

ANALYTICALLY SPEAKING

The column of our corresponding editor

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HAIR

"Memoirs of Extraordinary Popular Delusions" by Charles Mackay was first published in 1841. Eleven years later an expanded version appeared with an expanded title. "Memoirs of Extraordinary Popular Delusions and the Madness of Crowds". This is a wonderful book, containing something for everyone: speculators in land /the Mississippi Scheme/, gardeners and flower lovers /Tulipomania/, religionists /The Crusades and The Witch Mania/, and especially for chemists a chapter on The Alchemists. The shortest chapter in the book /7 pages/ is entitled Influence of Politics and Religion on the Hair and Beard. If Mackay were writing today he

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could surely expand this chapter by adding a subsection perhaps called Influence of Hair on Science and Medicine. The use of NAA to analyze hair has been an ongoing project at many laboratories for twenty-five years and the value of the technique has yet to be proved except in a few very specialized instances such as searching for arsenic poisoning. Probably many readers will disagree with me when they read this last sentence, but that is still my opinion. I will not give references to the mention of work that follows for several reasons, not the least of which is that some authors are happy to have their results forgotten.

Hair analysis was suggested in the early 60's as a method of personal identification. I can recall clearly an important functionary of the USAEC rising in a scientific meeting to make the statement. "There will never be another unknown soldier". His plan was to have a hair bank and to tag individuals with different amounts of a few rare earth elements. Identification could be made by NAA of a single strand of hair using the current technology, which then consisted of NaI spectrometry and single channel analyzers. The introduction of multi-channel analyzers at just this time increased hair enthusiasm. Poor old Napoleon was posthumously declared to be a victim of arsenic poisoning, and several other great and near great figures from the past were studied through the use of bits of hair obtained from the subject either before he died or after and preserved as a sort of memento or relic to be handed down to future generations.

To say that many radiochemists were naive in those days is perhaps an understatement. The record with waste disposal, just to mention one item, seems to indicate either naivete or negligence. The same is