



GESELLSCHAFT DEUTSCHER CHEMIKER

**GDCh-Presskonferenz
zum Festsymposium 125 Jahre *Angewandte Chemie*
Henry-Ford-Bau der Freien Universität Berlin**

Dienstag, 12. März 2013, 13 Uhr

Statement des Chemie-Nobelpreisträgers von 1981, Prof. Dr. Roald Hoffmann, Cornell University, Ithaca, New York (USA)

Thema: Protochemistries are the Bridge

Ladies and Gentlemen,

Science is the cult of the new (and journalism wants it to be such). Chemistry certainly partakes of this – in the 2013 Chemiedozententagung you will hear remarkable news -- of effective antitumor agents with fewer side effects, industrial processes that are greener, a molecule that was not earth before, the course of a reaction that is over in a milionmillionth of a second described in detail. So, why do I plan to tell this festive gathering of ancient, imperfectly described chemical processes?

People did chemistry, darn good chemistry too, before there were ever chemists. For transformations of matter are inherent in the human condition. In winning metals from their ores, using them in weapons and decorative objects, in preparing and preserving food, in cosmetics, medicines, ceramics, in tanning leather, in dyes, in cleansing and mummification, craftsmen and women in every culture came up with some superb experimental chemistry. These stories of protochemistry, some of which I will relate to this day form a natural bridge between chemists and nonchemists , between chemistry and culture.

Why is this bridge important? Because chemistry today, a deeply democratizing science, even as it improves the human condition, and heals (and, yes, we worry if it also hurts) seems to be at times separated from human culture, from everyday things that normal people do. No different from other sciences, chemistry appears to be a profession for experts, its results related in jargon. It is not clear at times if chemistry has anything to do with culture, broadly defined. The protochemistries I will talk about (their reconstruction is not my own work; I am

the storyteller, in a way a journalist, here) show the connection. Much more than local color, their stories tender homage to the past, to the ingenuity of human beings. They stress the essential importance of experiment, and... of the underlying economics that governs much human activity.

In my lecture I will discuss, *inter alia*, some remarkable preColombian metallurgy in which gold layers were formed on copper, looking for all the world as if they had been electroplated, the ancient chemistry of Tyrian purple, and the evidence of the first fermentation of intoxicating beverages in China.

Protochemistries connect our world, in time and in substance; their stories normalize science. And they plant science firmly in the context of world culture – chemistry in culture, culture in chemistry.