Behind every good spook are his tools. False teeth and a beard disguise his appearance on the way to an agent meeting. Invisible ink conceals the message he carries. A camera built within a cigarette lighter allows him to take pictures on the sly. His tool kit includes equipment for unsealing and resealing envelopes, miniature microphones, and wiretapping equipment. Behind enemy lines, he has special incendiary devices, explosives built to resemble coal, and pens that dispense bacteria into water supplies. In short, behind every James Bond there is a "Q."

But who is Q? Movie audiences have always seen much more of the dapper 007 than the man who developed his gadgets. Details on the technical side of spying have been equally scarce for readers of intelligence literature. The late Ban Shigeo, a technician at the Japanese Army’s 9th Technical Research Institute, left a rare and valuable account. Following his demise in 1993, shortly after penning his manuscript, his
In this slim book, Ban and his editors put together a good account of the Noborito Research Institute. The book touches on the institute's background, offers a portrait of its founder, Lt. Gen. Shinoda, and lists its areas of research and the products developed. Given Japanese sensitivities, it is commendable that Ban included the Institute's involvement in projects to develop poisons, biological agents to destroy crops and plants, and the balloon bombs sent to drift over the western United States near the end of the Second World War. Also welcome are the photographs and illustrations, including portraits of institute personnel, sketches of inventions, and the aerial snapshot of the facilities taken by Gen. Douglas MacArthur's staff in 1947.

Looking back, the terrible march of science in the First World War left the Japanese Army running to keep up with the West. Although Japan had fought on the Allied side against Germany, the innovations introduced on the battlefields of Europe--most notably chemical warfare--threatened to leave the Japanese Army at a disadvantage. In response, Tokyo reorganized the Army's explosives institute in 1919 into the Army Science Research Institute, with departments for research in the physical and chemical sciences. In 1925, a department for chemical warfare was added. Capt. Shinoda Ryo directed work on applications for covert warfare in a laboratory of the chemical sciences department. By late 1939, his laboratory had grown into a branch institute at Noborito, south of Tokyo in Kanagawa Prefecture. In 1942, the Army Science Research Institute was reorganized and Shinoda's laboratory became the 9th Army Technical Research Institute. By war's end, Lt. Gen. Shinoda was directing nearly a thousand employees.

Of the Army's ten numbered institutes, only the 9th Army Technical Research Institute came under the covert operations section of the Army General Staff's Second Bureau (Intelligence). Noborito's main customers were the covert operatives trained at the Army's Nakano School and the counterintelligence officers of the Kempeitai. Boasting the largest budget of the institutes, Noborito cut research contracts with much of the scientific elite in Japan's academic and corporate sectors.
Noborito personnel worked with varying degrees of success to develop a range of tools, from secret inks and concealed cameras to poisons, explosives, and a death ray. On the sensitive issue of Japanese biological warfare, Ban did not shrink from including an account of his TDY to Nanking in 1941 to participate in the testing of poisons on Chinese prisoners. One of his book's contributions is to further tie Noborito to the Japanese Army's infamous Unit 731, which participated in biomedical research.7

When the war ended, the US Army quietly enlisted certain members of Noborito in its efforts against the communist camp in the early years of the Cold War. Ariga notes near the end of the book that Ban led the "chemical section" of a US clandestine unit hidden within Yokosuka naval base during the Korean War, and then worked on unspecified projects inside the United States from 1955 to 1959, before returning to Japan to enter the private sector.

While The Truth About the Army Noborito Institute contains rich data on the organization's internal workings, it falls short in providing details on the application of its inventions beyond the institute's walls. Ban and his colleagues developed bugging devices, explosives disguised as tins of food, pens that secreted bacteria for poisoning wells, and incendiary devices. How did Japan's police, intelligence officers, and commandos use those devices during the war? Did Noborito's equipment come into play, for example, in Japanese counterintelligence actions leading to the arrest of Soviet spy Richard Sorge in 1941 or Japanese leader Yoshida Shigeru in 1945? How effective were the incendiary devices used by Japanese commando forces in New Guinea? In addition to providing little information on the use of the institute's products in the field, the book leaves the reader disappointed that Ban did not include more information on his service to US intelligence.

These shortcomings aside, The Truth About the Army Noborito Institute is a valuable resource for serious researchers.

1. Names are in Japanese order, given name following family name.
2. The two are among the few who have written on Noborito. See Ariga

4. Regrettably, this book, like many others, will probably remain untranslated. Since the end of World War II, Japanese authors have written countless histories covering the period between the Japanese seizure of Manchuria in 1931 and the surrender to the Allies in 1945. The past 25 years, in particular, have seen a stream of works on intelligence during those years. Unless some company rises to the challenge of publishing these unheralded books, as Schiffer Publishing in Pennsylvania is doing with the works of German military writers, few outside Japan will have the opportunity to learn much of Noborito and the other intelligence organs of the Japanese empire.

5. The number of those working at Noborito, comprising approximately 250 military and civilian staffers as well as over 600 contractors, comes from Kinoshita Kenzo, Kesareta himitsu seikenkyujo (Vanished Covert Warfare Research Institute) (Nagano: Shinano Mainichi Shinbunsha, 1994), p. 89.

6. Among the contractors were university academics Yagi Hidetsugu and Uda Shintaro, inventors of the famous Yagi-Uda antenna used widely around the world in radar, amateur radio, and television.

7. While no book in English is devoted to the Noborito Research Institute, three accounts of Unit 731 have appeared in recent years: Peter Williams and David Wallace, Unit 731: Japan’s Secret Biological Warfare in World War II (New York: Free Press, 1989), Sheldon H. Harris, Factories of Death: Japanese Biological Warfare, 1932-1945, and the American Cover-up (London: Routledge, 1994), and Hal Gold, Unit 731 Testimony (Rutland, VT: Charles E. Tuttle, 1995). All three books include brief references to Noborito.

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This article is unclassified in its entirety.

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