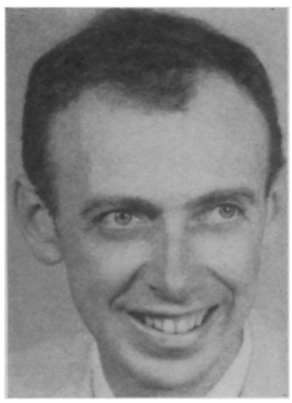
gossip, claret and the coil of life

Crick

DNA



Watson

by Warren Kornberg

"I feel the story should be told, partly because many of my scientific friends have expressed curiosity about how the double helix was found, and to them an incomplete version is better than none. But even more important, I believe, there remains general ignorance about how science is 'done.' . . .

"I do not believe that the way DNA came out constitutes an odd exception to a scientific world complicated by the contradictory pulls of ambition and the sense of fair play."

—J. D. Watson in "The Double Helix"

To hear James Watson tell it, the discovery of the double-helical form of the deoxyribonucleic acid molecule, for which three Nobel Prizes were awarded, was at least in part a casual exercise with tinkertoys by a couple of scientific drifters. They built on the work of others in a world dominated by humanity, both warm and abrasive; by incompetence, often Watson's; by emotional imbalance and ambition competing with friendship, and by occasional flashes of brilliant, productive insight. It was also the work of a small number of first-class scientists who couldn't get a promising idea out of their minds until it had labored and borne fruit. But their dedication competes with their foibles for attention.

That may have been the way it was. After all, Watson was there, along with the other principal characters of his book, "The Double Helix": There are Francis Crick and Maurice Wilkins with whom he shared the Prize. There is Linus Pauling who provided the goad in the form of a threat of somebody else getting to DNA first. There is Sir Lawrence Bragg who was director of Cavendish Laboratory where the work was completed and who, despite an almost unrelievedly unattractive characterization, wrote a foreword to the book. And there is Rosalind Franklin, who helped Wilkins lay the crystallographic groundwork for the double helix and, who, perhaps fortunately, died before Watson's characterization of her was published. Her portrait is corrected in a brief Epilogue.

Watson has written both an important and an unfortunate book. It is a book his colleagues will discuss—with relish both profane and profound—but with which none wants public association; it was impossible to induce any of those able to evaluate Watson's observations in light of their own to comment publicly on "The Double Helix."

Had C. P. Snow, of whose novels it is reminiscent, written it, with its opening sentences, "I have never seen Francis Crick in a modest mood," it would have been well, if modestly received as presenting insights to the humanity of scientists and their work.

But "The Double Helix" is not a novel. It is a character-filled drama written from life by a man who does not see people with the full perception that is a novelist's stock in trade. It is also a scientific document by a man who sees science unfold from the perspective of a member of the cast and who writes more than well enough to tell that story.

As Watson tells it, the solid groundwork in the development of the structure of DNA was done by dedicated drones like Wilkins and Franklin while:

- Linus Pauling was laying the base for what comes through as the first fruit of Crick's brilliance, beyond irritating his colleagues by dominating their conversations and criticizing their science to the improvement of both.
- Watson was drifting through Europe avoiding doing anything serious.
- Crick was irritating an unimaginative Bragg with his inability to pursue a course to his doctorate so Bragg could be rid of him.

In a colleague's anonymous analysis, "That may be the way it looks to Watson, in retrospect; that's the way he sees himself. But that's not necessarily the way it was."

How it really was may have to await a drier account.

Sir Lawrence regards "The Double Helix" as "not a history, but an autobiographical contribution to the history which will someday be written . . . a record of impressions rather than historical facts.

"The issues were often more complex, and the motives of those who had to deal with them were less tortuous, than he realized at the time."

The account of the discovery of the double helix—the weaving together of the work of many minds over many years, and the ultimate, brilliant synthesis of the whole, comes through powerfully in the second half of the book. It becomes there an invaluable account of the inner workings of science. But it is only because he has written a very personal, if incomplete and acid account of the people that Watson's book sings as it does.

It is this double thread—the humanity of scientists and the tortured trail to any breakthrough—that makes "The Double Helix" an irreplaceable contribution to popular scientific literature.

It is unfortunate that, even after severe reworking under pressure from still-living participants, members of the scientific-academic community still found it so objectionable that Harvard University Press refused to publish it.

But theirs is not the community which will benefit from its insights; they do not need—or perhaps want—to be reminded that "One could not be a successful scientist without realizing that, in contrast to the popular conception supported by newspapers and mothers of scientists, a goodly number of scientists are not only narrow-minded and dull, but also just stupid." And they don't have to hear a scientist and nobelist say of himself, in the aftermath of the publication of "perhaps the most famous event in biology since Darwin's book," that, "Now I was alone, looking at the long-haired girls near St. Germain des Prés and knowing they were not for me. I was twenty-five and too old to be unusual."