serves the most expensive steak in Tokyo: "Aragawa" near the Shimbashi railway station. You would have to pay at least $70 for the same slice of meat.

Sushi (sliced raw fish on a small rice ball) has become increasingly popular in America, and the famous *sushi* restaurants of New York were all crowded with American guests. The raw fish and other ingredients were fresher than those served in Japan, and the prices were about half those in Tokyo. They, too, were delicious, and I envied Americans who can enjoy such delicious *sushi* for so little money.

Dr. Herbert Passin of Columbia University kindly invited me to "Canton Restaurant" at 45 Division Street in New York's Chinatown. I marveled at the marine delicacies prepared and served in the Chinese way. I doubt I could ever sample such luscious fish cuisine in Tokyo. Dr. Passin told me he has been patronizing "Canton Restaurant" for 18 years.

My apologies for having strayed from the "Taste of Tokyo" to the "Taste of New York." Returning home, I would like to recommend the rack of lamb served for ¥2,000 in the dining room of the Foreign Correspondents' Club of Japan (popularly known as the Press Club) on the 20th floor of the Denki Building on the Imperial Palace side of the Yurakucho railway station.

Very few restaurants in Tokyo serve lamb steak, but fortunately the rack of lamb at the Press Club is superb. Jelly-like peppermint sauce enhances the taste of the lamb.

Sad to say, not everyone can walk into the Press Club because it is a membership club. You will have to prevail upon a journalist friend to take you, if you wish to sample this exquisite dish.

(Yoshimichi Hori, editor-in-chief)

BOOK REVIEW

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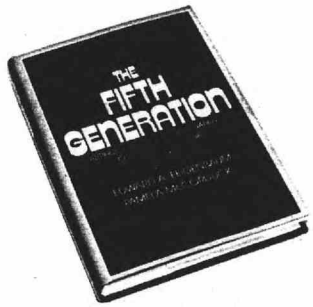
The Fifth Generation

—Artificial Intelligence and Japan's Computer Challenge to the World—

By Edward A. Feigenbaum and Pamela McCorduck
Addison-Wesley Publishing Company, 1983, Massachusetts; 275 pages; $15.55



While the United States continues to be the world leader in computer technology, Japan is gradually closing the gap. Moreover, Japan plans to reverse the gap with an "audacious" plan to develop fifth-generation computers. First announced in late 1981, this plan was given concrete shape in April 1982 with the establishment of the Institute for New Generation Computer Technology (ICOT) and has drawn considerable interest from the United States, France, Britain and other industrial countries since.

Fifth-generation computer technology is one of the main high-technology goals of all of the leading industrialized countries. However, only Japan has drawn up operational plans and made an actual start on their implementation. In this book, the authors, one a computer scientist and the other a journalist, detail those efforts with some sense of alarm.

Their alarm comes from a fear that the United States will fall behind Japan in fifth-generation computer technology, and they document this fear with profuse technological illustrations and quotations from people in the field.

One of the features of this book is that it does not end at a simple comparison of technological capabilities but discusses the broad range of industrial technologies, economic structures, research and development arrangements, educational systems, and other aspects of the cultural milieu which underlie these technological differences. In conclusion, they compare the various strengths and weaknesses of the United States and Japan in attempting this great fifth-generation project for the 21st century, and say it is a toss-up which will succeed first.

In explaining the importance of this fifth-generation computer project, the authors explain the progression in information processing systems in easy-to-understand detail. In essence, there now exist in the United States "expert systems" which are able to do the same analytical work as highly trained specialists in such fields as medical diagnosis and geological surveys. These expert systems are being improved upon every day, and it is expected that they will soon be able to automatically produce intricate design specifications and translate scientific literature.

Traditionally, such design, translation, and other intellectual tasks have been thought of as purely human endeavors. Yet they are now being done by machines in the new field of artificial intelligence. Lest there be any misunderstanding, it should be noted here that this does not entail plans to produce machines which actually think, have feelings, and worry the way human beings do.

Highly specialized experts develop their expertise over long years of education and training. It is this expertise, this process of intelligently manipulating information, that the American expert systems are designed to reproduce. Basically, they are akin to the Japanese efforts to store specialist information in an intellectual data base and then to manipulate that information with a computer.

In manipulating information, today's computers are limited by the constraints imposed by binary state sequential logic systems. Although these systems, developed in the United States and still in use worldwide, were a major step forward, binary sequential processing necessary imposes its own limits on circuit design and programming. It is to get around these limitations that the Japanese scientific community has embarked upon this ambitious fifth-generation research project to develop inferential logic and parallel processing. This is the immediate task of ICOT, and the Japanese effort draws heavily upon the work of European computer researchers.

Computer generations are delineated by the central technology used, starting with first-generation (vacuum tubes) and going on to second-generation (transistors), third-generation (integrated circuits), and fourth-generation (very large-scale integrated (VLSI) circuits. Following these will be the 5th generation that Japan has begun basic research on.

One quibble with this book is that its excellent documentation of the work being done is colored by an alarmist tone which seems to assume that Japan intends to use this technology for world domination. Nothing could be further from the truth. Japanese research has benefited enormously from the high standards of computer technology in the United States and the innovative efforts made in Europe. Now it is time for Japan to return the favor, and any success which Japan achieves should be viewed as a common intellectual resource for all of mankind.

Find fifth-generation stock images in HD and millions of other royalty-free stock photos, illustrations and vectors in the Shutterstock collection. Thousands of new, high-quality pictures added every day.Â 3,828 fifth-generation stock photos, vectors, and illustrations are available royalty-free. See fifth-generation stock video clips. of 39. The Fifth Generation Computer Systems (FGCS) was an initiative by Japan's Ministry of International Trade and Industry (MITI), begun in 1982, to create computers using massively parallel computing and logic programming. It was to be the result of a massive government/industry research project in Japan during the 1980s. It aimed to create an "epoch-making computer" with supercomputer-like performance and to provide a platform for future developments in artificial intelligence. There was also an