I know how it feels to be tired, but I hope it feels much better to be retired (although it sounds worse!):

Congratulations John and enjoy it!!



Al Cameron, the independent theorist: Saskatchewan, Chalk River, NASA New York, Yeshiva, Yale, Harvard





Cameron Camero

Jim Truran



Sachiko Tsuruta





Dave Arnett

First Contacts

Truran, Cowan, Cameron submitted in 1978 a paper (and preprint) on r-process in explosive He-burning. We had done similar things (with M. Arnould and W. Hillebrandt) and it appeared as a short abstract in the spring meeting proceedings of the Astronomische Gesellschaft (also 1978). W. Hillebrandt intervened and these nice guys were citing our little abstract already in the final version of their paper (ours came only out in 1979).

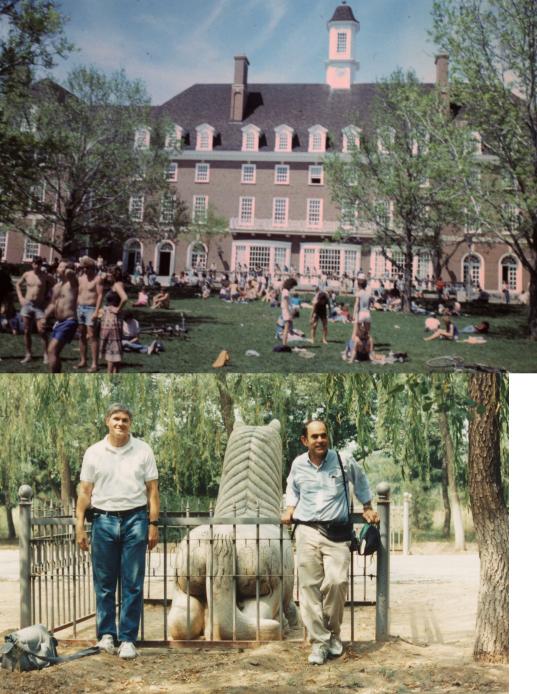
In early 1980, directly after my PhD, I sent a letter to John about my PhD results and that one could talk about them after I would have started my US Postdoc in Chicago in April (actually in a slightly arrogant tone about my results). A very pleasant letter came back, absolutely nice and polite, that he would be happy to meet and talk and exchange whenever it suits me, e.g. at the Santa Cruz meeting in summer 1980.

Santa Cruz 1980 was actually the first time we met in person. And from then on we were friends. My conclusion: these Cowan, Truran, Cameron guys were really very nice ones with a warm personality, and John especially.

1983 Yerkes Meeting (Willy Fowler's Nobel)



The Illinois Connection



In 1985 I started as a postdoc with Jim in Illinois, I remember a trip down to Oklahoma to visit John in February 1986. It was cold and snowy in Urbana/Champaign, and the spring flowers came out in Norman/Oklahoma. These meetings and continuations ended in our 1987 chronometer paper in Ap.J., which had as a result invitations for a Physics Report as well as an Annual Rev. of A&A.

Astronomy and Computer Center

Meetings: Here Clemson and Paris

And John's first thoughts about chemical evolution came along with Grant Mathews (r-process from low mass stars)

Fun and Work in Munich during summer visits and on the way to Ringberg





Inspiring Days at Harvard



Al's 70th birthday celebration





The days at Harvard: John had been a postdoc with Al before going to Oklahoma. I spend my time as junior faculty there from 1986 to 1994. John came during that time for a sabbatical. We finished the reviews and started on THE BOOK.



And enjoyed life

A sabbatical in New York and great reunions in Oklahoma



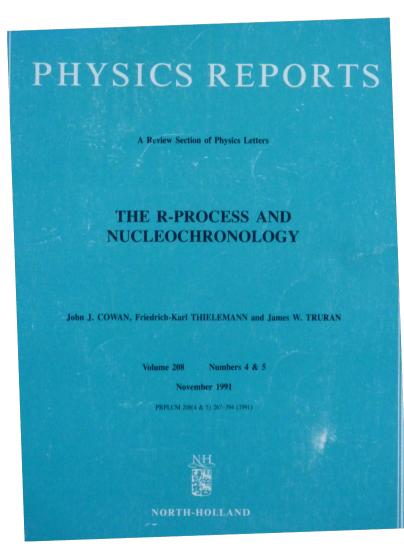




Work continued during John's and Linda's sabbatical in New York, and of course all the time when when visiting friendly Oklahoma. *Great work sessions (hard work!) and fun at the same time.*



Our joint efforts



We worked on all kinds of *r*-process theories and chronometers (I liked to date the Galaxy before getting married)

There are:

57 joint papers by Cowan & Truran
24 joint papers by Cowan & Thielemann
24 joint paper by Cowan & Kratz (whom I brought into the collaboration after our 1993 paper)
Only 10 joint papers by Cowan, Truran, Thielemann

But one of them is a great review!

Of course, this is nothing against 125 ADS entries by Cowan & Sneden (after John's complete conversion to an observer; Oklahoma does this to people!!!!)



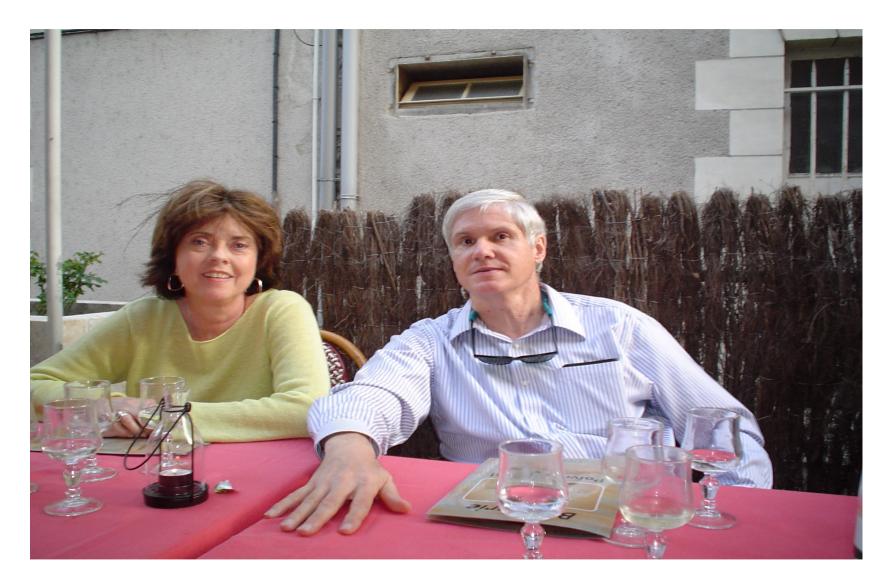
Another example: Eddie Baron

Basel and Russbach

Many attempts to finish THE BOOK

during visits to Basel: progress but no completion

All the Best to Both of You!!!!



Also from Jim (Truran, who provided his own contribution), Ken and Yoyo Nomoto (who provided photo material), and Stan Woosley (who looked for a 1980 Santa Cruz group photo, but could not find one).

But besides Retirement there are still duties!!

ale schor a

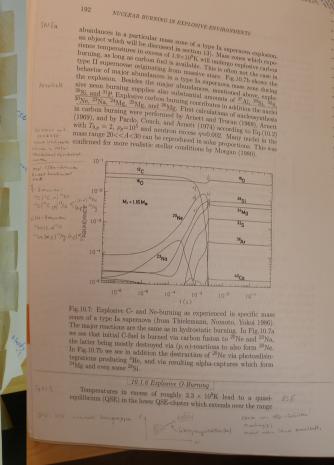
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NUCLEAR EVOLUTION OF THE UNIVERSE

COWAN, THIELEMANN AND TRURANa,b,

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NUCLEAR BURNING IN EXPLOSIVE ENVIRONMENTS 193

28<A<45 in mass number (Woosley, Arnett, Chayton 1973ase also ascitton 6.4). A full NSE with dominant abundances in the free roop cannot be attained. The main burning products are $^{-2}8_{11}^{-2}8_{22}^{-1}8_{41}^{-1}$, $^{-2}6_{12}^{-1}8_{42}^{-1}8_{42}^{-1}$, $^{-2}6_{12}^{-1}8_{42}^{-1}8_{42}^{-1}$, $^{-2}6_{12}^{-1}8_{42}^{-1}8_{42}^{-1}$, $^{-2}6_{12}^{-1}8_{42}^{-1}8_{42}^{-1}$, $^{-2}6_{12}^{-1}8_{42}^{-1}8_{42}^{-1}$, $^{-2}6_{12}^{-1}8_{42}^{-$

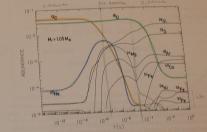


Fig.10.8: Explosive O-burning in a specific mass zone of a type Ia super nova similar to Fig.10.7 (from Thielemann, Nomoto, Yokoi 1986). We see that at higher temperatures also ¹⁸O-fusion occurs, producing the major burning products ²⁹Si and ³²S in addition to minor amounts of intermediate mass elements.

The abundances in the QSE-cluster are determined by alpha, neutron and proton abundances. Because electron captures during explosive processing are negligible, the original neutron excess stays smaltered and fixes the neutron to proton ratio (at least for O-burning zones, for exceptions at high densities and temperatures during explosive Si-burning in type Ia supernovae see section 13). Under those conditions the resulting composition is dependent only on the alpha to neutron ratio at freeze-out. In an extensive study Woosley, Arnett, and Clayton (1973) noted that with

<u>A heavily used book which should get finished!!!</u> (here with timely type Ia chapter)