The answer from the New Yorker staff was brief:

> We are already at work in our office laboratories on "newium" and "yorkium"! So far we have just the names.

Einsteinium and fermium (99 and 100)

The discoveries of many of the transuranium elements were the result of careful planning, taking into account predictions of chemical and physical properties.

Elements 99 and 100, however, were unexpectedly discovered in debris from the "Mike" thermonuclear explosion which took place in the Pacific on November 1, 1952. This was the first large test of a thermonuclear device. Debris from the explosion was collected, first on filter papers attached to airplanes which flew through the clouds (this sampling effort cost the life of First Lieutenant Jimmy Robinson who waited too long before returning to his base, tried to land on Eniwetok and ditched about a mile short of the runway) and, later in more substantial quantify, gathered up as fall-out material from the surface of a neighboring atoll. This debris was brought to the United States for chemical investigation in a number of laboratories to establish the properties of the explosion.

Early analysis of the "Mike" debris by scientists at the Argonne National Laboratory near Chicago and the Los Alamos Scientific Laboratory in New Mexico showed the unexpected presence of new isotopes of plutonium, $^{244}_{94}Pu$ and $^{246}_{94}Pu$. (At the time the heaviest known isotope of plutonium was $^{243}_{94}Pu$.) This observation led to the conclusion that the $^{238}_{92}U$ in the device had been subjected to an enormous neutron flux and had successively captured numerous neutrons. (Later calculations showed an integrated neutron fluence of 1-4 X 10^{24} neutrons was delivered in a few nanoseconds--a few moles of neutrons!!)

Armed with the knowledge of the multineutron capture by ^{238}U, we at the University of California immediately began a search for transcalifornium isotopes in the bomb debris. Ion-exchange experiments of the type previously mentioned in the case of berkelium and californium immediately demonstrated the existence of a new element and within a few weeks, of a second new element. The first identification of element 100 was made with only about 200 atoms. To secure a larger amount of source material, it was necessary later to process many hundreds of pounds of coral from one of the atolls adjoining the explosion area. Eventually, such coral was processed by the ton, using bismuth phosphate as the carrier for the tripositive actinide elements, in a pilot-plant operation which went under the name of "Paydirt."

Without going into the details, it may be pointed out that such experiments involving the groups at the three laboratories led to the positive identification of isotopes