering and visualizing. As a side benefit, the approach patently reduces the spread of infectious disease.

Wherever it might be effective, I try to instill an element of surprise in my teaching. By such measures I hope to

galvanize students and keep them motivated. I don't even mind frightening them at first, as long as they can giggle afterward.

For example, if it's a new class consisting of players who already know how to move the pieces, I might start the first session with a problem similar to the following.



After setting it up, I will announce that White has a forced mate in six moves. Then I'll say, in order to stay in the class, one must be able to solve the problem.

Upon hearing that stipulation, there's generally a bit of consternation. But it soon becomes clear that, if you know how the pawn moves, it's impossible to get the problem wrong. Except for Black's final move, when a pawn can be promoted in any of four ways, there is only one legal move on each turn. After laughing our way through such a problem, or comparable ones, it's usually easier to offer further instruction.

Another device I like to exploit is the so-called thought experiment, or, as physicist/philosopher Ernst Mach called it at several places in his explorations, the *Gedankenexperiment*. Consider the following position.



It's mate in two moves, and the problem isn't very hard. White wins by first giving a discovered check with the queen, withdrawing the bishop to any of five squares, from f5 to b1 (though not g6). After the black king moves to g8, the bishop checks on its associated square along the e6-a2 diagonal stem, and that's a criss-cross mate.

But then I may proffer a thought experiment. In the paradigmatic spirit of Poincare or Einstein, I might say: Suppose you had the same setup on a square board of a million and one squares by a million and one squares. If you could retreat the bishop all the way back along the diagonal to the home rank, thereby giving a discovered check with the queen, could you mate next move with a bishop check, even though it's a million squares away? Furthermore, if that is so, how far would the bishop have to go on the final move in order to render that diagonal mate from a million squares away? Meanderings like that worked wonders with the critical thinking sages of New York City's Board of Education. In fact, as I was told afterward, it's the main reason they accepted the rudimentary Chess-in-the-School's program. They especially liked the problems they were shown and evidently their carry-over value and promise.

(To be fair, some of the problems not shown here, such as those demonstrating the chess-wise application of factorials, Pascal's formula, and various counting exercises drawing upon aspects of combinatorics, were not entirely irrelevant either.)

Posing lots of paradoxical problems is one way to create amazement. But I am not averse to achieving surprise in other ways too, such as by going right into the teeth of received wisdom and expressing things in contrary terms. Consider the following generic setup.



If in a similar position a student played or suggested that Black's bishop capture White's (Bc5xe3), I'd almost surely ask: "Oh, you want to give your opponent the advantage of the doubled pawns?" If this doesn't stop students in their tracks, very little could, since most of the time it's drummed into them (though not by me) that doubled pawn complexes are automatically bad.

By standing the idea on its head, students get a new take on the 64-square universe. Hopefully, they begin to sense that all those platitudinous expressions of principle have exceptions and limitations. Sometimes, they're even wrong, or the reverse is true. Physicist Niels Bohr put it in perspective when he said: "The opposite of a great truth can be a great truth."

But just as I enjoy giving surprises, I've always relished being surprised myself. Truthfully, in all good lessons, teachers learn things, too.

In the mid 1980s, Faneuil Adams and I tried to make it possible for every public school child in New York to learn how to play chess. But before we could achieve our goal we had to convince the New York City Board of Education, as I've already mentioned. That wasn't easy, because initially they were dead set against it. But they did give us several opportunities to present our case.

One day, a bunch of critical-thinking experts showed up at a school in the South Bronx to watch kids learn at the chessboard. At some point, perhaps looking for soft spots in my arsenal, they asked me to demonstrate a one-on-one lesson, well apart from the main group.

All the observers ended up in a room filled with desks and chairs but empty of students, except for one eight-year-old girl and myself, looking at a vinyl chessboard with the pieces not yet setup for play.

I started the lesson with a question. The answer wouldn't matter, but I hoped the joke I had in mind might.

"You're sitting at a chessboard," I said to her, "and suddenly you realize that all four corners of the board are pointed south. How is that possible?"

It was possible, of course, if she were positioned at the North Pole. Whether she came up with that answer or not, I was going to use her response as a vehicle to lighten the atmosphere and get us started.

My eight-year-old student paid no attention to the selfimportant authorities, which in itself was remarkable, though she did occasionally look up at me.

She gradually took hold of her head in a thinker's stance and focused her attention on the playing surface. Curious to see where this would lead, I kept quiet. After a good long while, I was about to offer what I thought was a diverting aside, when a glimmer of awareness came over her face.

I've seen this look countless times before. It's that amazing moment when students know they're going to get the answer right but aren't yet sure what it is.

"I think I've got it," she said. With all the pieces still on the side of the roll-up chessboard, she folded the vinyl sheet horizontally in two so that the first half rested on the second. She then folded the board in half again, crosswise, so that all four quadrants were together. Then, lifting the board up, she pointed one of the four stacked corners due south from the Bronx, right toward Manhattan.

I was incredulous. What an original solution, so different from the insipid one I had in mind. It was an answer I'd never expect in a thousand lessons. That marvelously exceptional child had helped me rediscover an important truth: any problem, even the most simplistic, can conceal an extremely innovative solution.

I have a plethora of such stories, but I think that's enough for now.

Let me say this. I love teaching chess, revealing its beauty and truth, its pleasing patterns and elegant plans, its epiphanies and paradoxes.

There's something else. When I sit across from a talented young person, I'm aware how in time that individual may become one of the most important people in the world. I consider myself honor-bound to guide such minds on the way to full attainment of knowledge and power. Perhaps I can inspire them to make their own special commitment.

But I temper and hold back. I never want to suggest the road to take. That path must be found on one's own, whether because it's grassy and wants wear, or maybe because it's the road less traveled by.

And as much as I like to be appreciated for my skill and insight, I want students to know something else: they don't need me to succeed. If I can show them that, then I've done my job as a teacher. With that, I hope I've done my job as a speaker. Thank you.