

Report

ALCHEMY, CHYMISTRY, AND PROCESS

Two conferences held in July 2006 dealt with topics of interest to readers of *Hyle*. The Chemical Heritage Foundation (in the 'old city' district of Philadelphia) was the site of the *International Conference on the History of Alchemy and Chymistry*, July 19-22. *The Sixth International Whitehead Conference* ("The Importance of Process – System and Adventure") was held July 3-7 in an even older city, at Salzburg University in Austria.

Well-attended sessions dealing with topics from physics, biology, and chemistry spanned the entire Salzburg conference. Two of the nine plenary-session speakers were active in chemical philosophy. Isabelle Stengers, recognized for her work in process philosophy and in self-organization in chemical systems, considered the reasons why Whitehead had denied that persistent entities (say, molecules) were *res verae* ('the final real things'). H. Rom Harré, President of the International Society for the Philosophy of Chemistry, contrasted both 'the Chemical Philosophy' developed by Robert Boyle and also 'the Dynamic Philosophy' of Neils Bohr with Alfred North Whitehead's mature system – pointing out what he took to be strengths and shortcomings of each of the three approaches. Both of these contributions engendered active discussion, but not general agreement. The science-related sessions considered how process thought applies to complex behavior observed in physical, chemical, and biological systems. Topics covered included: activity of the vacuum, ontological consequences of chemical nonlinearities, adaptation of microorganisms, film formation by bacteria, neural controls of

appendage motions, and metaphors in philosophy and chemical discourse.

The Philadelphia meeting focused on the period (ca. 1500-1850) when modern chemistry emerged – from the Paracelsians to Structural Chemistry. (The variant spelling 'Chymistry' used in the conference title called attention to the intimate relationship that early chemistry had with its predecessors as well as with its successor.) A variety of detailed historical studies of important figures, episodes, and periods were reported. Many yielded convincing evidence for a surprisingly high degree of continuity, even during episodes that are generally treated as involving radical discontinuities. Several papers dealt with aspects of the change in basic general understanding of the constitution of things (what is regrettably called 'matter theory') that occurred over the period in question. This topic connects directly to concerns raised by Stengers and by Harré at the Salzburg Conference. Most chemical research is now done *outside of* units (e.g., academic departments, funded research programs) that are formally labeled as 'chemistry'. Perhaps we can hope (or fear?) that a similar observation may soon apply to the philosophy of chemistry.

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