

Flower power meets quantum theory

David Kaiser's *How the Hippies Saved Physics* reminds us of unexpected influences freewheeling physicists had on fundamental theories in the '70s

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London: The book with a provocative title *How the Hippies Saved Physics* can be understood better by reading David Kaiser's of two other books, Fritjof Capra's *The Tao of Physics* and Gary Zukav's *The Dancing Wu Li Masters*. In this pair of bestsellers, published 30-odd years ago, Capra and Zukav presented quantum theory in an engaging and exciting way.

But the principal reason the books were so popular was their attempts to link the ideas of modern physics with eastern mysticism, the *New Scientist* reports. Capra and Zukav were satellites of a small group of freewheeling physicists who, for four years from May 1975, met regularly in an office at the Lawrence Berkeley National Laboratory in California.

"The Fundamental Fysics Group" was open — perhaps too open — to everything from LSD-tripping, to remote viewing via ESP, to contacting the dead.

Its core members, which included physicists Jack Sarfatti, Fred Alan Wolf and Elizabeth Rauscher, even persuaded the great Richard Feynman to attend discussion sessions at the Esalen Institute on the spectacular rocky coast of northern California - though, according to Kaiser,

Feynman admitted a big attraction was the "naked co-ed The Fundamental Fysics Group hot-spring baths".



Kaiser sees the group as a connection with the past. The pioneers of quantum theory such as Niels Bohr and Wolfgang Pauli had worried endlessly about the meaning of quantum theory and its hints at an observer-created reality.

With the second World War and the need to build practical devices such as atomic bombs, the “shut up and calculate” branch of physics had prevailed. The Fundamental Fysiks Group, with their interest in the mind and consciousness, were merely returning to the preoccupations of the founding fathers.

One important outcome of the meetings was that the group identified something from an obscure 1964 paper by the Irish physicist John Bell that was of key significance to what quantum theory was saying about the nature of reality. What came to be called Bell’s theorem maintained that, if quantum theory were correct, there would be unexpectedly large correlations between the properties of widely separated subatomic particles.

Such spooky action at a distance was indeed observed in a dramatic experiment carried out in Paris by Alain Aspect in 1982. Towards the end of his entertaining book, Kaiser compares Fundamental Fysiks Group to the Olympia Academy, the group of friends, including young Albert Einstein, who 70 years before met regularly in Bern, to discuss life.

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