

THE

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The most extraordinary story to come out of atom-bombed Hiroshima, Japan, was given an official nod last week.

As described in an International News Service dispatch datelined Tokyo, May 14, and published in the LOS ANGELES EXAMINER for May 15, 1946, the report is as follows:

"The (atomic) bomb rays bleached stone and concrete and etched metal, causing 'shadow effects' to be left forever on surfaces of Hiroshima's granite blocks."

The story continues about one "sensational shadow" which was left on the side of a huge metal vat. At the moment of the explosion, a painter wearing a peculiar hat was standing on a ladder, his hand holding a paint brush extended as he worked. This entire scene is now silhouetted on the vat.

In the February 24, 1946 issue of NEWS OF THE WORLD, a British weekly paper, the story was reported by A Noyes Thomas, who is by-lined as a "Special Correspondent" of NEWS OF THE WORLD. (The British newsmagazine, NEWS REVIEW, also noted the report under "Science" in its issue of March 7, 1946.)

According to Thomas, he first heard of the shadows from high-ranking British naval officers on the H M S Glenairn, headquarters ship of the British Commonwealth Occupation Force, which is stationed in Kure Bay, near Hiroshima.

"Only after investigating the story on the spot...was I convinced of the truth of it," he wrote.

"At one place the shadow of a vanished bridge has appeared on the street which it spanned. From a distance it seems as though the bridge is still intact."

At another spot he saw the shadow of a man leading a bullock and wagon. The shadow was so clear that details of the man's peculiar boots (having separate compartments for the big toes) were easily distinguishable.

"Elsewhere there is the shadow...of a little Japanese girl, probably aged about 12, holding under her arm what may have been a bundle of schoolbooks."

Thomas said that the Japanese name for the phenomenon was "kage" (pronounced car-gay)—"the shadow." He reported that the remaining inhabitants of Hiroshima shunned the vicinity of the permanent shadows, and were refusing to live near the places where they had been seen.

The dispatch written by Thomas gave the impression that the shadows were just then appearing—six months after the atomic bomb explosion. "Because of some unexplained delayed action of the atomic rays," he wrote, "scenes from the life of the thronged Japanese city at the instant of the explosion are now appearing as silhouettes on the barren ground."

This apparently made British scientists, who were interviewed by a NEWS OF THE WORLD reporter

on their opinions of the story, somewhat confused. Extreme disagreement on the possibility of such an occurrence was the keynote of the British interviews.

Professor Rudolph Peierls of Birmingham University, a member of the British atomic research team, gave a "probable explanation," drawing a parallel between the effect of a few moments of brilliant sunshine, and the intense heat radiated by an atomic explosion. "One's face would be deeply tanned, except in the shaded parts... Under the intense radiated heat of an atomic explosion the ground would be seared, but less deeply so in the shade..."

Professor Marcus Laurence Elvin Oliphant, also of Birmingham University and member of the British atomic research team, was present when Professor Peierls gave his opinion. Professor Oliphant's statement was: "The results reported would not be impossible in certain circumstances."

On the other hand, Sir Charles Darwin, Director of the National Physical Laboratory, said that he doubted that the shadows existed. Professor Alexander Oliver Rankine, F R S, called it a fantastic story "on the surface."

A "well-known Government authority on atomic energy," interviewed by the NEWS OF THE WORLD reporter, admitted that "terrific heat effects produce shadows" but said he would "be shy of suggesting an explanation of the phenomenon."

It is possible that the "shadow" occurrence is connected in some as yet indetermined way with the problem of mechanical pressure of light on solid bodies. SCIENCE DIGEST for May, 1946, quoted an Associated Press report that Professor Paul Harteck, formerly of the Kaiser Wilhelm Institute of Physics in Berlin, Germany, and now in the British occupation zone, had declared that the light rays emitted during an atomic bomb explosion add to its destructive force.

Harteck, an "atom scientist," pointed out that the 10,000,000-degree temperature produced by the explosion of an atomic bomb causes the release of a great amount of light "which is beyond the visible spectrum," and is contributory in exerting a physical force on solid objects.

Photographs of the "shadows" are included in an almost three-hour film made by Nippon Newsreel Company at the request of Japanese scientists and the Japanese Ministry of Education. Cameramen rushed to the scene almost before the dust of the atomic explosions at Hiroshima and Nagasaki had settled.

The film, which is "confidential," is now in the possession of the United States Army Air Force. It is accompanied by thirty-five hundred still photographs, which illustrate every scene in the moving picture.

The INS report stated that the atomic bomb explosion bleached vegetation in its vicinity, and blasted radioactive sand into wells four miles distant, giving intestinal disorders to people who drank from them.

Photographs of complete autopsies on victims of the explosion, showing the effects of radiation on the interior body structure and tissues are a part of the documented film.

"A great many grim stories have come out of atom-bombed Hiroshima, but none so weird as (this)," is the way NEWS REVIEW commented on the almost unbelievable report.

(In order to bring to their readers as complete an account as possible of the Hiroshima "shadows," the FUTURESEARCH associates who prepare ATOMIC AGE have omitted all other news from this issue. The most important events of last week will be summarized in the next issue.)

"After Japan's capitulation the scientists who had taken part in the discovery of the atomic bomb, and the world at large, were confronted with the problem of: What next? What was to be the fate of this stupendous discovery? What were the prospects of utilizing atomic energy?"

This is the problem as stated by M Rubinstein in his article "Science and Atomic Policy," published in the March 15, 1946 issue of NEW TIMES (12 Kalashny Pereulok, Arbat, Moscow, USSR). Mr Rubinstein continues:

"...It is well known that thousands of scientists, engineers and mechanics of diverse countries and nationalities worked on the problem of splitting the atom. However, the American government decided to keep the scientific achievements representing the outcome of this great international work secret from other countries... This has called forth indignation and protests on the part of the vast majority of the men of science who took part in the creation of the atomic bomb."

After describing the various organizations of atomic scientists which have been formed, and their objection to either military or monopolistic control of atomic energy, Mr Rubinstein turns to the United Nations organization. A Commission for the Control of Atomic Energy was set up by the UN in January, 1946, and of it he says:

"...The function of this commission is to study and recommend measures capable of ensuring the use of atomic energy only for peaceful purposes and of eliminating from national armaments atomic weapons... The commission's proposals must be approved by the Security Council.

"The commission will have to solve new and complex problems and it is confronted by no few political and technical difficulties... Undoubtedly, the creation of...confidence is an essential condition of success in the work of the commission, in making international atomic energy control a real possibility."

Mr Rubinstein then discusses the two atomic-energy control bills--the McMahon and the May-Johnson--which were under hearing in the United States Senate committee, and quotes from some of the testimony given. He declares that the Senate debate "revealed, or rather confirmed, a number of remarkable facts." They are:

"Firstly...United States military circles are...hindering the employment of atomic energy for peaceful purposes..."

"Secondly...the policy pursued by these circles in the sphere of atomic energy...are fraught with grave consequences for the development of science..."

"Thirdly...imperialist circles are continuing unabated their attempts to utilize the discovery of atomic energy for gambling in foreign affairs..."

"Fourthly...nothing has been said to allay just apprehensions that...(the military circles) are hindering the establishment of international collaboration in the sphere of atomic energy as provided for in the decisions of the Moscow Conference of the Three Foreign Ministers and of the Assembly of the United Nations Organization. On the contrary, they are brandishing the atomic weapon for purposes which have little in common with peace and the security of nations."

The concluding section of Mr Rubinstein's article deals with the forthcoming test of the atomic bomb at Bikini Atoll, and the fallacious reasoning which regards this display as a "warning" against war. Finally:

"Not even by the widest stretch of the imagination can all this be regarded as likely to create that confidence which the United Nations Organization deems necessary for the success of measures taken to control atomic energy." #

MAGAZINE ARTICLES PUBLISHED IN THE LAST WEEK

THE BRITISH MAGAZINE—May, 1946: FATHER OF THE ATOM BOMB, by Sir Henry Tizard. A brief sketch and some anecdotes about "The Right Honorable Baron Rutherford of Nelson" etc, who was the first to actually smash the atom.

FORTUNE—May, 1946: THE PHYSICS OF THE BOMB, by Dr A K Solomon. Dr Solomon, research fellow at Harvard in chemistry and physics, and author of the book WHY SMASH ATOMS?, discusses atomics from the discovery of the feasibility of atomic fission to the making of the atomic bomb. Much of the technical material is drawn from the Smyth report, while Dr Solomon's conclusion about the future of atomic energy states that "free research is the only key." The article is clearly and dramatically illustrated with drawings by Matthew Leibowitz and many photographs, both in black-and-white and color.

THE NATION—May 11, 1946: LEFTISM IN THE ATOMIC AGE, by Norman Angell. "The issue is not one between socialism and capitalism... The issue is whether social development shall be carried out by the democratic processes... The issue is essentially political, not economic..."

NEW MASSES—May 14, 1946: THE CHALLENGE OF ATOMIC ENERGY, by Paul Miller. Third in a series, this article deals largely with the political aspects of atomic energy, declaring that it is impossible to develop atomic power for use in a monopolistic regime, and that only in a socialistic society can the full potential of atomic energy be made use of.

THE NEW REPUBLIC—May 13, 1946: GESTAPO METHODS IN CANADA, by M J Coldwell, M P. Describes the treatment accorded to persons arrested in Canada under suspicion of violating the Official Secrets Act. According to Mr Coldwell, who is head of the Canadian Commonwealth Federation, the accused were confined in small rooms in which lights were kept constantly burning, were not permitted to send letters or communicate with their friends or counsel, and were questioned and their answers recorded on subjects which they had not been accused of at the time of their arrest.

NEW TIMES—March 15, 1946: SCIENCE AND ATOMIC POLICY, by M Rubinstein. Discussed on the previous page.

THE SATURDAY REVIEW OF LITERATURE—May 11, 1946: THE ATOMIC AGE—HIROSHIMA: EYE-WITNESS. The complete account by Father P T Siemos, S J, of the atomic bombing of Hiroshima and the aftermath. (The author's name is here given as "John & Siemos.") This account, as published in THE IRISH MONTHLY, was discussed in ATOMIC AGE on April 29, 1946, in Issue Number 2.

TRENDS & TIDES—March-May, 1946: CLANGING WITH A LOUD AND SNARLING NOTE, by Louis Adamic. "World War III is in the works: there is no doubt about that. And if it comes—"

THE ATOMIC AGE is a weekly newsletter of fact and opinion on atomic power and the atomic bomb, compiled and edited by Associates of FUTURESEARCH. Subscription: \$2.00 for one year (52 issues), \$1.00 for six months (26 issues). Address: Arthur Louis Joquel, II, Box 3343, Los Angeles 53, California.