A book editor of our acquaintance (nameless here for obvious reasons) recently mentioned to us that he had been thinking wistfully about the desirability of a year's moratorium in the world of publishing—it would give readers everywhere at least a token chance to catch up on the already published worthwhile books they would not otherwise have time for if they were keeping up with the unremitting assault of important new work. That, of course, is fantasy; the following strikes us as solid science fiction—thoughtful, hardly arguable extrapolation . . . susceptible of being considered, if you carelessly like, as humor.

MS FND IN A LBRY:
or, The Day Civilization Collapsed

by Hal Draper

From: *Report of the Commander, Seventh Expeditionary Force, Andromedan Paleo-anthropological Mission*

. . . What puzzled our research teams was the suddenness of collapse, and the speed of reversion to barbarism, in this multi-galactic civilization of the biped race. Obvious causes like war, destruction, plague, or invasion were speedily eliminated. Now the outlines of the picture emerge, the answer makes me apprehensive.

Part of the story is quite similar to ours, according to those who know our own prehistory well.

On the mother planet there are early traces of *books.* This word denotes paleoliterary records of knowledge in representational and macroscopic form. Of course, these disappeared very early, perhaps 175,000 of our yukals ago, when their increase threatened to leave no place on the planet's surface for anything else.

First they were reduced to *micros,* and then to *supermicros,*

which were read with the primeval electronic microscopes then extant. But in another yukal the old problem was back, aggravated by colonization on most of the other planets of the local solar system, all of which were producing *books* in torrents. At about this time, too, their cumbersome alphabet was reduced to mainly consonantal elements (thus: *thr cmbrsm alfbt w rdsd t mnl cnsntl elmnts*) but this was done to facilitate quick reading, and only incidentally did it cut down the mass of *Bx* (the new spelling) by a full third. A drop out of the bucket.

Next step was the elimination of the multitude of separate Bx depositories in favor of a single building for the whole civilization. Every home on every inhabited planet had a farraginous diffuser which tuned in on any of the Bx at will. This cut the number to about one millionth at a stroke, and the wise men of the species congratulated themselves that the problem was solved.

This building, 25 miles square and two miles high, was buried in one of the oceans to save land surface for parking space, and so our etymological team is fairly sure that the archaic term liebury (lbry) dates from this period. Within no more than 22 yukals, story after story had been added till it extended a hundred miles into the stratosphere. At this level, cosmic radiation defarraginated the scanning diffusers, and it was realized that another limit had been reached. Proposals were made to extend the liebury laterally, but it was calculated that in three yukals of expansion so much of the ocean would be thus displaced that the level of the water would rise ten feet and flood the coastal cities. Another scheme was worked out to burrow deeper into the ocean bottom, until eventually the liebury would extend right through the planet like a skewer through shashlik (a provincial Plutonian delicacy), but it was realized in time that this would be only a momentary palliative.

The fundamental advance, at least in principle, came when the representational records were abandoned altogether in favor of *punched supermicros*, in which the supermicroscopic elements were the punches themselves. This began the epoch of abstract recs—or Rx, to use the modern term.

The great breakthrough came when Mcglcdy finally invented mass-produced *punched molecules* (of any substance). The mass of Rx began shrinking instead of expanding. Then Gldbg proved what had already been suspected: knowledge was not infinite, and the civilization was asymptotically approaching its limits; the flood was leveling off. The Rx storage problem was hit another body-blow two generations later when Kwlsk used the Mcglcdy principle

to develop the *notched electron,* made available for use by the new retinogravitic activators. In the ensuing ten yukals a series of triumphant developments wiped the problem out for good, it seemed:

(1) Getting below matter level, Shmt began by notching quanta (an obvious extension of Kwlsk's work) but found this clumsy. In a brilliant stroke he invented the *chipped quantum,* with an astronomical number of chips on each one. The Rx contracted to one building for the whole culture.

(2) Shmt's pupil Qjt, even before the master's death, found the chip unnecessary. Out of his work, ably supported by Drnt and Lccn, came the *nudged quanta,* popularly so called because a permanent record was impressed on each quantum by a simple vectorial pressure, occupying no subspace on the pseudosurface itself. A whole treatise could be nudged onto a couple of quanta, and whole branches of knowledge could for the first time be put in a nutshell. The Rx dwindled to one room of one building.

(3) Finally—but this took another yukal and was technologically associated with the expansion of the civilization to intergalactic proportions—Fx and Sng found that quanta in hyperbolic tensor systems could be tensed into occupying the same spatial and temporal coordinates, if properly pizzicated. In no time at all, a quantic pizzicator was devised to compress the nudged quanta into overlapping spaces, most of these being arranged in the wide-open areas lying between the outer electrons and the nucleus of the atom, leaving the latter free for tables of contents, illustrations, graphs, etc.

All the Rx ever produced could now be packed away in a single drawer, with plenty of room for additions. A great celebration was held when the Rx drawer was ceremoniously installed, and glowing speeches pointed out that science had once more refuted pessimistic croakings of doom. Even so, two speakers could not refrain from mentioning certain misgivings . . .

To understand the nature of these misgivings, we must now turn to a development which we have deliberately ignored so far for the sake of simplicity but which was in fact going on side by side with the shrinking of the Rx.

First, as we well know, the Rx in the new storage systems could be scanned only by activating the nudged or pizzicated quanta, etc. by means of a code number, arranged as an index to the Rx. Clearly the index itself had to be kept representational and macroscopic, else a code number would become necessary to activate *it.* Or so it was assumed.

Secondly, a process came into play of which even the ancients had had presentiments. According to a tradition recorded by Kchv among some oldsters in the remote Los Angeles swamps, the thing started when an antique sage produced one of the paleoliterary Bx entitled *An Index to Indexes* (or *Ix t Ix*), coded as a primitive I^2. By the time of the supermicros there were several Indexes to Indexes to Indexes (I^3), and work had already started on an I^4.

These were the innocent days before the problem became acute. Later, Index runs were collected in Files, and Files in Catalogs—so that, for example, $C^3F^5I^4$ meant that you wanted an Index to Indexes to Indexes to Indexes which was to be found in a certain File of Files of Files of Files of Files, which in turn was contained in a Catalog of Catalogs of Catalogs. Of course, actual numbers were much greater. This structure grew exponentially. The process of education consisted solely in learning how to tap the Rx for knowledge when needed. The position was well put indeed in a famous speech by Jzbl to the graduates of the Central Saturnian University, when he said that it was a source of great pride to him that although hardly anybody knew anything any longer, everybody now knew how to find out everything.

Another type of Index, the Bibliography, also flourished, side by side with the C-F-I series of the Ix. This B series was the province of an aristocracy of scholars who devoted themselves exclusively to Bibliographies of Bibliographies of . . . well, at the point in history with which we are next concerned, the series had reached B^{437}. Furthermore, at every exponential level, some ambitious scholar branched off to work on a History of the Bibliographies of that level. The compilation of the first History of Bibliography (H^1) is lost in the mists of time, but there is an early chronicled account of a History of Bibliographies of Bibliographies of Bibliographies (H^3) and naturally H^{436} was itself under way about the time B^{437} was completed.

On the other hand, the first History of Histories of Bibliographies came much later, and this H-prime series always lagged behind. It goes without saying that the B-H-H' series (like the C-F-I series) had to have its own indexes, which in turn normally grew into a C-F-I series ancillary to the B-H-H' series. There were some other but minor developments of the sort.

All these Index records were representational; though proposals were made at times to reduce the whole thing to pizzicated quanta, reluctance to take this fateful step long won out. So when the Rx had already shrunk to

room-size, the Ix were expanding to fill far more than the space saved. The old liebury was bursting. One of the asteroids was converted into an annex, called the Asteroidal Storage Station. In thirteen yukals, all the ASS's were filled in the original solar system. Other systems selfishly refused to admit the camel's nose into their tent.

Under the stress of need, resistance to abstractionizing broke, and with the aid of the then new process of cospatial nudging, the entire mass of Ix was nudged into a drawer no bigger than that which contained the Rx themselves.

Now this drawer (D^1 had to be activated by indexed code numbers, itself. More and more scholars turned away from research in the thinner and thinner stream of discoverable knowledge in order to tackle the far more serious problem: how to thread one's way from the Ix to the Rx. This specialization led to a whole new branch of knowledge known as Ariadnology. Naturally, as Ariadnology expanded its Rx, its Ix swelled proportionately, until it became necessary to set up a subbranch to systematize access from the Ix to the Rx of Ariadnology itself. This (the Ariadnology of Ariadnology) was known as A^2, and by the time of the Collapse the field of A^5 was just beginning to develop, together with its appropriate Ix, plus the indispensable B-H-H′ series, of course.

The inevitable happened in the course of a few yukals: the Ix of the second code series began to accumulate in the same ASS's that had once been so joyfully emptied. Soon these Ix were duly abstractionized into a second drawer, D^2.

Then it was the old familiar story: the liebury filled up, the ASS's filled up. Around 10,000 yukals ago, the first artificial planet was created, therefore, to hold the steadily mounting agglomeration of Ix drawers. About 8000 yukals ago, a number of artificial planets were united into pseudosolar systems for convenience. By the time of yukal 2738 of our own era (for we are now getting into modern times), the artificial pseudosolar systems were due to be amalgamated into a pseudogalaxy of drawers, when—

The Catastrophe struck. . . .

This tragic story can be told with some historical detail, thanks to the work of our research teams.

It began with what seemed a routine breakdown in one of the access lines from D^{57x103} to D^{42x107}. A Bibliothecal Mechanic set out to fix it as usual. It did not fix. He realized that a classification error must have been made by the ariadnologist who had worked on the last pseudosolar system. Tracing the misnudged quanta involved, he ran into:

"See $C^{11}F^{73}I^{15}$."

Laboriously tracing through, he found the note:

"This Ix class has been replaced by $C^{32}F^{7}I^{10}$ for brachygravitic endo-ranganathans and $C^{22}F^{64}I^{3}$ for ailurophenolphthaleinic exo-ranganathans."

Tracing this through in turn, he found that they led back to the original $C^{11}F^{73}I^{15}$!

At this point he called in the district Bibliothecal Technician, who pointed out that the misnudged sequence could be restored only by reference to the original Rx. Through the area Bibliothecal Engineer, an emergency message was sent to the chief himself, Mlvl Dwy Smth.

Without hesitation, His Bibliothecal Excellency pressed the master button on his desk and queried the Ix System for: "Knowledge, Universal—All Rx-Drawer, *Location of.*"

To his stunned surprise, the answer came back: "See also $C^{11}F^{73}I^{15}$."

Frantically he turned dials, nudged quanta, etc. but it was no use. Somewhere in the galaxy-size flood of Ix drawers was the one and only drawer of Rx, the one that had once been installed with great joy. It was somewhere among the Indexes, Bibliographies, Bibliographies of Bibliographies, Histories of Bibliography, Histories of Histories of Bibliographies, etc.

A desperate physical search was started, but it did not get very far, breaking down when it was found that no communication was possible in the first place without reference to the knowledge stored in the Rx. As the entire bibliothecal staff was diverted for the emergency, breakdowns in the access lines multiplied and tangled, until whole sectors were disabled, rendering further cooperation even less possible. The fabric of this biped civilization started falling apart.

The final result you know from my first report. Rehabilitation plans will be sent tomorrow.

Yours

Yrlh Vvg
Commander

(*Handwritten memo*) This report received L-43-102. File it under $M^{42}A^{8}E^{39}$. —T.G.

(*Handwritten memo*) You must be mistaken; there is no $M^{42}A^{8}E^{39}$. Replaced by *W-$M^{23}A^{72}E^{30}$ for duodenomattoid reports. —L.N.

(*Handwritten memo*) You damfool, you bungled again. Now you've got to refer to the Rx to straighten out the line. Here's the correction number, stupid: