

Research Note

Archiving Both Paper and Digital Materials: The Case of Historical Records of the Bikini Incident Aftermath in the Tuna Fishing Town, Misaki, Japan*

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The growth and accessibility of digital materials have been spectacular in recent years. The National Diet Library of Japan (NDL) has made significant progress in digitization, making many materials accessible from home, university, and local libraries. As of April 30, 2024, a total of 2.05 million materials were accessible through library and personal accounts linked to the NDL.¹ The NDL is in the process of converting these materials to text, and keyword searches are available in the increasing number of materials. In addition to text, image search is being introduced. We have entered an era in which both image and text searches can be conducted at speeds that were unimaginable a decade ago. Moreover, digitized materials from the collections of the National Archives of Japan, the Diplomatic Archives of the Ministry of Foreign Affairs, and the National Institute for Defense Studies of the Ministry of Defense are now available on the website of the Center for Asian Historical Records (National Archives of Japan). Because of their rapid digitization, it is necessary to check what is available online before visiting these archives.² Finally, we can also find digital audiovisual collections such as the NDL's

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¹ National Diet Library (NDL), News on April 30, 2024, https://www.ndl.go.jp/jp/news/fy2024/24_0430_01.html (accessed on July 1, 2024).

² Japan Center for Asian Historical Records, National Archives of Japan, <https://www.jacar.go.jp/>.

“Historical Recording Collections (*Rekishiteki Ongen*)”³ and NHK Archives collection of war-related videos (e.g., the national-policy film “Japan News”), and these types of materials are also increasingly available online.⁴

In addition to utilizing the existing digital data, historians often digitize their own personal collections. The usability of personally created digital data also improved so much in recent years. In the past, it required many steps for the content of paper documents to be handled as “text”: taking a digital photograph of the document, importing the image into a computer, and converting it to a recognizable text via OCR (optical character recognition) using a special application. (Moreover, the OCR accuracy for the Japanese characters remained poor for a long time.) Currently, characters (as long as they are typed) can be automatically and instantaneously recognized as text when a photo is taken with a smartphone. The texts can be used for quick translation, making research notes, and so on, as we now do it daily. Thus, it is clear that digital data has already become an indispensable part of conventional historical research.

It is important to note, however, that while the quantity of digital data is overwhelming, the abundance does not mean the full coverage of information. Digital data based on paper materials naturally reflects the bias of the paper archives. On top of that, the bias of what is or is not digitized from the paper archives is added. While digitization dramatically increases the amount of information that we can easily access, it is always necessary to consider what is accessible and what is inaccessible or even non-existent in the digital form.

Currently, there are still many important paper records out there that need to be saved from being discarded. In the following, I first discuss the significance and challenges of locating and preserving paper records to correct the information bias and also of digitizing them for both long-term preservation and future use.

The materials I would like to discuss are the records of the Bikini Incident aftermath in Misaki, the tuna fishing town, located in the Miura Peninsula, Japan.

The year 2024 marks the 70th anniversary of the Bikini Incident. In March 1954, the United States launched Operation Castle, which executed a series of six nuclear weapon tests at Bikini Atoll in the Marshall Islands. The explosion of “Bravo,” the first of these tests, far exceeded the predicted yield. As a result, an unexpected amount of fallout fell over a wide area, causing serious health damages, especially

³ NDL, Historical Recording Collections (“Rekion”), <https://rekion.dl.ndl.go.jp/> (accessed on July 1, 2024).

⁴ NHK Archives, War, <https://www.nhk.or.jp/archives/sensou/> (accessed on July 1, 2024).

for the people of Rongelap, which became uninhabitable due to high levels of contamination. At sea, fishing boats and their crews were also exposed to fallout.

In and outside Japan, the story of *Daigo Fukuryū Maru* (known as the “Lucky Dragon 5” in English), a fishing boat from Yaizu, Japan, is relatively well known. The ship was operating outside the danger zone declared by the US at the time of the test, but 23 crew members were exposed to radiation from the fallout (one of them died in September 1954). What is less known is that many more boats were contaminated by radiation. According to Japanese Fisheries Agency’s records, the total number of fishing boats affected by radiation was 1,423 as of November 1954.⁵ This number includes multiple counts of the same boats (as they enter a port multiple times), but a document submitted by the Ministry of Agriculture and Forestry (Fisheries Agency) in June of 1954 (titled “Expenditures Required for Emergency Measures for Fishermen Affected by the Test Explosion in the United States”) also reports that the total number of vessels (over 70 gross tons) capable of fishing in the open sea as distant as the Marshall Islands and beyond was 695.⁶

The Misaki Port located in the Miura Peninsula was a major base for tuna fishing at the time, and it is not difficult to imagine tremendous damage they suffered. In January 1955, the US paid \$2 million (720 million yen; 360 yen/dollar) as a one-time “consolation payment” (ex gratia, not as compensation). The money was distributed according to the calculated damages, and Kanagawa Prefecture, where Misaki belongs to, received the highest amount in all prefectures in Japan (179,037,100 yen).⁷ (The US payment of \$2 million was only about one-third of Japan’s demand of 2,050,513,000 yen).⁸

Nevertheless, little is known about the Bikini Incident aftermath in Misaki today, even locally in the Miura Peninsula. When I asked at a public institution in Misaki about any records related to the Bikini Incident, one of the officials in charge said that s/he had never heard of the Incident related to Misaki, even though s/he has been a local resident. When I visited a ship-owner company in Misaki that had gone

⁵ “Bikini Nuclear Test: 1,423 Vessels Affected by the Test, Documented on Paper Submitted for the First Time by the Fisheries Agency to Senator,” *Shimbun Akahata*, February 22, 2015. https://www.jcp.or.jp/akahata/aik14/2015-02-22/2015022201_03_1.html/ (accessed on July 1, 2024).

⁶ “To Use the Reserve Fund of the General Account for the Fiscal Year 1954 for the Expenses Required for Emergency Measures for the Affected Fishermen in Connection with the Test Explosion in the United States,” Booklet “Koubun Ruijū, Part 79, Year 1954, Volume 49, Finance 11, Reserve Fund Use 3,” National Archives and Records Administration, <https://www.digital.archives.go.jp/img/pdf/1654806/> (accessed on July 1, 2024).

⁷ Japan Tuna Fisheries Cooperative Association, Japan Tuna Fishermen’s Association, *Nikkatsurenshi I*, 1966, 499. By accepting the “ex gratia,” the Japanese government waived its right to claim damages.

⁸ Miura City ed., *The Bikini Incident: Miura’s Record* ビキニ事件 三浦の記録 (日本複写工業株式会社, 1996), 97.

through the aftermath in the 1950s, the person in charge said that s/he had only learned of the damage in Misaki through this year's media coverage of the 70th anniversary. This person was not from the area, but had been working in the fishing industry for a long time. I would like to note that these are not unique cases. When I personally asked several people who grew up in the Miura Peninsula, they said they had no recollection of learning about the Bikini Incident as Misaki's story at school. Interestingly, many of them have never learned about the Bikini Incident itself at school (but heard about *Daigo Fukuryū Maru* later).

On the other hand, Miura City's website has a digitized book titled "Bikini Incident: Miura's Record."⁹ (Currently the Misaki Port is part of Miura City.) The Record is placed under the "Peace Administration (*Heiwa Gyōsei*)" section, and it is difficult to find it unless one does a keyword search on the Internet. Still, I was grateful that the city has included the full text of the Record on their official website.

In order to investigate more the Bikini Incident and Misaki (and the collective amnesia), I first visited the Miura City Hall. There, I was able to see a scrapbook of newspaper clippings that the director of the Misaki Health Center created at the time of the Incident (later donated by a member of his family), but no other materials were available.

Fortunately, a few weeks later, I was able to meet the author of the Record, thanks to the help of a city hall official. The author is Morita Kiichi, a former journalist living in Misaki. As I learned from him, Mr. Morita was asked in 1994 officially by the Miura city to collect and publish records of the Bikini Incident related to the Misaki port/town. He compiled all the information he could gather at the time, including published and unpublished documents and interviews, and completed the Record in 1996. At the time of my visit, the materials he gathered for the book were still at Mr. Morita's house.

When the Miura city commissioned the Record project, it had already been 40 years since the Incident. Why did such an effort have to wait for 40 years after the Incident? Why has it been forgotten, despite that the Record has been made publicly available?

After the Bikini Incident, the people in Misaki needed to work hard together to recover swiftly the port town's economy centering on tuna. Soon after the disaster, the town created its motto, "It is safe to eat Misaki's tuna (食べて安全三崎のまぐろ)." This phrase was so common that children repeated (chanted) on their way to home

⁹ "Bikini Incident: Miura's Record (ビキニ事件: 三浦の記録)," https://www.city.miura.kanagawa.jp/soshiki/seisakuka/seisakuka_hisho/peace/bikini.html/ (accessed on July 1, 2024).

from school. People in the town avoided mentioning anything related to radiation damages. Their life depended on tuna. They (even if they were concerned of their own health) had no choice other than keeping silent. The Japanese government was unable to negotiate with the US to receive enough compensation, and had to settle the issue quickly. The Japanese government was well aware that the damage was extensive, but it could not provide compensation. The officials also did not want to disrupt the country's fishery economy. Thus both the government's and local fish town's interests agreed in keeping silent about the damage (including possible damages and concerns) in order to keep the economy going. As a result, the Bikini Incident came to be viewed as something specific to a single port's single boat, Yaizu Port's *Daigo Fukuryū Maru*, and unrelated to Misaki or Miura Peninsula.

Nevertheless, when 40 years had passed, on the occasion of the 40th anniversary of the Incident, the mayor of Miura City decided to preserve the related records. At the time of the Bikini Incident, two associations were at the center being caught in the aftermath. They were: the Misaki Fisheries Cooperative Association (三崎水産物協同組合) and the Kanagawa Prefecture Tuna Fishing Cooperative Association (神奈川県鯉鮪漁業協同組合). The former was an association of fish wholesalers at the market, and the latter was an association of shipowner companies. The mayor of Miura City in 1994 was Kuno Ryusaku (1936-2010). He was the son of Kuno Matabei, who had been the head of the Misaki Fisheries Cooperative Association at the time of the Bikini Incident. Ryusaku in 1954 was 18 years old and closely witnessed what the Incident brought to Misaki. Forty years later, he probably thought that the Incident had to be documented as part of the city's history.

During the 40 years, the relevant organizations were reorganized, dissolved, or moved away, and the materials had already been scattered, but the long years also had a positive effect. After the Incident, for a long while, people in town did not want to recall the Bikini Incident, and did not want the radioactive contamination of fish to be rehashed. However, after 40 years, those who dealt with the aftermath have left the front lines of the fishing economy. According to Mr. Morita, this was probably why he was able to conduct interviews and collect materials. The mayor who commissioned the Record project was also the second generation.

On the other hand, some things remained the same 40 years later and even now, 70 years later. Although we can now talk about how many tons of fish was discarded due to radioactive contamination, it is still difficult to talk about fishermen of the time. The fishermen and their family and friends have been tight-lipped because of their concerns about the (possible) genetic effects of radiation and discrimination

(especially marriage discrimination) of their children and grandchildren.¹⁰ Seventy years later, the aftermath is still lingering in Misaki.

This is probably why the Record, which is available online, has not become part of the community's collective memory. As noted earlier, the general public knows very little about it. This year, the Bikini 70th anniversary event was held at the port and more than 300 people attended the event.¹¹ But how much was it known outside particular interest groups such as anti-nuclear activists? For example, which is better known, the traditional Misaki dance “Chakkirako” (UNESCO Intangible Cultural Heritage) held on New Year's Day or the “negative history” of the Bikini aftermath in the area?¹² The anniversary event was held on the second floor of the fish market at Misaki Port, but there was no noticeable banner or large poster outside the market building. It is clear that they chose not to advertise “too much.”

If memories are fading, it is even more necessary to put these important Record materials in an archive for long-term preservation. After many more years from now, the local people may decide to talk about the history of the disaster more openly, but it is unclear whether the relevant historical documents would survive till that day. Miura City is going to receive the Record materials, as this project was originally commissioned by the city. However, the City Hall does not have an archival function. It does not have the expertise in preserving and providing access to the materials. It is possible to store the materials at the Miura City Library, which is housed in the same old government building (formerly Misaki Junior High School), but this library is also not an archive. In fact, the “Shinomiya Collection”—a set of fisheries-related documents donated by Shinomiya family, whose members had served as successive presidents of Sumiyoshi Fishery (*Sumiyoshi Gyogyō*, a shipowner company in Misaki)—is unfortunately treated in the same way as the other general books, rather than as a collection. These interesting materials are scattered in the library shelves without special labeling. The library has done their job as a general library, but with this treatment, there is a risk that materials in the collection would be gradually discarded and the entire collection may eventually disappear.

Therefore, in thinking of the worst-case scenario, I digitized the Record materials. With the data, even if paper materials are lost, high-quality digital materials can be used. If necessary, the documents can be printed as the reproduction of the originals. But I believe the original paper materials should be preserved as much as possible

¹⁰ For the difficulty of interviews with the fishermen, see also: Hata High School Students Seminar and Kōchi Prefecture Bikini H-Bomb Test Disaster Investigation Team eds., *We Will Never Forget the Bikini Sea* ビキニの海は忘れない (Tokyo: Heiwa Bunka, 1988).

¹¹ “‘Louder Voice Against Nuclear Weapons’: Rally in Misaki, 70 years after Bikini Incident 『核兵器反対もっと大きな声を』: ビキニ事件から70年, 三崎で集会,” *Asahi Shimbun Digital*, 2024. 5. 16, <https://www.asahi.com/articles/ASS5H4JGWS5HULOBO006M.html/> (accessed on July 1, 2024).

¹² “Chakkirako,” UNESCO Intangible Heritage, <https://www.unesco.org/archives/multimedia/document-308/> (accessed on July 1, 2024).

even if the digital version is available. Digital and paper materials are not equivalent in many ways (at least with the current technology).

There is a variety of information that is lost as soon as paper is converted to digital images. For example, if it exists as paper, the front and back of the paper is usually easily recognizable, but not in digitized items without annotations. When digitizing, if there is information on the back of paper, both sides are scanned since the back side also reveals some information of the time. However, once digitized, the relationship between the two sides becomes flat, and it takes time to grasp the relationship without annotations. Sometime it is difficult to tell this front-back relationship even with paper documents (e.g., when a piece of paper is recycled), but it becomes much more difficult to recognize it once the material is digitized.

The above issues could be solved by annotating each image. But to what extent can annotation supplement the information that paper documents offer? The quality of digitization is so high these days that even a thin pencil scribble can be read clearly. But a note written in anger might have creases. In notebooks, the paper of the pages that are opened many times may be colored or softened because of frequent flipping. In fact, I could guess which folder was more important for Mr. Morita (or more frequently used) in the Record collection, based on various information (such as color, texture, and organization). Many of these may be captured quite well by high-quality digitization, but we may not notice it (while we might by directly looking at the original papers in the original folders).

In addition, digital materials are easily lost. As we are told often, it is necessary to transfer digital data to new media on a regular basis; in less than ten years the data becomes inaccessible because of rapid changes in the media format and compatibility issues. In addition, digital materials can be more easily discarded. With paper materials, there is the physical process of discarding boxes, but with digital materials, a person in charge may not even be aware that he or she is throwing them away. In particular, if digital materials are located at an institution whose primary role is not that of an archive, there is a high possibility that they will be lost due to server replacement, cleanups, or updates. If the digital archives are not accessed frequently, the loss may not be even recognized for a long time, and by the time somebody noticed the loss, backups on the older server may already be gone.

Thus both digital and paper forms should be preserved, but the role of digital data should not be the mere “backup” of the papers. We should preserve and use both paper and digital data in a way to take advantage of both formats. For example, the National Museum of Nature and Science has exhibits of digital materials on its website. They have designed it so that online visitors can look at it as if they were peering into a display case at a museum. Currently, there are exhibits on the botanists

Yatabe Ryōkichi and Minakata Kumagusu.¹³ Anyone can visit the site and learn about the collections, while the original paper materials are securely stored at the museum. But if researchers wish to see the original directly, they can contact the museum and see it in person.

In the Research Resource Archive at Kyoto University, a specialized department of the university museum undertakes the digitization and cataloging of historical materials on campus.¹⁴ The newly created catalogs and (all or part of) digital data are made publicly available on the university website, and the original materials continue to be preserved in the relevant departments. The Kyoto University Museum and Archives may have this system due to their limited space; they have no place to preserve those materials but can help digitizing them. Materials in each department are at risk of being discarded every time their rooms are moved or cleaned. However, if at least a catalog is made public, they might receive inquiries about the materials, and this might act as pressure not to throw away the materials. Also, as in the previous example, if the originals are fragile, it would be possible to provide access to the digital data first, and only those who need to see the originals would be allowed to use the paper materials.

Finally, many people associate digitization with open access, but digitization does not necessarily mean that anyone can see the materials freely online. If historians are not careful in digitization and the use of the data, the relationship with the families or organizations that hold the materials may deteriorate, and the digital data may be put in inaccessible storage, or in the worst case, even the original papers may become inaccessible. Also if the materials are donated to an institution, it is quite important to make it clear at the time of the transfer of the materials what the donor hoped in handling the materials of both paper and digital formats, and that we follow it with respect. In this digital era, we should explore ways that are prudent and flexible, in order to preserve and use a wide range of historical records for many years to come.

¹³ See the designers' notes on the exhibits: Nobumichi Ariga and Yuta Hashimoto, "Development of a Prototype System for Online Exhibition of the Archival Materials of Scientists: The Case of 'Ryokichi Yatabe Digital Archives'," *Journal of the Japan Society for Digital Archive* 4:2 (2020), 162-164. Available online at https://www.jstage.jst.go.jp/article/jsda/4/2/4_162/_pdf/-char/ja/. The exhibitions on the Japanese botanists can be viewed here: (Yatabe) <https://dex.kahaku.go.jp/en/yatabe/>; (Minakata) <https://dex.kahaku.go.jp/kumagusu/> (accessed on July 1, 2024).

¹⁴ For the list of papers digitized by the university project, see <https://www.rra.museum.kyoto-u.ac.jp/archives/> (accessed on July 1, 2024).