Foreword by Garry Kasparov

Today's supercomputers have an enormous advantage over human players. They can store huge databases of opening moves as well as archives consisting of every major chess game played by chess masters over the past century. Computer experts have generated chess programs that have worked out all forcing lines possible in any endgame enabling the computer to play "godlike" when each side is reduced to six or less pieces. In reviewing Dr. Pecci's book, I am intrigued to note that he avoids the six-piece endgame, which would greatly favor the computer by forcing a critical confrontation that decides the game long before an endgame position.

The Pecci Strategy introduces a new way to approach the game of chess. Dr. Pecci discovered that by changing his "mind set" about the game, he could, within a half dozen moves, attain a board position that has no match even in the archives of the large chess database systems available on the Internet. He goes "out of book" by the third or fourth move, at which point the computer might as well throw its entire database out the window. In the past, I have suggested that for humans to compete against the chess supercomputers of the future, we might try shuffling the starting positions of the pieces. In his book, Dr. Pecci has arrived at a creative approach to the game that accomplishes essentially the same thing, that is, rendering useless the computer's opening book database.

When I played Deep Blue, my intention was to make relatively "soft" initial moves until I had established positional advantage. The Pecci Strategy also makes relatively "soft" moves in order to establish a strong position. He succeeds primarily because the computer is not programmed to recognize the threat of what he calls "a Barrage Position", thereby offering relatively little resistance to this position to which it awards a relatively low score. From this position, careful, but persistent play along his predetermined line of attack results in a gradual rise in his score with a predictable victory in 30-40 moves. He gives examples of games, which, when analyzed by the Fritz 6 analytic engine, exhibit no weakness in black's response to white's attack. Fritz 6 is a highly specialized computer chess program. You're playing against the whole world and all

previous grand masters whose complete body of games is incorporated into the database. On an 800 MHz Pentium III computer the chess program considers over 400,000 moves per second. When the analytic chess engine is allowed up to three minutes before making a move, it is a formidable opponent. His attempt to beat the computer in fewer than 40 moves increases the difficulty of his task, but also results in interesting examples of sacrificing pawns, ignoring material advantage and making calculated sacrifices to exterminate the enemy as quickly as possible. Ordinarily, any method of play that fails to consider controlling the center of the board would be foolhardy and doomed to failure against stiff competition. Against Fritz 6, however, this is precisely the approach Dr. Pecci has taken, with great success.

When I first received a galley proof of this book, I found it very interesting that someone who was not a professional chess player was able to consistently outplay Fritz 6. It was initially difficult to evaluate these games in the same manner in which I evaluate conventional games. It is not an easy thing to shift the way in which you have seen something all of your life. In fact, were it not for my curiosity, I doubt I would have persisted long enough to finish the manuscript. I'm glad I did. I found myself exploring a talent of the human mind no machine may ever be able to do. I can only call it "creative intuition". While I have used these words before, until now I never fully realized how special, and universal, this talent truly is. This is what I have been trying to accomplish with my school, to use the medium of chess to develop this talent in children everywhere. Chess offers many opportunities for developing the mind in many different directions.

Until I read this book and examined many of the games, I believed that no person in the world could look at a chess game and tell whether it was played by a human or by a computer. In this book, however, the experienced chess player will clearly identify the side played by a human player. I am particularly interested in Dr. Pecci's assertion that, aside from making the sequencing of moves somewhat more critical, the calculating power of the computer makes little difference, and at best, it can only delay the outcome of the game by ten to fifteen moves. It remains to be seen whether human players are as susceptible to the strategies introduced in this book. This deserves further evaluation by anyone who is serious about the game of chess and especially those, including myself, who enjoy playing Rapid Chess.

There are plenty of new moves to be discovered in the game of Chess. Remember, after all, that Chess is a mathematically "infinite" game. Of course, calculation can be pushed ever closer to its ultimate limit, and the closer one comes to that limit the more difficult each step becomes. Many chess authorities say the current state of chess playing is endangered by repeated "death by draw" games as a result of playing moves that press closer and closer to the ultimate and unreachable limit of calculation. The renewal of chess as the exciting match of wits and strategy at its best lies in the leap offered by creativity through intuition. The new approaches offered in this book present one possibility out of that "field of all possibilities" reachable through the intuitive connections of the human mind infused with sound tactics and strategy. In understanding the concept of the "intuitive connection" from which new ideas emerge, mastery of the game of chess can reach genuinely new levels of play.

Without question, computers will play an increasingly influential role in the way chess is played in the 21st Century. I think that the form of what I call Advanced Chess (Man and Machine) will become very popular. The contest is far from over, and until the machine wins every game we are still in the contest. I believe that future world champions, because of the heavy influence of computers, will be making changes in "attitude" and "approach" rather than strength. Hopefully, this will revive the public interest in the game of chess and encourage corporate sponsorship of matches against supercomputers such as Deep Blue.

As a world champion, one of my objectives is to bring chess back into the mainstream. Chess became very popular with matches like the one I played with Deep Blue in 1996 and 1997, and all the publicity following these two matches proved my earlier assessment that the man versus machine contest would be one of the most exciting social and scientific experiments going into the 21st century. This kind of competition brings to the scientists the best field for investigation possible between human "intuition and creativity" and the brute force of the machine's calculating ability. I believe that this very interesting and provocative book by Dr. Pecci may help to reopen the question of the superiority of Man versus Machine. His book is well worth reading and is sure to have a far-reaching influence on shaping new ways to approach the game of chess as well as influencing the future development of chess computer programs.

- Garry Kasparov, May 2001

Garry Kasparov has been World Chess Champion for 15 years and the highest rated chess player in history.