

THE ASTOUNDING INVESTIGATION: THE MANHATTAN PROJECT'S CONFRONTATION WITH SCIENCE FICTION

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Most *Analog* readers
have heard the story
of Cleve Cartmill's "Deadline" and
the attention it drew
from the government. But here
are some facts about it
you've never read before.

"Count Katsu Irohibi, Minister of War for Japan, announced at 11:55 A.M. today that Japan was prepared to drop bombs of a new nature upon any part of the world by remote control unless Russian aggression in Central Asia ceased immediately, and unless the United States and England permitted her to compete with them in the development of Asia."

"Colossus," by Donald Wandrei
Astounding Stories, January, 1934

"We were searching . . . for a way to

use U235 in a controlled explosion. We had a vision of a one-ton bomb that would be a whole air raid in itself, a single explosion that would flatten out an entire industrial center. . . . The problem was, strangely enough, to find an explosive which would be weak enough to blow up only one county at a time, and stable enough to blow up only on request. If we could devise a really practical rocket fuel at the same time, one capable of driving a war rocket at a thousand miles an hour, or more, then we would be in a position

to make most anybody say 'uncle' to Uncle Sam."

"Solution Unsatisfactory," by Anson MacDonald (pseud. Robert Heinlein)

Astounding Science Fiction, May, 1941

"The Codes of Wartime Practices for the American Press . . . request that nothing be published . . . about 'new or secret military weapons, . . . experiments.' In extension of this highly vital precaution, you are asked not to publish . . . any information whatever regarding . . . Production or utilization of atom smashing, atomic energy, atomic fission, atomic splitting, or any of their equivalents. . . . The following elements or any of their compounds: polonium, uranium, ytterbium, hafnium, protactinium, radium, rhenium, thorium, deuterium."

"Note to Editors and Broadcasters,"

Byron Price, Director of Censorship,
June 28, 1943

"U-235 has been separated in quantity sufficient for preliminary atomic-power research and the like. They get it out of uranium ores by new atomic isotope separation methods; they now have quantities measured in pounds. . . . But they have *not* brought it together, or any major portion of it. Because they are not at all sure that, once started, it would stop before all of it had been consumed. . . . They could end the war overnight with controlled U-235 bombs. . . . So far they haven't worked out any way to control the explosion. . . ."

"Deadline," by Cleve Cartmill

Astounding Science Fiction, March, 1944

Science fiction writers are often asked where their ideas come from. It gets boring, and only once has the answer been of consequence. That was in the spring of 1944, when agents from the Manhattan Project's security division asked the question of Cleve Cartmill and John Campbell in the wake of Campbell's publication of Cartmill's short story "Deadline" in the March, 1944 issue of *Astounding Science Fiction*.

The story had been nominally set on an alien but Earth-like planet, and described the adventures of a commando assigned to destroy an atomic bomb held by a Nazi-like power before it could be used in a war against the commando's democratic homeland. It stated that within the fictitious universe of the story, U-235 had been separated from non-fissionable isotopes and was ready to be detonated in a functional bomb, whose details were described. Incidentally, the commando succeeded.

As described, Cartmill's bomb would not work; and it did not resemble the uranium bomb being built by the Manhattan Project. However, suspecting a leak from the Project (whose most difficult engineering problem with uranium was its separation into fissionable and non-fissionable isotopes), agents interviewed both author and editor. "Where did you get *this* idea?"

The incident has become part of science fiction folklore. Campbell spoke of it often before his death, and it is often referred to by members of the sci-

ence fiction community, usually in the context of discussing the genre's anticipation of actual scientific and technological developments. However, the military intelligence agents kept records of the investigation, records which have just been released in response to a request under the Freedom of Information Act. Seven separate documents, comprising some thirty-nine pages of reports and memoranda filed under Cleve Cartmill's name, show just how the people who were guarding the building of the real atomic bomb responded to the news that a disreputable pulp fiction magazine was apparently keeping pace with this recent and most secret research. Coincidentally, they shed light on *Astounding's* fabled editorial practices just as World War II was disrupting the "stable" of famous science fiction writers John Campbell had assembled there between 1937 and 1941.

The earliest reports in the file are dated April 3, but that was the date on which they were written and sent off. The actual dates and circumstances of the interviews are not in the reports. The investigation had gotten underway almost a month earlier, on or before March 10, when Captain B. W. Menke, of the Intelligence and Security Division, Manhattan Engineer District, teletyped the Berkeley branch office asking for an investigation of Cartmill (who then lived in Manhattan Beach, California with his wife, children, and parents) and the methods through which he had obtained the technical material in his story. Later references in the file indicate that Campbell had already been interviewed before March 10; surveil-

lance of the Cartmill mailbox revealed that he had received a letter from Campbell "immediately following the New York interview with Campbell," "during the latter part of the week ending 11 March 1944."

Campbell's interviewer was Counter-Intelligence Corps (C.I.C.) agent Arthur E. Riley. In their conversation, Campbell assumed complete responsibility for the story's technical material, which he said that he had originated based on his technical background, including his work in physics at M.I.T. He told Riley that, "he tries to make 'Astounding' appeal to those of a scientific mind, and to do so edits and suggests usually technically correct and sound material." He also claimed that Cartmill had no technical background whatever and that the sole source of the material in "Deadline" was his own knowledge and imagination.

Riley was a good observer, but unfamiliar with science fiction and pulp publishing. He came away convinced that Campbell was an egotist, "as illustrated by a statement, 'I am Astounding Fiction Science [sic].'" This, as many in the science fiction world might testify, could be near the mark for the editor's character under the right circumstances, but as documents later revealed in the course of this same investigation show, the editor's assertion was also accurate. Campbell also impressed Riley "as one who is always looking for a story regarding technical and scientific matters or projects which have some basis in fact in order to impart his coloration to them when frequently they are the items of work on

which many of his technically minded intimates and associates are working.”

The interview with Campbell did not end the New York phase of the investigation. An unidentified confidential informant noted that Campbell had been seen having lunch with Edgar R. Norton (an engineer with a classified Bell Laboratories project not connected with the Manhattan Project), at the Bell facility at 463 West Street in New York. “The possibility exists that Norton may have received his knowledge of the work of the Murray Hill New Jersey District project through friends of his there,” Riley wrote.

Riley interviewed Norton, who knew of the story and its contents and pronounced them “utterly fantastic.” Norton said that he had discussed “Deadline” with Campbell some time previously, and had criticized its childish nature, including Cartmill’s device for lending an alien air, the transposition of letters in familiar names (“Seilla” for allies, “Sixa” for axis, and so on). Norton, like Campbell, claimed that the material in “Deadline” was common knowledge and believed that any release of classified material through the story was only the result of coincidence.

However, there had been an additional participant at the suspect luncheon, Will Jenkins (better known under his pseudonym of Murray Leinster), and Jenkins had resigned a post with the Office of War Information when he was denied a security clearance (for reasons not mentioned in these papers). One of his stories, “Four Ships,” had been “squashed by Navy Department Censorship.” Thus Jenkins was immedi-

ately suspect, as was the magazine following its “brush with censorship.”

Jenkins was interviewed, and the CIC net began to spread a little wider. Jenkins told Riley that he and his daughter Mary “had conducted experiments designed to acquire quantities of atomic copper,” and had submitted the results to “Lt. Azimoff, United States Navy for analysis at Columbia University.” The results remained unknown, Jenkins said, because according to “Azimoff” the mass spectograph at Columbia was broken. Riley managed to garble Isaac Asimov’s name, and to grant him a commission he never held, but the agent was able to place him at the Philadelphia Navy Yard accurately enough, which in turn drew the names of Robert Heinlein (described as “retired U.S.N.R.”) and L. Sprague de Camp into the investigation, since they were both working there and were associated with *Astounding* and with Campbell. Unlike Asimov, de Camp did have a naval officer’s commission, but that point managed to escape Riley. Heinlein would later be considered important, as he was said to be friendly with Cartmill (and in fact had corresponded with him on matters nuclear).

In addition, Riley reported contacting Jenkins’s former boss at the Office of War Information, two men associated with Hillman Periodicals, “with whom Campbell worked”: Paul Orban, the story’s illustrator, and John Nanovick of the Arthur Kudner Agency, described as “formerly associated with Campbell . . . who suggested the interview with E. R. Norton.”

When he had been interviewed,

Campbell had volunteered to suppress the Swedish edition of the magazine in order to minimize the possibility that any inadvertently compromised material would fall into German hands through it; but the security officers were not convinced that the story's technical material was of innocent origin. By this time, Riley had access to reports of the investigation in California, which were reporting that Cartmill claimed the entire story as *his* invention, derived from a technical background which Campbell maintained he did not have. Moreover, Riley did not rule out a leak of material from Norton to Campbell to Cartmill, or one from Asimov or Heinlein, although he was aware that neither of the latter two had any connection with the Manhattan Project.

Riley concluded the report of his investigation with the note that "information contained in the story . . . may have been the results of the imagination of Cartmill and Campbell together with such information as was published prior to 1941. The employment of certain specific material . . . may have been coincidental." However, he felt that that conclusion had not been definitely established, with at least one "knowledgeable" individual believing that certain references in the story could only be to classified research. No link between any of the investigated individuals and the Manhattan Project was established, and it was not deemed sufficiently productive to trace the possible leak back from Norton to the Project-related work at the Bell Labs facility in Murray Hill, New Jersey. Riley recommended that Street and Smith, and

particularly Campbell, be warned by the Office of Censorship that *any* reference to uranium and atomic power were banned by the Voluntary Censorship Code. He also recommended that Cartmill be directly interviewed to determine the source of his technical information.

In California, the investigation of Cartmill proceeded through March and April under the direction of Special Agent R. S. Killough of the Manhattan Project's Berkeley office. A mail cover was begun; the author's mail and that of his family was recorded beginning March 11, and the return addresses of his correspondents identified where possible. Military Intelligence, FBI, and local police files were checked, turning up from the Office of Naval Intelligence (O.N.I.) the information that once, before the war, Cartmill's father had tried to interest the Japanese Consulate in New York in a machine gun design—after it had been turned down by the American War Department. Thomas Cartmill's machine gun had been investigated through the use of a previous mail cover on his home, and he had admitted his efforts in an interview with agents from the San Pedro office of ONI. Cleve was not involved in the affair, nor had it prevented Thomas from obtaining a job at the California Shipbuilding Corporation in San Pedro after the war began. The records of the earlier affair were ordered checked in any case. The Manhattan Beach police had no record of either Cartmill.

Killough also spoke to two men who saw Cartmill regularly: Neal Anderson, the senior air raid warden for Manhattan

Beach (Anderson was nearly blind, Cartmill had one arm withered by disease, both served civilian defense from a desk and telephone), and Stewart Hoffman, letter carrier on the Cartmills' route. Anderson volunteered to engage Cartmill in an oblique discussion of the story, but was excused. Prior arrangements had been made with Hoffman (and his superior, the Manhattan Beach Postmaster). It was Hoffman who reported that Cartmill had received a letter from Campbell between the time of the editor's interview with Riley and the establishment of the mail cover on March 11.

Killough may have preferred that Hoffman rather than Anderson approach Cartmill because he read science fiction, usually read Cartmill's stories, and had previously discussed them with him. He had even read "Deadline" before the investigation and had "thought this agent or someone from the war department should be interested in it." Hoffman told Killough that he thought Cartmill had gotten the scientific basis for his story from his imagination, and the postman also noted that Cartmill's only reaction to a pre-investigation mention of the story had been to remark that "he thought it 'stinks.'" Cartmill had been more interested in discussing a forthcoming story in *Colliers*.

While Killough was waiting for Hoffman to report on his assigned conversations with Cartmill, he interviewed the author himself, "under a suitable pretext" (which he did not describe in his report). The Cartmills favorably impressed Killough in a way that Campbell had failed to impress Riley in New

York. Cleve appeared, with his mother, as well educated and well dressed. Killough's report was sanguine where Riley's was suspicious, even though the Cartmills had discussed the possibility that the family might move out of the country, to Guadalajara, Mexico. Cleve could continue writing there, they said, if the house they were renting in Manhattan Beach was sold.

Killough was "unable to get Cleve to talk much about his pulp writing, as, like most writers, he was not very proud of that type of work and preferred to talk of his *Colliers* stories." Since the agent was talking to Cartmill under a pretext, and assumed that he had received a letter in reference to the Investigation from Campbell, he did not mention "Deadline" himself. "From the general nature of his conversation," Killough concluded, "this agent was of the opinion that Cleve is well enough educated to be able to piece out the facts on which to base such a story from his own reading from pre-war publications readily available."

When Hoffman reported by telephone to Killough on March 20, he told the agent that he had gotten much the same impression from his recent talks with Cartmill. Their conversation had been detailed, he said; and Cartmill had stated that "Deadline" had been based on "general reading and his own scattered knowledge of physics. He had done no particular research for the story and felt that probably most of his idea for it came from reading various similar stories in magazines of that same type. He stated that no one individual or group of individuals had given him an[y] scientific

facts for the story. In conclusion, he made the statement that he thought that almost anyone who had read a physics textbook would have the facts available." Killough's reports do not speculate on the possibility that once he was warned by Campbell (if in fact he had been), Cartmill might have suspected Hoffman was pumping him on behalf of the authorities. In any event, the author told Hoffman that when he had first written the story he "had placed the scene on the Earth and brought it into relationship with the present war. However, after a conference with the editor of the magazine, he changed the story to have it occur on another imaginary planet to avoid any conflict with censorship in war time." Or at least that is what Hoffman *said* Cartmill told him.

Hoffman's report gave some urgency to the investigation when it reached Riley on the east coast. Not only was Cartmill's claim of complete originality a direct contradiction of Campbell's assertion that he had devised the basic situation, but the revision to avoid censorship indicated to Riley that both author and editor felt they had "hot information." But it was not deemed productive to trace any connection to Campbell from his friend Norton and Bell Laboratories. The Philadelphia Navy Yard writers were not investigated either. Instead, an open interview with Cartmill was ordered. On May 3, Special Agent D. L. Johnson, like Killough working out of the Berkeley office of the Project, went to Cartmill and asked him about "Deadline" directly. It was this open, direct interview which provided the only solid answers the Project was ever able

to get, although even this talk did not reveal whether there had been a leak at the Manhattan Project. That was never established.

Cartmill denied possession of prophetic powers; but as it turned out, he had somewhat more technical background than Campbell had credited him with having. He was not a scientist, but when he had first arrived in California in 1927, he told agent Johnson, he had worked for the American Radium Products Company in Los Angeles and had "studied radium and its properties" while employed there. He said that he had continued his studies and branched out into uranium after he left the firm, discussing U-235 and atomic energy with, among others, Robert Heinlein and Jack Williamson. (He pointed out too that he knew de Camp, Asimov, and Will Jenkins only by reputation and he had never met John Campbell.)

However, when questioned as to the source of the technical material in "Deadline," the references to U-235 separation, and to bomb and fuse design, Cartmill "explained that he took the major portion of it directly from letters sent to him by John Campbell . . . and a very minor portion from his own general knowledge." And he could prove it.

In a May 11 memorandum to his "officer in charge," presumably at the Berkeley office, agent Johnson reported that "CARTMILL extracted from his files several letters which he said covered completely the correspondence relative to "Deadline": two letters from Campbell to him, and copies of two he had written to Campbell. Johnson re-

ported that “perusal of these letters indicates unquestionably that CARTMILL extracted almost word for word the information appearing in Campbell’s letters and included such in his story.” When questioned about his statements to his letter carrier, Hoffman (“in a manner which would preclude compromising above informant,” to be sure), Cartmill was quite direct. In that same memo, Johnson told his superiors “CARTMILL was quite frank in admitting that he would most certainly claim the entire story to be his own, as far as the general public was concerned, as that was an author’s prerogative and protection. Because of his own pride and prestige he would not admit to the general public that he had extracted, word for word, information conveyed by another person.”

This didn’t tell anyone where Campbell had developed his ideas, but those ideas were sent to Cartmill directly, in one of the editor’s famous letters. On August 16, 1943, ten days short of two years before the first uranium bomb was dropped over Hiroshima, Campbell had written to Cartmill in apparent response to a prior letter mourning the imminent demise of *Unknown* (whose November issue would be its last), and containing a story idea based on the notorious vanishing crew of the *Marie Celeste*. The editor was in trouble. He had just made up the story list for *Astounding*’s December issue and had only three stories left on his books; “I find that Three’s a Crowd is definitely a lie; three is invitation to disaster, dilemma [*sic*], and despair. . . .” He needed “8 to 10 short stories, 8 to 10 novelettes, and a serial

or so, as well as a half-dozen articles.” “So,” he wrote Cartmill, “if you could turn out some Astounding material, I’d love it.”

His need for stories did not stop Campbell from turning down the Marie Celeste idea on the grounds that it was clichéd. On the other hand, “. . . there might be a story in this thought. . . . It’s this way: U-235 has—I’m stating fact, not theory—been separated in quantity easily sufficient for preliminary atomic power research, and the like. They got it out of regular uranium ores by new atomic isotope separation methods; they have quantities measured in pounds. . . .”

The letter ran for three pages, in which Campbell not only provided Cartmill with the scientific material on which the story was based, as background, but also suggested the basic plot and the alien setting. “Now it might be that you found the story worked better in allegory—the war being placed on another planet, where similar conditions prevailed. I think the story would be the adventure of the secret agent who was assigned to save the day—to destroy that bomb.”

Four days later, Cartmill wrote back to Campbell, asking for clarification before he began writing. His first concern was that the idea of an atomic explosion was “prophecy so close to home that it may be ridiculous. And there is the possible danger of actually suggesting a means of action which might be employed.” On the other hand, he was uneasy about his ability to create a viable alien setting in a short story. Further, he had some technical questions

to ask Campbell about theoretical ways to control such a bomb before its assigned explosion could take place over a target. "You see, I want to know how to make a U-235 bomb, so that I'll know how to destroy it, because I think that will be highly entertaining reading. Keeping an eye, of course, on what should or should not be told for social, military, or political reasons."

So the story was never revised to meet censorship; it was written with censorship in mind, but without Campbell once telling Cartmill that censorship forbade *any* mention of atomic energy, in any setting. Campbell's single-spaced, two-and-one-half page response led off with a firm request that the story be set on an alien planet, "for the reasons you suggest. (Plus the one that censorship won't give any trouble about what happens on Gxzkxvg, where they might kick somewhat about local happenings.)"

Cartmill did not waste a lot of time writing "Deadline." Campbell's first suggestion was written and mailed on August 16, the cover letter for Cartmill's submission was dated September 7. Perhaps the speed of composition shows in the juvenile plot and the silly background of the alien setting. "Actually, there need be no loss of realism," Campbell had suggested; "use somewhat unusual names—but nothing any more outlandish than some of the better Greek, Russian and Chezk[sic] sneezes . . . the situation will simply go along as though it were Earth." In response to this rather sensible advice, Cartmill had taken dangerously (as it turned out) germane names and trans-

posed the letter order, a tactic which both aroused suspicion and added to "Deadline's" childish style. The commando's egregious prehensile tail, which led to sneers from Project officials when they read the story, was another Campbell idea to establish the alien setting, but he had also suggested to Cartmill that he use Heinlein's "Blowups Happen" and Asimov's "Nightfall" as literary models. The latter's rendering of an earthlike alien setting was particularly recommended. Cartmill had just not taken Campbell's hints very well.

By this time, the agents must have been convinced of the situation's fundamental innocence, or at least harmlessness; or they had picked up a quick education on science fiction writing in the course of a month's investigation. These mentions of Heinlein and Asimov drew no response at all from them, and they did not, apparently, associate Heinlein with "Anson MacDonald," author of "Solution Unsatisfactory," the only previous *Astounding* story dealing specifically with nuclear *weapons* in a contemporary context. But then they also let pass Cartmill's reference, in response to Campbell's chuckling over a new powerful radio set he had just acquired, to his prewar habit of listening to Radio Tokyo ("for the laffs").

But if the field agents had become convinced that the situation did not warrant investigation of an information leak from the Manhattan Project, the Project's senior security officers were nonetheless extremely angry over "Deadline's" publication. On May 6, after the Cartmill interview but before Johnson's report, Lt. Col. W. B. Par-

sons, District Intelligence Officer at Oak Ridge (site of the uranium separation plants), wrote a bitter memorandum to Lt. Col. John Lansdale, the Project's security chief in Washington. Referring to an earlier letter on censorship, Parsons believed that "Deadline" was "possibly not a violation of code of the war time practices for publication . . . the inference appears that the country is doing work in such field. Further, such articles can well provoke public speculation, thus undoing considerable efforts towards the Security Education of the public." As had the field agents, Parsons suggested that the Office of Censorship contact Street and Smith and remind them "that such highly particularized stories on secret weapons are detrimental to national security because of the flood of rumors they begin and because secret plants are brought into discussion, thus affording risks to the security about them." He referred to another story published by Dial Press which was similarly objectionable from the same point of view, and asked his chief, "Would it be possible to enlist the cooperation of postal authorities to revoke mailing privileges of such publication in the interest of aiding national defense by refusal to assist in the circulation of information which may innocently furnish assistance to the enemy?"

That was an attempt at heavy hitting. Revocation of mailing privileges is tantamount to shutting a magazine down. It has been used in several American episodes of intolerance and political repression: abolitionist newspapers in the pre-Civil War South and Socialist

Party papers during World War I are the most prominent examples. Parsons's bureaucratic language does not make clear whether he intended to apply this dictatorial tactic to all science fiction or just to *Astounding*, but he was denied both opportunities.

Eleven days after Parsons wrote, Lansdale sent him an information copy of a most interesting letter sent to Lansdale's office by Jack Lockhart, Assistant Director (Press) in the Office of Censorship. Lockhart had read at least one of the agents' reports and one letter associated with the investigation, as well as "Deadline" itself (which he did not like). "I spent an unpleasant half hour reading this story," he wrote, and then indulged himself in a paragraph of the kind of sarcasm that has too limited a field in bureaucratic writing—mostly at the expense of Cartmill's childish alien setting. "These, and other elements involved in the story, were confusing to me," he admitted, "including certain pseudo-scientific discussions similar to ones I used to read when I was younger and given to milder forms of dissipation."

Lockhart's dislike of "Deadline" and science fiction itself did not, however, distract him from the real issue. He wrote to Campbell and asked the editor to assure him that "he will not publish additional material relating to subjects involved in our special request of June 28, 1943. . . . That is about as far as I feel we can go, and I will let you know the result." That letter to Campbell is not included in the released file, nor is Campbell's reply, if any. However, Lockhart was not through. He had been

asked to comment on Parsons' suggestions on censorship and he did. At some length.

"I can understand the worry which Colonel Parsons feels about publication of information of military value. I hope he can understand the worry which the press feels about censorship. The press is as much a part of this nation as the Army and has a job to do that is as important as the Army's. I suppose that from the viewpoint of total military security it would be best to stop all the presses of this nation when the nation goes to war—except for those kept running to get out military regulations and orders. But I don't think that would work in our democracy and I think it would be found that any such action would be more likely to lose a war than win it. . . . In short, I do not think Colonel Parsons has thought the matter through. He would chop down the tree to kill the leaf borers—and at the same time lose the fruit." This notable censor went on to point out that even those laws whose violation brought the death penalty were often violated repeatedly. He believed that no punitive action on such matters could be as effective as "voluntary cooperation from patriotic citizens." He was able to point to a track record too. ". . . a few moments reflection on what has not been printed in connection with the projects in which you and Colonel Parsons are interested, especially when measured against the possibilities, is most illuminating, and furnishes an excellent endorsement of voluntary censorship."

By this time, in the second week of May, 1944, Parsons mentions consul-

tation with a technical adviser, Dr. H. T. Wensel, apparently for the first time in the now two-month-old investigation. In his cover memo for the report he sent to Lansdale, Parsons noted Wensel's view: "that editor Campbell's . . . observations on the subject matter are those that can be produced by any person with a smattering of science plus a fertile imagination, who may be in the scientific fiction publishing business. Further Dr. Wensel commented that an occasional reference along this line was not undesirable. *However, he concurred with the opinion of this office that such articles coming to the attention of personnel connected with the Project are apt to lead to an undue amount of speculation [italics added].*"

This last comment, in the final document in the declassified file, is (to coin a phrase) fascinating. Not only was the Project interested in material from the Project finding its way out to science fiction or to the general public; it was also interested in information flowing the other way!

The Manhattan Project sought to provide internal security through compartmentalization. Only at the very top, and on a need-to-know basis, were the participants supposed to know what they were working on. Campbell and Cartmill had created a problem by naming what was intended to be unnameable: the near-term practical possibility of an atomic bomb. Campbell seems to have known something was up: "I'm stating fact, not theory," he had written to Cartmill. Cartmill was afraid before he began writing that "Deadline" would do exactly what it did do: inadvertently

call attention to a real bomb project. As contemptuous as Project security and the censor were of science fiction, they were also a little afraid of precisely what Campbell's science fiction did best: putting scattered bits of scientific knowledge together into a specific, concrete idea or device, and speculating on what that idea or device's impact might be on the world at large. That kind of speculation represents a way of thinking distinctly at odds with those of bureaucracies like the Manhattan Project. The latter are often perfectly aware that two and two add up to four, but they equally often want to control the distribution of that news, for legitimate (as in this case perhaps) as frequently as for disreputable reasons.

So the affair represents more than just the anecdote which it has become. Cartmill's letters reveal many of the constraints under which Campbell labored during the war; the affair as a whole shows the extremely casual way in which Campbell regarded so-called "voluntary censorship." But that casualness, juxtaposed with the grim concern for control and fear of undue speculation on the part of the Project, marks an early and quite concrete example of the tension between the imagination engendered by science fiction and the concerns of the giant bureaucracies (governmental or private) which have so dominated scientific research and technological development since the end of World War II. It is probably belaboring *Analog* readers to remind them that that tension has furnished themes for more than a generation of science fiction stories.

A NOTE ON SOURCES

This narrative was written, and all of the quotations taken, from documents prepared as reports and memoranda by the Manhattan Project Military Intelligence agents who conducted the investigation, their superiors, and in one case by an official of the Press section of the Office of Censorship. When they were written, they were classified "Secret," the second level of a system whose lowest level is "Confidential" and whose highest is "Top Secret." They retained this classification until April, 1983, when they were declassified and released to me under the provisions of the Freedom of Information Act.

My initial request for these files was made through the press relations office of FBI Headquarters in Washington, DC. They were located in FBI archives within twenty-four hours, but the FBI could not declassify them; that could only be done by the agency which originated them or by its legal successor. However, neither the Adjutant General's office in the Department of the Army nor the Military Records Branch of the National Archives could locate copies of the documents. Only the FBI, which had received information copies from the investigation, could locate the material.

It took six months, from October, 1982 to March, 1983 for the FBI to transmit the papers from their archives to the Army for declassification. They then went through three Army offices in one month, and were finally declassified in the Freedom of Information/Privacy Office of the Army Intelligence and Se-

curity Command at Fort Meade, Maryland in twenty-four hours.

Under the Reagan Administration, the regulations governing the release of classified materials under FOIA have been made more restrictive; however, these papers are now declassified. Re-

quests for copies of these documents should be directed to the Intelligence and Security Command at Fort Meade, referring to Cleve Cartmill by name and to file numbers DSM-2a-686-1 and/or DSM-a9-59-p. A fee is charged to cover copying costs. ■